

DUQUESNE LAW REVIEW



ATHLETES, VETERANS, AND NEUROSCIENCE: A SYMPOSIUM ON TRAUMATIC BRAIN INJURY AND LAW

FOREWORD

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Jane Campbell Moriarty

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PROTECTING CELL SITE LOCATION INFORMATION
WITH PROBABLE CAUSE

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Athletes, Veterans, and Neuroscience: A Symposium on Traumatic Brain Injury and Law

Foreword

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Foreword

Athletes, Veterans, and Neuroscience: A Symposium on Traumatic Brain Injury and Law

*Jane Campbell Moriarty**

The last several years have educated us about the multiple causes and effects of traumatic brain injury (TBI). We have learned about concussions and brain injuries that many athletes suffer and the possibility of long term damage that such injuries may cause. The public is now sadly aware that many veterans are returning from Afghanistan and Iraq with combat-related brain injuries. And many citizens have learned first-hand that serious accidents can cause concussions and other forms of serious brain injuries.

In fact, TBI occurs in the United States with alarming frequency: Between 1.7 and 2.5 million TBIs occur *every year*, and some estimate that 5 million of those injured individuals will suffer from permanent disability.¹ Scholars have described the rate of TBIs as an “epidemic of concussive brain injuries.”² One study tracking data concluded that from 2002-2006, approximately 275,000 hospitalizations and 52,000 deaths from TBI were related to accidents, assaults, and sports-related injuries.³ Data compiled by the United

* Carol Los Mansmann Chair of Faculty Scholarship and Professor, Duquesne University School of Law. Many thanks to The Honorable Maureen Lally-Green, Dean of Duquesne University School of Law, for suggesting and supporting this Symposium, and to Jacob H. Rooksby, Associate Dean of Administration and Associate Professor, Duquesne University School of Law, for co-chairing this Symposium with me. Particular thanks to the firm of Quattrini Rafferty, Attorneys at Law, for its generous support of this Symposium. And finally, thanks to the editors and staff of the *Duquesne Law Review* for their capable and hard work on this Symposium.

1. See Jane Campbell Moriarty, *Seeing Voices: Potential Neuroscience Contributions to a Reconstruction of Legal Insanity*, 85 FORDHAM L. REV. 599, 614 n.98 (2016) (citing MARK FAUL ET AL., U.S. DEP’T OF HEALTH & HUMAN SERVS., TRAUMATIC BRAIN INJURY IN THE UNITED STATES: EMERGENCY DEPARTMENT VISITS, HOSPITALIZATIONS AND DEATHS 2002-2006 13 (2010), http://www.cdc.gov/traumaticbraininjury/pdf/blue_book.pdf [https://perma.cc/M5W5-5B69] (estimating 1.7 million)). A more recent study puts the number at 2.5 million per year in the United States, with 5 million of those people living with long-term disability due to such injury. Jennifer Hay et al., *Chronic Traumatic Encephalopathy: The Neuropathological Legacy of Traumatic Brain Injury*, 11 ANN. REV. PATHOLOGY 21, 22 (2016).

2. Betsy J. Grey & Gary E. Marchant, *Biomarkers, Concussions, and the Duty of Care*, 2015 MICH. ST. L. REV. 1911, 1912 (2015).

3. Moriarty, *Seeing Voices*, *supra* note 1, at 614 (citing data).

States government suggest that 12% of Iraq and Afghanistan veterans are diagnosed with TBI from blast exposure, but there is evidence that this number is vastly underreported.⁴ Evaluations of veterans returning from Iraq and Afghanistan conclude that TBI is a “pre-eminent injury” of those wars.⁵ Sports-related concussions in young athletes and the discovery of chronic traumatic encephalopathy (CTE) in former NFL players have prompted much concern in the public generally⁶ and in legal/medical fields specifically.⁷

The medical and psychological implications of TBI are profound for individuals with such brain injuries. Over the last decade, TBI has become part a more prevalent aspect of cases moving through the legal system. TBIs are often an element of damage in accident cases, are raised as defenses or mitigation by defendants in criminal cases, and are litigated in both veterans benefit claims and workers disability hearings. State legislatures are grappling with concussion statutes designed to protect young athletes,⁸ and the NFL has been involved in a massive concussion settlement program.⁹ The criminal and civil litigation issues include how to prove mild TBIs (mTBIs),¹⁰ what types of expertise and imaging is appropriate for court,¹¹ and whether TBIs can excuse or mitigate a defendant’s liability in criminal cases.¹²

4. Valerie Gray Hardcastle, *Traumatic Brain Injury, Neuroscience, and the Legal System*, 8 NEUROETHICS 55, 56 (2014).

5. Susan L. Eskridge et al., *Injuries from Combat Explosions in Iraq: Injury Type, Location, and Severity*, 43 INJURY, INT. J. CARE INJURED 1678, 1681 (2012) (evaluating a cohort of roughly 4600 injured veterans).

6. Most recently, the *New York Times* published a recent article based upon a disturbing new study suggesting that blows to the head that do not even rise to the level of concussions may result in immediate brain damage. See Gretchen Reynolds, *Hits to the Head May Result in Immediate Brain Damage*, N.Y. TIMES (Jan. 31, 2018), <https://nyti.ms/2GwObMf>. The underlying study is Chad A. Tagge et al., *Concussion, Microvascular Injury, and Early Tauopathy in Young Athletes After Impact Head Injury and an Impact Concussion Mouse Model*, 141 BRAIN 422 (2018).

7. See, e.g., Grey & Marchant, *supra* note 2. For a comprehensive discussion on CTE, see Christopher R. Deubert, I. Glenn Cohen & Holly Fernandez Lynch, *Protecting and Promoting the Health of NFL Players: Legal and Ethical Analysis and Recommendations*, 7 HARV. J. SPORTS & ENT. L. 1, 26-29 (2016) (summarizing the current state of knowledge about CTE).

8. See generally Francis X. Shen, *Are Youth Sports Concussion Statutes Working?*, 56 DUQ. L. REV. 7 (2018).

9. See NFL CONCUSSION SETTLEMENT, <https://www.nflconcussionsettlement.com/> (last visited Feb. 20, 2018).

10. See Grey & Marchant, *supra* note 2, at 1918 (noting the difficulties of diagnosing mTBI).

11. See generally Jane Campbell Moriarty, Daniel D. Langleben & James M. Provenzale, *Brain Trauma, PET Scans, and Forensic Complexity*, 31 BEHAV. SCI. & L. 702 (2013) (discussing imaging and expertise related to TBI).

12. See, e.g., Stephen J. Morse, *Brain Overclaim Syndrome and Criminal Responsibility: A Diagnostic Note*, 3 OHIO STATE J. CRIM. L. 397 (2006) (discussing neuroscience and criminal

These pressing concerns prompted the idea for a Symposium at Duquesne University School of Law in April 2017 to address the myriad legal implications of traumatic brain injury. Focusing on TBIs arising from both combat exposure and sports-related injuries, the Symposium aimed to educate lawyers and members of the public about the legal, medical, psychological, and ethical issues related to TBI. Speakers for the Symposium included distinguished members of the judiciary, a renowned neuroradiologist, a highly regarded clinical neuropsychologist, and well-known members of the legal academy and the practicing bar. The Symposium was designed to provide multiple perspectives on the implications of TBI in the law.

In addition to the Keynote Speaker, Francis X. Shen,¹³ who addressed *The Future of Brain Injury and the Law*, the Symposium included honored participants Debra McCloskey Todd, Justice of the Supreme Court of Pennsylvania, and Dwayne D. Woodruff, Judge of the Court of Common Pleas of Allegheny County (and a former player for the Pittsburgh Steelers).

Daniel Kunz, the Supervising Attorney and Adjunct Clinical Professor in Duquesne Law's Veterans Clinic, spoke movingly about his work with veterans. Another academic speaker, Professor Paul Litton,¹⁴ addressed the complicated theoretical concerns that TBI poses for questions of legal responsibility, while I addressed the myriad, complex questions surrounding the admissibility of neuroscience evidence. Professor Mark Yochum kept the audience rapt with his legal ethics performance over the lunch hour, aptly titled *The Bonehead Play*.

Both Vincent J. Quatrini, Jr. and Michael V. Quatrini, highly regarded practicing lawyers, provided insights into the complexity of representing individuals with TBI in the areas of civil litigation, workers compensation, and veterans disability benefits.¹⁵

Duke University School of Medicine neuroradiologist James M. Provenzale, M.D., F.A.C.R., provided clinical insight into neuroim-

responsibility); Nicole A. Vincent, *A Compatibilist Theory of Legal Responsibility*, 9 CRIM. L. & PHIL. 477 (2015).

13. Francis X. Shen is Associate Professor of Law & McKnight Presidential Fellow, University of Minnesota; Director, Shen Neurolaw Lab; Senior Fellow in Law and Neuroscience, Harvard Law School Petrie-Flom Center and Affiliated Faculty Member, MGH Center for Law, Brain and Behavior; Executive Director of Education & Outreach, MacArthur Research Network on Law and Neuroscience.

14. Paul J. Litton is the Associate Dean for Research and Faculty Development, R.B. Price Professor of Law, University of Missouri School of Law.

15. The Law School is grateful for the sponsorship of the April 2017 Symposium by Quatrini Rafferty, Attorneys at Law.

aging and brain trauma, while Glen E. Getz, Ph.D., A.B.N., a clinical neuropsychologist, explained the complicated definition of neurocognitive impairment from the NFL's Concussion Settlement. Other speakers included Attorney Alan C. Milstein, who addressed the ethics of being a sports fan, and Ralph Cindrich, an attorney, sports agent, and former NFL player, who provided a unique outlook on concussions and CTE based upon his multiple roles over the years. It was a fascinating day with multiple perspectives from the academy, the medical and psychological professions, the practice of law, the judiciary, and former athletes.

This written Symposium sponsored by the *Duquesne Law Review* features two articles by academic participants Francis X. Shen and Paul J. Litton. One article discusses concussion statutes and preliminary data about whether the statutes are working, and the other examines moral philosophy's intersection with criminal responsibility in those individuals with TBIs. The articles capture the importance of both empirical work and theory in the intersection of law and neuroscience.

Professor Shen's article, *Are Youth Sports Concussion Statutes Working?*,¹⁶ provides a multi-dimensional investigation and evaluation of existing sports concussion statutes. His article also details an empirical project that his Neurolaw Lab, housed at the University of Minnesota School of Law, is engaged in to determine whether Minnesota's Concussion Statute is working and is well-understood by parents and athletes.

Currently, every state in the union has a concussion statute,¹⁷ and while there is divergence among them, they are all intended to: educate athletes, parents, and coaches; remove players immediately who suffer concussions; and require medical clearance before athletes return to play.¹⁸ Many of these statutes are being amended to address additional matters such as preventing concussions and improving early detection of concussed athletes. But as many stress, the current laws may not be sufficient to address public health concerns.¹⁹

Professor Shen notes that there are generally no provisions for private legal action for athletes who are injured in these state statutes, and without a "vehicle for accountability"—and few provisions

16. Shen, *supra* note 8.

17. *Id.* at 10.

18. *Id.* (citing Kerri McGowan Lowery & Stephanie R. Morain, *State Experiences Implementing Youth Sports Concussion Laws: Challenges, Successes, and Lessons for Evaluating Impact*, 42 J.L. MED. & ETHICS 290, 291 (2014)).

19. Shen, *supra* note 8, at 11; see also Hosea H. Harvey, *Refereeing the Public Health*, 14 YALE J. HEALTH POL'Y L. & ETHICS 66, 113 (2014).

for reporting concussions—there is little data to determine whether these laws are effective or even whether the legal requirements are being implemented.²⁰

Explaining the details of multiple state statutes, Shen concludes there are several conclusions to be drawn about the implementation of these laws. Critically, he notes that both the public and the stakeholders approve of the statutes and that “most high schools have implemented a concussion protocol (roughly) consistent with” state laws to protect athletes in school sports.²¹ Nonetheless, despite these advances, important gaps in knowledge exist about whether these protocols are effective and whether they are implemented in non-school sports leagues.²² In an attempt to fill these gaps and to provide data about the efficacy of these statutes, Professor Shen presents several aspirational, foundational principles to better evaluate concussion laws that consider not only the feasibility of these policies, but the need to evaluate the data in a scientifically sound manner.²³

Attempting to determine how the policies are being carried out in practice, Professor Shen devised a study at the Minnesota State Fair: Researchers asked parents and student-athletes questions designed to gauge their knowledge about the current Minnesota law and to evaluate the way they thought the law was being followed. The preliminary data indicated that many responders did fully understand the law, and a wide range of beliefs existed about how well the law was working.²⁴ Professor Shen thus concludes that the answer may not be more legislation but more creative research and strategies to make sure the laws about concussions are working for all involved.

Professor Litton’s article, by comparison, engages in a theoretical discussion about the potential relationships between TBI and responsibility and asks how TBI might affect one’s status as a legally-responsible agent.²⁵ In so doing, Professor Litton examines the multiple ways in which traumatic brain injury may (or may not) be relevant to assessing a person’s responsibility under the law. By discussing how TBI can cause changes to rationality, self-control, and personality, the article addresses both legal and moral responsibility.

20. Shen, *supra* note 8, at 13.

21. *Id.* at 25.

22. *Id.* at 26.

23. *Id.* at 27.

24. *Id.* at 30-31.

25. Paul Litton, *Traumatic Brain Injury and a Divergence Between Moral and Criminal Responsibility*, 56 DUQ. L. REV. 35, 40 (2018).

He argues that rationality is really the guiding force for evaluating responsibility, not simply a brain injury. Discussing legal conceptions of responsibility under the insanity defense, Litton argues that only if the TBI impairs rationality to a sufficiently severe degree might the individual's status as a responsible agent be undermined or diminished.²⁶ Moreover, in a jurisdiction in which volitional capacity is a permitted variant of legal insanity, Professor Litton argues that the actor must not only show that he lacked sufficient capacity to control his behavior but that he would have done so had the facts been altered slightly. Thus, the actor might argue he *could* not stop himself from shooting the decedent, but the critical inquiry is whether he *would have been able to* had he been standing in front of a police department at the time.²⁷

Legal insanity is rarely available and is a difficult test to meet. More typically, the inquiry will consider whether TBI has affected an actor's cognitive or volitional abilities such that it is relevant to a reduced, or diminished, criminal responsibility—generally only relevant at sentencing.²⁸

Finally, the article delves into an extended discussion of how a brain injury may change a personality so drastically that the person post-injury is no longer the same person.²⁹ That is to say, a given individual is no longer his “true self.” These marked behavioral changes—typified by the story of Phineas Gage—suggest a potential, although not certain, reason to excuse an agent from wrongdoing.³⁰ The difficulty with this concept, however, is that a change in personality to a different, less law-abiding personality does not actually provide a reason to excuse the person’s behavior without proof of cognitive or volitional impairments. Simply because someone is no longer their “true self” may not provide a legal excuse for behavior.

The articles in this Symposium are both timely and thought-provoking discussions of a fascinating subject.

26. *Id.* at 42. The federal law and most states use “some variant of the mid-1800 ‘M’Naghten test,’ a cognitively focused standard that considers whether an individual knows or appreciates the wrongfulness of his conduct due to serious mental illness or injury.” Moriarty, *Seeing Voices*, *supra* note 1, at 607-08. Some states still permit the volitional prong of the insanity defense. For more on the differing tests for legal insanity, see *State v. Clark*, 548 U.S. 735 (2006) (collecting state laws).

27. Litton, *supra* note 25, at 43.

28. *Id.* at 44.

29. *Id.* at 48.

30. *Id.* at 51-52. For more on the story of Phineas Gage, see Hanna Damasio et al., *The Return of Phineas Gage: Clues About the Brain from the Skull of a Famous Patient*, 264 SCIENCE 1102 (1994).

Are Youth Sports Concussion Statutes Working?

Francis X. Shen*

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I. INTRODUCTION

“The most perplexing omission in youth sports TBI laws is the failure of almost all states to develop a reporting and testing system to evaluate the effectiveness of the laws.”

—Dr. Hosea Harvey¹

All fifty states have now enacted a youth sports concussion law.² But there’s a problem: we don’t know how these laws are actually being implemented.³ More fundamentally, as the epigraph at the top of this Article suggests, most of the state legislation provides few (if any) promising mechanisms to discover if the policies are effective.⁴ Thus, it will be up to the research community, working in partnership with a diverse set of stakeholders, to answer the question: Are state youth sports concussion statutes working?⁵

In this Essay—prepared as part of the Duquesne University School of Law Symposium *Athletes, Veterans, and Neuroscience: A Symposium on Traumatic Brain Injury and Law*—I review what we currently know about the implementation of state youth sports concussion laws. I then look ahead, and discuss the work that I am leading in Minnesota to fill gaps in our knowledge about the effects of youth sports concussion policy.

Brain injury in sports is making headlines.⁶ In 2017, an ESPN broadcaster announced his resignation was due to moral concern about concussions;⁷ the preeminent scientific journal *Nature* led

1. Hosea H. Harvey, *Refereeing the Public Health*, 14 YALE J. HEALTH POL’Y, L. & ETHICS 66, 105 (2014).

2. See discussion in Part II.

3. Jingzhen Yang et al., *New and Recurrent Concussions in High-School Athletes Before and After Traumatic Brain Injury Laws*, 107 Amer. J. Public Health 1916, 1917 (2017) (noting the limitations of previous research and discussing why more rigorous evaluation research is required). Also, it should be noted that a lack of evaluation does not make youth sports concussion law unique amongst public health laws. Unfortunately, public health laws are often understudied. See Kerri McGowan Lowrey, Stephanie R. Morain & Christine M. Baugh, *Do Ethics Demand Evaluation of Public Health Laws? Shifting Scientific Sands and the Case of Youth Sports-Related Traumatic Brain Injury Laws*, 19 J. HEALTH CARE L. & POL’Y 99 (2016).

4. Harvey, *supra* note 1.

5. See Yang et al., *supra* note 3, for a recent advance in our understanding of the effect of these laws.

6. See, e.g., Jason Socrates Bardi, *Trickle-Down Safety: Sports Concussions*, INSIDE SCIENCE (Nov. 15, 2017), <https://www.insidescience.org/video/trickle-down-safety-sports-concussions>.

7. John Branch, *ESPN Football Analyst Walks Away, Disturbed by Brain Trauma on Field*, N.Y. TIMES (Aug. 30, 2017), <https://www.nytimes.com/2017/08/30/sports/espn-ed-cunningham-football-concussions.html>.

with an editorial: “Head injuries in sport must be taken more seriously”;⁸ and Dr. Bennet Omalu, the neuropathologist whose critiques of the NFL were featured in the Will Smith movie *Concussion*, repeatedly told audiences that no one under age 18 should participate in boxing, football, ice hockey, mixed martial arts, rugby, or wrestling. Omalu is unequivocal: “There is no reason any child under 18 should play” these contact sports.⁹ Omalu predicts that [s]omeday there will be a district attorney who will prosecute for child abuse [on the football field], and it will succeed.”¹⁰ Framed in the way that Omalu presents it, the risks of brain damage so outweigh the benefits of contact sports, no rational parent or athlete should participate.

But not all neurologists agree with Omalu. Dr. Jeffrey Kutcher, who runs a concussion clinic in Michigan, argues that he cannot support “[s]taying away from sports because of fear of concussions based on bad or incomplete knowledge.”¹¹ This is because “[b]y exposing ourselves to some intrinsic health risks of playing sports, we are also opening ourselves up to incredible opportunities for personal growth and accomplishment.”¹²

Such contrasting views make it difficult for policymakers to know what, exactly, to do. The policy challenge going forward is thus to facilitate accurate communication of risks and benefits to allow for informed athlete and parent decision-making. And to accomplish that, we need to understand the current knowledge base on the effects of concussion statutes, and to think creatively about what comes next.¹³

8. *Head Injuries in Sport Must Be Taken More Seriously*, 548 NATURE 371 (2017).

9. Elliott Almond, ‘Concussion’ Doc’s Six Sports Kids Should Never Play, MERCURY NEWS (Aug. 25, 2017), <https://www.mercurynews.com/2017/08/25/the-concussion-docs-six-sports-kids-should-never-play/>.

10. Scooby Axson, ‘Concussion’ Doctor: Letting Kids Play Football is ‘Definition of Child Abuse’, SPORTS ILLUSTRATED (Aug. 8, 2017), <https://www.si.com/nfl/2017/08/08/bennet-omalu-cte-football>.

11. JEFFREY S. KUTCHER & JOANNE C. GERSTNER, BACK IN THE GAME: WHY CONCUSSION DOESN’T HAVE TO END YOUR ATHLETIC CAREER (2017).

12. *Id.* at 226.

13. The terminology surrounding concussion is confusing. Labels such as “concussion,” “head injury,” “brain injury” are often used interchangeably. McKinlay, A., A. Bishop, and T. McLellan. “Public knowledge of ‘concussion’ and the different terminology used to communicate about mild traumatic brain injury (MTBI).” Brain injury 25, no. 7-8 (2011): 761-766. In this Article, I use the term concussion because it is most commonly used in policy and legal domains when discussing brain injury in youth sports. But it is important to note that there are many brain injuries (or head injuries) that are not concussion. Concussion is commonly considered a type of mild Traumatic Brain Injury (mTBI). For instance, the Veterans Administration in official use interchanges the terms mild Traumatic Brain Injury (mTBI) and concussion. STATEMENTS, QUALIFYING. “VA/DoD clinical practice guideline for management of concussion/mild traumatic brain injury.” (2009).

The Article proceeds as follows. Part II briefly summarizes key features of state concussion laws, and discusses common critiques of the statutes. Part III reviews the current knowledge base on the implementation and effects of these state laws. In Part IV, I propose a set of principles to guide further research and policymaking in this area. Part V concludes.

II. STATE CONCUSSION STATUTES: A BRIEF OVERVIEW

The evolution of state youth sports concussion laws, which began with a Washington state statute passed in 2009, has been well documented.¹⁴ All fifty states have now enacted youth sports concussion statutes,¹⁵ and most of these laws are based on the initial Washington statute (nicknamed the “Lystedt Law” in honor of Zackery Lystedt, a high school football player from Spokane who was seriously injured after being returned to play despite having a concussion).¹⁶

There is variation in the laws,¹⁷ but in general, the existing state laws “are organized around three central provisions: education of athletes, parents, and coaches; immediate removal of play of concussed athletes; and medical clearance before returning to play.”¹⁸

Following this “first wave” of concussion legislation, states are beginning to revisit the issue.¹⁹ Since initial passage, 22 states

14. For legislative updates, see *Traumatic Brain Injury Legislation*, NAT'L CONF. OF STATE LEGISLATURES (Nov. 18, 2015), <http://www.ncsl.org/research/health/traumatic-brain-injury-legislation.aspx>; see also Chris Lau, *Leaders and Laggards: Tackling State Legislative Responses to the Youth Sports Concussion Epidemic*, 85 FORDHAM L. REV. 2879, 2889-91 (2017), for a discussion categorizing the laws into different tiers.

15. Kerri McGowan Lowrey, *State Laws Addressing Youth Sports-Related Traumatic Brain Injury and the Future of Concussion Law and Policy*, 10 J. BUS. & TECH. L. 61, 63 (2015) (“As of April 2014, every state and the District of Columbia, has enacted a law that addresses youth sports concussion.”); Andrew W. Albano et al., *The Legal Landscape of Concussion: Implications for Sports Medicine Providers*, 8 SPORTS HEALTH: MULTIDISCIPLINARY APPROACH 465 (2016); Hosea H. Harvey, Dionne L. Koller & Kerri M. Lowrey, *The Four Stages of Youth Sports TBI Policymaking: Engagement, Enactment, Research, and Reform*, 43 J.L. MED. & ETHICS 87, 88 (2015).

16. Hosea Harvey, *Reducing Traumatic Brain Injuries in Youth Sports: Youth Sports Traumatic Brain Injury State Law, January 2009 to December 2012*, 103 AM. J. PUB. HEALTH 1249 (2013); see also *The Lystedt Law: A Concussion Survivor's Journey*, CENTERS FOR DISEASE CONTROL & PREVENTION, <http://www.cdc.gov/media/subtopic/matte/pdf/031210-Zack-story.pdf> (last visited Oct. 23, 2017); Kerri McGowan Lowrey & Stephanie R. Morain, *State Experiences Implementing Youth Sports Concussion Laws: Challenges, Successes, and Lessons for Evaluating Impact*, 42 J.L. MED. & ETHICS 290 (2014); see also Harvey, *supra* note 14.

17. Sungwon Kim et al., *Legislative Efforts to Reduce Concussions in Youth Sports: An Analysis of State Concussion Statutes*, 27 J. LEGAL ASPECTS SPORT 162 (2017).

18. Lowrey & Morain, *supra* note 15, at 291.

19. *Youth Sports Concussion Laws Resources*, NETWORK FOR PUB. HEALTH LAW, https://www.networkforphl.org/topics_resources/topics_resources/injury_prevention_and_safety/youth_concussions_resources/ (last visited Mar. 8, 2016) (“Now that many of

have amended their laws.²⁰ The “amendments generally fall into three types: (1) expanding coverage of the law (e.g., to include younger grades or recreational sports leagues), (2) tightening or clarifying existing requirements, and (3) efforts to prevent concussions from occurring in the first place (primary prevention) and improve early detection (secondary prevention).”²¹

Even with these amendments, scholars have pointed out a variety of flaws in the statutes. Law professor Hosea Harvey, for instance, has shown that these laws were influenced by the NFL,²² and that they fail to adequately address relevant public health concerns.²³ Law professor Douglas Abrams (who starred in college as a hockey goalie and has been a youth hockey coach for decades) has criticized both the scope and implementation of the laws.²⁴ Others have suggested that the laws could improve: scope of coverage,²⁵ enforcement mechanisms,²⁶ providing resources for implementation,²⁷ greater emphasis on prevention,²⁸ reporting mechanisms,²⁹ and evaluation and definition of concussion.³⁰

these laws have been in effect for a few years, legislatures are revisiting them and making changes according to developments in the field.”).

20. Lowrey et al., *supra* note 3, at 105.

21. *Id.*

22. Harvey, *supra* note 1, at 87 (“The focus of legislative efforts on a more narrowly defined problem, following passage of the Lystedt Law was shaped, in part, by the NFL’s early and visible involvement. Given this proactive effort by an interested and influential private for-profit interest group, it is not surprising that subsequent TBI legislation in many states exhibited remarkable uniformity based on the NFL’s suggestions.”).

23. *Id.* at 113.

24. Douglas E. Abrams, *Confronting the Youth Sports Concussions Crisis: A Central Role for Responsible Local Enforcement of Playing Rules*, 2 MISS. SPORTS L. REV. 75, 88-89 (2013) [hereinafter Abrams, *Confronting the Youth Sports Concussions Crisis*]; Douglas E. Abrams, *Player Safety in Youth Sports: Sportsmanship and Respect as an Injury-Prevention Strategy*, 22 SETON HALL J. SPORTS & ENT. L. 1, 12-13 (2012); Douglas E. Abrams, *Concussion Safety in Children’s Sports: A Central Role for the “Power of the Permit”*, 10 J. BUS. & TECH. L. 1, 13 (2015) [hereinafter Abrams, *Power of the Permit*].

25. Abrams, *Power of the Permit*, *supra* note 23, at 5 (arguing that “[i]n states where concussion legislation does not reach private youth sports organizations that use public facilities, local government should approve private use only by organizations that agree to adhere to the three statewide core mandates”); Taylor Adams, *The Repercussions of Concussions in Youth Football Leagues: An Analysis of Texas’s Concussion Law and Why Reform Is Necessary*, 18 SCHOLAR: ST. MARY’S L. REV. ON SOC. & JUST. 285, 343 (2016).

26. Abrams, *Confronting the Youth Sports Concussions Crisis*, *supra* note 23, at 112.

27. Implementation of State Youth Concussion Laws: Perspectives from the Frontlines [slide 24 notes that this is an unfunded mandate], <https://www.childrenssafetynetwork.org/sites/childrenssafetynetwork.org/files/CSNConcussionPolicy012413.pdf>.

28. Harvey, *supra* note 1, at 81; Lau, *supra* note 13, at 2886.

29. Harvey, *supra* note 1, at 79 (noting “the failure of key constituencies to agree on a system for youth athlete TBI reporting and tracking over time.”)

30. Amanda Cook et al., *Where Do We Go From Here?: An Inside Look into the Development of Georgia’s Youth Concussion Law*, 42 J.L. MED. & ETHICS 284 (2014).

It has also been observed by commentators that these statutes often leave few options for legal redress.³¹ For instance:

- In Minnesota, the youth concussion statute makes explicit that the law “does not create any additional liability for, or create any new cause of legal action against, a school or school district or any officer, employee, or volunteer of a school or school district.”³²
- In Texas, the concussion law does not “create any liability for a cause of action against a school district ...” and does not “create any cause of action or liability for a member of a concussion oversight team arising from the injury or death of a student participating in an interscholastic athletics practice or competition, based on service or participation on the concussion oversight team.”³³
- In Indiana, “[a] coach who complies with this chapter and provides coaching services in good faith is not personally liable for damages in a civil action as a result of a concussion or head injury incurred by an athlete participating in an athletic activity in which the coach provided coaching services, except for an act or omission by the coach that constitutes gross negligence or willful or wanton misconduct.”³⁴
- In New Jersey, “[a] school district and nonpublic school shall not be liable for the injury or death of a person due to the action or inaction of persons employed by, or under contract with, a youth sports team organization that operates on school grounds ... if the organization has insurance and complies with the concussion policy.”³⁵

31. Marie-France Wilson, *Young Athletes at Risk: Preventing and Managing Consequences of Sports Concussions in Young Athletes and the Related Legal Issues*, 21 MARQ. SPORTS L. REV. 241, 288 (2010) (noting that, “in the concussion legislation to date, there do not seem to be any provisions that set out sanctions for non-compliance by schools”); Leah G. Concannon, *Effects of Legislation on Sports-Related Concussion*, 27 PHYSICAL MED. & REHABILITATION CLINICS N. AM. 513 (2016) (“No penalties are written into the Lystedt Law for organizations or individuals that fail to comply with the components of the law.”). To be sure, not all states have the same liability framework. Connecticut and Pennsylvania have incorporated some penalties into their legislation.

32. MINN. STAT. ANN. § 121A.38 (2011).

33. TEX. EDUC. CODE ANN. § 38.159 (2011).

34. IND. CODE ANN. § 20-34-7-6 (2016).

35. N.J. STAT. § 18A:40-41.5 (2010).

Statutes vary in their language, but as illustrated by these excerpts, the statutes generally do not create new causes of action.³⁶

Without litigation as a vehicle for accountability, and with few if any statutory requirements for reporting, it should not come as a surprise that we have little idea how these concussion laws are being implemented. We do not know, for instance, if the laws are effective in reducing the incidence of youth sports concussion.³⁷ We also do not know whether the statutory requirements are being implemented as they are (in theory) supposed to be.³⁸

To date, efforts to understand the implementation of these laws have been generally small in scope.³⁹ Nevertheless, they represent an emerging research base on the issue, and the next Part reviews their findings.

III. WHAT WE KNOW ABOUT IMPLEMENTATION OF STATE CONCUSSION LAWS

As discussed in Part I, the design of state concussion laws has been criticized. It has been recognized that “[s]tudies of the overall impact of state concussion laws are scarce.”⁴⁰ The challenge of evaluating these laws is so daunting that, in the words of Dr. Hosea Harvey, it is “difficult to imagine exactly how the success of these laws will be evaluated.”⁴¹ Keeping in mind that it is a challenging landscape in which to conduct high-quality research, this Part reviews the existing research literature on point. The studies have primarily been state-specific, and so I organize state-by-state (in alphabetical order).⁴²

36. Abrams, *Power of the Permit*, *supra* note 23, at 2 (“Since 2009, all fifty states and the District of Columbia have enacted statutes to improve prevention and treatment of concussions in youth sports.”); see *Traumatic Brain Injury Legislation*, NAT’L CONF. ST. LEGIS., <http://www.ncsl.org/research/health/traumatic-brain-injury-legislation.aspx> (last updated Sept. 10, 2017); see also Lowrey, *supra* note 14.

37. Lowrey & Morain, *supra* note 15, at 294; see also Yang et al., *supra* note 3; see discussion in Part III.

38. Some studies have examined whether high school policies reflect their state law’s requirements. See Kathryn Coxe et al., *Consistency and Variation in School-Level Youth Sports Traumatic Brain Injury Policy Content*, J. ADOLESCENT HEALTH (2017).

39. Yang et al., *supra* note 3.

40. Doucette et al., *infra* note 62, at 511.

41. Harvey, *supra* note 1, at 74.

42. I do not include in this review the many commentaries and anecdotal evaluations that have been published. For instance, in Iowa an attorney writing an op-ed argued that Iowa’s current concussion law actually increased the risk for brain injury because it does not ensure that a student-athlete will be evaluated by a trained professional. Thomas P. Slater, Opinion, *Iowa’s Concussion Law Increases the Risk of Serious Brain Injury in Sports*, DES MOINES REG. (June 6, 2015), <http://www.desmoinesregister.com/story/opinion/columnists/iowa-view/2015/06/06/brain-injury-sports/28592267/>. In other states, the anecdotes have

Before moving to the state-specific studies, several national evaluations should be mentioned at the outset. First, researchers at the University of Michigan examined pre- and post-legislation health care utilization of privately insured youth athletes aged 12-18.⁴³ They found that there was a significant increase in utilization of health care systems amongst children with concussion, and the statistical analysis attributes this to both the direct and indirect effects of state concussion legislation.⁴⁴ Second, an interdisciplinary research group led by Ohio State and Nationwide Children's Hospital in Ohio found both some consistency and considerable variation in written high school traumatic brain injury policies.⁴⁵ Examining a sample of 71 high schools from 26 states, the researchers used qualitative and quantitative analysis to examine "policy enforcement, policy description, and policy implementation."⁴⁶ The analysis discovered that policies "contained language addressing at least one of the three tenets, [but] the presence and specificity of requirements varied."⁴⁷ The study thus suggests that state laws have had some effect in shaping high school policies on sports concussions—but many questions remain unanswered. For example, what (if any) written policies do youth sports organizations have in place?

A third study, published by the same group in collaboration with colleagues including Dawn Comstock of the University of Colorado, examined whether state laws had an effect on reported sports concussions.⁴⁸ The researchers took advantage of the High School Reporting Injury Online (RIO) dataset. High School RIO is "a prospective, longitudinal Internet-based surveillance system that collects

been more positive. See, e.g., Mike Fornabaio, *State Laws Reduce Concussion Exposure, Increase Accountability*, CONN. POST (Oct. 17, 2015), <http://www.ctpost.com/sports/article/State-laws-reduce-concussion-exposure-increase-6575809.php>; Officials: Wyoming Concussion Policy Working Well, BILLINGS GAZETTE (Jan. 14, 2014), http://billingsgazette.com/sports/high-school/officials-wyoming-concussion-policy-working-well/article_9c8494a1-7d52-5bfb-a0cb-7e85c980cf30.html.

43. Teresa B. Gibson et al., *Analyzing the Effect of State Legislation on Health Care Utilization for Children with Concussion*, 169 [J]AMA PEDIATRICS 163 (2015).

44. *Id.* An additional explanatory factor is rising awareness, education, and media attention to the issue of sports concussion. Commenting on the results of the study, senior author Steven Broglio observed: "There are two stories here ... First, the legislation works. The other story is that broad awareness of an injury has an equally important effect. We found large increases in states without legislation, showing that just general knowledge plays a huge part." *New Concussion Laws Result in Big Jump in Concussion Treatment*, MICH. NEWS (Dec. 22, 2014), <http://ns.umich.edu/news/releases/22586-new-concussion-laws-result-in-big-jump-in-concussion-treatment>.

45. Coxe et al., *supra* note 37.

46. *Id.* at 8.

47. *Id.*

48. Yang et al., *supra* note 3.

sport-related injuries and exposures among athletes from a nationally representative sample of US high schools.”⁴⁹ Because the database included concussion reporting both before and after the implementation of state laws, statistical analysis allowed the researchers to estimate the effect of the implementation of laws on concussion reporting.⁵⁰ They found a statistically significant increase in reported concussions after the implementation of the law.⁵¹ It is not clear whether this increase in reported concussions was a result of more concussions, or, more likely, due to greater recognition and reporting of concussions.⁵²

These national studies suggest that concussion laws are having an impact, but there is clearly a need for more research. As a national study carried out by Lowrey and Morain suggested, future policy evaluations should “shed light on which provisions—and in what combination and in which environments—will have the desired impact.”⁵³ There is recognition in the research community that such studies should look beyond the letter of the law and examine “how the law is operationalized in individual jurisdictions.”⁵⁴ In some states, this type of research is underway, and I now review the state-specific studies.

A. Connecticut

Connecticut passed its sports concussion law in 2010.⁵⁵ To examine the effect of this law on the reporting of youth sports concussions, researchers examined data from two Level 1 Trauma Center Emergency Departments in the state.⁵⁶ Examining monthly data on youth sports concussions, they compared the pre-law period with the post-law period. They found that sports related concussions in-

49. *Id.* at 1917.

50. *Id.*

51. *Id.*

52. *Id.* (“The increase may be attributable to greater recognition and reporting of concussions by athletic trainers or athletes following the implementation of concussion education requirements of these laws, rather than increased number of injuries.”).

53. Lowrey & Morain, *supra* note 15, at 294.

54. *Id.*

55. CONN. GEN. STAT. § 10-149b (LexisNexis, Lexis Advance through Public Acts 1-244 of 2017 Reg. Sess.) (originally enacted as Act of May 18, 2010, 2010 Conn. Acts 62).

56. Thomas Trojian et al., *The Effects of a State Concussion Law on the Frequency of Sport-Related Concussions as Seen in Two Emergency Departments*, 2 INJ. EPIDEMIOLOGY 2 (2015).

creased from 2.5 cases/month to 5.9 cases/month after implementation of the law.⁵⁷ Further statistical analysis revealed that the overall increase was driven by an increase in the number of reported concussions in high school aged athletes.⁵⁸

B. Massachusetts

Massachusetts passed its sports concussion law in 2010.⁵⁹ Massachusetts is unique in that it requires middle schools and high schools to annually report concussion information to the State Department of Public Health.⁶⁰ Researchers at the Massachusetts Department of Public Health examined the first wave of the data, and concluded that “schools are making progress in the implementation of state regulations,” but that “nearly half of the student athletes who reported symptoms of a concussion did not stop playing,” suggesting that “further work is needed to improve student safety.”⁶¹

Several qualitative case studies have explored the local implementation of the law in Massachusetts.⁶² One study employed focus groups with school nurses and athletic trainers.⁶³ The focus group participants were generally supportive of the Massachusetts law, but recognized the following challenges: physicians without ade-

57. *Id.*

58. *Id.*

59. Linda Brown et al., *Head Injury and Concussion Management in Extracurricular Sports: A Multi-Pronged Evaluation of the Massachusetts 2010 Legislation*, 21 INJ. PREVENTION A5, A6 (2015).

60. 105 CMR 201.00: *Head Injuries and Concussions in Extracurricular Athletic Activities*, MASS. DEPT PUB. HEALTH, <https://mdph.checkboxonline.com/2016-2017HeadInjuryYearEndReporting.aspx> (“105 CMR 201.00 requires that all public middle and high schools (including charter schools) serving grades 6 through 12 with extracurricular athletic activities, as well as all private schools that are members of the Massachusetts Interscholastic Athletic Association (MIAA), provide data to the Department of Public Health annually on the number of Report of Head Injury Forms received by the school and the number of those forms that indicate that the injury occurred during interscholastic athletics. ...The regulations specify that, unless school policies dictate otherwise, the Athletic Director is responsible for reporting these annual statistics to the Department of Public Health [105 CMR 201.012(C)(7)].”).

61. Linda Brown et al., *Head Injury and Concussion Management in Extracurricular Sports: A Multi-Pronged Evaluation of the Massachusetts 2010 Legislation*, 21 INJ. PREVENTION A5, A6 (2015).

62. Jonathan Howland et al., *Evaluation of Implementation of Massachusetts Sports Concussion Regulations: Results of Focus Groups with School Nurses and Athletic Trainers*, J. SCH. NURSING (2017); Mitchell L. Doucette et al., *The Massachusetts School Sports Concussions Law: A Qualitative Study of Local Implementation Experiences*, 44 J.L. MED. & ETHICS 503 (2016); Michael R. Flaherty et al., *Impact of a State Law on Physician Practice in Sports-Related Concussions*, 178 J. PEDIATRICS 268 (2016).

63. Jonathan Howland et al., *Evaluation of Implementation of Massachusetts Sports Concussion Regulations: Results of Focus Groups with School Nurses and Athletic Trainers*, J. SCH. NURSING (2017).

quate training in concussion care; difficulties with parental resistance to concussion policy; a need for more education on the concussion law with stakeholders; and coverage for away games.⁶⁴

Another study used semi-structured interviews with school level actors from five Massachusetts schools.⁶⁵ The researchers found that each school surveyed employed neurocognitive baseline testing, empowered athletic trainers with the ability to make removal-from-play and return-to-play decisions, and used the state-approved concussion education video to train school personnel, parents, and students.⁶⁶ Challenges to implementation included resources to hire certified athletic trainers, and resistance from some student-athletes and parents to be forthcoming.⁶⁷ Consistent with other studies, all stakeholders in these interviews desired more concussion education for parents, athletes, and school personnel.⁶⁸ Similarly, a survey of primary care physicians in Massachusetts found that the state's physicians are almost all supportive of the concussion law's major provisions.⁶⁹ The study found some variation in adherence to the statutory requirements, and suggested that further physician training may be necessary to improve compliance.⁷⁰

C. Minnesota

In 2011, Governor Dayton signed into law a new set of protocols to govern the treatment of concussions experienced by youth athletes in both high school and youth sport leagues in Minnesota.⁷¹ The Minnesota Department of Health (MDH) has noted that “[b]eing able to measure the number and rate of concussions in high school athletes is an important step in assessing the potential overall impact of concussion and evaluating our progress toward preventing them.”⁷² To that end, MDH examined 36 schools in the

64. *Id.*

65. Doucette et al., *supra* note 61.

66. *Id.*

67. *Id.*

68. *Id.*

69. Flaherty et al., *supra* note 61, at 268.

70. *Id.*

71. MINN. STAT. ANN. § 121A.38 (2011); Eric Roper, *New Concussion Law Aims to Protect Young Athletes*, STAR TRIB. (June 9, 2011), <http://www.startribune.com/new-concussion-law-aims-to-protect-young-athletes/123509574/>.

72. Sarah Dugan, Leslie Seymour, Jon Roesler, Lori Glover & Mark Kinde, *This is Your Brain on Sports: Measuring Concussions in High School Athletes in the Twin Cities Metropolitan Area*, MINN. MED., Sept. 2014, at 43, 45.

Twin Cities area for the 2013-14 academic year.⁷³ The study estimated a total number of 2,974 concussions statewide occurred during the study period, but noted that this was a “pilot study” and that they were extrapolating statewide based on a convenience sample of just 36 schools.⁷⁴

In addition to the MDH study, a 2014 media investigation is instructive.⁷⁵ A joint MPR News / KARE 11 study, spanning about 100 Minnesota school districts, found “rapid change in recent years [in response to the concussion law], but it also made clear some schools have taken more steps than others.”⁷⁶

D. Montana

Montana passed its youth sports concussion law in 2013.⁷⁷ The legislature commissioned an evaluation of the law in 2015,⁷⁸ and in 2017 amended and expanded the law.⁷⁹ The report, published in 2016, was based on 215 respondents to a survey sent to all the superintendents, principals, and athletic directors in Montana.⁸⁰ Some of the key findings from the report include:

- Only 50% of schools have direct access to a Certified Athletic Trainer or a School Nurse.⁸¹
- “Primary care physicians and athletic trainers were identified as the health care providers most responsible for making return to play decisions.”⁸²

73. *Id.* at 44.

74. *Id.* The Minnesota Department of Health also published a follow-up Data Brief in 2016, in which they found that with a sample of 39 schools, there were 704 sports-related concussions. Minnesota Dept. of Health, *Data Brief: Sports-Related Concussions in Minnesota High School Athletes, 2014-15*, http://www.health.state.mn.us/divs/healthimprovement/content/documents/2014_15SportsConcussionFactSheet.pdf.

75. Trisha Volpe, *Focus on Concussions Transforms High School Football in Minnesota*, MPR NEWS (Sept. 30, 2014), <http://www.mprnews.org/story/2014/09/30/high-school-concussions-transform-high-school-football-in-minnesota>.

76. *Id.*

77. Dylan Steigers Protection of Youth Athletes Act, MONT. CODE ANN. §§ 20-7-1301-20-7-1304 (2017) (originally enacted as Act of Apr. 22, 2013, 2013 Mont. Laws 260).

78. VALERIE MOODY ET. AL., ASSESSMENT OF IMPLEMENTATION OF THE DYLAN STEIGERS PROTECTION OF YOUTH ATHLETES ACT: A DESCRIPTIVE STUDY 2 (2016), [http://leg.mt.gov/content/Committees/Interim/2015-2016/Education-and-Local-Government/Meetings/Jan-2016/Executive%20Summary%20Report%20HJ%202016%20\(4\).pdf](http://leg.mt.gov/content/Committees/Interim/2015-2016/Education-and-Local-Government/Meetings/Jan-2016/Executive%20Summary%20Report%20HJ%202016%20(4).pdf).

79. Montana MacLachlan, *Governor Signs Updated Dylan Steigers Bill into Law*, NBC MONT. (July 10, 2017), <http://www.nbcmt.com/news/keci/governor-signs-updated-dylan-steigers-bill-into-law/584925657>.

80. MOODY ET AL., *supra* note 77, at 4 (noting a response rate of 29%).

81. *Id.*

82. *Id.*

- 84% of respondents had a concussion policy, but most policies did not contain all of the required components.⁸³
- “Parents were identified as a significant barrier to implementation because of under reporting or disclosing concussions when they occur in their children, not following return to play protocols, or ‘doctor shopping.’”⁸⁴

E. Nebraska

Nebraska passed its state concussion law in 2012.⁸⁵ Soon after, the Brain Injury Alliance of Nebraska created the Nebraska Concussion Coalition.⁸⁶ Supported in part by the Nebraska Department of Health and Human Services Injury Prevention Program, the Coalition has carried out several studies.⁸⁷ In 2013, 2015, and 2016 members of the Nebraska Concussion Coalition surveyed schools across Nebraska to determine how the state concussion law had affected schools’ concussion management policies and practices.⁸⁸

In 2013 and 2015, an online self-report survey was administered to organized sports head coaches, high school athletic directors, and youth who had sustained a concussion in Nebraska schools.⁸⁹ The survey explored concussion management policies, as well as compliance with the law.⁹⁰ By administering the survey once in 2013 (soon after the law’s passage) and again in 2015 (after a few years had passed), the study was able to gauge longitudinal change.

The surveys are notable for their sample size. The survey of athletic directors was completed by 164 respondents in 2013, and by 261 in 2015.⁹¹ The survey of head coaches was completed by 1,074

83. *Id.*

84. *Id.*

85. Erin Andersen, *Officials Say New Concussion Law Will Protect Nebraska Athletes of All Ages*, LINCOLN J. STAR (July 1, 2012), http://journalstar.com/news/local/education/officials-say-new-concussion-law-will-protect-nebraska-athletes-of/article_5ac15bf9-dd36-5ab2-aa74-55e4169f3be5.html.

86. NEBRASKA CONCUSSION COALITION, <http://biane.org/concussion/concussioncoalition.html> (last visited Nov. 12, 2017).

87. *Id.* (“The coalition, which is comprised of representatives from key government agencies, healthcare providers, club sport programs, educators and non-profit agencies, is taking the lead in implementing action-oriented steps to improve concussion awareness and change the culture of concussion management at play, school and home.”).

88. WILL SCHMEECKLE, NEBRASKA CONCUSSION COALITION, 2013 NEBRASKA SPORTS CONCUSSION SURVEY RESULTS: YOUTH SURVEY (2013) [hereinafter SCHMEECKLE, 2013]; WILL SCHMEECKLE, NEBRASKA CONCUSSION COALITION, 2015 NEBRASKA SPORTS CONCUSSION SURVEY RESULTS (2015) [hereinafter SCHMEECKLE, 2015].

89. *Id.*

90. *Id.*

91. *Id.*

high school head coaches in 2013 and 1,333 coaches in 2015.⁹² Notably, survey responses came from schools of all four size designations in Nebraska (from the largest Class A schools, to the smallest Class D schools).⁹³

Key findings from the Nebraska study include:

- *Presence of Athletic Trainers:* 36% of schools employed a certified athletic trainer (AT) in 2013, and 28% of schools employed an AT in 2015. ATs were most often available for team practices for the sports of football, wrestling, and girls and boys basketball, and a higher percentage of ATs were available for all sports surveyed for competitions. Larger (class A and B) schools were more likely to have an AT as a member of their staff than smaller schools.⁹⁴
- *Baseline Cognitive Screening:* From 2013 to 2015, the percentage of schools employing baseline screening for athletes rose from 58% to 71%.⁹⁵ Most of this increase is attributed to increased use of baseline screening in smaller (class C or D) schools.⁹⁶
- *Sideline Evaluation:* 93% of respondents reported that they would conduct a “sideline evaluation or assessment for athletes suspected of sustaining a concussion,” which was an improvement from the 81% who reported such in 2013.⁹⁷
- *Record Keeping:* 86.4% of 2015 survey respondents noted that their schools kept concussion histories for student athletes on file, which was an improvement from the 76% who reported such in 2013.⁹⁸
- *Return-to-play Decisions:* In 2015, 81.8% of respondents reported always removing an athlete with a suspected

92. *Id.*

93. *Id.*

94. *Id.* If an ATC was not available, then an individual with basic first aid training was available between 67% and 78% of the time.

95. *Id.*

96. *Id.*

97. *Id.*

98. *Id.*

concussion from play, up from 76% in 2013.⁹⁹ 97% of respondents required a concussed athlete to be cleared by a medical professional prior to return to play.¹⁰⁰

- *Concussion Education:* In 2015, almost 100% of respondents reported making concussion training programs available to all coaches at the school, and further reported that 96% of these coaches actually completed the training.¹⁰¹
- *Return-to-Learn:* From 2013 to 2015, there was a large increase in the percentage of schools that educated their teachers about signs and symptoms of concussion and return-to-learn accommodations, jumping from 33% of respondents in 2013 to 72% of respondents in 2015.¹⁰² Only 6.1% of schools reported having a written return-to-learn policy regarding concussed students in 2013; this number rose to 70.8% of respondents who reported having such a policy in 2015.¹⁰³
- *Athlete and Parent Resistance:* Coaches reported that both athletes and their parents were resistant at times to following protocols.¹⁰⁴ 27% of coaches reported knowing that an athlete did not honestly report symptoms in order to continue play and 31% of coaches reported that an athlete they coached resisted being removed from play following a suspected concussion.¹⁰⁵ 12% of respondents also reported that a parent attempted to stop them from removing their child from play following a suspected concussion, and 23% of respondents stated that a parent attempted to have their child return to play without proper medical clearance.¹⁰⁶

As a follow-up to the 2013 and 2015 surveys, in 2016 the Nebraska Concussion Coalition conducted a survey to assess how concussions are managed by schools and the sports staff (N = 276 respondents). The survey found that in general, implementation of the concussion law was quite good. For instance, by 2016:

99. *Id.*

100. *Id.* Respondents also reported a variety of responses regarding difficulties with this requirement, including: medical professional displacing decision made by training staff, difficulty with follow-up cognitive testing and re-evaluation, and confusion surrounding the return-to-play process.

101. SCHMEECKLE, 2015, *supra* note 87, at 12.

102. *Id.* at 18.

103. *Id.*

104. *Id.*

105. *Id.*

106. *Id.*

- 90% of schools had a formal written policy for removal and return to play for athletes who sustained concussion (compared to 74.3% in 2015).¹⁰⁷
- 84% of schools provided accommodation to student athletes with suspected concussion in their return to learn policies (compared to 71% in 2015).¹⁰⁸
- Changes regarding coaching methodology also occurred, with 83.9% of respondents reporting that coaches have changed drills to reduce the risk of head injury.¹⁰⁹
- A majority of athletes (95% of respondents) in football, basketball, and volleyball complete baseline testing, and 94% of schools offer baseline testing for their athletes. IMPACT neurocognitive testing is used by 98.1% of respondents' schools.¹¹⁰

F. New York

New York passed its youth sports concussion law in 2011.¹¹¹ In a study published in 2017, researchers examined retrospective emergency department (ED) data to see if introduction of the law increased ED utilization for concussion.¹¹² The study found that there was a 0.5% increase in utilization for concussion, suggesting that the law had an effect.¹¹³ However, the study also found that the greatest rise in utilization occurred *before* passage of the New York statute, suggesting that other factors (such as high-profile media coverage) also affected the uptick in ED utilization.¹¹⁴

G. Rhode Island

Rhode Island passed its youth sports concussion law in 2010.¹¹⁵ In 2014, researchers from the Injury Prevention Center at Rhode Island Hospital published a study based on a survey of high school

107. *Id.*

108. *Id.*

109. *Id.*

110. *Id.*

111. David Baker et al., *Effects of the New York State Lystedt Law on Concussion-Related Emergency Healthcare Visits among Adolescents*, 88 NEUROLOGY P6.145 (2017).

112. *Id.*

113. *Id.*

114. *Id.*

115. 16 R.I. GEN. LAWS § 16-91-3 (2012).

athletic directors and directors of some community sports organizations.¹¹⁶ In total, 38 surveys were completed.¹¹⁷ Due to a low response rate, the researchers were cautious in their conclusions.¹¹⁸ Nevertheless, they found that the mandated portions of the Rhode Island law were generally being followed, but that the suggested aspects of the law were not as regularly implemented.¹¹⁹ Respondents also noted that parents were, at times, not compliant with the concussion policy.¹²⁰

H. Washington State

In 2009, the state of Washington became the first state in the nation to pass a youth sports concussion law.¹²¹ Because of its status as the first state to adopt a concussion law, a number of studies have been conducted on the effect of the law. A study one year after the law's passage found that the public was aware of the law, but gaps in knowledge remained.¹²² In a study of high school coaches, Sara Chrisman, Frederick Rivara, and colleagues found that coaches' concussion education levels were quite high, and that coaches had the requisite concussion knowledge.¹²³ They also found that athlete knowledge was not quite as robust.¹²⁴ In another study, using focus groups with high school varsity athletes, they identified a conundrum: although athletes recognized the risks of concussion, in hypothetical scenarios many reported that they would continue to play.¹²⁵

116. Dina Morrissey et al., *Statewide Assessment of the Rhode Island School and Youth Programs Concussion Act*, 77 J. TRAUMA ACUTE CARE SURGERY S8 (2014).

117. *Id.*

118. *Id.*

119. *Id.*

120. *Id.*

121. Christian Shenouda, Peter Hendrickson, Kathleen Davenport, Jason Barber & Kathleen R. Bell, *The Effects of Concussion Legislation One Year Later—What Have We Learned: A Descriptive Pilot Survey of Youth Soccer Player Associates*, 4 AM. ACAD. PHYSICAL MED. & REHABILITATION 427, 429 (2012).

122. *Id.*

123. Sara P. Chrisman, Melissa A. Schiff, Shana K. Chung, Stanley A. Herring & Frederick P. Rivara, *Implementation of Concussion Legislation and Extent of Concussion Education for Athletes, Parents, and Coaches in Washington State*, 42 AM. J. SPORTS MED. 1190, 1190-96 (2014); see also Frederick P. Rivara, Melissa A. Schiff, Sara P. Chrisman, Shana K. Chung, Richard G. Ellenbogen & Stanley A. Herring, *The Effect of Coach Education on Reporting of Concussions Among High School Athletes After Passage of a Concussion Law*, 42 AM. J. SPORTS MED. 1197, 1197-1203 (2014).

124. Chrisman et al., *supra* note 122, at 1190-96.

125. Sara P. Chrisman, Celeste Quitiquit & Frederick P. Rivara, *Qualitative Study of Barriers to Concussive Symptom Reporting in High School Athletics*, 52 J. ADOLESCENT HEALTH 330, 330-35 (2013).

Researchers have also evaluated the effects of the Lystedt law on reported concussion incidence in high school sports.¹²⁶ In the sampled public high schools, the implementation of the Lystedt law in 2009 was associated with a more than doubled reported count and incidence rate of concussions.¹²⁷

I. Wisconsin

Wisconsin passed its youth sports concussion law in 2012.¹²⁸ A 2016 study evaluated how the Wisconsin law affected reported concussion incidence rates, and probed athlete knowledge of Wisconsin's concussion law.¹²⁹ Most respondents were football players, and the authors compared the survey results from the 2013 high school football players with results from football players from an earlier study (which used the same design, before the law had been enacted).¹³⁰ Approximately similar proportions of high school football players in 2013 and in 1999-2002 reported a prior concussion (31% versus 30% respectively) and a concussion in the previous season (17% versus 15% respectively).¹³¹ However, during 2013, there was significantly better reporting than in 1999-2002 –71% of high school football players self-reporting a concussion in 2013 also reported that concussion to another individual, versus only 47% in 1999-2002.¹³²

Overall, despite being required to sign a waiver regarding concussion information prior to play, only 60% of high school athletes reported being aware of the Wisconsin State law.¹³³ In addition, although non-concussed high school athletes with knowledge of the law reported they would be more likely to report a concussion, the majority of athletes who experienced a concussion (after the law

126. Viviana Bompadre, Thomas M. Jinguji, N. David Yanez, Emma K. Satchell, Kaiulani Gilbert, Monique Burton, Ernest U. Conrad III & Stanley A. Herring, *Washington State's Lystedt Law in Concussion Documentation in Seattle Public High Schools*, 49 J. ATHLETIC TRAINING 486, 487 (2014).

127. *Id.* at 486. The authors retrospectively took data from the 2008-2009 academic year (prior to the law's implementation), and compared it with the 2009-2010 and 2010-2011 years.

128. Ashley A. LaRoche, Lindsay D. Nelson, Peter K. Connelly, Kevin D. Walter & Michael A. McCrea, *Sport-Related Concussion Reporting and State Legislative Effects*, 26 CLINICAL J. SPORT MED. 33, 33 (2016).

129. *Id.*

130. *Id.*; Michael McCrea, Thomas Hammeke, Gary Olsen, Peter Leo & Kevin Guskiewicz, *Unreported Concussion in High School Football Players: Implications for Prevention*, 14 CLINICAL J. SPORTS MED. 13, 13-17 (2004).

131. *Id.* at 37.

132. *Id.*

133. *Id.* at 33.

was implemented) said the law made no difference in their likelihood of reporting or not reporting.¹³⁴

J. Summary

Taken together, what does this collection of studies tell us about the implementation of youth sports concussion laws? Five conclusions become apparent, each of which is consistent with my personal experience working in Minnesota on these issues:

1. *Buy in:* Although they may not know the specifics of how the law works, there is generally widespread acceptance and appreciation of the concussion laws by key stakeholders, as well as the public.¹³⁵
2. *Protocols in place for high schools:* In general, it appears that most high schools have implemented a concussion protocol (roughly) consistent with the major provisions of the law in its state.¹³⁶
3. *Resistance:* At the same time, parents (and sometimes athletes) may be resistant to concussion protocols when following those protocols is perceived to be at odds with the advancement of an athletic goal, or when necessary monetary and staffing resources are not available.¹³⁷
4. *Increase in reported concussions:* It appears that state concussion laws, as well as rising awareness about sports concussions, have jointly contributed to an increase in the number of reported concussions (and thus, presumably, to overall improvement in concussion care).¹³⁸
5. *More education needed:* Across multiple states, survey respondents consistently voice a need for more education dissemination. Many parents, athletes, and school / youth sports personnel are not yet adequately informed by the law.¹³⁹

Although studies of these laws are emerging, there remain large gaps in knowledge. As Kerri McGowan Lowrey, and colleagues have recently observed, “[m]any facets of youth sports-related TBI

134. *Id.* at 38.

135. See discussion to follow in Part III.

136. Coxe et al., *supra* note 37.

137. See, e.g., Howland et al., *supra* note 61.

138. See, e.g., Yang et al., *supra* note 3; Gibson et al., *supra* note 42.

139. See discussion to follow in Part III.

laws are untested. ... [and] effectiveness is unknown”¹⁴⁰ Moreover, almost all of the research just reviewed in Part III concerns organized school sports, either high school or middle school. We know virtually nothing systematic about the implementation of the laws in non-school youth leagues, and the scientific knowledge base on elementary age athletes remains limited.

These gaps in our knowledge make it difficult to determine which policies are most important to pursue. To fill this knowledge gap, I am working with multiple collaborators and stakeholders in the state Minnesota to generate new research. In the next Part, I discuss the approach we are taking.

IV. A MINNESOTA MODEL TO IMPROVE YOUTH SPORTS CONCUSSION POLICY

Public health scholars Kerri McGowan Lowrey, Stephanie Morain, and Christien Baugh have argued that there is an ethical duty for legislators and public health officials to “to monitor and evaluate both the health condition targeted by the policy and the specific effects of policy,” and then revise the law as needed.¹⁴¹ I agree.

I also agree with Hosea Harvey that “[i]f policymakers are serious about using the force of the law to have an impact on public health, they must also create evaluative metrics to ensure that their law-making has the desired effect on public health outcomes.”¹⁴² This is why in the 2017 Minnesota legislative session, I helped to lead a collaborative, bipartisan effort to revisit and evaluate Minnesota’s youth concussion law.

Those efforts, which I reflect upon here, lead me to address the question: how can such an evaluation be undertaken, especially given the (often severe) resource constraints facing state agencies, school districts, and local youth sports organizations?

The studies reviewed in Part III are a start. In addition, multi-state projects such as those utilizing the Public Health Law Research Policy Surveillance Web Portal, pave the way for future research.¹⁴³ But the future of youth sports concussion policy evaluation requires new perspectives and partnerships.

140. Lowrey et al., *supra* note 3, at 6.

141. Lowrey, *supra* note 4.

142. Harvey, *supra* note 1, at 115.

143. Harvey, *supra* note 1, at 88. Other innovations will emerge as well. For instance, in Texas there are efforts to create a statewide concussion registry data collection system. *Texas Sports Concussion Registry*, U. TEX. SW. MED. CTR. <http://www.utsouthwestern.edu/research/brain-injury/research/con-tex.html> (last visited Nov. 12, 2017).

I hope that our work in Minnesota is illustrative of what these new partnerships might look like. My view is that the following foundational principles should ground concussion evaluation:

1. *Collaborative*: The evaluation system should aim to be designed collaboratively, with input from multiple stakeholders.
2. *Feasible*: The evaluation system should aim to provide an economically, politically, and culturally feasible mechanism for regular data collection and assessment.
3. *Scientifically Sound*: The evaluation system should aim to be consistent with scientific knowledge of concussions, and should systematically analyze concussion policy across the full universe of ages, sports, and regions.
4. *Fidelity of Implementation*: The evaluation system should aim to closely investigate fidelity of the implementation.
5. *Alignment of Incentives*: The evaluation system should aim to align with the incentives of schools and youth leagues to maintain high levels of participation, with the incentives of youth athletes and parents to be informed of relevant risks and benefits.
6. *Recognize Benefits*: The evaluation system should recognize that governance of youth sports relies upon careful cost-benefit considerations. Although there are potential health costs to contact sports participation, there are also likely benefits, for which the evaluation system should account.
7. *Inclusive*: The evaluation system should be inclusive by collecting data on concussion incidence by sex, region, race, class, and the like. Such data will inform analysis of possible inequities in the implementation of the law.

Guided by these principles, in 2017 we generated significant support for legislation that would have funded an evaluative study of Minnesota's concussion law.¹⁴⁴ I testified three times in the Minnesota legislature, and the bill was passed by the Minnesota House of Representatives.¹⁴⁵ Although the bill was not ultimately funded, our work continues with support from a grant from the University of Minnesota. In May 2017, we hosted a stakeholder meeting that garnered support across multiple regions, professions, and viewpoints.

144. H.B. 1714, 90th Leg., Reg. Sess. (Minn. 2017); S.B. 1477, 90th Leg., Reg. Sess. (Minn. 2017).

145. See H.B. 1714, 90th Leg., Reg. Sess. (Minn. 2017).

Some of our partners in these efforts include individuals from the University of Minnesota Law School, Medical School, School of Public Health, School of Kinesiology, Athletic Department, and Athletic Medicine; CentraCare Project BrainSafe at St. Cloud Hospital, Mayo Clinic Sports Medicine; Sanford Health; Minnesota Brain Injury Alliance; National Sports Center Foundation; Minnesota Youth Athletic Services; Player's Health, and Hennepin County Medical Center. Additional collaborators have continued to join in what we hope will eventually become a statewide effort.

As the dialogue unfolds, we recognize that the foundational principles are at times at odds with one another. For instance, an economically feasible study will likely require curtailing the scope of research. This is why each principle is described as “should aim to,” rather than “must.”

These principles also do not solve fundamental problems such as how to define and measure concussion. For example: what is a “concussion” for Minnesota statute reporting purposes? Answering this question is not as straightforward as it may seem.¹⁴⁶ The Minnesota law defines concussion,¹⁴⁷ but in practice coaches and trainers apply their best judgement in deciding whether an athlete “exhibits signs, symptoms, or behaviors consistent with a concussion” or more generally “is suspected of sustaining a concussion.”¹⁴⁸ That is, often lay individuals will be making the initial decision about whether a cluster of symptoms suggests concussion.

Perhaps the most difficult information to collect concerns the fidelity of implementation. That is, how is the stated policy actually being carried out in practice? At the professional level, we know that what’s written down is not what’s always followed. For instance, in on-going National Hockey League litigation, it has come to light that even the medical staff may diverge from concussion protocol in high-pressure playoff situations.¹⁴⁹ At the youth level,

146. As I explore with coauthors in my Law and Neuroscience textbook, how to define and measure “concussion” is contested. See OWEN D. JONES, JEFFREY D. SCHALL & FRANCIS X. SHEN, LAW AND NEUROSCIENCE 317 (2014) (“Defining and diagnosing ‘brain injury’ is difficult, especially when no direct evidence of brain function is available.”).

147. As written in the statute, “‘Concussion’ means a complex pathophysiological process affecting the brain, induced by traumatic biokinetic forces caused by a direct blow to either the head, face, or neck, or elsewhere on the body with an impulsive force transmitted to the head that may involve the rapid onset of short-lived impairment of neurological function and clinical symptoms, loss of consciousness, or prolonged post-concussive symptoms.” MINN. STAT. ANN. § 121A.38 (2011).

148. *Id.*

149. Rick Westhead, *NHL Doctor Slams ‘Situational Ethics’ on Concussions in Unsealed Lawsuit Documents*, TSN (Mar. 28, 2017), <http://www.tsn.ca/nhl-doctor-slams-situational-ethics-on-concussions-in-unsealed-lawsuit-documents-1.708729> (in which an NHL team physician argues that his colleagues are engaging in situational ethics).

we should expect significant variation and must design our research accordingly.

We should also be aware of regional, socioeconomic, and racial variation in the implementation of concussion policy. In general, there are stark differences in health outcomes and access to health care across geographies.¹⁵⁰ Research on sports concussions suggests that urban and suburban school students may have different levels of concussion knowledge.¹⁵¹ Race and socioeconomic status may also play a role in concussion knowledge and incidence.¹⁵²

In short: we should expect variance across the state—and we should develop research strategies that will capture that variation. One way we've accomplished this in Minnesota is to take advantage of research opportunities at the Minnesota State Fair.

The Minnesota State Fair is the largest per-capita state fair in the country. It is called the “Great Minnesota Get Together,” and over 12 days in 2017, nearly 2 million people attended.¹⁵³ The University of Minnesota maintains a dedicated research building (the “Driven to Discover” or D2D building), allowing researchers to directly interact with these Fairgoers. My lab participated in 2017 to carry out “The Great Minnesota Sports Concussion Study.”

We worked a total of 23 hours at the Fair in four separate shifts; two of which were five-hour shifts and two of which were six-and-a-half-hour shifts. Across this period, a total of 319 parent participants who had school-aged children that participated in organized sports and 401 youth athlete participants (under the age of 22) completed the survey. Each target group completed their own group-specific survey, but there was some overlap in survey items from the two separate surveys.¹⁵⁴

150. Adler, Nancy E., David M. Cutler, J. E. Jonathan, S. Galea, M. Glymour, H. K. Koh, and D. Satcher, *Addressing Social Determinants of Health and Health Disparities. Discussion Paper, Vital Directions for Health and Health Care Series. National Academy of Medicine*, Washington, DC. <https://nam.edu/wp-content/uploads/2016/09/addressing-social-determinants-of-health-and-health-disparities.pdf> (2016).

151. Jessica Wallace et al., *Concussion Knowledge and Reporting Behavior Differences Between High School Athletes at Urban and Suburban High Schools*, 87 J. SCH. HEALTH 665 (2017).

152. See Anthony P. Kontos et al., *Exploring Differences in Computerized Neurocognitive Concussion Testing Between African American and White Athletes*, 25 ARCHIVES CLINICAL NEUROPSYCHOLOGY 734, 748 (2010); Zac Houck et al., *Socioeconomic Status and Race Outperform Concussion History and Sport Participating in Prediction Collegiate Athlete Baseline Neurocognitive Scores*, J. INT'L NEUROPSYCHOLOGICAL SOC'Y, 1, 1 (2017).

153. *New Attendance Record at the Minnesota State Fair? You Betcha*, PIONEER PRESS (Sept. 5, 2017, 01:38 PM), <http://www.twincities.com/2017/09/05/minnesota-state-fair-record-attendance-2017-how-many-people-attended>.

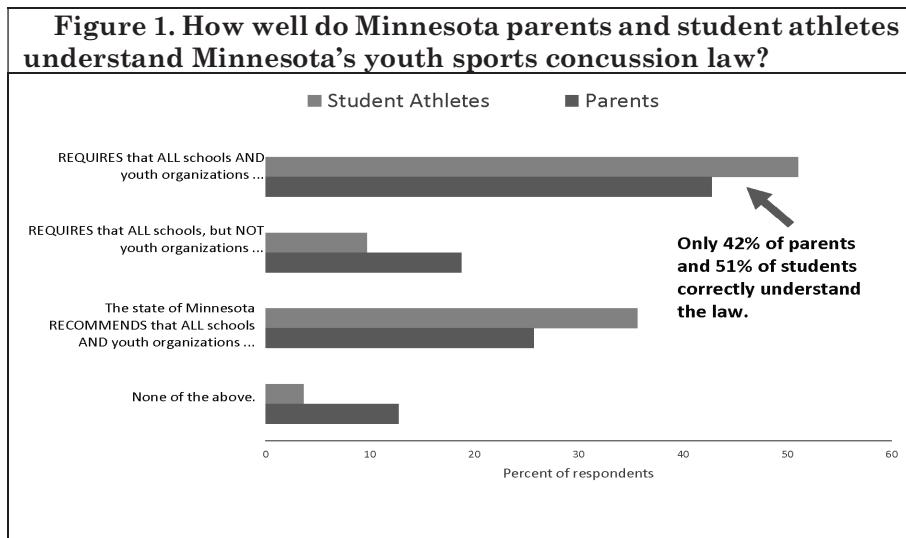
154. The parent survey took about 15 minutes on average and the youth survey took about 10 minutes on average. Subjects received a complimentary drawstring backpack for their participation. Parent subjects either self-completed the survey using an iPad or were aided

Full analysis of the results will be presented in a future publication, but I focus here on two data points of note. First, to gauge knowledge of the sports concussion law, we asked parents and student-athletes a multiple-choice question: *Which best describes the current Minnesota sports concussion law?*

- A. The state of Minnesota REQUIRES that ALL schools AND youth organizations supply parents and students with information about concussions.
- B. The state of Minnesota REQUIRES that ALL schools, but NOT youth organizations supply parents and students with information about concussions.
- C. The state of Minnesota RECOMMENDS that ALL schools AND youth organizations supply parents and students with information about concussions.
- D. None of the above.

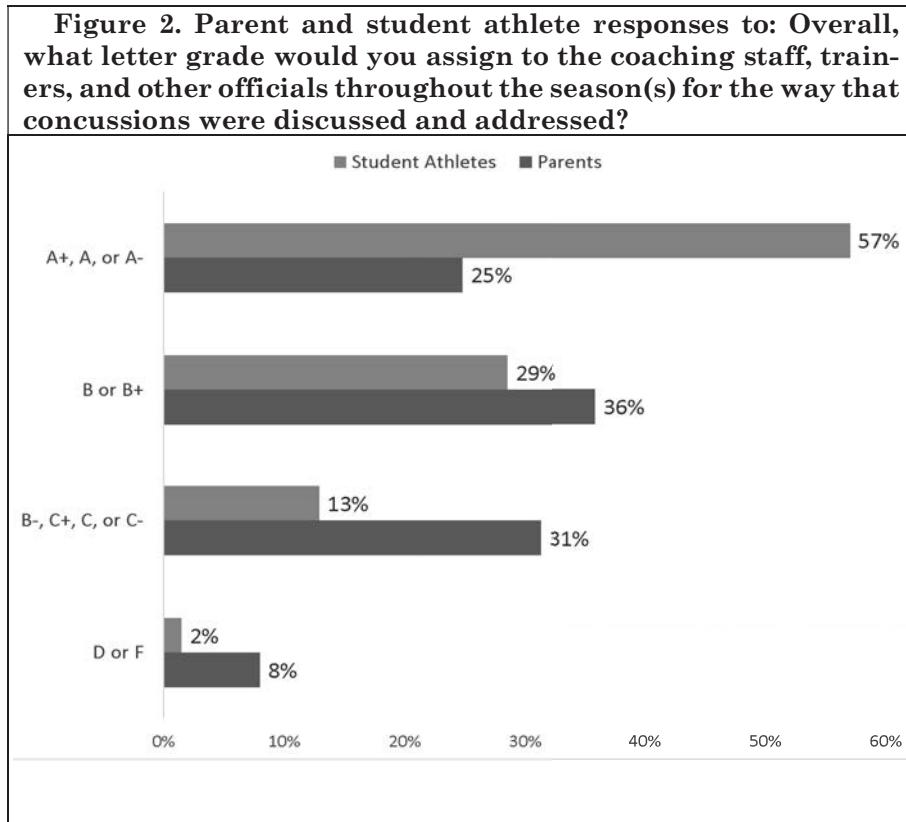
The correct answer is (A). But as seen in Figure 1, only 42% of parents and 51% of students correctly understand the law. This data suggests that although parents and athletes may be aware of concussions, and even aware that the state has a law, they do not really understand its content. This raises concerns about the extent to which youth athletes and parents are being properly informed by youth leagues and schools.

by research assistants also using an iPad. In this case, survey items were read aloud to subjects and their responses denoted by the research assistant using the iPad. The survey was completed through the Qualtrics interface.



In addition to asking about knowledge of the law, we asked parents and athletes to provide an overall grade of the quality of concussion care and policy. Both parents and athletes were asked: “Overall, what letter grade would you assign to the coaching staff, trainers, and other officials throughout the season(s) for the way that concussions were discussed and addressed?”

Figure 2 shows that parents and athletes diverged in their assessments. Nearly 60% of athletes gave a grade of A, compared to only 25% of parents. 31% of parents graded in the C- to B- range, and 8% of parents graded D or F. Further analysis is required to understand these differences, as well as the factors that lead some respondents to offer quite positive grades, while others to rate much lower. Such analysis is at the core of our work going forward, and we hope it will align with emerging work in other states.



V. CONCLUSION

During a discussion of sports concussions at the *Athletes, Veterans, and Neuroscience* symposium, a panelist asked audience members to raise their hands if they would let their child play football. Most hands remained down. But sitting in the front row, I made a point of vigorously raising my arm. Yes, I would certainly let my children play football.

After the panel, several people asked me about the reasoning for my answer. They could not reconcile my professed love of brain science with a policy stance that they thought promoted brain damage. My response, which motivated the present essay, is that I let the evidence be my guide.

As I have recently argued elsewhere, the available evidence on the incidence and magnitude of youth sports concussions suggests that most athletes will not be concussed, and those that do will not

experience long-lasting symptoms.¹⁵⁵ This is not to say that there aren't risks—there are, and the risks may be understated by some research methodologies. But there are also many benefits to be derived from participation in sports, and I would allow my children to make an informed decision about how to weigh those risks and benefits.

The available, if limited, research on current state legislation suggests that they have done well in promoting better concussion management policies and in increasing the recognition of concussion. Yet there are limits to legislation. In particular, the inability (at present) to objectively identify a concussion, the lack of medical expertise available for most youth sports leagues, and the heavy reliance on volunteers seems to me to suggest that outside the high school context (and perhaps even within it) it will be difficult for researchers to access the information they would need to properly evaluate current policy.

Moving forward, the answer may not be more legislation, but rather more creative research. In our Minnesota work, we aim for policy that is designed collaboratively, feasible, scientifically sound, sensitive to fidelity of implementation, aligned with the incentives of youth leagues and schools, accounts for the benefits of sports, and promotes inclusive data collection. It will not be easy to achieve all of these aims. But they are all, at least in part, achievable.

155. Carly Rasmussen et al., *How Dangerous are Youth Sports for the Brain?: A Review of the Evidence*, BERKELEY J. ENT. & SPORTS L. (forthcoming 2018).

Traumatic Brain Injury and a Divergence Between Moral and Criminal Responsibility

*Paul Litton**

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I. INTRODUCTION

In 1974, two months after having a portion of his brain removed due to an accident at the sawmill where he worked, Cecil Clayton checked himself into a mental hospital, frightened by his suddenly uncontrollable temper.

Previously, Clayton had been an intelligent, guitar-playing family man, relatives said. He abstained from alcohol, worked part time as a pastor and paid weekly visits to a local nursing home.

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But after the accident, which necessitated the removal of 20 percent of his frontal lobe, everything changed.

"He broke up with his wife, began drinking alcohol and became impatient, unable to work and more prone to violent outbursts," Clayton's brother Marvin testified at trial.

In 1979, he visited William Clary, a doctor who examined him for extreme anxiety, depression and paranoia.

"I can't get ahold of myself, I'm all tore up," Clayton told the doctor, according to court filings from his attorneys.

Clayton's spiraling mental state and increasingly violent behavior came to a head in 1996, when he shot and killed Christopher Castetter, a sheriff's deputy responding to a domestic disturbance between Clayton and his girlfriend. Clayton was eventually convicted of murder, and executed via lethal injection in Bonne Terre, Mo.¹

Cecil Clayton's story is reminiscent of Phineas Gage's alleged saga, familiar to any student of neuroscience: A severe traumatic brain injury transformed him from a well-functioning member of society into an impulsive, anti-social person.² Clayton's brain injury and its psychological effects were the basis for numerous legal claims throughout his capital litigation. He argued at trial that he could not form the required *mens rea* for first-degree murder, maintaining that he could not deliberate.³ He argued in the sentencing phase that his brain injury should be given great mitigating weight.⁴ On post-conviction, he claimed that trial counsel should have urged that he was incompetent to stand trial.⁵ In his federal habeas petition, he argued that counsel should have argued that he was insane at the time of the offense.⁶ Moreover, he argued⁷ he was

1. Sarah Kaplan, *The Execution of Cecil Clayton and the Biology of Blame*, WASH. POST (Mar. 18, 2015), https://www.washingtonpost.com/news/morning-mix/wp/2015/03/18/the-execution-of-cecil-clayton-and-the-biology-of-blame/?utm_term=.f3892e80b37c.

2. See Sam Kean, *Phineas Gage, Neuroscience's Most Famous Patient*, SLATE.COM (May 6, 2014), http://www.slate.com/articles/health_and_science/science/2014/05/phineas_gage_neuroscience_case_true_story_of_famous_frontal_lobe_patient.html.

3. State ex rel. Clayton v. Griffith, 457 S.W.3d 735, 738 (Mo. 2015).

4. *Id.*

5. *Id.*

6. *Id.* at 739.

7. *Id.*

ineligible for execution under *Atkins v. Virginia*,⁸ and otherwise was incompetent for execution under *Ford v. Wainwright*.⁹ The breadth of these claims relating to his injury, presented at different stages of litigation, is why one reporter wrote, “[Clayton’s] death brought an end to nearly two decades of litigation during which it seemed that Clayton’s brain, rather than the man himself, was on trial.”¹⁰

Traumatic brain injury (TBI), particularly in severe cases, can have such extraordinary effects on one’s psychological capacities that it may be relevant to many kinds of legal claims in criminal proceedings. The focus of this essay is on claims related to an agent’s status as a responsible agent. In other words, this essay will discuss the relationship between traumatic brain injury and claims that an individual does not have the capacities required to be fairly held accountable for wrongful actions. The law may hold most adults fully responsible for their crimes, but it may not hold responsible young children and the insane. The insanity claim (which Clayton argued his trial attorneys should have raised) asserts that the defendant lacked the capacities required for the state to hold him responsible for his wrongdoing. Clayton’s attorney argued that it was unfair to hold him responsible, maintaining that the accident “left him blameless” for the murder he committed. In a statement released after his execution, she emphasized that “Mr. Clayton was not a ‘criminal’ before the sawmill accident,” arguing that he that accident “left him blameless”¹¹ for the homicide he committed because “20 percent of his frontal lobe [was] removed.”¹² Also, during the penalty phase, arguing that his injury was mitigating, Clayton’s counsel urged that his capacities required for full responsibility were diminished, and, therefore, he should not receive the harshest sentence that could be justified for a fully responsible individual.

In this contribution to a symposium on the important topic of traumatic brain injury and law, I focus on the following question: What is the relationship between traumatic brain injury and responsibility? How does, or how might, a traumatic brain injury affect one’s status as a responsible agent?

8. 536 U.S. 304 (2002) (holding that the Eighth Amendment bars execution of persons with mental retardation).

9. 477 U.S. 399 (1986) (holding that the Eighth Amendment bars execution of persons who are insane).

10. Kaplan, *supra* note 1.

11. State *ex rel.* Clayton, *supra* note 3, at 737; Kaplan, *supra* note 1.

12. Kaplan, *supra* note 1.

Clayton's severe brain injury is relevant to his responsibility status, but why? What is the basis of his attorney's claim? It can be interpreted in multiple ways: (1) his injured brain, *not Clayton*, is responsible for his crime; (2) though Clayton did commit the crime, he did not have free will given that his actions were caused by his brain injury, which was outside his control; (3) the injury caused cognitive impairments such that he could not act rationally; (4) the injury impaired his volitional capacities such that he had too much difficulty controlling his emotions and impulses; or (5) the injury caused such an extreme personality change that the person who existed after the injury was no longer Cecil Clayton.

One aim of this essay is to examine the plausibility of each interpretation of his attorney's claim. In doing so, this essay will discuss the ways in which a traumatic brain injury may be relevant to assessing a person's responsibility status. In this discussion, I will emphasize a point previously made: The fact that a brain injury *caused* an agent to commit a criminal or immoral act that he would not have otherwise committed is not, by itself, relevant to criminal responsibility. A corollary to that claim is that neuroscientific findings are irrelevant to responsibility insofar as they are offered to show that one's brain caused his wrongful act. Traumatic brain injury may be relevant to criminal responsibility depending on the *rationality impairments* it causes. Rationality impairments, if serious enough, undermine or diminish criminal responsibility.

To examine the plausibility of each interpretation of his attorney's claim, we need to answer another question: In claiming that Clayton was not responsible or blameworthy for his wrongdoing, was she relying on standards of *moral* responsibility or *criminal* responsibility? Of course, in asking that question, we need to know whether the standards for moral responsibility and criminal responsibility are the same or diverge in some way. Literature on criminal law often assumes that the criteria for legal responsibility mimic the criteria for moral responsibility.

However, reflection upon traumatic brain injury cases reveals at least some divergence between the criteria for moral responsibility and those for criminal responsibility. Accordingly, a second aim of this essay is to highlight this divergence. In short, there may be cases for which ordinary *moral* intuitions would permit an excuse from responsibility although the law does not, and should not, recognize. Those cases are ones in which a severe brain injury causes a *significant personality change* though it does not cause psychological impairments serious enough to qualify for insanity. The differ-

ence in significance between judgments of moral blame and criminal liability underscores this divergence in responsibility criteria. Cecil Clayton's case may not be the best example to illustrate the divergence between moral and criminal responsibility criteria, but it demonstrates the possibility of such cases.

II. TRAUMATIC BRAIN INJURY AND CRIMINAL RESPONSIBILITY

Let us now examine the different interpretations of the claim by Clayton's attorney that he was blameless, not a responsible agent when he committed murder.

A. *It Was His Brain, Not Him*

The first seemingly commonsense reason to find Clayton less than fully responsible is that his brain injury—not *him*—caused his terrible wrongdoing. After all, from all accounts of Clayton, there was no reason to believe he would commit homicide before the sawmill accident. Given that he was not responsible for the sawmill accident, so the argument goes, we should blame Clayton's *altered biology* for his crime, not him.¹³

The problem with this argument is that it assumes that conduct for which we can be held responsible is caused by an agent yet somehow not caused by her brain. That assumption is, of course, false. All of our conduct is caused by our brains. The fact that we can, at least in principle, causally explain conduct by reference to one's brain structure and chemistry does not imply that we cannot also explain conduct from a different perspective, by reference to one's decisions, choices, intentions, beliefs, and other psychological phenomena.¹⁴ I decided to write this paper because I believe I have multiple reasons to write it. Neural correlates surely underlie the facts of decision and the existence of my thoughts and beliefs, but the existence of those neural correlates does not imply that the explanatory account in terms of my psychology is illusory. One might disagree, maintaining that mental states are illusory,¹⁵ but on that view, it would be senseless to ask the question with which we began (i.e., should we attribute the conduct to the agent's *brain* or to the

13. David Eagleman, *The Brain on Trial*, THE ATLANTIC (July/Aug. 2011), <https://www.theatlantic.com/magazine/archive/2011/07/the-brain-on-trial/308520/> (asserting that juries are not faced with the question, "Was it [the defendant's] fault, or his biology's fault" though that is the wrong question).

14. Stephen J. Morse, *Brain and Blame*, 84 Geo. L.J. 527, 528-29 (1996).

15. See, e.g., William Ramsey, *Eliminative Materialism*, THE STAN. ENCYCLOPEDIA OF PHIL. (May 2013), <https://plato.stanford.edu/entries/materialism-eliminative/#ConEliMat>; Morse, *supra* note 14, at 528.

agent, where the latter implies actions based on choices, intentions, desires, etc.). If there are no mental states, then there is no sense in which any agent is responsible for a choice or act. There is no point in distinguishing the responsible from the non-responsible unless at least some agents are responsible for their conduct and attitudes.

B. His Brain Injury Causally Determined His Wrongdoing

One might argue, however, that even if Clayton's conduct was caused by his mental states, he is not responsible if he could not have had different mental states. In other words, so the argument goes, even if he made a decision to act in wrongful ways, his decision was causally determined by facts outside his control; namely, the accident and the injury it caused to his brain. This argument is based on the intuition that responsibility requires free will, and free will requires the capacity to choose among genuine alternatives. One might acknowledge that Clayton made choices but wonder, upon learning about the severity of his brain injuries, whether he really could have made different choices than the ones he did. The philosophical view underlying this argument is incompatibilism: that being causally determined by forces outside one's control is incompatible with free will and/or fair ascriptions of responsibility.

The criminal law does not accept incompatibilism in that its criteria for responsibility do not include freedom from causal determination. Stephen Morse and Michael Moore have demonstrated¹⁶ that the criminal law is "officially compatibilist,"¹⁷ meaning persons can meet the criminal law's criteria for responsibility even if forces outside our control causally determine all our actions and choices. In other words, whether Clayton's brain injury, accident, or other forces outside his control causally determined his wrongdoing is irrelevant to assessing his responsibility status under law.

To understand the compatibility of criminal responsibility and causal determination, let us briefly turn to insanity standards. Insanity standards represent the criminal law's conception of what it means to be an agent who may fairly be held responsible for wrongdoing. Of the forty-six states that have the defense, most have a

16. MICHAEL S. MOORE, *PLACING BLAME: A GENERAL THEORY OF THE CRIMINAL LAW* 523-37 (1997); Stephen J. Morse, *Excusing and the New Excuse Defenses: A Legal and Conceptual Review*, 23 CRIME & JUST. 329, 347 (1998).

17. Joshua Greene & Jonathan Cohen, *For the Law, Neuroscience Changes Nothing and Everything*, 359 PHIL. TRANSACTIONS ROYAL SOC'Y LONDON 1775, 1776 (2004).

purely cognitive test, focusing on the beliefs of the defendant.¹⁸ The *M'Naghten* test, which is most widely used in one form or another, directs a jury to acquit if, at the time of the crime, “the party accused was laboring under such a defect of reason, from disease of the mind, as not to know the nature and quality of the act he was doing, or as not to know that what he was doing was wrong.”¹⁹ The first prong of the Model Penal Code rule, adopted in other states, also represents a cognitive standard: an accused is not responsible for a crime if, due to a mental disease or defect, he lacked “substantial capacity . . . to appreciate” the wrongfulness of his conduct.²⁰ In essence, given that the law provides rules and considerations to guide our conduct, it presumes there are persons who have the capacity to consider the law when reasoning about what to do.²¹ A person who does not know or sufficiently appreciate the nature of his conduct or know the legally or morally relevant features of his circumstances lacks sufficient rational capacity to be considered a legally responsible agent.

Notice that possessing knowledge, appreciating right versus wrong, and being able to reason practically about what one is doing are perfectly compatible with being caused to act by events outside one’s control. To see that fact, let us stipulate the truth of causal determinism, which is, “roughly speaking, the idea that every event[, including each human choice and action,] is necessitated by antecedent events and conditions together with the laws of nature.”²² Even if my sitting here typing was causally determined by forces outside my control—including my genes, my upbringing, all laws of physics, etc.—I still understand the nature of what I am doing. Even if all our choices and actions are caused by such forces outside our control, the overwhelming majority of adult persons possess the capacity to know what they are doing, to appreciate right versus wrong, and to reason practically about what to do. The law does not excuse for being *caused*; it excuses for severe psychological impairments that undermine rationality. Accordingly, if

18. The insanity standards of approximately seventeen states include a volitional prong. *Clark v. Arizona*, 548 U.S. 735, 751 (2006).

19. *M'Naghten's Case*, 10 Cl. & F. 200, 208 (1843), 8 Eng. Rep. 718, 722 (1843).

20. MODEL PENAL CODE § 4.01(1) (AM. LAW INST., Proposed Official Draft 1962). The actual language of the standard would excuse a defendant for failing to appreciate the *criminality* or *wrongfulness* of his conduct, depending on which term the adopting state legislature chose to put into the standard.

21. Stephen J. Morse, *Immaturity and Irresponsibility*, 88 J. CRIM. L. & CRIMINOLOGY 15, 18 (1997); Morse, *supra* note 16, at 339.

22. Carl Hoefer, *Causal Determinism*, STAN. ENCYCLOPEDIA OF PHIL. (2016), <https://plato.stanford.edu/entries/determinism-causal/>.

Clayton or other sufferers of severe TBI are less than fully responsible agents, it is not because their brain injury, *per se*, causes their conduct. Rationality impairments caused by brain injuries, if sufficiently severe, undermine or diminish one's status as a responsible agent.

The criminal law in some American jurisdictions also permits an insanity defense for individuals who suffered a severe volitional impairment at the time of their crime. That is, in these jurisdictions, the law excuses individuals who might have known the nature and wrongness of their actions but who lacked sufficient capacity to control themselves. New Mexico, for example, states that "if, by reason of disease of the mind, [a] defendant has been deprived of or lost the power of his will which would enable him to prevent himself from doing the act, then he cannot be found guilty."²³ A person suffering from kleptomania might argue that though she knew she was wrongfully committing theft, she could not resist the urge to steal.

Non-responsibility under a volitional insanity test requires more than showing that one's conduct was caused by one's brain injury. Let us stipulate that Clayton's brain injury was a cause of his failure to resist his impulse to kill his victim. That stipulated fact, by itself, would not be sufficient to conclude Clayton was not a responsible agent at the time of his crime. The fact that an agent's brain injury caused one's failure to control himself does not show, by itself, that the agent lacked sufficient capacity to control himself. Under existing law, to determine whether an agent could have controlled himself—whether he could have done otherwise—a factfinder should ask whether the agent *would* have done otherwise *if* certain facts had been true.²⁴ That is, the factfinder must contemplate counterfactual circumstances that are closely similar but importantly different from the actual circumstances in which the agent acted.²⁵ The "policeman at the elbow" test is illustrative. A factfinder might ask if the person with kleptomania *would* have still stolen the shirt in similar circumstances with one crucial fact different: A police officer stood nearby.²⁶ If the defendant would

23. State v. Hartley, 565 P.2d 658, 660 (N.M. 1977) (quoting State v. White, 270 P.2d 727, 730 (N.M. 1954)).

24. Michael S. Moore, *The Neuroscience of Volitional Excuse*, in PHILOSOPHICAL FOUNDATIONS OF LAW AND NEUROSCIENCE 179-230 (Dennis Patterson ed., 2016) (emphasis added).

25. Paul Litton, *The Mistaken Question for a Control Test: For a Rationality Standard of Sanity*, in THE INSANITY DEFENSE: MULTIDISCIPLINARY VIEWS ON ITS HISTORY, TRENDS, AND CONTROVERSIES 185, 194-95 (Mark D. White ed., 2017).

26. See, e.g., State v. Forrest, 578 A.2d 1066 (Conn. 1990); People v. Jackson, 627 N.W.2d 11 (Mich. App. 2001); State v. Wood, No. 58437, 1991 WL 76041, at *4 (Ohio App. May 9,

have still stolen the shirt despite high chance of arrest, a factfinder might conclude that he lacked sufficient capacity to resist his pathological urge to steal.

Take note that in assessing whether a defendant had sufficient volitional capacity for responsibility, we do not ask whether he *could* have done otherwise in *exactly* the same circumstances. If every single fact from his brain structure and chemistry to his external situation were exactly the same, there is no reason to think he would have taken any different course of action. In asking whether the defendant *would* have done otherwise under different circumstances, we are trying to assess his capacity to react to the recognition of reasons. Whether a defendant has that capacity to react to the recognition of reasons—to conform his will to his judgment about what he has reason to do—is independent of whether he was caused to act by forces outside his control. Once again, we see that a legal standard that helps define the criminal law's conception of responsibility does not support the idea that an agent is less than fully responsible if his wrongdoing was caused by forces outside his control. If Clayton or other victims of a severe TBI are less than fully responsible for a wrongful act, it must be for impairments to their cognitive and volitional capacities, the topics to which we now turn.

C. His Brain Injury Diminished His Capacity for Rationality

As evident by previous discussion, we now have encountered our first legally sound interpretation of Clayton's attorney's claim, regardless of whether it was persuasive on the facts of his case. That interpretation is that Clayton's brain injury impaired his psychological functioning in ways that diminished his capacity for rationality and, thus, his status as a responsible agent. "Although the language for each insanity standard offers the potential for mental defect as the res result of some neurologically based injury, research suggests the majority of individuals who pursue an insanity defense, or who are acquitted using this defense, have a major mental illness such as schizophrenia, another psychosis, or a major affective disorder."²⁷ Although in some very rare cases the cognitive impairments from TBI can rise to the level of insanity, the effects are

1991) ("While we concede the 'policeman-at-the-elbow' test is not recognized as a valid test for insanity in Ohio, . . . it is directly probative of defendant's ability to refrain.").

27. Kathy F. Yates & Robert L. Denney, *Neuropsychology in the Assessment of Mental State*, in CLINICAL NEUROPSYCHOLOGY IN THE CRIMINAL FORENSIC SETTING 224 (Robert L. Denney & James P. Sullivan eds., 2008) (citing Paul G. Nestor & Joel Haycock, *Not Guilty by Reason of Insanity for Murder: Clinical and Neuropsychological Characteristics*, 25 J. AM.

more often relevant to a judgment of *diminished* responsibility, which is relevant in mitigation at sentencing.²⁸

Indeed, Clayton's defense urged arguments along these lines. His experts testified not merely that Clayton failed to deliberate before committing murder, but that he was “*not capable* of ‘coolly reflecting . . . when agitated.’”²⁹ They further testified that his inculpatory statements were not trustworthy because Clayton was “unusually ‘susceptible to suggestion,’”³⁰ implying that his perception of reality was distorted. According to medical examinations from the late 1970s and early 1980s, Clayton “hallucinated strangers and heard voices and noises such as drawers opening and closing.”³¹ He experienced “severe anxiety around people”³² and “developed paranoid delusions.”³³

Clayton's counsel made related arguments, not to show his lack of responsibility for his crime, but to show that he was incompetent to proceed and for execution. One expert asserted Clayton “lack[ed] the capacity . . . to make rational decisions regarding his habeas proceedings”;³⁴ another testified that Clayton was delusional as to whether he committed the crime and whether the state would execute him. Again, regardless of whether these cognitive impairments were sufficiently severe to diminish his status as a responsible agent, it is these kinds of deficits that are relevant to responsibility, not the fact that his accident and brain injury caused them.

Beyond Clayton's case, a TBI can cause cognitive impairments that can diminish or eliminate one's status as a responsible agent, depending on the severity and location of the injury. Injuries to the frontal lobe can impair “the ability to focus attention to appropriate stimuli, organize and plan, problem-solve, formulate good decisions, and exhibit appropriate judgment.”³⁵ It can also diminish one's

ACAM. PSYCHIATRY & LAW 161 (1997) and HENRY J. STEAMAN ET AL., BEFORE AND AFTER HINCKLEY: EVALUATING INSANITY DEFENSE REFORM (1993).

28. *Id.* at 228-29.

29. State *ex rel.* Clayton v. Griffith, 457 S.W.3d 735, 738 (Mo. 2015).

30. *Id.*

31. Sean D. O'Brien, *Traumatic Brain Injury and the Law: Introduction*, 84 UMKC L. Rev. 287, 288-89 (2015) (citing Report of George Klinkerfuss, M.D., Jul. 16, 1980 (on file with O'Brien)).

32. *Id.* at 288 (citing Report of George Klinkerfuss, M.D., Jan. 30, 1978 (on file with O'Brien)).

33. *Id.* at 289 (citing Report of William F. Clary, M.D., Jan. 24, 1979 (on file with O'Brien)).

34. *Clayton*, 457 S.W.3d at 746.

35. DEPT OF VETERANS AFFAIRS, TRAUMATIC BRAIN INJURY 13 (2004), <http://www.aaaceus.com/courses/NL0109A/Traumatic%20Brain%20Injury%20Class%20-%20VA%20CEU.pdf>.

“ability to empathize with others,”³⁶ which can impact one’s ability to distinguish right from wrong. Damage to temporal lobes can diminish one’s capacity to form and store new memories,³⁷ which also has implications for an agent’s understanding of the nature of his conduct and his circumstances. Psychosis (which involves “some loss of contact with reality”³⁸) and anxiety are also “well-known sequelae of TBI.”³⁹ Again, these sorts of cognitive impairments are relevant to assessing an agent’s responsibility status.

Cognitive impairments caused by TBI may be severe enough such that we might conclude the agent should not be held responsible for wrongdoing or other socially inappropriate behavior. One documented effect of some TBIs is behavioral disinhibition.⁴⁰ Disinhibition might involve impulsivity, which perhaps is more relevant to volitional impairments; however, it can also involve an inability to recognize social inappropriateness. Some victims of a TBI behave sexually at inappropriate times or occasions, such as masturbating in public without realizing it violates social norms, not to mention legal rules.⁴¹ Such an offender would be non-responsible for failing to understand the wrongness of his behavior.

William Winslade provides another example of an individual whose TBI, suffered during a near-fatal car accident, caused the kinds of cognitive deficits that undermine responsibility. After the accident, he became increasingly suspicious and delusional. He formed an overwhelming paranoid delusion that his mother, with whom he had previously had a good relationship, had become part of a conspiracy to kill his father. One day he was at the drugstore with his mother when she was picking up some cardiac medication (coumadin) for his father. The pharmacist said to her jokingly, “What are you going to do with all this rat poison?” The young

36. *Id.*

37. *Id.*; Larry R. Squire, Craig E.L. Stark & Robert E. Clark, *The Medial Temporal Lobe*, 27 ANN. REV. NEUROSCIENCE 279 (2004); Stacey Wood & Bhushan S. Agharkar, *Traumatic Brain Injury in Criminal Litigation*, 84 UMKC L. REV. 411, 415 (2015).

38. *What Is Psychosis*, NAT'L INST. OF MENTAL HEALTH, <https://www.nimh.nih.gov/health/topics/schizophrenia/raise/what-is-psychosis.shtml> (last visited Oct. 21, 2017).

39. Wood & Agharkar, *supra* note 37, at 415 (citing Edward Kim et al., *Neuropsychiatric Complications of Traumatic Brain Injury: A Critical Review of the Literature*, 19 J. NEUROPSYCHIATRY & CLINICAL NEUROSCIENCES 2, 114 (2007)).

40. Marcelo Schwarzbold et al., *Psychiatric Disorders and Traumatic Brain Injury*, 4 NEUROPSYCHIATRIC DISEASE & TREATMENT 797, 809 (2008).

41. Gov’t of Victoria, Austl., *Brain Injury and Sexual Issues*, <https://www.betterhealth.vic.gov.au/health/conditionsandtreatments/brain-injury-and-sexual-issues> (last updated Apr. 2013); see also Glenn Kelly & Grahame Simpson, *Remediating Serious Inappropriate Sexual Behavior in a Male with Severe Acquired Brain Injury*, 29 SEXUALITY AND DISABILITY 313 (2011).

man's paranoid delusion about the conspiracy intensified and he felt compelled to kill his mother to protect his father. When he and his mother got home, he shot her to death. The psychiatrists who evaluated the young man all agreed, as did the attorneys, that he was insane because they thought he was a paranoid schizophrenic. Although it was clear that he was legally insane, after he was committed to a mental institution, it was discovered he was not suffering from schizophrenia. Only later did his physicians realize that his traumatic brain injury rather than schizophrenia caused his paranoia.⁴²

The impairments caused by this individual's injury were sufficient to undermine completely his status as a responsible agent, according to his psychiatrists. However, in another individual case, cognitive impairments could be serious but not quite as severe such that the agent should be considered partially responsible. Cognitive impairments that diminish but do not completely undermine responsibility are relevant to sentencing and other criminal law doctrines.⁴³ Indeed, although TBI-related cognitive impairments can rise to the level of insanity in the very rare case, the effects are more often relevant to a judgment of *diminished responsibility*, relevant in mitigation at sentencing.⁴⁴ With a less serious injury, the impairments might not diminish the agent's status at all. The critical point is that these kinds of psychological impairments are relevant to responsibility because they can undermine an agent's capacity for practical rationality.

D. His Brain Injury Caused a Severe Volitional Impairment

Traumatic brain injury, particularly to the frontal lobes, can have severely negative consequences for an individual's ability to control impulses.⁴⁵ Clayton's brother testified that Clayton, after losing

42. William J. Winslade, *Traumatic Brain Injury and Criminal Responsibility*, 10 MED. ETHICS 4 (2003), reprinted in LAW.UH.EDU, <http://www.law.uh.edu/healthlaw/perspectives/Disabilities/031215Traumatic.html> (last visited Oct. 28, 2017).

43. As Stephen Morse points out, American criminal law does not include a generic partial responsibility doctrine. However, one could interpret voluntary manslaughter doctrine as providing a partial responsibility doctrine that reduces "a homicide that would otherwise be murder to manslaughter." Stephen J. Morse, *Diminished Rationality, Diminished Responsibility*, 1 OHIO ST. J. CRIM. L. 289, 289 (2003). The Model Penal Code's take on voluntary manslaughter, employing the "extreme mental or emotional disturbance" standard, seems to represent clearly a partial excuse based on psychological impairment.

44. Yates & Denney, *supra* note 27, at 228-29.

45. Wood & Agharkar, *supra* note 37, at 417 (citing Harold V. Hall, *Criminal-Forensic Neuropsychology of Disorders of Executive Functions*, in *DISORDERS OF EXECUTIVE FUNCTIONS: CIVIL AND CRIMINAL LAW APPLICATIONS* 63 (Harold V. Hall & Robert J. Sbordone eds., 1993)).

20% of his frontal lobe, “became impatient, unable to work, and more prone to violent outbursts.”⁴⁶ In insanity cases and capital sentencing trials, mental health experts regularly testify that frontal lobe damage suffered by the defendant led to impulse control difficulties and disinhibition.⁴⁷

Whether insanity standards should include a volitional prong is controversial, as evidenced by the fact that a minority of states permit an insanity acquittal based on an impulse control problem.⁴⁸ There is good reason to conclude that insanity standards should only include a cognitive prong.⁴⁹ Furthermore, if Clayton’s attorney’s assertion that he was blameless was based on the premise that he lacked volitional capacity, the claim is probably doubtful. Thirty minutes after he killed Deputy Castetter, two officers appeared at Clayton’s home to question him. He asked his friend whether he should shoot them; after his friend said, “No,” Clayton did not.⁵⁰

Nonetheless, regardless of Clayton’s case or whether insanity standards should include a volitional prong, volitional control impairments should be considered mitigating at sentencing. Responsibility status comes in degrees. Even if a minimal capacity for self-control should be the threshold for criminal liability, one’s responsibility status may be diminished due to volitional or cognitive impairments relative to agents without such psychological dysfunction. Thus, the main point here is that we have a second plausible interpretation of Clayton’s attorney’s claim: His frontal lobe damage diminished his capacity to control impulses, and despite his awareness of the nature of his conduct, his capacity to control his impulses was too diminished to hold him responsible. We can disagree with her conclusion that Clayton was not fully responsible yet

46. State *ex rel.* Clayton v. Griffith, 457 S.W.3d 735, 737 (Mo. 2015).

47. See, e.g., Hoskins v. State, 75 So. 3d 250, 254 (Fla. 2011) (“[T]hree experts testified that [defendant] had a frontal lobe impairment and that as a result [he] had difficulty controlling his impulses.”); Crook v. State, 813 So. 3d 68, 70-71 (Fla. 2002) (neurologist links defendant’s impulse control disorder and frontal lobe damage); Hall v. Lance, 286 Ga. 365, 370-71 (2010) (neuropsychologist testifies that persons with frontal lobe dysfunction “are more often ‘involved in crimes of impulse.’”); State v. Thompson, No. 02631, 2003 WL 22018899, at *5 (Tenn. Crim. App. 2003) (expert concluded damage to frontal lobe diminished defendant’s “ability to delay and inhibit impulsive reactions on the day of the alleged crime”). See also People v. Holland, 32 Misc. 3d 926, 928 (N.Y. Cty. Ct. 2011) (in sex offender classification case, government argues that brain injury caused registrant to have poor impulse control).

48. See Clark v. Arizona, 548 U.S. 735, 751 (2006).

49. Stephen J. Morse, *Against Control Tests for Criminal Responsibility*, in CRIMINAL LAW CONVERSATIONS 449 (Paul H. Robinson, Stephen P. Garvey & Kimberly Kessler Ferzan eds., 2009); see also Stephen J. Morse, *Uncontrollable Urges and Irrational People*, 88 VA. L. REV. 1025 (2002); Litton, *supra* note 25, at 185.

50. Clayton, 457 S.W.3d at 737.

agree that he was less than fully responsible if his capacity to control his impulses was, in fact, seriously diminished by his traumatic brain injury.

III. MORAL RESPONSIBILITY AND PERSONALITY CHANGE

One interpretation remains of the claim that Clayton was blameless due to his TBI: The agent who committed the homicide was not the *real* Clayton. Due to his brain injury, his personality changed so drastically that the person post-injury was no longer Clayton. This interpretation is distinct from the first; it is not the claim that it was his *brain* or *altered biology*. Rather, the claim is that the agent who acted was not truly Clayton. The basis for the claim is the scientific research that shows many victims of TBI “develop significant changes in character traits.”⁵¹

The law does not recognize significant personality change, by itself, as an excuse. A sentencing judge or juror may consider the extent to which she believes an offender’s crime reflected her true self, but no legal standard explicitly incorporates a correlating criterion of responsibility. In fact, empirical research suggests that our intuitions about moral responsibility respond to beliefs as to whether an action reflected an agent’s “true self.”⁵² Within our everyday moral experience of blaming ourselves and others for moral infractions, we do consider whether an act truly reflects attitudes and character traits attributable to the actor in question.

Let us begin by understanding the significance of moral blame, specifically with respect to judgments that an agent has wronged another person. Moral blame seems to have some social significance apart from an associated judgment that a person or group has violated an obligation owed to someone. In Susan Wolf’s words, to blame someone for moral wrongdoing is to judge the “moral quality of the individual herself . . . [in a] seemingly more serious way” than judging her for some other kind of failing.⁵³

T.M. Scanlon offers a persuasive account of blame’s significance.⁵⁴ Blaming judgments respond to the perception that another

51. Edward Kim, *Agitation, Aggression, and Disinhibition Syndromes after Traumatic Brain Injury*, 17 NEUROREHABILITATION 297, 298 (2002).

52. See, e.g., George E. Newman, Julian De Freitas & Joshua Knobe, *Beliefs About the True Self Explain Asymmetries Based on Moral Judgment*, 39 COGNITIVE SCIENCE 96 (2015) (arguing that data show that we think “deep inside every individual is a ‘true self’ moving her to behave in morally virtuous ways, and this belief, in turn, ‘causes people to hold different intuitions about . . . whether . . . she deserves praise or blame’”).

53. SUSAN WOLF, *FREEDOM WITHIN REASON* 41 (1989).

54. See T.M. SCANLON, *MORAL DIMENSIONS* 122-60 (2008); T.M. SCANLON, *WHAT WE OWE TO EACH OTHER* 267-77 (1998).

has expressed ill will or inappropriate indifference toward the value of another person or persons.⁵⁵ Moral blame, then, has a different kind of significance for interpersonal relations than other kinds of criticisms. If you fail to see the value of music or chess, and if I care deeply about them, then perhaps limitations exist on the kinds of relationship we might have; but even if we do not share common interests, many good relationships remain possible. We “can still be . . . good neighbor[s], co-worker[s], or even friend[s].”⁵⁶ However, if I hold you responsible for conduct that exhibits disrespectful attitudes toward me as a person, then my blaming you has a deeper significance; the implications are more severe. If your attitudes toward me are completely disrespectful of my value as a person, then I should not see reason to have any kind of meaningful relationship with you. Scanlon’s insight about blame, more generally, is that to judge someone blameworthy is to claim that “something about [her] attitudes toward others . . . impairs the relations that others can have with [her].”⁵⁷

Thus, morality is concerned not merely with blameworthy and praiseworthy acts but also with the attitudes agents hold toward others. Specifically, it is concerned with attitudes that are sensitive to reasoned judgments. To illustrate, most of us do and should morally blame persons who view others with contempt based on sex, race, or other demographic categories. Even if you do not act on your contempt for me based on race, your attitudes are still blameworthy in that it is appropriate for me to take them as an impairment to our relations. Moreover, your attitudes that impair our relations are sensitive to reasoned judgment, unlike, say, your sexual orientation or height. It could be sensible for me to demand a justification in terms of reasons for your attitude or, in the alternative, an explanation or excuse.

We blame an agent for an action or attitude only when that action or attitude is “attributable to the agent.”⁵⁸ An act or attitude is attributable to an agent not merely because it is causally attributable to his biology. An intention caused by another agent directly stimulating my brain or by hypnosis would not be *mine*, even if I experienced it. It would be inappropriate to demand that I justify the intention given that it did not spring from my own attitudes

55. SCANLON, MORAL DIMENSIONS, *supra* note 54 at 128 (relying on Peter Strawson, *Freedom and Resentment*, in *xlvii PROCEEDINGS OF THE BRITISH ACADEMY* 1-25 (1962), reprinted in *FREE WILL* 59-80 (Gary Watson ed., 1982)).

56. SCANLON, WHAT WE OWE, *supra* note 54 at 159.

57. SCANLON, MORAL DIMENSIONS, *supra* note 54, at 128.

58. SCANLON, WHAT WE OWE, *supra* note 54, at 277.

amenable to practical reasoning.⁵⁹ As Scanlon argues, to be an agent whom we may hold responsible—to be a “rational creature”—

is a matter of *having a coherent psychology* of a certain kind: of there being the right kind of stable and coherent connections between what one says, does, and how things seem to one at one time, and what one says, does, and how things seem to one at later times. This coherence is not merely a matter of the judgments a creature makes, but also of what occurs to it and how things seem to it (what strikes is as relevant to a given question, for example). . . . What distinguishes cases like hypnosis and brain stimulation is thus not that they involve causal influences *but rather the fact that these causal influences are of a kind that sever the connection between the action or attitude and the agent's judgments and character.*⁶⁰

Notice an implication of Scanlon’s observation. Imagine an evil scientist secretly manipulates my brain in a way that causes me to form the belief that I should insult my friend who happens to be standing nearby.⁶¹ This belief is already normative in that I experience the thought “*I should* insult my friend”; moreover, I do not reevaluate it. I form the intention and act on it. I did not suffer a hallucination or delusion about empirical reality: I understood the nature of my action. I retained the capacity to recognize that it was wrong. And let us stipulate that I could have refrained from insulting my friend in the sense that had I seen a reason to refrain, I would have. In other words, I was sane; I met the criminal law’s criteria for responsibility. Nevertheless, I have a moral excuse. The belief did not arise from my own stable judgment-sensitive attitudes. The scientist’s direct manipulation of my brain “sever[ed] the connection” between the intention on which I acted and my attitudes and character.⁶² Perhaps there was a moment during which I could have re-evaluated the belief; nevertheless, my friend does not have reason to believe that the insult reflects any blameworthy attitude of mine that should impair our relations. Her response might be, “That wasn’t you.”

So now we are in a position to see another way in which a traumatic brain injury might undermine moral responsibility. Let us start with Scanlon’s example:

59. *Id.*

60. *Id.* at 278.

61. This example is based on Scanlon’s discussions: *Id.* at 278-79; SCANLON, MORAL DIMENSIONS, *supra* note 54, at 129.

62. SCANLON, WHAT WE OWE, *supra* note 54 at 278.

Suppose . . . that someone who has previously always been kind and considerate suddenly begins making cruel and wounding remarks to her friends after being hit on the head or given drugs for some medical condition. We would not, at least at first, take this behavior as grounds for modifying our opinion of her. The injury or drugs constitute a break . . . block[ing] the attribution of these actions to the person we have always known.⁶³

The brain injury, in his example, severed the connection between the way the agent normally sees the world and the way in which he is temporarily experiencing it. Put differently, in light of his stable characteristics, the agent normally does not see reason to make cruel remarks; however, he now, temporarily, experiences the sense that he has reason to make these remarks. He has an excuse because the fact that he sees reason to be cruel was not rooted in his judgment-sensitive attitudes or his character. Now, if the agent does not revert back—if his “old self” does not reappear—then at some point he no longer has the excuse. If his cruelty continues, then we would say that he has changed and owns these disrespectful actions and attitudes.⁶⁴

Therefore, a significant personality change, at least for some finite period of time, can represent reason to excuse an agent for wrongdoing. Though controversial, much of the psychological literature on TBI suggests that some agents, depending on the injury, experience personality changes.⁶⁵ The Phineas Gage story surely comes to mind, as “friends and acquaintances said he was ‘no longer Gage’ after his accident.”⁶⁶ Even if the changes to Gage’s personality are the substance of myth,⁶⁷ “marked personality changes and

63. *Id.* at 278-79.

64. *Id.*

65. Wood & Agharkar, *supra* note 36, at 415 (citing Edward Kim et al., *Neuropsychiatric Complications of Traumatic Brain Injury: A Critical Review of the Literature*, 19 J. NEUROPSYCHIATRY & CLINICAL NEUROSCIENCES 2, 107 (2007) (“[P]ersonality changes are a well-known sequelae of TBI.”)).

66. Kieran O’Driscoll & John Paul Leach, ‘No Longer Gage’: An Iron Bar Through the Head: Early Observations of Personality Change After Injury to the Prefrontal Cortex, 317 BRIT. MED. J. 1673, 1673-74 (1998) (citing John Martin Harlow, *Recovery from the Passage of an Iron Bar through the Head*, 2 PUBL. MED. MASS. SOC. 327 (1868)).

67. Sam Kean, *Phineas Gage, Neuroscience’s Most Famous Patient*, SLATE.COM (May 6, 2014), http://www.slate.com/articles/health_and_science/science/2014/05/phineas_gage_neuroscience_case_true_story_of_famous_frontal_lobe_patient.html.

deviant social behavior in premorbidly normal individuals have frequently been noted in cases following damage to the prefrontal region.”⁶⁸

Researchers have documented several kinds of personality changes in victims of a TBI. One prevalent diagnosis is apathy, sometimes but not always associated with depressive symptoms.⁶⁹ On one definition of “apathy,” it entails a “lack of motivation, that is, loss of motivation that is not attributable to emotional distress, intellectual impairment, or diminished consciousness.”⁷⁰ It seems, based on common sense, that apathy can lead to moral failures. A person suffering from apathy might ignore or fail to recognize the fact that a friend is in need. Lacking motivation to listen intently to others, she may fail to react properly to someone’s pain or to show a family member or friend appropriate concern in a time of need. Now imagine someone who suffers from apathy due to a TBI although she was, before the accident, very attentive to the needs of others. If we were unaware of her TBI, we might blame her for negligence toward her friends and family; certainly, they would see her negligence as impairing their relations. However, upon learning of her brain injury, we likely will see her personality change as excusing, at least for a certain period. We might say, “She is really not herself. This is not her. The friend who I know really cares.” I emphasize here that this excuse is plausible even if the agent understands the nature of her actions—she is in touch with reality in that she might know she is ignoring the needs of others—and is not suffering from a volitional incapacity or loss of self-control.

Other studies show that some TBI victims show an increase in aggressive behavior and irritability.⁷¹ Aggressive behavior, of course, can represent moral failure in itself. It can involve verbal or physical threats or abuse. Irritability can lead to moral transgressions. It can cause adults to mistreat children and spouses; it can cause rude and impatient behavior toward other persons. Again, aggressiveness and irritability might represent a change in personality and, thus, on that basis, be excused at least for a limited duration.

68. Joseph Barrash, Daniel Tranel & Steven W. Anderson, *Acquired Personality Disturbances Associated with Bilateral Damage to the Ventromedial Prefrontal Region*, 18 DEVELOPMENTAL NEUROPSYCHOL. 355, 356 (2000) (citing multiple sources).

69. Marcelo Schwarzbold et al., *Psychiatric Disorders and Traumatic Brain Injury*, 4 NEUROPSYCHOL. DISEASE & TREATMENT 797, 807 (2008).

70. Junko Ishizaki & Masaru Mimura, *Dysthymia and Apathy: Diagnosis and Treatment*, 2011 DEPRESSION RESEARCH & TREATMENT, at 2, 4, <https://www.hindawi.com/journals/drt/2011/893905/>.

71. Schwarzbold et al., *supra* note 69, at 808.

One might reasonably point out here that TBI-related aggressive behavior and negative conduct caused by irritability is most often impulsive, not premeditated. Insofar as the behavior is excusable, one might argue, the basis of the excuse is a volitional impairment, not personality change. In other words, one might argue that instances of TBI-related aggression or irritable behavior might be excusable, but the reason is that such victims of TBI lose the ability to control themselves, especially when they suffered injury to their prefrontal cortex. Personality change might not represent an independent basis of excuse. It seems clear that it is very difficult, at the least, to distinguish a personality change from volitional, as well as from cognitive, impairments. Cases in the literature regarding personality changes from brain injuries do also seem to involve cognitive impairments and diminished capacities for self-control. Indeed, a neuropsychologist would not look for a personality change in a patient except for personality changes that affect psychological *functioning*.⁷²

Nevertheless, it is a mistake not to see severe personality change as a distinct basis for moral excuse. Recall the individual stricken with serious apathy following a brain injury. Acting contrary to her pre-injury self, she might fail to react empathetically to a friend's pain or her appropriate concern in a time of need. Her ignoring her friend does not have to involve a failure to resist any impulse. She might also understand very well that her lack of attention to her friend displays a lack of caring. An excuse from moral blame seems appropriate, especially if she recovers from her injury and reverts to her old caring self. There may even be cases in which an agent did, in fact, fail to control an impulse but nevertheless should be excused from moral blame if her wrongdoing does not reflect long-standing, stable, judgement-sensitive attitudes. Perhaps the agent's TBI did diminish her ability to control her negative impulses; that fact does not imply that the individual lacks sufficient volitional capacity to be held responsible to some degree. Perhaps her volitional impairment, by itself, justifies a finding of *partial* responsibility. But if her conduct was due to a temporary and extreme personality change such that her wrongdoing is not attributable to her pre-injury and post-recovery attitudes, then a *full* excuse may be warranted.

72. Interview with Christopher J. Graver, Ph.D., Chief, Neuropsychology Service, Madigan Army Medical Center (Aug. 17, 2017).

This reflection on TBI-related personality changes reveals a slight divergence between criteria of moral responsibility and explicit requirements of criminal responsibility. Certainly, a criminal defendant may argue at sentencing that a criminal act did not really represent his true self, that a brain injury caused a personality change from which he can recover. But while a defendant may present that argument at sentencing, a significant personality change cannot undermine criminal responsibility altogether independent of any severe cognitive or volitional impairment.

Acknowledging the divergence between the criteria for moral and criminal responsibility does not imply that the law should change. The law cannot recognize such a full excuse based on personality change. Some of the reasons are associated with why some character-based theories of the excuses are not persuasive. It is just not feasible to assess an individual's character traits held and expressed throughout his life and discern the extent to which the act in question reflects such traits. Specifically, with respect to TBI cases, we would run into such difficulties in trying to discern the extent to which some instance of wrongdoing is due to a personality change. For one, individual resilience to the effects of a TBI varies from person to person. Imagine two persons who suffer the same TBI, and their TBIs are responsible for weakening their ability to resist impulses to the same extent. However, imagine one of them, pre-injury, had greater strength of will, and was able to resist anti-social impulses even after the injury. If the second agent, who pre-injury was more weak-willed but nevertheless conformed to the law, succumbed to antisocial impulses post-injury, would it be appropriate to conclude that his crime was due to a personality change? It is just impossible to answer.

This obstacle is particularly salient in the TBI context. Some of the factors that put someone at risk of suffering a TBI mirror some characteristic effects of suffering one. That is, while we have seen that TBI can cause cognitive impairments and other symptoms associated with mental illness, low cognition and psychiatric illness are also *causes* of suffering a TBI.⁷³ At the same time, persons tend to underestimate their cognitive impairments and deficits pre-injury. In other words, a person might have had some cognitive impairment before injury of which she was unaware and which actually contributed to the suffering of the injury; however, she then

73. Christopher Graver, *Traumatic Brain Injury 2.0: The Science, Treatment and Legal Considerations Behind One of Our Nation's Most Pressing Issues*, YOUTUBE (Nov. 11, 2016), https://www.youtube.com/watch?v=mxRHt0GC_fE (Keynote Presentation – TBI: The Tip of the Iceberg streamed live as part of the Missouri Law Review Symposium 2016).

may realize *post-injury* that she does have a particular impairment, but she will incorrectly attribute it to the TBI. These empirical findings regarding victims of TBI make it especially difficult to discern whether some wrongful act was caused by a personality change, which was, in turn, caused by the injury.

Second, the sort of acts punishable under the law are generally more serious in terms of harm caused. We must demand very high levels of self-control of persons when it comes to the kinds of conduct prohibited by the criminal law. In fact, in my view, the fact that the law must demand very high levels of self-control is the main reason why the law should not recognize volitional impairment as a basis for a successful insanity plea. It is also why the law cannot recognize any full excuse based on personality change or the fact that a wrongful act does not reflect an agent's longstanding attitudes or "true self." The law cannot provide individuals with an incentive to commit a "one off" wrongful act. With respect to any defense that would completely exempt an individual from criminal responsibility, the law should maintain its focus on cognitive and rationality impairments.

IV. CONCLUSION

Traumatic brain injury can render an individual blameless under criterion for moral and criminal responsibility. It is important, however, to understand how a traumatic brain injury may be relevant to an individual's responsibility status. The fact that an individual would not have committed a crime but for a brain injury is not sufficient to undermine or even diminish her status as a fully accountable agent. What matters are the psychological effects of the TBI: Did it cause cognitive impairments undermining or diminishing the individual's capacity for practical reasoning? Did it cause a volitional impairment, meaning he could not control himself and act in accordance with his judgment? While cognitive and volitional capacities are explicitly articulated in law as criteria of responsibility, reflection on TBI cases highlights a criterion of moral responsibility not explicitly provided in the criminal law: Did the TBI cause such a severe personality change in the offender that it is appropriate to excuse him because his conduct did not truly reflect his attitudes toward others?

The *Amparo*: Analysis of the Process for Adjudicating Constitutional Claims to Healthcare in the Republic of Costa Rica

*Eduardo J. Benatuil**

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I. INTRODUCTION

In the United States, healthcare plays a central role in the nation’s economy, with healthcare spending reaching approximately \$3.2 trillion in 2015¹ and accounting for 17.8% of the United States

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1. *Nat'l Health Expenditures 2015 Highlights*, CTRS. FOR MEDICARE SERVS. (2016), <https://www.cms.gov/research-statistics-data-and-systems/statistics-trends-and-reports/nationalhealthexpenddata/downloads/highlights.pdf>.

gross domestic product.² While the legislature and the executive branch have wrangled in recent years to reform the healthcare system,³ the judicial branch, and, more importantly, the United States Supreme Court, has assumed the role of interpreting legislative actions and deliberating on the constitutionality of questions related to healthcare.⁴ The Supreme Court has also weighed in on several important constitutional questions surrounding individual healthcare rights, such the right to end one's life⁵ and access to physician-assisted suicide.⁶

Adjudication for constitutional matters in the American legal system is a lengthy and time-consuming process, requiring multiple levels of appellate review before a final decision can be rendered by a court. In *Cruzan v. Missouri Department of Health*, the legal guardians of Nancy Cruzan, a patient in a persistent vegetative state, brought a declaratory judgment action with a Missouri state court, seeking to remove Ms. Cruzan's artificial hydration and nutrition support measures.⁷ The initial action was filed in July 1988,⁸ and required two appeals prior to its resolution by the United States Supreme Court: one by the Missouri Department of Health to the state supreme court in 1988⁹ and another, by the petitioning guardians, in 1989, when the Supreme Court granted *certiorari*.¹⁰ After the Supreme Court rendered a decision in 1990, the case was remanded to a state court, where a probate court judge entered an order granting the petitioning guardians' request for the removal of Ms. Cruzan's life-sustaining feeding tube on December 14, 1990.¹¹ Ms. Cruzan passed away on December 26, 1990.¹² In total, the end-

2. *Id.*

3. See Patient Protection and Affordable Care Act, Pub. L. No. 111-148, 124 Stat. 119 (2010).

4. See, e.g., Nat'l Fed'n of Indep. Bus. v. Sebelius, 132 S. Ct. 2566 (2012) (upholding the constitutionality of the Affordable Care Act under the Taxing and Spending Clause of the United States Constitution).

5. See, e.g., *Cruzan v. Dir., Mo. Dep't of Health*, 497 U.S. 261 (1990) (concluding that a state may apply a clear and convincing evidence standard in proceedings where a guardian seeks to discontinue nutrition and hydration of a person diagnosed to be in a persistent vegetative state).

6. See, e.g., *Wash. v. Glucksberg*, 521 U.S. 702 (1997) (affirming Washington state's ban on physician-assisted suicide as reasonably related to the promotion and protection of the medical profession and in conformity with the Fourteenth Amendment of the Constitution).

7. *Cruzan*, 497 U.S. at 266.

8. *Id.* at 267-68.

9. *Id.*

10. *Id.* at 265.

11. Tamar Lewin, *Nancy Cruzan Dies, Outlived by a Debate Over the Right to Die*, N.Y. TIMES (Dec. 27, 1990), <http://www.nytimes.com/1990/12/27/us/nancy-cruzan-dies-outlived-by-a-debate-over-the-right-to-die.html>.

12. *Id.*

to-end process of resolving Ms. Cruzan's constitutional question, from its initial filing in July 1988, to the rendering of a final verdict by a probate court judge in December 1990, lasted approximately two-and-a-half years.

Similarly, in *Washington v. Glucksberg*, the petitioning parties, comprised of three terminally ill patients, four physicians, and a nonprofit organization, brought a declaratory judgment action against the State of Washington seeking a declaration that the state's ban on physician-assisted suicide violated the Due Process Clause of the Fourteenth Amendment.¹³ The initial action was filed in January 1994,¹⁴ and required two appeals before it reached its resolution with the United States Supreme Court: one by the State of Washington to the United States Court of Appeals for the Ninth Circuit in 1994, which was not decided until 1996,¹⁵ and another one by the petitioning parties to the Supreme Court in 1997.¹⁶ In total, the constitutional question raised by the petitioning parties took three years to reach its resolution, beginning with the petitioning parties' initial filing in January 1994 to the rendering of a final decision by the Supreme Court in June 1997.

As these two cases demonstrate, timeliness is an important factor in resolving cases involving the constitutionality of an adverse action taken by a government agency against a patient-plaintiff. Rapid resolution to these types of constitutional questions is critical, especially when the litigating patient is faced with circumstances where his or her medical condition could worsen throughout the course of ongoing litigation, and a verdict in his or her favor could provide the necessary relief to treat or abate the condition. More importantly, the failure to address a constitutional question in a timely manner burdens an individual's exercise of his or her rights, and it extends the constitutional injury until a final decision can be rendered by the highest levels of judicial review.

The Supreme Court of Costa Rica, by and through the operation of the Constitutional Chamber and the constitutional writ of *amparo*, provides an alternative approach in the adjudication of constitutional questions related to an individual citizen's healthcare claims against an adverse government agency.¹⁷ The Supreme Court of Costa Rica achieves this by having a dedicated judicial

13. Wash. v. Glucksberg, 521 U.S. 702, 707-08 (1997).

14. *Id.* at 707-08 (citing *Compassion in Dying v. Washington*, 850 F. Supp. 1454 (W.D. Wash. 1994)).

15. *Id.* at 709.

16. *Id.*

17. Ley de Jurisdicción Constitucional [Law of Constitutional Jurisdiction], Oct. 10, 1989, art. 29 (Costa Rica).

body solely tasked with reviewing and deliberating constitutional questions,¹⁸ and acting as the first, and final, judicial entity reviewing these issues; this thus eliminates a protracted judicial appeals process, which would otherwise delay, burden and lengthen an individual's constitutional rights.¹⁹

The purpose of this article is to describe the constitutional adjudication process for healthcare questions in Costa Rica, the constitutional writ of *amparo*—which allows citizens to bring claims to the Constitutional Chamber of the Supreme Court—and the benefits and limitations of this constitutional adjudication process. Part II will provide a brief history of the Supreme Court of Costa Rica, the Constitutional Chamber, its general operation, and the different constitutional writs that can be submitted by Costa Rican citizens in the defense of their individual rights and liberties. Part III will describe the writ of *amparo* and its operation within the system of constitutional adjudication in Costa Rica. Part IV will highlight some of the key features of the Costa Rican health system, and it will explain how the Constitutional Chamber's jurisprudence on the matter of the right to health developed in response to individual requests for the preservation of those rights within the health system. Part V will analyze the impact that the constitutional adjudication process has on the Costa Rican public health and social security systems, as well as its conceptual and practical benefits and limitations.

II. STRUCTURE OF THE SUPREME COURT OF JUSTICE OF COSTA RICA AND THE CONSTITUTIONAL CHAMBER

The Supreme Court of Justice of Costa Rica ("Corte Suprema") is the highest court within the Costa Rican judicial branch of government.²⁰ The Corte Suprema consists of three specialized chambers, which are created by statute, and have cassation²¹ jurisdiction to strictly review questions of law and jurisprudence from lower courts across different fields of law.²² The first chamber, known as the *Sala Primera*, possesses cassation jurisdiction over civil and

18. Olman A. Rodriguez L., *Constitutional Litigation: Procedural Protections of Constitutionalism in the Americas...and Beyond: Article: The Costa Rican Constitutional Jurisdiction*, 49 DUQ. L. REV. 243, 251 (2011).

19. *Id.*

20. CONSTITUCIÓN POLÍTICA DE COSTA RICA [POLITICAL CONSTITUTION OF COSTA RICA], Nov. 7, 1949, art. 156 (Costa Rica).

21. See *Cassation*, BLACK'S LAW DICTIONARY (10th ed. 2014) (defining "cassation" as a quashing or the power given to a court to quash decrees from inferior courts).

22. CONSTITUCIÓN POLÍTICA DE COSTA RICA [POLITICAL CONSTITUTION OF COSTA RICA], Nov. 7, 1949, art. 153 & 157 (Costa Rica).

commercial matters, with exception to issues concerning family law.²³ The second chamber, the *Sala Segunda*, has cassation jurisdiction in matters related to family law, successions and bankruptcy.²⁴ The third chamber, known as the *Sala Tercera*, or the *Sala de Casación Penal*, has cassation jurisdiction in adult and juvenile criminal matters.²⁵ These three chambers are each composed of five magistrates,²⁶ who are elected by a two-thirds majority of the Legislative Assembly of Costa Rica²⁷ for eight-year terms.²⁸

In 1989, a fourth, specialized chamber, known as the *Sala Cuarta* or *Sala Constitucional* (“Constitutional Chamber”), was created with exclusive and nonreviewable jurisdiction over constitutional matters.²⁹ The Constitutional Chamber reviews constitutional writs filed by individual citizens, resolves jurisdictional conflicts between the Costa Rican branches of government, including the Supreme Electoral Tribunal, and provides consultations on constitutional amendment bills and ratifications of international agreements, treaties, or other legislative bills, as provided by law.³⁰ The Constitutional Chamber is composed of seven magistrates,³¹ who are subject to the same terms as the magistrates from the three chambers of cassation jurisdiction.³²

The Constitutional Chamber reviews six types of petitions: the *habeas corpus*, the *amparo*, the action of unconstitutionality, the legislative consultation, the judicial consultation, and the resolution of intragovernmental conflicts.³³ The *habeas corpus* and the *amparo* can be submitted by individual citizens to the Supreme Court in an effort to exercise their individual rights against an adverse government action.³⁴ The *habeas corpus* petition seeks to protect a constitutional right of personal liberty and freedom of move-

23. Ley Orgánica del Poder Judicial [Law of the Judicial Power], July 1, 1993, art. 54 (Costa Rica).

24. *Id.* art. 55.

25. *Id.* art. 56.

26. *Id.* art. 49.

27. CONSTITUCIÓN POLÍTICA DE COSTA RICA [POLITICAL CONSTITUTION OF COSTA RICA], Nov. 7, 1949, art. 157 (Costa Rica).

28. *Id.* art. 158.

29. *Id.* art. 10; Law of Constitutional Jurisdiction, *supra* note 17, at art. 4, 7 & 11 (Costa Rica).

30. Law of the Judicial Power, *supra* note 23, art. 57 (Costa Rica); CONSTITUCIÓN POLÍTICA DE COSTA RICA [POLITICAL CONSTITUTION OF COSTA RICA], Nov. 7, 1949, art. 10 (Costa Rica).

31. CONSTITUCIÓN POLÍTICA DE COSTA RICA [POLITICAL CONSTITUTION OF COSTA RICA], Nov. 7, 1949, art. 158 (Costa Rica).

32. Law of the Judicial Power, *supra* note 23, art. 49, 55 & 56 (Costa Rica).

33. *Id.* art. 57.

34. Law of Constitutional Jurisdiction, *supra* note 17, at art. 15 & 29 (Costa Rica).

ment in scenarios where a government authority imposes an unlawful detention or restriction on either one of the aforementioned rights.³⁵ Similarly, the *amparo* seeks to protect all other individual fundamental rights that are not covered by the *habeas corpus* petition, and it can be brought forth in cases where there is an administrative action or omission carried out by a public government entity or officer which violates or threatens to violate an individual's fundamental rights.³⁶

The action of unconstitutionality consists of a review of the constitutionality of laws that violate, either by action or omission, any constitutional principles or norms, or whenever the process of adopting laws or legislative agreements violates internal procedures or the Costa Rican legislature.³⁷ This writ can only be introduced when there is a pending judicial matter, such as a writ of *habeas corpus* or an *amparo*, in which the unconstitutionality of a law or norm is brought forth as a reasonable method of adjudicating the injured right or interest.³⁸

The legislative consultation allows the Constitutional Chamber to provide consultative opinions on pending proposals to constitutional amendments, treaties and conventions, and amendments to the Law of Constitutional Jurisdiction.³⁹ Legislative consultations exist in two forms: first, in the context of a judicial consultation and, second, in the presence of a constitutional question or conflict between two or more governmental agencies.⁴⁰ The judicial consultation allows judges to consult the Constitutional Chamber about the constitutionality of norms, actions, or omissions requiring application in a judicial proceeding.⁴¹ The writ of resolution of intergovernmental conflicts allows the Constitutional Chamber to resolve conflicts of competency and authority between the branches of the Costa Rican government—including the Supreme Tribunal of Elections, the Office of the Comptroller General, decentralized entities, municipalities, and other government agencies—where the conflict arises as a result of a constitutional grant of authority.⁴²

35. *Id.* art. 15.

36. *Id.*

37. *Id.* art. 73.

38. *Id.* art. 75.

39. *Id.* art. 96.

40. *Id.*

41. *Id.* art. 102.

42. *Id.* art. 109.

Prior to the creation of the Constitutional Chamber in 1989, the Costa Rican Constitution of 1949 governed the judicial review process.⁴³ The pre-1989 constitutional adjudication process contained a series of inefficiencies:

The system of constitutional adjudication was said to be illogical in that judicial review was neither concentrated nor diffuse, but haphazardly allocated. . . . *Habeas corpus* cases were within the exclusive jurisdiction of the full Supreme Court, but *amparo* cases were either within the exclusive jurisdiction of the First Chamber of the Supreme Court or within the original jurisdiction of a district judge and subject to review by the Third Chamber of the Supreme Court. Statutes and decrees declared unconstitutional by a two-thirds majority of the Supreme Court became “absolutely null” by virtue of the express language of Article 10 of the Constitution, but decisions in *habeas corpus* and *amparo* cases, in keeping with general principles of the Civil Law, bound only the parties.⁴⁴

The 1989 reforms, along with the enactment of the Law of Constitutional Jurisdiction, strengthened individual constitutional adjudication process in several ways. First, the reforms expanded constitutional jurisdiction to include norms and principles of international human rights law through the expansion of constitutional jurisdiction, which now included norms and principles of international human rights laws in effect in Costa Rica.⁴⁵ Next, the reforms gave sole jurisdiction of the writ of *amparo* to the newly created Constitutional Chamber⁴⁶ by repealing the Law of Amparo of 1950, which assigned jurisdiction of *amparos* to the First and Third Chambers of the Supreme Court.⁴⁷ Additionally, the reforms expanded the writ of *amparo* to protect rights acquired under international law that were not protected by *habeas corpus* and constitutional rights.⁴⁸ Equally, the reforms to *amparos* were also amended to include individual protections against adverse actions by private persons performing public functions.⁴⁹

43. Robert S. Barker, *Judicial Review in Costa Rica: Evolution and Recent Developments*, 7 SW. J.L. & TRADE AM. 267, 277-79 (2000).

44. *Id.* at 277-78 (emphasis added).

45. *Id.* at 279-80.

46. *Id.* at 280.

47. *Id.*

48. *Id.* (citing Law of Constitutional Jurisdiction, *supra* note 17, at art. 113 (Costa Rica)).

49. *Id.*

III. THE AMPARO PROCESS FOR CONSTITUTIONAL ADJUDICATION

A. Overview of the Amparo Process

Title III, Chapter 1 of the Law of Constitutional Jurisdiction defines the rights protected by an *amparo*.⁵⁰ The *amparo* guarantees individual fundamental rights and liberties, except those which are not protected by the writ of *habeas corpus*, against actions or omissions taken by a government entity or officer.⁵¹ The *amparo* also protects against actions and omissions founded on erroneously interpreted or improperly applied government norms or rules.⁵² The Political Constitution of Costa Rica also defines the scope of the *amparo* as an instrument that can be brought in order to “preserve the enjoyment of other rights established in the Constitution, as well as those fundamental rights established in international human rights instruments applicable to the Republic of Costa Rica.”⁵³ As a result, a number of human rights treaties that Costa Rica has signed are part of the Constitutional Chamber’s jurisprudence by and through the operation of the *amparo* process.⁵⁴

In addition to being an instrument that can be filed without any cost to the petitioner,⁵⁵ the formal requirements for admitting an *amparo* are low. The Constitutional Chamber has held that, because any person can file an *amparo*,⁵⁶ the absence of a power of attorney or the presentation of an invalid one will not nullify the petitioner’s standing.⁵⁷ The writ must be directed against any and all public servants or heads of the government agencies that are acting as the presumed authors of the grievance.⁵⁸ The Law of Constitutional Jurisdiction also allows a party with a “legitimate interest in the result of the writ” to participate and intervene as a co-respondent alongside the presumed aggrieving party.⁵⁹ *Amparos* can be submitted at any time as long as the violation, threat, or

50. Law of Constitutional Jurisdiction, *supra* note 17, at tit. III (Costa Rica).

51. *Id.* art. 29.

52. *Id.*

53. CONSTITUCIÓN POLÍTICA DE COSTA RICA [POLITICAL CONSTITUTION OF COSTA RICA], Nov. 7, 1949, art. 48 (Costa Rica).

54. Rodriguez, *supra* note 18, at 264.

55. *Id.* at 260.

56. Law of Constitutional Jurisdiction, *supra* note 17, at art. 33 (Costa Rica).

57. Rodriguez, *supra* note 18, at 260 (citing Sala Constitucional de la Corte Suprema de Justicia [SCCSJ] [Constitutional Chamber of the Supreme Court of Justice], Exp. No. 94-05862-0007-CO (Costa Rica)).

58. Law of Constitutional Jurisdiction, *supra* note 17, at art. 34 (Costa Rica).

59. *Id.*

restriction persists—and up to two months after the direct effects of the action have ceased—with respect to the aggrieved party.⁶⁰

In order for an *amparo* to be admitted by the Constitutional Chamber, it must express the act or omission that motivates the action, the right that the proponent considers violated or threatened, the name of the public servant or government agency causing the violation or threat, and proof of the proposed injury or threat.⁶¹ The proponent does not need to cite the exact constitutional norm that is being injured, as long as the *amparo* clearly expresses the threatened right.⁶² The only time an explicit right or violation must be cited is when the proponent requests aid under an international treaty or charter.⁶³

Amparos must be presented in writing, either handwritten or typed, and its mode of presentation is not subject to any formalities.⁶⁴ For example, the Constitutional Chamber has admitted petitions signed on bread and paper cartons and has upheld the acceptance of *amparos* without the authentication of the claimant's signature.⁶⁵ A failure to meet the specificity requirements, as stated in Article 38 of the Law of Constitutional Jurisdiction, will not result in the immediate dismissal of the writ; instead, the petitioner will be informed of the error and will be given three days to correct it.⁶⁶ If corrections are not made within the proposed timeframe, the writ will be dismissed.⁶⁷

The filing of an *amparo* will not suspend the effect of laws and other norms questioned within the writ, but it will suspend the application of those laws to the petitioner.⁶⁸ Once an *amparo* is admitted, depending on the circumstances, the Constitutional Chamber can order, and subsequently suspend, any preliminary injunctions or temporary restraining orders it considers prudent against the continued exercise of the adverse act or practice.⁶⁹ In making its determination regarding whether to implement a restraint or

60. *Id.* art. 35.

61. *Id.* art. 38.

62. *Id.*

63. *Id.*

64. *Id.*

65. See Rodriguez, *supra* note 18, at 260 (citing BRUCE M. WILSON, ENFORCING RIGHTS AND EXERCISING AN ACCOUNTABILITY FUNCTION: COSTA RICA'S CONSTITUTIONAL COURT 60 (Gretchen Helmke & Julio Rios-Figueroa eds. 2011)); Law of Constitutional Jurisdiction, *supra* note 17, at art. 18 (Costa Rica).

66. Law of Constitutional Jurisdiction, *supra* note 17, at art. 42 (Costa Rica).

67. *Id.*

68. *Id.* art. 41.

69. *Id.*

injunction, the Constitutional Chamber must balance the prejudicial effect that the suspension of adverse laws and actions might have on public interests against the effect the continuation of the laws and actions might have on the petitioner.⁷⁰

If the *amparo* is not rejected or resolved prior to its admission, the Constitutional Chamber will request an informative report from the public servant or government agency that is listed on the *amparo* as the alleged author of the injury, threat, or omission.⁷¹ When requesting the report, the Constitutional Chamber can also request any administrative files or documentation related to the claims made in the *amparo*.⁷² The deadline to provide this report will be one to three days and will be determined by certain factors, such as the nature of the claims set forth in the *amparo*, the distance between the parties, and the speed of communications between the court and the parties.⁷³ Reports submitted to the Supreme Court are considered to be rendered under oath; as such, any errors or falsehoods will result in perjury and false testimony charges against the government officer tendering the report, based on the nature of the inaccuracies in the report.⁷⁴

If the report is not rendered within the established deadline, the Constitutional Chamber will take the facts set forth in the *amparo* as true and could proceed to admit and resolve the writ without any further action, unless the Constitutional Chamber deems that a preliminary investigation is required.⁷⁵ If a report is rendered, and the charges set forth in the *amparo* are confirmed by the report, the Constitutional Chamber will admit the writ.⁷⁶ Alternatively, if the petitioner's factual allegations are unconfirmed by the report, the Constitutional Chamber may order a request for additional and essential information, which will be rendered within three days by the petitioner and respondent at a hearing in front of the Constitutional Chamber.⁷⁷ Prior to reaching a verdict, and in support of its deliberation on the matter addressed in the *amparo*, the Constitutional Chamber can order other investigations or requests.⁷⁸

If the Constitutional Chamber considers that the contested actions or omissions are reasonably founded on constitutional laws or

70. *Id.*

71. *Id.* art. 43.

72. *Id.*

73. *Id.* art. 44.

74. *Id.*

75. *Id.* art. 45.

76. *Id.* art. 46.

77. *Id.*

78. *Id.* art. 47.

rules that are in force and that the constitutionality of the laws is also being challenged for violations to the petitioner's individual rights or liberties, the Constitutional Chamber will admit the *amparo* and suspend the writ.⁷⁹ Once this takes place, the petitioner will be directed by the Constitutional Chamber to file an action of unconstitutionality within fifteen days.⁸⁰ If the *amparo* contests an affirmative act by a government agency or public, the relief provided by the *amparo* must guarantee the aggrieved party his or her ability to enjoy the threatened right, and, whenever possible, to make the petitioner whole by restoring him or her to the same state enjoyed prior to the violation or aggravating act.⁸¹ If the *amparo* was introduced to have a governmental authority regulate, execute, or apply a law or disposition, the *amparo* will require the governmental authority to carry out the requested action within a two-month period.⁸² Similarly, if the *amparo* requests the nonperformance of the action or omission, the *amparo* will require the proposed action to take place within a time period defined by the court, with prejudice toward the governmental agency if there is no action.⁸³ If the constitutional injury is in the form of conduct, material action, or a threat, the *amparo* will require a cease of the activity, so as to prevent any new violations, threats, disturbances, or restrictions.⁸⁴

If an *amparo* is granted and the contested adverse action has ceased, but the adverse action has run its course to the point where it would not be possible for the petitioner to enjoy the threatened fundamental right, the *amparo* will contain an order forbidding the government agency or public servant from engaging in the adverse action listed in the petitioner's filing.⁸⁵ If the order is disobeyed, the offending party will have committed a crime, which is punishable by fines or imprisonment under Article 71 of the Law of Constitutional Jurisdiction.⁸⁶

Indemnification of damages and costs associated with the filing of an *amparo* are also set forth by the Law of Constitutional Jurisdiction.⁸⁷ A granted *amparo* will include an indemnification order, where the offending government agency will pay damages for harm

79. *Id.* art. 48.

80. *Id.*

81. *Id.* art. 49.

82. *Id.*

83. *Id.*

84. *Id.*

85. *Id.* art. 50.

86. *Id.*

87. *Id.* art. 51.

incurred by the petitioner resulting from the adverse action, in addition to the costs associated with the resolution of the *amparo*.⁸⁸ However, if the *amparo* is withdrawn by the petitioner, or rejected by the Constitutional Chamber, the petitioner will be ordered to pay the costs associated with the resolution of the *amparo* with a finding by the Constitutional Chamber that the petitioner was reckless in filing the writ.⁸⁹ If an administrative or judicial order revokes, stops, or suspends the alleged adverse action while the *amparo* is still pending resolution, the Constitutional Chamber will approve the *amparo* strictly for indemnification purposes.⁹⁰ Under this circumstance, the petitioner can cease any further action on the *amparo*, at which point the Constitutional Chamber can archive the case file for the *amparo*; however, the case file may be reopened if the administrative or judicial order is not obeyed.⁹¹

When an *amparo* is granted by the Constitutional Chamber, the aggrieving government agency or public servant must comply with the orders contained within the *amparo* without delay.⁹² If the offending party does not carry out the order within forty-eight hours following the entry of the order, the Constitutional Chamber can direct a supervising entity to carry out the order and to initiate a disciplinary order against the noncompliant party.⁹³ Additionally, the Constitutional Chamber can file a judicial action against the aggrieving party or parties, and, following a forty-eight-hour period, against the supervising entity that did not carry out the signed judicial order.⁹⁴ If the aggrieving party or supervising entity is subject to governmental immunity, the Constitutional Chamber will send the case to the Public Ministry of Costa Rica,⁹⁵ an agency housed in the Judicial Branch. If the aggrieving government agency or public servant carries out the order set forth in the *amparo* after the Constitutional Chamber initiates a judicial proceeding for noncompliance by the aggrieving party, the proceeding may continue against the agency, if its acts or omissions constitute a crime, at which point the Constitutional Chamber will forward the case to the Public Ministry.⁹⁶

88. *Id.*

89. *Id.*

90. *Id.* art. 52.

91. *Id.*

92. *Id.* art. 53.

93. *Id.*

94. *Id.*

95. *Id.*

96. *Id.* art. 54.

B. The Amparo Today: A Brief Numerical Case Study

Amparos filed against government agencies for the protection of individual rights constitute a significant percentage of the cases that are brought forth to the Constitutional Chamber. Following the judicial reforms of 1989, which gave sole jurisdiction of *amparos* to the newly created Constitutional Chamber, this judicial body has handled a steadily increasing volume of writs of *habeas corpus*, *amparo*, and actions of unconstitutionality filed by individual citizens—beginning with 365 filings in 1989 and reaching a total of 19,476 items filed in 2014.⁹⁷ Statistics published by the Constitutional Chamber show that, in 2016, the judicial body received 16,188 petitions for *amparos*, which represented 90.4% of petitions submitted to the court.⁹⁸ In contrast, the individuals filed 1,474 *habeas corpus* petitions and 244 actions of unconstitutionality, which represented 8.2% and 1.4% of the submissions made to the Constitutional Chamber, respectively.⁹⁹

A notable feature of the Constitutional Chamber is the average turnaround times for the three types of individually filed writs that are admitted for review and voted upon by the Constitutional Chamber. According to the Constitutional Chamber, in 2015, the average turnaround time for an *amparo*—from its admission into the Constitutional Chamber to its deliberation, vote, and final resolution by the judicial entity—was one month and two weeks.¹⁰⁰ Moreover, in 2015, the average turnaround time for *habeas corpus* petitions was thirteen days, whereas the average time for actions of unconstitutionality was fifteen months.¹⁰¹ When comparing the *habeas corpus* and *amparo* petitions, the short turnaround of the former is attributed to the fact that the right asserted within the *ha-*

97. *Tendencia histórica anual del número de casos entrados en la Sala Constitucional durante el período 1989-2016*, SALA CONSTITUCIONAL DE LA CORTE SUPREMA DE JUSTICIA [CONSTITUTIONAL CHAMBER OF THE SUPREME COURT OF JUSTICE], <https://www.poder-judicial.go.cr/salaconstitucional/index.php/2016-06-27-17-08-39/item/38-1-tendencia-historica-anual-del-numero-de-casos-entrado> (last visited Jan. 15, 2018).

98. *Tendencia histórica de los recursos de amparo, habeas corpus y acciones de inconstitucionalidad entrados en la Sala Constitucional durante el período de 1989-2016*, SALA CONSTITUCIONAL DE LA CORTE SUPREMA DE JUSTICIA [CONSTITUTIONAL CHAMBER OF THE SUPREME COURT OF JUSTICE], <https://www.poder-judicial.go.cr/salaconstitucional/index.php/2016-06-27-17-08-39/item/41-historico-habeas-y-otros-1989-2016> (last visited Jan. 15, 2018).

99. *Id.*

100. *Promedio de Duración de los Votos de Fondo*, SALA CONSTITUCIONAL DE LA CORTE SUPREMA DE JUSTICIA [CONSTITUTIONAL CHAMBER OF THE SUPREME COURT OF JUSTICE], <https://www.poder-judicial.go.cr/salaconstitucional/index.php/2016-06-27-17-08-39/item/48-promedio-de-duracion-de-los-votos-de-fondo> (last visited Jan. 15, 2018).

101. *Id.*

beas corpus petition is that of the deprivation of an individual's liberty.¹⁰² As a result, *habeas corpus* petitions are reviewed on a priority basis over *amparos* and actions of unconstitutionality.¹⁰³

In 2016, the Constitutional Chamber adopted 4,475 *amparos* and *habeas corpus* petitions, conditionally approved 640, denied 5,981 requests, and dismissed 609 *amparos* and *habeas corpus* petitions.¹⁰⁴ The Constitutional Chamber reviewed *amparo* petitions that ranged across a wide variety of subject areas, which included matters involving individual rights to labor, healthcare, education, transportation, social security, immigration, and minority rights.¹⁰⁵ Notably, in 2016, there were 4,471 *amparos* that were reviewed and voted upon by the Constitutional Chamber involving the protection of the individual right to health, which was the second-most reviewed category of *amparos*, behind those related to labor rights.¹⁰⁶

IV. THE HEALTH AMPARO – PROTECTION OF INDIVIDUAL RIGHTS WITHIN THE COSTA RICAN PUBLIC HEALTH SYSTEM

In order to better understand the operation of the *amparo* in the context of the protection of individual health rights, it is necessary to examine the nature of the healthcare system in Costa Rica, as well as how the individual right to health became a part of constitutional practice. Costa Rica's healthcare system is almost entirely publicly funded and administered, with a small, but growing, private healthcare component.¹⁰⁷ Within the nation's public healthcare system, the Costa Rican Social Security Fund (Caja Costarricense de Seguro Social, hereinafter CCSS), a government agency under the purview of the Ministry of Health, acts as the largest healthcare provider in the nation, employing over 90% of all registered physicians in the country.¹⁰⁸ The CCSS is Costa Rica's

102. Rodriguez, *supra* note 18, at 260.

103. Law of Constitutional Jurisdiction, *supra* note 17, at art. 19 (Costa Rica).

104. *Estadísticas por tema*, SALA CONSTITUCIONAL, COSTA RICA [CONSTITUTIONAL CHAMBER, COSTA RICA], <https://www.poder-judicial.go.cr/salaconstitucional/index.php/2016-06-27-17-08-16>, (last visited Jan. 15, 2018) (click on the "Estadísticas año 2016" link to download the relevant Word document; refer to "CUADRO No.2").

105. *Id.* tbl.3.

106. *Id.*

107. See, e.g., Brian Jacob, *Closing the Gaps: The Challenge to Protect Costa Rica's Health System*, 15 GEO. PUB. POL'Y REV. 77, 80 (2010).

108. Rodriguez, *supra* note 18, at 267 (citing BRUCE M. WILSON, THE CAUSES AND CONSEQUENCES OF HEALTH RIGHTS LITIGATION IN COSTA RICA, HEALTH RIGHTS IN COMPARATIVE PERSPECTIVE (Alicia Yamin & Siri Gloppen eds. 2011)).

largest insurer, providing universal coverage for 90% of the population of Costa Rica.¹⁰⁹ The agency administers all of the public hospitals in the nation's largest urban centers, as regional public clinical services centers, known as the Basic Teams for Integral Assistance in Health (Equipos Básicos de Atención Integral a la Salud, hereinafter EBAIS), which complement the services provided at the larger hospitals.¹¹⁰ The result is an integrated healthcare delivery model administered by the CCSS and funded by the central government—as well as mandatory salary taxes¹¹¹ and contributions from employees, employers and the state.¹¹²

The predominantly public health system has its practical limitations. Common challenges include the denial of procedures or medications due to budgetary limitations,¹¹³ long waiting times to receive medical attention and services,¹¹⁴ and instances of healthcare fraud and abuse, in the form of unnecessary or excessive prescriptions and examinations.¹¹⁵ In the face of these inefficient healthcare outcomes, individual citizens have sought to enforce their right to healthcare with the judicial branch.¹¹⁶

The constitutional right to health was recognized by the Constitutional Chamber in 1997 when it reviewed an *amparo* filed by individuals with HIV/AIDS.¹¹⁷ The petitioners' main claim was that the CCSS, in its capacity as a state-funded healthcare provider, had refused to grant their requests for life-sustaining medication to treat their disease, and the organization's refusal threatened their right to life and social security.¹¹⁸ The Constitutional Chamber reversed the CCSS' decision, and it ordered the entity to dispense medication not only to the petitioners but also to all people living with HIV/AIDS.¹¹⁹

In reaching its conclusion, the Constitutional Chamber reviewed several bodies of law, including the Political Constitution of Costa Rica, as well as a series of human rights treaties and agreements

109. Jacob, *supra* note 107, at 80.

110. *Id.* at 79.

111. *Id.* at 80.

112. Rodriguez, *supra* note 18, at 267.

113. *Id.*

114. Jacob, *supra* note 107, at 81.

115. *Id.* at 81-82.

116. Rodriguez, *supra* note 18, at 267.

117. See Bruce M. Wilson, *Constitutional Rights in the Age of Assertive Superior Courts: An Evaluation of Costa Rica's Constitutional Chamber of the Supreme Court*, 48 WILLAMETTE L. REV. 451, 468-69 (2012) (citing Constitutional Chamber of the Supreme Court of Justice [Sala Constitucional de la Corte Suprema de Justicia], Exp. No. 01-005778-0007-CO (1997) (Costa Rica)).

118. *Id.*

119. *Id.*

that the Costa Rican government had signed and ratified. The Constitutional Chamber reasoned that the individual right to healthcare was related to the right to protection of human life and by the right to social security protection, which are set forth by Articles 21 and 73 of the nation's Constitution, respectively.¹²⁰ Additionally, the Constitutional Chamber indicated that the right to health was protected by international treaties signed by Costa Rica, such as the Universal Declaration of Human Rights, the International Pact of Civil and Political Rights, and the American Convention on Human Rights, which, under Article 48 of the Political Constitution of Costa Rica, grants these treaties the same force of law as the constitution.¹²¹

The constitutional right to health has been recognized as an independent¹²² and fundamental¹²³ right extending from the right to life, as well as to a social right that must be guaranteed by the government.¹²⁴ The jurisprudential construction evolved over time into an independent constitutional right to health, despite not being explicitly described in the Constitution of Costa Rica.¹²⁵ The Constitutional Chamber derived the right to health from articles 21¹²⁶ and

120. *Id.*

121. *Id.*

122. See Mag. Fernando Castillo Viquez, *Derecho A La Salud. Recientes Evoluciones de la Jurisprudencia Constitucional [The Right to Health. Recent Evolution of Constitutional Jurisprudence]*, at 7 (2014), <https://www.poder-judicial.go.cr/salaconstitucional/images/cefcca/Documentos/Derechoalasalud/CONFERENCIADERECHOALASALUD.pdf> (Costa Rica).

123. See Mag. Ana Virginia Calzada Miranda and Mag. Fernando Castillo Viquez, *El Derecho a la Salud bajo el Sistema de Justicia Constitucional Costarricense [The Right to Health under the Costa Rican Constitutional Justice System]*, at 2 (2012), <https://www.poder-judicial.go.cr/salaconstitucional/index.php/documentos-de-interes?download=5048:3-el-derecho-a-la-salud-bajo-el-sistema-costarricense-magistrados-calzada-y-castillo> (Costa Rica).

124. *Id.* at 7.

125. See BRUCE M. WILSON & OLMAN A. RODRIGUEZ, COSTA RICA: UNDERSTANDING VARIATIONS, IN COMPLIANCE IN SOCIAL RIGHTS JUDGMENTS AND THE POLITICS OF COMPLIANCE - MAKING IT STICK 132 (2017).

126. *Id.* (citing CONSTITUCIÓN POLÍTICA DE COSTA RICA [POLITICAL CONSTITUTION OF COSTA RICA], Nov. 7, 1949, art. 21 (Costa Rica)) (defining human life as inviolable).

73¹²⁷ of the Constitution, as well as a number of human rights instruments,¹²⁸ which have been given great weight by the Constitutional Chamber.¹²⁹ As a result, the right to health was recognized as fundamental and independent by the Constitutional Chamber.¹³⁰

The Constitutional Chamber has upheld the right to health on several occasions,¹³¹ stating that:

[The] right to life, recognized in article 21 of the Constitution is the cornerstone upon which the rest of the fundamental rights of the inhabitants of the republic lay. Equally, within this article, the right to health finds its grip, given that life is inconceivable if a human being is not guaranteed the minimum conditions for an adequate and harmonic psychological, physical and environmental balance.¹³²

More importantly, the constitutional right to health is one that has been given a broad interpretation by the Constitutional Chamber's jurisprudence, which has referred to the concept of health as:

One that extends beyond the dated notion of the "absence of health," opting to understand it as the integral state of an individual from a spiritual, emotional, and physical perspective, following the concepts set forth by the World Health Organization (WHO), an organization that defines "health" within its own Constitution, as a complete state of physical, mental, spiritual, emotional and social wellbeing, and not just as the absence of afflictions or diseases.¹³³

127. *Id.* (citing CONSTITUCIÓN POLÍTICA DE COSTA RICA [POLITICAL CONSTITUTION OF COSTA RICA], Nov. 7, 1949, art. 73 (Costa Rica)) (establishing social security "for the benefit of manual and intellectual workers, regulated by a system of compulsory contributions by the State, employers and workers, to protect against risks of illness, disability, maternity, old age, death and other contingencies, as defined by law").

128. *Id.* at 132 n.39-42 (enumerating the Universal Declaration of Human Rights, American Declaration of Rights and Duties of Man, the American Convention of Human Rights and the International Covenant on Civil and Political Rights as international instruments by which the constitutional right to health was developed by the Constitutional Chamber of Costa Rica).

129. *Id.* at 132 n.43 (treating the international instruments as having "an almost supra constitutional value").

130. *Id.*

131. Rodriguez, *supra* note 18, at 267 (citing Constitutional Chamber of the Supreme Court of Justice, Exp. No. 08-016233-0007-CO (2008), Exp. No. 07-011668-0007-CO (2007) (Costa Rica)).

132. Calzada Miranda & Castillo Viquez, *supra* note 123, at 2 (citing Constitutional Chamber of the Supreme Court of Justice, Exp. 10-002979-0007-CO (2010) (Costa Rica)).

133. *Id.*

As a result of the jurisprudentially derived concept of the right to health and the characteristics of the public health system, the writ of *amparo* has taken on a role of prominence within the realm of constitutional adjudication in Costa Rica, allowing individuals to challenge adverse actions by government agencies in the context of violations of health rights.

There are three distinguishing features of the health *amparo*. First, a health *amparo* admitted for review by Constitutional Chamber is reviewed on a priority basis over all other types of *amparos* and cases filed with the court,¹³⁴ given the sensitive nature of the request; however, as alluded to previously, *amparos*, including health *amparos*, will never be reviewed by the Constitutional Chamber over a *habeas corpus* petition.¹³⁵ Second, a health *amparo* is usually filed against government institutions, such as the Ministry of Health, the CCSS, hospitals, EBAIS, and health centers that are administered by the government, as well as the administrators, physicians, and staff employed by the aforementioned agencies.¹³⁶ Third, the *amparos* can be filed for a wide variety of subject areas concerning individual health rights, as a result of the broad interpretation that has been given to the Constitutional Chamber's jurisprudentially-derived right to health.¹³⁷ Throughout its review of health *amparos*, the Constitutional Chamber has reviewed and decided questions ranging from individual access to medication, medical devices, surgical procedures, and vaccines, to the rights of children, the elderly, and disabled individuals.¹³⁸

Two types of frequently filed health *amparos* that have been the subject of discussion by the Constitutional Chamber involve questions regarding timely access to treatment and access to medication. With regard to the issue of timely access to treatment, the Constitutional Chamber has held that:

[I]n cases where the petitioner's ailment is not of a grave nature, if there is an excessive delay in the provision of medical attention, the Constitutional Chamber has granted *amparos* for violations of individual health rights . . . because in cases

134. Rodriguez, *supra* note 18, at 267.

135. *Id.*; see Center for Constitutional Jurisprudence – Constitutional Chamber of the Supreme Court of Justice (2013), <https://www.poder-judicial.go.cr/salaconstitucional/index.php/jurisprudencia-por-tema?download=1433:salud&start=40> (Costa Rica).

136. *Id.*

137. Wilson, *supra* note 117, at 468-469.

138. See Center for Constitutional Jurisprudence – Constitutional Chamber of the Supreme Court of Justice (2013), <https://www.poder-judicial.go.cr/salaconstitucional/index.php/jurisprudencia-por-tema?download=1433:salud&start=40> (Costa Rica).

involving a delay in the delivery of healthcare, a patient’s clinical outlook is directly related with his or her “quality of life,” and, as a result, [the Constitutional Chamber] recognizes the indivisible relationship between health and quality of life.¹³⁹

Moreover, the Constitutional Chamber has indicated that the performance of medical tests, treatments, or procedures—whether diagnostic, medical or surgical in nature—must be performed within a reasonable timeframe.¹⁴⁰

The resolution of the issue of access to medication has been the subject of shifting jurisprudence for the Constitutional Chamber. The CCSS utilizes an approved list of medications (hereinafter LOM in Spanish) that must be used by medical professions when prescribing medication to patients in a public health setting.¹⁴¹ Issues frequently arise whenever a physician seeks to prescribe medication that is not in the LOM, and a CCSS pharmacotherapy committee rejects the doctor’s request—either because the committee finds that the LOM contains a drug with similar health properties as the non-approved medicine or concludes that the proposed medication will not aid the patient’s treatment.¹⁴² Previously, the Constitutional Chamber granted greater weight to the prescribing physician’s opinion, arguing that a doctor was in a better position to determine and prescribe the best treatment or medication, according to the patient’s prognosis and quality of life.¹⁴³ The Constitutional Chamber’s stance on this subject has shifted, placing a requirement on the prescribing physician to provide objective reasons behind his or her prescription of a non-LOM medication.¹⁴⁴

More recently, for *amparos* related to the access to medication, the Constitutional Chamber has requested independent reports by the Department of Legal and Forensic Medicine, a government body

139. Calzada Miranda & Castillo Viquez, *supra* note 123, at 17-18 (citing Constitutional Chamber of the Supreme Court of Justice, Exp. 08-011347-0007-CO (2008) (Costa Rica)) (finding a public hospital’s 2008 scheduling of an initial specialist examination for October of 2012 to be unreasonable and a violation of the individual’s right to health).

140. *Id.* at 17 (citing Constitutional Chamber of the Supreme Court of Justice, Exp. No. 2007-14347-0007-CO (2007) (Costa Rica)) (ordering the CCSS and the Orthopedic Department of a state-run hospital to perform a hip replacement on an elderly patient whose procedure had been delayed for nine months).

141. Caja Costarricense de Seguro Social [Costa Rican Social Security Fund], Normativa de la Lista Oficial de Medicamentos (LOM) [Policies of the Official List of Medications], art. 1 (2016), <http://www.ccss.sa.cr/lom> (last visited Jan. 15, 2018) (click on the “Normativa” link to download the relevant ZIP file; refer to the “NORMATIVA – LOM” file).

142. Calzada Miranda & Castillo Viquez, *supra* note 123, at 14-15.

143. *Id.* at 15 (citing Constitutional Chamber of the Supreme Court of Justice, Exp. 04-2082-0007-CO (2004) (Costa Rica)).

144. *Id.* (citing Constitutional Chamber of the Supreme Court of Justice, Exp. 11-14898-0007-CO (2011) (Costa Rica)).

tied to the Judicial Power, to assist the Constitutional Chamber in deciding whether a violation of the right to health exists, as presented in the petitioner's *amparo* request.¹⁴⁵ In providing its report, the Department of Legal and Forensic Medicine utilizes evidence-based medical analyses and scientific evidence prepared by the Cochrane Database of Systematic Reviews,¹⁴⁶ which helps establish the effectiveness of the requested medication and whether there are alternative medications that would be as effective at treating the petitioner's ailment.¹⁴⁷

V. ANALYSIS OF THE AMPARO AND THE CONSTITUTIONAL CHAMBER'S ROLE IN THE ADJUDICATION OF THE CONSTITUTIONAL RIGHT TO HEALTH

A. Benefits

The health *amparo* has become a useful mechanism by which Costa Ricans have been able to challenge perceived violations of their right to health for several reasons. First, as noted previously,¹⁴⁸ some of the key features of the *amparo*, such as the inexpensive nature of the writ, the low requirements for standing, and the high degree of informality involved with the actual filing of the *amparo*, have made it easier for these issues to be brought to the attention of the highest judicial authority in Costa Rica. More importantly, the *amparo* has effectively opened the judicial branch, allowing Costa Ricans to seek relief from the Constitutional Chamber, regardless of socioeconomic status or ability to procure legal assistance.¹⁴⁹

Second, the *amparo*, along with the operation of the Constitutional Chamber, has also provided a mechanism in which individuals could receive a timely review of any claims of improper actions by public agencies or servants, especially when an individual's right

145. See, e.g., Constitutional Chamber of the Supreme Court of Justice, Exp. 14-4680-0007-CO (2014) (Costa Rica) (ordering the Department of Forensic Medicine to prepare a report on osteoporosis medication); Constitutional Chamber of the Supreme Court of Justice, Exp. 17-013037-0007-CO (2017) (Costa Rica) (requesting a medical report related to a petitioner's *amparo* request for skin cancer medication); Constitutional Chamber of the Supreme Court of Justice, Exp. 17-004605-0007-CO (2017) (Costa Rica) (utilizing a report prepared by the Department of Legal and Forensic Medicine to grant an *amparo* for breast cancer medication).

146. Cochrane Database of Systematic Reviews (2017), <http://www.cochranelibrary.com/cochrane-database-of-systematic-reviews/>.

147. See Constitutional Chamber of the Supreme Court of Justice, Exp. 14-4680-0007-CO (2014) (Costa Rica).

148. Rodriguez, *supra* note 18, at 254-57.

149. *Id.*

to health is perceived to be threatened. As mentioned previously, healthcare *amparos* admitted for review by the Constitutional Chamber are examined and voted upon before those related to other subjects, and they have a rapid turnaround when compared to other individually-filed writs.¹⁵⁰ The existence of the constitutional adjudication mechanism and a dedicated judicial body focused on reviewing these particular types of requests on an expedited basis is important in the context of health and healthcare questions, especially when there is a possibility of permanent bodily injury or death resulting from actions or omissions by a government agency.

Third, the Constitutional Chamber and constitutional adjudication process in Costa Rica have effectively served as an additional check on the executive branch and executive agencies. As noted in previous sections, most *amparos*, when granted by the Constitutional Chamber, include orders and injunctions that could result in financial penalties, administrative proceedings, and incarceration if the government agency or public servant fails to comply with the orders.¹⁵¹ As a result, the Constitutional Chamber and the *amparo* have become a method of ensuring accountability on the government and enhancing the rights of marginalized groups that would not be able to enjoy their constitutional rights in the face of institutional overreach.

B. Criticisms

It is undeniable that the healthcare *amparo* and the constitutional adjudication process of these writs have brought positive changes for countless individuals and groups of people who have been subjected to unreasonable treatment or adverse actions by executive agencies and actors, including delays in the delivery of medical treatment, extending waiting lists and limited access to medication, among other issues.¹⁵² However, the constitutional adjudication process is not free of issues or its share of criticism, given the practical constraints present in the public health system in Costa Rica.

First, when the Constitutional Chamber grants *amparos* and issues orders to public agencies to deliver care—whether in the form of medical or surgical procedures or the provision of medication—the Constitutional Chamber substitutes the CCSS' judgment regarding the allocation of resources for its own based on the claims

150. See *Promedio de Duración de los Votos de Fondo*, *supra* note 100.

151. Law of Constitutional Jurisdiction, *supra* note 17, at art. 71 (Costa Rica).

152. Calzada Miranda & Castillo Viquez, *supra* note 123, at 16-21.

brought forth by a petitioner. It is important to remember that the health system in Costa Rica is a predominantly public one: The government, by and through the CCSS, acts as the largest owner of medical facilities, the most prominent provider of medical services, and the largest insurer—covering 90% of Costa Ricans.¹⁵³ In order to provide higher quality levels of healthcare to the population, the Ministry of Health and the CCSS must be able to properly allocate and distribute funds and resources throughout the entirety of the healthcare system. By entering an order against the CCSS, the Constitutional Chamber imposes a burden on the government agency’s ability to allocate financial and medical resources.

Similarly, the Constitutional Chamber’s entry of orders places a burden on hospital administrators, physicians and other professional staff involved in the delivery of care.¹⁵⁴ CCSS-employed physicians and administrative staff frequently issue orders to their patients based on a professional medical opinion—subject to the economic realities and constraints of the public health system, most of which are beyond the control of the prescribing entity.¹⁵⁵ However, as noted previously, *amparos* that are granted by the Constitutional Chamber are generally accompanied by judicial orders that will impose financial and criminal sanctions upon those actors who fail to comply with the orders. As a result, the physicians and administrators may be thrust into a difficult position in which they could be punished for acting or failing to act when there is a constrained ability to do so.

The Constitutional Chamber has addressed criticisms made about its intervention in the Costa Rican healthcare system by the rulings and orders issued from *amparos*.¹⁵⁶ The Constitutional Chamber indicated that the rulings have moved the CCSS to better allocate its resources, both financial and medical, in order to better serve and reach the more vulnerable sections of the population.¹⁵⁷ By way of example, the Constitutional Chamber cited a study performed by the University of Costa Rica, which indicated that the effect of the Constitutional Chamber’s sentences for health *amparos* related to the purchase of medication represented only 1% of the

153. Rodriguez, *supra* note 18, at 267.

154. Calzada Miranda & Castillo Viquez, *supra* note 123, at 12, 14.

155. *Id.*

156. *Id.* at 12.

157. *Id.* at 26-27.

yearly budget allocation for this expense.¹⁵⁸ Similarly, within its jurisprudence, the Constitutional Chamber has recognized the importance of the CCSS' duty to engage in preventative health measures¹⁵⁹ and practices that would have long-term public health impacts and benefits, such as vaccination campaigns and programs that raise awareness regarding health risks of saturated and trans fats.¹⁶⁰

VI. CONCLUSION

The Costa Rican model of constitutional adjudication, as provided by the Constitutional Chamber of the Supreme Court of Costa Rica, by and through the operation of the writ of *amparo*, has provided a unique avenue through which individuals can adjudicate perceived violations of their constitutional rights, especially when their health and bodily integrity may be harmed if the adverse action endures. The existence of a specialized judicial body and a constitutional instrument allows for the effective resolution of issues with several options for relief, including protective orders and the granting of relief through the resolution of the constitutional question itself.

Even though the Constitutional Chamber's deliberation of issues regarding individual access to health and healthcare might be criticized for acting as a form of judicial overreach, or for imposing burdens on an already burdened healthcare system, it is undeniable that the Constitutional Chamber's rulings on these matters have addressed significant issues. Given the nature of the public health system in Costa Rica, the Constitutional Chamber and the health *amparo* will continue to play a part in preserving individual rights.

VII. AFTERWORD

Over the course of four weeks in May and June 2015, I had the privilege of visiting the Republic of Costa Rica and interning at the Constitutional Chamber of the Supreme Court of Costa Rica. Throughout the course of the internship, I met and worked closely with Supreme Court magistrates, law clerks, and administrative

158. *Id.* (citing Albin Chaves Matamoros, *Derecho a la Salud Pública: papel de la Sala Constitucional [The Right to Public Health: the role of the Constitutional Chamber]*, Department of Public Health of the School of Medicine of the University of Costa Rica (2010) (Costa Rica)).

159. *Id.* at 24-25.

160. *Id.* (citing Constitutional Chamber of the Supreme Court of Justice, Exp. No. 10-002979-0007-CO (2010) (Costa Rica)).

staff, allowing me to gain firsthand insight into the Costa Rican constitutional adjudication process. This allowed me to witness and participate in the filing, initial review, deliberation, ruling, and final disposition of writs of *amparo* filed by Costa Rican citizens seeking relief from the highest court for claims related to medical treatment or care denied by Costa Rican government entities, such as public hospitals or the Costa Rican Social Security Administration. Additionally, I met with medical professionals and administrators of the Costa Rican College of Doctors and Surgeons, and I engaged in a discussion regarding the limitations and challenges faced by Costa Rican public medical professionals and organizations in the delivery of healthcare ordered by the Supreme Court of Costa Rica.

This article and the internship it was based on would not have been possible without the participation of several individuals. I would like to thank my advisor, Professor Robert S. Barker, for organizing this internship and allowing me to represent Duquesne University School of Law while in Costa Rica. Special thanks to the McGinley family and the McGinley Public Service Law Fellowship for providing me with the funding that made this wonderful experience possible. Lastly, I would like to thank Olman Rodríguez Loaiza, Xinia Flores Quesada, and all the law clerks, judicial staff, constitutional scholars, members of the Supreme Court of Costa Rica, and countless other individuals whom I met in San José, for their hospitality and warmth during my time in *La Suiza de Centroamérica*.

UNEQUAL JUSTICE?

A LOOK AT CRIMINAL SENTENCING IN ALLEGHENY COUNTY

*Amanda M. Geary**

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I. INTRODUCTION

Every year, American taxpayers spend nearly \$35 billion to maintain and construct prisons in the United States.¹ While the rest of the developed world continues to condemn mass incarceration,² solitary confinement,³ and juvenile prison sentences,⁴ America’s

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1. Gary Ford, *The New Jim Crow: Male and Female, South and North, from Cradle to Grave, Perception and Reality: Racial Disparity and Bias in America’s Criminal Justice System*, 11 RUTGERS RACE & L. REV. 323, 330 (2010) (estimating that while taxpayer contributions hover around \$35 billion, the total annual amount spent on prisons in the United States is nearly \$60 billion).

2. See generally NELL BERNSTEIN, BURNING DOWN THE HOUSE: THE END OF JUVENILE PRISON (2014).

3. *Id.* at 134, 228 (“A 2012 report from Human Rights Watch and the American Civil Liberties Union determined that ‘the conditions that accompany solitary confinement . . . constitute violations of fundamental rights. . . .’ Anything over fifteen hours in solitary is considered torture under international standards, even for adults, and the United Nations has declared using it with adolescents for any duration at all to be torture.”).

4. See generally *id.*

prison population continues to grow. Home to 2.3 million prisoners,⁵ America boasts the largest incarceration system in the world. The effects of mass incarceration⁶ are not equal; poor black men continue to be disproportionately affected by growing prison populations. While African American and Hispanic men account for just 32% of the United States population, they comprise over half of the United States' total incarcerated population.⁷ How have Americans become naïve to the incredible amount of racial inequality in the prison system? How have private, for-profit prisons become billion-dollar⁸ enterprises?

This article addresses the disparate effects of criminal sentencing for different segments of our population. First, the article discusses the impact of race on sentencing, exploring how these trends developed historically and how race remains the most pertinent factor in predicting an individual's criminal sentence around the country. The current and historical reality of the American prison industry will be explored, exposing the racial inequity that exists today due to decades of prejudicial laws, political campaigns, and white America's fear of criminality. Next, examining the effects of criminal sentencing on different socioeconomic classes, the article focuses on the for-profit bail system and its impact on low-income communities. The effect wealth has on our criminal justice system is then illustrated through a series of examples, like corrupt judges receiving kickbacks and the million-dollar profits of prison enterprises. Then, the article discusses the rate of juvenile incarceration and the effect of jail time on young minds.

Additionally, the article addresses current prison reform efforts and hypothesizes that the slow move toward reformation is not truly altruistic in nature. Finally, after presenting criminal sentencing trends in Allegheny County, Pennsylvania, the article concludes that African American males are convicted of certain low-level drug offenses at a rate that is disproportionate to their representation in the community. To conclude, the article provides suggestions for moving toward a criminal justice system rooted in equity, that focuses the discussion on one involving rehabilitation, instead of retribution and revenge.

5. 13TH (Kandoo Films 2016).

6. While "mass incarceration" in the typical sense refers only to federal incarceration, in this article it is used to explain the enormous incarceration rate in both state, federal, and county prisons and jails.

7. *Criminal Justice Fact Sheet*, NAACP, <http://www.naacp.org/criminal-justice-fact-sheet/> (last visited Jan. 13, 2018).

8. 13TH, *supra* note 5 (The Corrections Corporation of America is a \$1.7 billion corporation.).

II. RACIAL INEQUALITY IN SENTENCING

A. Historical Understanding

At the end of the American Civil War, more than 4 million slaves were freed.⁹ The United States saw its first prison boom shortly thereafter, when African Americans were arrested in droves for petty crimes.¹⁰ Segregation, the birth of the Ku Klux Klan (“KKK”), lynchings, and Jim Crow laws¹¹ relegated African Americans to second-class citizens.¹² The depth and history of the African American struggle through this era cannot be understated, a struggle perpetuated by the white political elites’ need for black working bodies and the fear of criminality.¹³

Through most of the first half of the twentieth century, the United States prison population remained flat.¹⁴ This changed dramatically in the 1970s, when mass incarceration gained traction.¹⁵ The initial “War on Drugs,” however, focused on rehabilitation, with a national budget for drug treatment growing faster than the budget for law enforcement.¹⁶ Prior to the explosion of American prison population, black Americans received prison sentences for federal drug offenses that were only 11% greater in length than those for their white peers.¹⁷ By 1972, the United States prison population grew to 357,292.¹⁸ At the same time, President Richard Nixon labeled heroin as “public enemy number one.”¹⁹

During the Nixon era, a demand for law and order allowed the rhetoric of “crime” to replace that of “race.”²⁰ The focus shifted from promoting political agendas that targeted black people—because that was now generally unpopular with the public—to instead promoting ideals that focused on activities that most of white America

9. 13TH, *supra* note 5.

10. *Id.*

11. Jim Crow laws were laws that enforced racial segregation and inequality in the South. For example, laws that prevented black people from exercising the same rights as their white counterparts, like voting, or laws that mandated separation of blacks and whites, like not allowing them to ride on the same railroad. *A Brief History of Jim Crow*, CONSTITUTIONAL RIGHTS FOUND., <http://www.crf-usa.org/black-history-month/a-brief-history-of-jim-crow> (last visited Oct. 26, 2017).

12. 13TH, *supra* note 5.

13. *Id.*

14. *Id.*

15. *Id.*

16. Doris Marie Provine, *Race and Inequality in the War on Drugs*, 7 ANN. REV. L. & SOC. SCI. 41, 45 (2011).

17. 13TH, *supra* note 5.

18. *Id.*

19. Provine, *supra* note 16, at 45.

20. 13TH, *supra* note 5.

erroneously associated with black people.²¹ This allowed politicians and lawmakers to promote a racist agenda without admitting forthright that they were, in fact, racist.²² It allowed white America to feel better about what was happening in black, urban ghettos because what they were supporting did not feel racist, at least not in the way Jim Crow laws, the KKK, and lynchings felt racist.

Take, for example, John Ehrlichman, one of Nixon's top advisors, and his remarks concerning Nixon's strategy during the 1968 campaign:

We knew we couldn't make it illegal to be either against the [Vietnam] war or black, but by getting the public to associate the hippies with marijuana and blacks with heroin. And then criminalizing both heavily, we could disrupt those communities. . . . We could arrest their leaders. [R]aid their homes, break up their meetings, and vilify them night after night on the evening news. Did we know we were lying about the drugs? Of course we did.²³

"By 1986, 80% of [the federal anti-drug] budget went to interdiction and law enforcement," shifting away from the prior treatment-centered approach.²⁴ The move from a treatment-based approach to incarceration and arrest was consistent with the public's growing fear of criminality, driven by the media's propaganda of the savage black man terrorizing white communities.²⁵ At this time, the U.S. prison population had risen to more than 759,100 people.²⁶ Since 1986, funding for prisons has spiked 141%.²⁷

The racial implications of growing prison populations during this era can be demonstrated by analyzing the difference in sentencing for powder cocaine and crack cocaine. Crack was propagandized as a cheap cocaine substitute, boasted as the ghetto drug of the century. Although far more white people used both powder cocaine and

21. *Id.*

22. *Id.*

23. Tom LoBianco, *Report: Aide Says Nixon's War on Drugs Targeted Blacks, Hippies*, CNN POLITICS (Mar. 24, 2016), <http://www.cnn.com/2016/03/23/politics/john-ehrlichman-richard-nixon-drug-war-blacks-hippie/>.

24. Provine, *supra* note 16, at 45.

25. See, e.g., *100 Years Later, What's the Legacy of 'Birth of a Nation'?*, NAT'L PUB. RADIO (Feb. 8, 2015), <http://www.npr.org/sections/codeswitch/2015/02/08/383279630/100-years-later-whats-the-legacy-of-birth-of-a-nation>.

26. 13TH, *supra* note 5.

27. Katie Loboso, *11 States Spend More on Prisons than on Higher Education*, CNN MONEY (Oct. 1, 2015), <http://money.cnn.com/2015/10/01/pf/college/higher-education-prison-state-spending/index.html>.

crack cocaine than their black counterparts, the mass media perpetuated the stereotype of the black crack-user.²⁸ The war against crack cocaine was really just a different way of waging a war against urban African Americans.²⁹ Take, for example, Lee Atwater's³⁰ 1981 interview explaining the GOP's changing Southern strategy:

You start out in 1954 by saying, "N—, n—, n—." By 1968, you can't say "n—" -- that hurts you. Backfires. So you say stuff like forced busing, states' rights and all that stuff. You're getting so abstract now [that] you're talking about cutting taxes, and all these things you're taking about are totally economic things and a byproduct of them is [that] blacks get hurt worse than whites.

And subconsciously maybe that is part of it. I'm not saying that. But I'm saying that if it is getting that abstract, and that coded, that we are doing away with the racial problem one way or the other. You follow me because obviously sitting around saying, "We want to cut this," is much more abstract than even the busing thing, and a hell of a lot more abstract than "N—, n—."³¹

The 1986 Anti-Drug Abuse Act created a mandatory minimum sentence of five years for possession of five grams of crack cocaine with intent to sell.³² While this five-year mandatory minimum prison sentence may not be alarming on its face, "5 grams [of crack cocaine] is about the size of a sugar packet."³³ A baggie of crack cocaine small enough to fit in your wallet could automatically land you in prison for five years. Two years later, Congress added a five-year minimum sentence for *possession* of five grams of a *mixture* of

28. Ford, *supra* note 1, at 337; see also Provine, *supra* note 16, at 46 ("In 2006, for example, 82% of those convicted for crack offenses were African American and 9% were white, despite the fact that only an estimated 25% of users were African American.").

29. For a modern-day example of this concept, see Lonnae O'Neal, *Ibram Kendi, One of the Nation's Leading Scholars of Racism, Says Education and Love are Not the Answer*, UNDEFEATED (Sept. 20, 2017), <https://theundefeated.com/features/ibram-kendi-leading-scholar-of-racism-says-education-and-love-are-not-the-answer> ("Black neighborhoods are not more dangerous than white neighborhoods and neither are black people.").

30. Lee Atwater was George H.W. Bush's campaign manager for the 1988 election and national party chairman. Bob Herbert, *Impossible, Ridiculous, Repugnant*, N.Y. TIMES (Oct. 6, 2005), <https://query.nytimes.com/gst/fullpage.html?res=9C04E6DF1E30F935A35753C1A9639C8B63>.

31. *Id.* (dashes added and internal bracketed alterations preserved).

32. Provine, *supra* note 16, at 45.

33. *Id.*

crack cocaine.³⁴ At this time, crack was the only narcotic drug for which mere possession mandated imprisonment.³⁵ During this era, 500 grams of cocaine would render the same sentence for possession of five grams of crack.³⁶ In contrast, 100 kilograms of marijuana would be required to trigger a similar sentence.³⁷ By 2006, nearly 66% of federal prosecution of crack cases on average “involv[ed] 51 grams, about the weight of a candy bar.”³⁸

The results of harsh sentencing on crack possession led to nonviolent drug offenders serving more time incarcerated than those convicted of rape, manslaughter, and assault.³⁹ These federal sentencing practices led to sentences for crack cocaine offenses similar to those convicted of murder and kidnap.⁴⁰ In some states, the possession of even a small amount of crack cocaine could land an individual in prison for life.⁴¹

In 1989, a Gallup poll suggested that drug abuse was rated the nation’s number one problem by 64% of the U.S. population.⁴² By 1990, the average prison sentence for a black American was 49% longer than that for a white American, a substantial increase from the 11% difference before America declared a War on Drugs.⁴³ At the same time, the overall prison population in the United States had risen to more than 1.1 million people.⁴⁴ These statistics demonstrate that as the prison population continued to grow, so, too, did the difference between being black or white in a courtroom.

In 1994, President Bill Clinton signed a \$30 billion federal crime bill which called for a massive expansion of the criminal justice system and the militarization of police departments.⁴⁵ The bill created mandatory minimums for several nonviolent offenses and created the “three-strikes” system, where those convicted of their third felony could face life in prison.⁴⁶ Nearly 4,200 individuals serving time

34. *Id.* at 45-46.

35. *Id.* at 46.

36. *Id.*

37. *Id.*

38. *Id.* at 47.

39. Marne L. Lenox, *Neutralizing the Gendered Collateral Consequences of the War on Drugs*, 86 N.Y.U. L. REV. 280, 286-87 (2011).

40. *Id.*

41. Ford, *supra* note 1, at 323, 340-41 (“James Richards, a black male[,] was sentenced to life in an Arkansas prison for possession of a small amount of crack cocaine. . . . Derrick Kimbrough . . . was an African American who was an honorably discharged veteran of the 1991 Persian Gulf War. The sentencing range for the federal drug offenses to which he pled guilty[] ran from a mandatory statutory minimum term of 15 years to a maximum of life.”).

42. Provine, *supra* note 16, at 45.

43. *Id.* at 46.

44. 13TH, *supra* note 5.

45. *Id.*

46. *Id.*

for misdemeanor offenses were released to make room for prisoners on their third strike.⁴⁷ The 1994 bill led to a further surge in the incarceration of black people. While the total prison population by the year 2000 was more than 2 million people, some 878,400 of those individuals were African American.⁴⁸ At this time, 44% of the U.S. prison population was black or African American,⁴⁹ while blacks made up only 12.3%⁵⁰ of the overall United States population. Clinton later acknowledged, “I signed a bill that made the problem worse. . . And I want to admit it.”⁵¹

The War on Drugs also substantially affected black women in a negative regard. Overall women’s incarceration in state prisons for drug offenses rose 888% between 1986 and 1996.⁵² The incarceration rate for males during the same time period rose 522%.⁵³ In 2003, women remained more harshly effected by tough drug laws, with 29% of women in state prisons for drug offenses compared to only 19% of their male counterparts.⁵⁴ Today, the racial impact of the War on Drugs continues to land a disproportionate number of black women in prison. Presently, black women are incarcerated at a rate 3.8 times higher than their white female counterparts.⁵⁵ In some states, the incarceration rate for black women is more than twenty-five times greater than that of white women.⁵⁶

B. The Present Reality

Today, the U.S. prison population is 2.3 million, the highest body count of humans in cages than ever before.⁵⁷ The incarceration rate of black individuals in the United States is six times higher than in South Africa during the heart of apartheid.⁵⁸ In fact, the United States criminal justice system has grown to be capable of housing

47. *Id.*

48. *Id.*

49. *Id.*

50. *A Look at the 1940 Census*, U.S. CENSUS BUREAU (Jan. 7, 2017), https://www.census.gov/newsroom/cspan/1940census/CSPAN_1940slides.pdf (from a chart indicating population distribution from 1940 to 2010).

51. Dan Merica, *Bill Clinton Says He Made Mass Incarceration Issue Worse*, CNN (July 15, 2015), <http://www.cnn.com/2015/07/15/politics/bill-clinton-1994-crime-bill/>.

52. Lenox, *supra* note 39, at 284.

53. *Id.*

54. *Id.*

55. Ford, *supra* note 1, at 343.

56. *Id.* (“In Colorado, Connecticut, Illinois, Iowa, Maine, New Jersey, New Mexico, New York, Rhode Island, Texas, Vermont, West Virginia, Wisconsin, and Wyoming, black women are incarcerated at rates from ten to thirty-five times greater than white women.”).

57. 13TH, *supra* note 5.

58. Alec Karakatsanis, Civil Rights Corps, Remarks at the University of Pittsburgh: Johnson Institute for Responsible Leadership (Oct. 19, 2016).

over 2.25 million human bodies in jails around the country on any given night.⁵⁹ Our nation boasts a system of “equal justice under law,” while 50,000 people sit in jail because they are unable to afford bail.⁶⁰ The United States, aggrandized as one of the best countries in the world, incarcerates its citizens at a rate five to ten times higher than any of our fellow allied or enemy countries.⁶¹ Home to just 5% of the world’s population, the U.S. houses more than 25% of the world’s prisoners.⁶²

The historic racial inequity that exploded during the War on Drugs era has been left largely unchanged in the modern prison system. Today, the lifetime likelihood of a white man facing incarceration is 1 in 17.⁶³ Conversely, 1 in 3 black men are expected to go to jail in their lifetimes.⁶⁴ While black men account for just 6.5% of the United States population, they continue to occupy 40.2% of the U.S.’s prison capacity.⁶⁵ In fact, there are more African Americans under criminal supervision today than there were slaves in the 1860s.⁶⁶

Our nation hosts a system of incarceration that is home to rampant infectious disease, sexual assault, and abuse, supported by virtually no empirical evidence that it is helping lower crime or make our communities safer.⁶⁷ On the contrary, individuals who are incarcerated for a mere two days while awaiting trial are 40% more likely to reoffend than their non-incarcerated peers, whether for the same crime or a different one.⁶⁸

Today, some of the worst prison conditions and highest rates of incarceration around the country exist in predominantly black and Hispanic counties. Harris jail, located in Houston, Texas, handles more than 106 suicide attempts every year.⁶⁹ The jail, plagued with overpopulation and inmates complaining of sexual assault by corrections officers, serves a county where 43.1% of the population is Hispanic and nearly 24% is black.⁷⁰ Over a ten-year period, from 2005 to 2015, 199 people died while in the custody of the Harris

59. *Id.*

60. *Id.*

61. *Id.*

62. 13TH, *supra* note 5.

63. *Id.*

64. *Id.*

65. *Id.*

66. *Id.*

67. Karakatsanis, *supra* note 58.

68. *Id.*

69. *Id.*

70. *Race and Ethnicity in Houston, Texas*, STATISTICAL ATLAS, <http://statisticalatlas.com/place/Texas/Houston/Race-and-Ethnicity> (last updated Apr. 19, 2015).

County Sheriff's Office, 85% of whom have not yet been convicted of a crime.⁷¹ Waiting outside the gates of Harris jail, taxi drivers claim the most common destination for recently released Harris county inmates is the emergency room.⁷²

The inhumane conditions and overrepresentation of Hispanic and African Americans incarcerated does not just exist in Houston. A similar story is told in Ferguson, Missouri, where 68% of the region is black,⁷³ and the average household has 3.6 arrest warrants.⁷⁴ The average adult in Ferguson has 2.2 arrest warrants.⁷⁵ In Alabama, nearly 27% of the population is black or African American,⁷⁶ and, not surprisingly, roughly 30% of the state's population has lost the right to vote because of prior criminal convictions.⁷⁷ These statistics coexist with the fact that the percentage of white District Attorneys in the United States rests in the high nineties.⁷⁸

III. SOCIOECONOMIC FACTORS IN SENTENCING

Each day, around 450,000 Americans sit in pretrial detention either because they were denied bail or were unable to post bail that has been set.⁷⁹ At the heart of this injustice is the for-profit bail industry that capitalizes upon the threat of incarceration to coerce payment from people who already possess very little.⁸⁰ Even when

71. Meagan Flynn, *Nearly 200 People Have Died in Harris County Sheriff's Office Custody in 10 Years*, HOUSTON PRESS (Aug. 1, 2016), <http://www.houstonpress.com/news/nearly-200-people-have-died-in-harris-county-sheriffs-office-custody-in-10-years-8616676>.

72. Karakatsanis, *supra* note 58.

73. *Quick Facts, Ferguson City, Missouri*, U.S. CENSUS BUREAU, <http://www.census.gov/quickfacts/table/PST045215/2923986#flag-js-X> (last visited Nov. 1, 2016).

74. Karakatsanis, *supra* note 58.

75. *Id.*

76. *QuickFacts: Alabama*, U.S. CENSUS BUREAU, <http://www.census.gov/quickfacts/table/PST045215/01> (last visited Feb. 5, 2017).

77. 13TH, *supra* note 5.

78. Karakatsanis, *supra* note 58; see also 13TH, *supra* note 5 (stating that 95% of U.S. District Attorneys are white).

79. Nick Pinto, *The Bail Trap*, N.Y. TIMES (Aug. 13, 2015), <https://www.nytimes.com/2015/08/16/magazine/the-bail-trap.html>.

80. Here is an example of how this works, provided by the folks at Equal Justice Under Law: A 29-year-old woman is arrested for the first time in her life after getting into a physical fight with her brother-in-law. After her arrest, she is placed in county jail and told she will be released if she pays \$150,000. At this point, the story can diverge in three different ways: (1) For the rich, the individual can pay the \$150,000 and have the money refunded in full when the case ends; (2) for poorer individuals, private bail companies will offer a non-refundable payment of 10%—\$15,000 in our case—and the money is never returned; or (3) private bail companies may offer payment of 1% of the bail amount—\$1,500 in our case—and have the rest of the \$15,000 financed by a debt agreement, applying the maximum interest rate allowable by law. *Ending the American Money Bail System*, EQUAL JUSTICE UNDER LAW, <http://equaljusticeunderlaw.org/wp/current-cases/ending-the-american-money-bail-system/> (last visited Sept. 23, 2017).

bail is set at \$500 or less, only 15% of criminal defendants can afford to secure their own release.⁸¹ A monetary bail system like the one found in the United States exists in only two other countries around the world.⁸² This system offers many low-grade offenders freedom from incarceration if they pay a monetary fine, usually an amount that poor prisoners and their families are unable to afford.⁸³

The bail system has created a net of people who depend on it in some way: Judges, prosecutors, defense attorneys, court officials, probation officers and others whose paychecks are funded by low-grade criminals who struggle to put food on the table. The financial and economic implications of this can be seen across the country, like in New Orleans, where the bail industry is the largest donator to local political campaigns.⁸⁴

In many cases, being detained before trial, either from insufficient funds to pay bail or because no bail was set, adds pressure on the defendant to accept a guilty plea.⁸⁵ Indeed, when criminal defendants were detained until their cases were resolved, the conviction rate was 92%.⁸⁶ Meanwhile, for those who were released from jail prior to their case being resolved, only 50% were convicted.⁸⁷ In some cases, the individual may be detained pending trial longer than his or her actual sentence requires. Therefore, accepting a plea deal may be his or her quickest escape route from jail, even if that person is innocent.

Forcing economically disadvantaged persons to post bail in order to secure release from detention is not the only method that is used to coerce money from those who otherwise cannot afford to pay. While many believe incarceration and its negative consequences are justified by the wrongs our criminal cohorts commit, the fact remains that the largest percentage of white people incarcerated today is due to their inability to pay a monetary fine.⁸⁸

Is there a better method than holding people ransom for their inability to pay parking tickets, traffic violations, and child support? The United States federal court method bases release from detention on an evidentiary model, evaluating an individual's likelihood

81. Pinto, *supra* note 79.

82. Jasmine Rose Gonzalez, Assistant Professor of Law at the University of Pittsburgh, Panel Discussion at the University of Pittsburgh: Johnson Institute for Responsible Leadership (Oct. 19, 2016).

83. *Id.*

84. Karakatsanis, *supra* note 58.

85. Pinto, *supra* note 79.

86. *Id.*

87. *Id.*

88. Karakatsanis, *supra* note 58.

of flight and recidivism, instead of the depth of their pockets.⁸⁹ A fairer system exists to keep poor people from being held hostage, but that would disrupt the web of individuals whose paychecks depend on a system of mass incarceration.

The bail industry and the numerous officials who are paid from it are not the only ones who benefit from a system that encourages mass incarceration. The Corrections Corporation of America, the first private prison corporation in the U.S., is now a \$1.7 billion enterprise.⁹⁰ Even private clothing companies, like Victoria's Secret and J. C. Penney, have historically used prison labor to produce cheap merchandise.⁹¹ Across the United States, prison telephone companies made an estimated \$114 million in profits last year alone.⁹² Meanwhile, for a Maryland resident working minimum wage, it would take an hour-and-a-half of work to afford a ten-minute phone call with a prisoner.⁹³ While corporations are profiting from the financial implications of incarceration, prisoners and their loved ones struggle when prices on snacks, hygiene products, and clothing are 40% more expensive inside prison walls.⁹⁴

Services like JPey, a private company in Florida, charge people outside of prison a fee of up to 45% to put money on a prisoner's account.⁹⁵ In 2013 alone, JPey generated \$50 million in profits.⁹⁶ The company knows what it is doing, too, with registered lobbyists in at least seven states and efforts to contract with the Federal Bureau of Prisons.⁹⁷

Even in Pennsylvania, we see people in power profit from sending criminal defendants to jail. Former Luzerne County Judge Mark Ciavarella, Jr., was recently sentenced to twenty-eight years in prison for accepting a \$1 million bribe to send juveniles to private state detention centers.⁹⁸ It is estimated that Judge Ciavarella may have tainted the sentences of some 4,000 children in Luzerne

89. See 18 U.S.C.A. § 3142. Release or detention of a defendant pending trial.

90. 13TH, *supra* note 5.

91. *Id.*

92. *Id.*

93. *Id.*

94. Daniel Wagner, *Meet the Prison Bankers Who Profit from the Inmates*, TIME (Sept. 30, 2014), <http://time.com/3446372/criminal-justice-prisoners-profit/>.

95. *Id.*

96. *Id.*

97. *Id.*

98. *Pennsylvania: Former Judge Sentenced in Bribery Tied to Juvenile Court*, N.Y. TIMES (Aug. 11, 2011), http://www.nytimes.com/2011/08/12/us/12brfs-Ciavarella.html?rref=collection%2Ftimestopic%2FCiavarella%2C%20Mark%20A.&action=click&contentCollection=timestopics®ion=stream&module=stream_unit&version=latest&contentPlacement=2&pgtype=collection.

County in what is now referred to as the “Cash for Kids” scandal.⁹⁹ While on the bench, he and another co-defendant accepted bribes from Robert Mericle, the builder of the PA Child Care and Western PA Child Care detention centers.¹⁰⁰ Judge Ciavarella sent children as young as 10 years old, many in court for their first offense, to private state detention centers in exchange for a financial kick-back.¹⁰¹

IV. THE EFFECTS OF OUR JUVENILE “JUSTICE” SYSTEM

The single strongest predictor for whether or not someone will face incarceration as an adult is their involvement in the juvenile justice system.¹⁰² Individuals who are involved with the criminal system as juveniles are thirty-eight times more likely to reoffend as adults than their childhood peers.¹⁰³ Police arrest nearly 2 million juveniles a year, and demographers predict that 33% of American schoolchildren will be arrested by the age of 23.¹⁰⁴ The United States stands alone in its treatment of child offenders; we incarcerate our youth at a rate eighteen times higher than that of France and seven times more often than Great Britain.¹⁰⁵ Every year, our nation spends \$88,000 to keep a *single* child in a state facility, more than eight times the amount we invest in their education.¹⁰⁶

The reason our nation locks up large numbers of children every year is a cause for concern. In 2010, most of the juveniles behind bars were incarcerated due to low-level, low-threat offenses, like technical violations of probation, drug possession, and minor property crimes.¹⁰⁷ Once placed in a juvenile detention center, 33-35% of children will face solitary confinement, another 10% will experience sexual or physical abuse at the hands of a staff member, and another 2% will be sexually victimized by a peer.¹⁰⁸ More than 33% of children in secure correctional facilities reported that staff used

99. *Id.*

100. *Id.*

101. *Id.*

102. BERNSTEIN, *supra* note 2, at 181.

103. *Id.*

104. *Id.* at 6 (totaling over 66,000 youth confined in juvenile facilities, with 66% in long-term placement).

105. *Id.* at 11.

106. *Id.* at 6, 11 (spending a total of \$5 billion annually to keep children in state institutions).

107. *Id.* at 9, 52 (reporting that 42% of children claimed they were incarcerated for status offenses—crimes that only minors can be arrested for; like truancy, running away, and underage drinking).

108. *Id.* at 29-30, 132.

unnecessary force, while 38% of child detainees feared being physically attacked by staff or other youth.¹⁰⁹

Making matters worse, only 10% of formal abuse claims that were reported in state run facilities nationwide over a three-year period had been officially confirmed by authorities.¹¹⁰ Staff that were found to be abusing children faced very few consequences: Only 8% were sentenced to more than one year in prison, and 25% of all known staff predators were allowed to keep their jobs.¹¹¹ With haunting conditions inside juvenile facilities and little recourse available, 11,000 incarcerated youth engage in suicidal behavior every year.¹¹² Half of the children who committed suicide inside juvenile facilities did so while in solitary confinement,¹¹³ where many are reportedly sent to avoid that very result.

The prejudicial nature of juvenile incarceration rates mirrors that of adult trends. While young people of color make up 38% of the youth population, they account for 72% of incarcerated juveniles.¹¹⁴ Black children are incarcerated at a rate five times higher than their white counterparts.¹¹⁵ Although 90% of teenagers acknowledged having committed illegal acts serious enough to warrant incarceration,¹¹⁶ white teens were twice as likely to go home without ever being formally charged with a crime.¹¹⁷ When it comes to detention rates, African American youth are 4.5 times more likely to be detained than white youth for identical offenses.¹¹⁸ African American children are targeted even more harshly when it comes to drug crimes; even though white youth are 33% more likely to sell drugs, black youth are 50% more likely to be arrested on charges of drug sales.¹¹⁹

The effects of childhood incarceration are long-lasting and severe. Roughly 80% of children who spend time in a juvenile facility will end up back behind bars within three years of release.¹²⁰ Despite the harrowing fate of childhood offenders, more than two-thirds of

109. *Id.* at 82.

110. *Id.* at 83.

111. *Id.* at 107-08.

112. *Id.* at 99.

113. *Id.* at 134.

114. *Id.* at 58 ("In almost every state, youth of color are held in secure facilities at rates as high as four and a half times their percentage of the population.").

115. *Id.* at 58.

116. *Id.* at 58.

117. *Id.* at 59.

118. *Id.* (concerning drug crimes, this number rises to forty-eight times more likely to be detained than their white peers).

119. *Id.*

120. *Id.* at 10.

children in custody aspire to attend an institution of higher education.¹²¹ The reality is that only 15% of children who are incarcerated in the ninth grade will finish high school.¹²² These numbers create a cyclical pattern haunting the fate of juveniles in the system. Without a high school diploma, a child is 3.5 times more likely to be arrested, while being arrested greatly decreases the likelihood that a child will ever obtain a high school diploma.¹²³ Even setting education aside, the National Bureau of Economic Regulation estimated that being incarcerated as a juvenile reduced the total time an individual spent working over the following decade by 25-30%.¹²⁴

Over the last twelve years, the United States Supreme Court has taken a variety of steps to address issues of constitutionality in the juvenile justice system.¹²⁵ This lineage of cases demonstrates a growing concern for the treatment of children in the justice system and the fundamental differences that arise because of a young offender's age, which may render certain punishments inappropriate. While these reforms are noteworthy, statistics demonstrate that there is a lot more to be done before we can celebrate.

V. PRISON AND SENTENCING REFORM EFFORTS

The largest push for prison reform is driven not by social justice concerns, but the harrowing price tag of keeping bodies in cages. Texas and Arizona, the two states that incarcerate the most people in our nation, are taking steps to reform the incarceration system not because it is inherently unjust, but because overcrowded jails are too costly to maintain.¹²⁶ Indeed, American taxpayers spend nearly \$60 billion a year to maintain and construct prisons in the United States.¹²⁷

Those who have pushed for reform in the name of social justice have historically been shot down without a second thought. A slo-

121. *Id.* at 15.

122. *Id.* at 196.

123. *Id.*

124. *Id.* at 182-83.

125. See *Miller v. Alabama*, 132 S. Ct. 2455 (2012) (finding that mandatory life imprisonment without parole for children under the age of 18 violates the Eighth Amendment); *J.D.B. v. North Carolina*, 564 U.S. 261 (2011) (declaring that a child's age may affect the Miranda custody analysis); *Graham v. Florida*, 560 U.S. 48 (2010) (holding that the Eighth Amendment prohibits juveniles to be sentenced to life without parole who have not committed homicide); *Roper v. Simmons*, 543 U.S. 551 (2005) (holding that the death penalty for children under the age of 18 at the time of their crimes violates the Eighth and Fourteenth Amendments).

126. *Id.*

127. Ford, *supra* note 1, at 330.

gan of “soft on crime” has never before successfully brought a politician to office. Recall the 1988 presidential campaign and the October 1988 debate moderated by Bernard Shaw, a CNN anchorman notoriously known for asking perplexing and offhanded questions. Shaw bluntly asked Michael Dukakis, the Massachusetts governor and Democratic candidate opposing George Bush in the presidential election, “Governor, if Kitty Dukakis were raped and murdered, would you favor an irrevocable death penalty for the killer?”¹²⁸ Dukakis coolly responded, “I think you know that I’ve opposed the death penalty during all of my life.”¹²⁹ Political commentators and journalists alike claim Dukakis’ answer devastated his political career, costing him the election because of the public’s view that he was “soft on crime.”¹³⁰ After the debate, his aides tried to justify his response: He was sick, he had seen two doctors before the debate, he had a fever or a virus, and he was not acting like himself.¹³¹ Throughout history, it has been better to be viewed as sick and delusional than believed to oppose the death penalty and show leniency on criminal sanctions.

On the whole, it can be argued that prison reform is rather insignificant when it comes to keeping people out of jail. Indeed, the sole predictor of incarceration rates in this country is the current availability of empty jail cells.¹³² With this in mind, increasing funding for prisons to improve existing conditions and programs only increases the chances that the government will seek to fill the space with people who can reap the benefits of its monetary investment. The only viable solution may be to stop locking people up all together, instead of trying to remedy overcrowding and underfunding by giving more money to prisons.¹³³

128. Roger Simon, *Death-Penalty Question was Death Knell for Dukakis*, SEATTLE TIMES (Nov. 6 1990), <http://community.seattletimes.nwsource.com/archive/?date=19901106&slu=g=1102666>.

129. *Id.*

130. *See generally id.*

131. *Id.*

132. Karakatsanis, *supra* note 58.

133. In order to facilitate this idea, the U.S. would have to begin by closing prisons. Cutting off funding for certain programs would only increase hardship for already incarcerated individuals. This is particularly worrisome when one considers the very high threshold required to trigger an Eighth Amendment violation for cruel and unusual punishment and prison conditions litigation. The only viable and safe way to cut prison budgets is to close prisons. *See also Why Building Prisons is Bad for Pennsylvania*, DECARCERATE PA, <http://decarceratepa.info/why-building-prisons-bad-pennsylvania> (last visited Jan. 28, 2018).

VI. ALLEGHENY COUNTY, PENNSYLVANIA

Pennsylvania's sentencing scheme is indeterminate, guided, and advisory.¹³⁴ An indeterminate sentencing system allows a judge to impose a sentence with the earliest time a defendant may be eligible for parole and the latest date for which the defendant may be released from confinement.¹³⁵ A guided sentencing scheme simply means that the judge must consider the sentencing range imposed by the sentencing guidelines, crafted to the type and nature of the offense.¹³⁶ Finally, advisory sentences require the judge to consider the suggestion of the sentencing guidelines but do not mandate that he or she must sentence within that prescribed range.¹³⁷ In fact, the trial courts ordinarily receive broad discretion to sentence outside the guideline range.¹³⁸ However, the judge may not impose a sentence beyond the statutory maximum allowed by law.¹³⁹

The sentencing guidelines recommend a sentencing range based on the type of offense, the defendant's prior criminal history, and a variety of aggravating and mitigating factors.¹⁴⁰ The minimum sentence recommended by the guidelines is determined by evaluating the defendant's prior record score and the offense gravity score on a basic sentencing matrix.¹⁴¹ While the guidelines are merely one factor that Pennsylvania courts must consider, every court must explain its reasons for refusing to follow the guidelines in any given case.¹⁴² A failure to explain the court's deviation will result in vacating the sentence and resentencing the defendant.¹⁴³

Roughly 1.2 million people resided in Allegheny County in 2015.¹⁴⁴ Of those 1.2 million, 19% were under the age of 18¹⁴⁵—resting just below the national average of 23%.¹⁴⁶ The average

134. Commonwealth v. Yuhasz, 923 A.2d 1111, 1117 (Pa. 2007).

135. *Id.* (as compared to a determinate sentencing scheme, where there is a single release date imposed and no discretionary parole release).

136. *Id.* (as compared to an unguided sentence, where the judge is only bound by the statutory maximum).

137. *Id.*

138. *Id.* at 1119.

139. *Id.* at 1118.

140. *Id.* (citing 204 Pa. Code § 303 et seq.).

141. *Id.* (citing 204 Pa. Code § 303.13).

142. *Id.* (quoting 42 Pa.C.S. § 9721(b)).

143. *Id.* at 1119 (quoting 42 Pa.C.S. § 9721(b)).

144. *QuickFacts: Allegheny County, Pennsylvania*, U.S. CENSUS BUREAU, <http://www.census.gov/quickfacts/table/PST045215/42003> (last visited Feb. 5, 2017).

145. *Id.*

146. *QuickFacts: United States*, U.S. CENSUS BUREAU, <https://www.census.gov/quickfacts/table/PST045216/00> (last visited Feb. 5, 2017).

household income in Allegheny County was on target with the national median, around \$53,000.¹⁴⁷ The number of individuals in the workforce over 16 years of age and the percentage of the population that was female were unremarkable and mirrors the national average.¹⁴⁸ However, Allegheny County beats the national average for persons aged 25 or older with a high school diploma by nearly 7%.¹⁴⁹

Presently, Pennsylvania is one of eleven states that spends more money on prisons than its public colleges.¹⁵⁰ Prison population growth in the Commonwealth has far outpaced the nation's, increasing more than 500% in the last thirty years.¹⁵¹ This massive increase in growth has led to 60% of our state prisons at full capacity or above.¹⁵² In fact, Pennsylvania has 2,300 more inmates than it has beds.¹⁵³ Over the last twenty years, the cost of corrections in Pennsylvania has quadrupled, making it the second fastest-growing state expense behind Medicaid.¹⁵⁴ Pennsylvanians spend roughly \$2 billion annually on corrections, a 700% increase from 1974.¹⁵⁵ Despite this increase in prison spending, recidivism rates remain high. Over a period of eleven years, the Pennsylvania Department of Corrections found that 60% of former Pennsylvania inmates were arrested or incarcerated within three years of release.¹⁵⁶

The racial patterns and trends found in Allegheny County jails represent merely a microcosm of a systemic inadequacy to deliver

147. *QuickFacts: Allegheny County, Pennsylvania*, U.S. CENSUS BUREAU, <http://www.census.gov/quickfacts/table/PST045215/42003> (last visited Feb. 5, 2017); see also *QuickFacts: United States*, U.S. CENSUS BUREAU, <https://www.census.gov/quickfacts/table/PST045216/00> (last visited Feb. 5, 2017).

148. In Allegheny County 51.7% of the population is female, compared with the U.S. average of 50.8%. The U.S. average for people over the age of 16 who are in the labor force is 63.3%, compared with 64.4% in Allegheny County. See *QuickFacts: Allegheny County, Pennsylvania*, U.S. CENSUS BUREAU, <http://www.census.gov/quickfacts/table/PST045215/42003> (last visited Feb. 5, 2017); see also *QuickFacts: United States*, U.S. CENSUS BUREAU, <https://www.census.gov/quickfacts/table/PST045216/00> (last visited Feb. 5, 2017).

149. While the national average is 86.7%, 93.5% of people 25 or older in Allegheny County had a high school diploma. *QuickFacts: Allegheny County, Pennsylvania*, U.S. CENSUS BUREAU, <http://www.census.gov/quickfacts/table/PST045215/42003> (last visited Feb. 5, 2017); *QuickFacts: United States*, U.S. CENSUS BUREAU, <https://www.census.gov/quickfacts/table/PST045216/00> (last visited Feb. 5, 2017).

150. Lobosco, *supra* note 27.

151. Nicole Brambila, *Recidivism Risk Assessment as Sentencing Tool is Controversial*, READING EAGLE (Sept. 28, 2016), http://www.readingeagle.com/news/article/recidivism-risk-assessment-as-sentencing-tool-is-controversial#.Wcg7V2Xw_ow.

152. *Id.*

153. *Id.*

154. *Id.*

155. *Id.* (In 1974, Pennsylvania spent \$59.9 million. The 700% figure has been adjusted for inflation.)

156. *Id.*

justice found in the nearly 3,000 jails¹⁵⁷ scattered around the country. In order to advance that the criminal justice system is “fair,” the race and ethnicity of individuals in custody should mirror that of the general population or closely relate to it. Therefore, if 81% of the population in Allegheny County in 2015 was white,¹⁵⁸ roughly 81% of those in Allegheny County jails should *also* be white to reflect the fact that individuals are arrested and detained at the same rate for which they exist in the community. Obviously, some fluctuation is necessary to account for human error and environmental factors, but the overall numbers should generally mimic one another.

Rarely does the population in county jails represent the actual demographic of the community, with Allegheny County as no exception. Allegheny County continues to promote a system funded by private for-profit corporations that supply food, medication, commissary, and phone calls to nearly every prisoner. In Allegheny County, 81% of people sitting in jail have yet to be convicted of *anything*.¹⁵⁹ In fact, 32% percent of these individuals are being detained for charges that have not yet been brought before the court.¹⁶⁰ Serving as a representation of the harsh consequences of the United States money bail system, nearly 35% of people housed in Allegheny County jails are there because they cannot pay fines of less than \$5,000 on misdemeanor charges.¹⁶¹

In 2015, in the Allegheny County Court of Common Pleas, 2,934 people were sentenced for low-level drug offenses.¹⁶² The average

157. Karakatsanis, *supra* note 58.

158. *QuickFacts: Allegheny County, Pennsylvania*, U.S. CENSUS BUREAU, <http://www.census.gov/quickfacts/table/PST045215/42003> (last visited Jan. 5, 2017).

159. Frederick W. Thieman, Panel Discussion at the University of Pittsburgh: Johnson Institute for Responsible Leadership (Oct. 19, 2016).

160. *Id.*

161. *Id.*

162. The “low-level” drug offenses analyzed are: Knowingly or intentionally possessing a controlled or counterfeit substance by a person not registered (35 PA. STAT. § 780-113(a)(16)); the use of, or possession with intent to use, drug paraphernalia (35 PA. STAT. § 780-113(a)(32)); the manufacture, delivery or possession with intent to manufacture or deliver, a controlled substance (35 PA. STAT. § 780-113(a)(30)); the acquisition or obtaining of possession of a controlled substance by misrepresentation, fraud, forgery, deception or subterfuge (35 PA. STAT. § 780-113(a)(12)); the possession of a small amount of marihuana only for personal use, the possession of a small amount of marihuana with the intent to distribute it but not sell it, or the distribution of a small amount of marihuana but not for sale (35 PA. STAT. § 780-113(a)(31)(i)–(iii)); selling, giving, transmitting, or furnishing to any convict in a prison, or inmate in a mental hospital, or giving away in or bringing into any prison, mental hospital, or any building appurtenant thereto (18 PA. CONS. STAT. ANN. § 5123(a)); possessing a controlled substance contraband by an inmate (18 PA. CONS. STAT. ANN. § 5123(a.2)); knowingly distributing or selling a noncontrolled substance upon the express or implied representation that the substance is a controlled substance (35 PA. STAT. § 780-113(a)(35)(ii)); manufactur-

individual who was charged and sentenced for one of the listed drug offenses also had seven other charges from the same criminal incident that involved the listed drug offense.¹⁶³ The most common charge analyzed that individuals were sentenced to was intent to possess a controlled substance,¹⁶⁴ regardless of the individual's race.¹⁶⁵

Of the cases disposed, 50% of the individuals were appointed a public defender while 40% retained private counsel.¹⁶⁶ The remaining individuals received representation from court-appointed private counsel (less than 1% or ninety-three individuals), court-appointed conflict counsel (less than 1% or 109 individuals), the district attorney (two people), or Legal Aide (seven people). Of the 16,246 charges, 15,474 were resolved in a guilty plea.¹⁶⁷ This resulted in over 95% of low-level drug convictions in the Allegheny County Court of Common Pleas ending in guilty pleas. Compare this with the years 2010-2014, where the individuals who were charged with one of the above listed drug offenses were surveyed for their past criminal convictions, whether drug-related or not. Of roughly 15,629 charges, 7,300 resulted in guilty pleas.¹⁶⁸ Another

ing, processing, packaging, distributing, possessing with intent to distribute or selling a non-controlled substance that has a stimulant or depressant effect on humans (35 PA. STAT. § 780-113(a)(35)); operating a drug manufacturing, distributing, or retailing establishment without conforming to standards (35 PA. STAT. § 780-113(a)(11)); manufacturing, selling or delivering, holding, offering for sale, or possessing any controlled substance, other drug, device or domestic that is adulterated or misbranded (35 PA. STAT. § 780-113(a)(1)); and using, possessing with intent to use, drug paraphernalia for the purpose of planting, propagating, cultivating, growing, harvesting, manufacturing, compounding, converting, etc. or otherwise introducing into the human body a controlled substance (35 PA. STAT. § 780-113(a)(33)).

In order to compile these statistics, I requested data from the Administrative Office of Pennsylvania Courts. My request consisted of a list of criminal cases and the accompanying defendant information for individuals sentenced between January 1, 2015 and December 31, 2015 in the Allegheny County Court of Common pleas for offenses listed in 35 PA. STAT. § 780-113(a)(16), (30). I also requested a list of criminal cases disposed as convictions from January 1, 2010 to December 31, 2014 for defendants who were identified as having been charged in 2015 for offense 35 PA. STAT. § 780-113(a)(16), (30). I requested this additional defendant information, from the years 2010-2015, to evaluate whether the individuals who were sentenced in 2015 had prior criminal records that would affect the sentences imposed for their 2015 drug convictions. Hereinafter, this data collection from the Administrative Office of Pennsylvania Courts will be cited as "Drug Sentencing Report."

163. Drug Sentencing Report (There were more than 16,246 charges accompanying 2,934 people.).

164. 35 PA. STAT. § 780-113(a)(16).

165. Drug Sentencing Report.

166. Drug Sentencing Report.

167. The term "guilty plea" includes negotiated guilty pleas, non-negotiated guilty pleas, guilty pleas concerning the mentally ill, and guilty pleas accompanied by probation without verdict. Drug Sentencing Report.

168. 15,269 represents the number of statewide criminal cases disposed of from January 1, 2010 until December 31, 2014 for defendants who were later charged with a drug offense

5,688 of those charges were withdrawn.¹⁶⁹ In addition, far more people accepted court-appointed public defenders for non-drug related offenses, closer to 60%.¹⁷⁰ Evidentially, it is more common in Allegheny County to accept a guilty plea and retain private counsel on drug charges than offenses of a different nature.¹⁷¹

The Pennsylvania Commission on Sentencing found that 57% of *all* criminal offenders in Allegheny County were white and 77% were male.¹⁷² The average age was roughly 35 years old, and 91% of those individuals accepted negotiated guilty pleas.¹⁷³ These numbers closely mirror the statistics for the listed drug offenses. Nearly 80% of individuals sentenced to one of the aforementioned drug crimes was male.¹⁷⁴

However, for the provided drug offenses, 50% of the criminal defendants were white, and 49% were black.¹⁷⁵ Thus, black people were charged at a higher rate for one of the listed drug crimes than for other offenses in Allegheny County in the year 2015. While an almost 50/50 white-to-black ratio may sound fair on its face, the problem arises when you consider the percentage of people of color who live in our community. In 2015, 13% of Allegheny County residents were black or African American.¹⁷⁶ In Allegheny County, black people are grossly overrepresented in drug sentencing, while every other racial group in our population is underrepresented. Although occupying 68% more of the population, white people made up a mere 1% more of those sentenced for the above delineated drug crimes.¹⁷⁷

VII. ANALYSIS

America's history with mass incarceration has been fueled by politicians that have long used drug use and black criminality as a platform to gain voters—promoting fear of criminals, drug addicts,

in the 2015 data analyzed. The term "guilty plea" includes negotiated guilty pleas, non-negotiated guilty pleas, and guilty pleas to a lesser charge. Drug Sentencing Report.

169. Withdrawn includes charges withdrawn pursuant to PA. R. CRIM. P. 561(B). Drug Sentencing Report.

170. Drug Sentencing Report.

171. One reason for the high number of non-drug-related offenses being withdrawn, the article hypothesizes, is that they may only have been initially charged to incentivize the defendant to accept a guilty plea of lesser charges (i.e., the drug charges).

172. PA. COMM'N ON SENTENCING, ANNUAL REPORT 2015 48 (2015).

173. *Id.*

174. Drug Sentencing Report.

175. Drug Sentencing Report.

176. *QuickFacts: Allegheny County, Pennsylvania*, U.S. CENSUS BUREAU, <http://www.census.gov/quickfacts/table/PST045215/42003> (last visited Feb. 5, 2017).

177. Drug Sentencing Report.

and black men and then promising a safe-haven of help and heavy sentences if elected. It would be comforting to assert that this was merely a bitter part of American history and that our nation is living in the aftermath of a dark era. However, the same trends exist today and continue to be left largely unchallenged while yielding overwhelming success rates. Take, for example, the 2016 Donald Trump presidential campaign, where voters chanted “Build a wall” to promote acceptance for deporting Mexicans from the United States.¹⁷⁸ This campaign utilized a familiar strategy: Create fear of the other—by calling them rapists, criminals, and savages—and then promise safety and protection if elected.¹⁷⁹ The War on Drugs was successful due to white America’s primitive fear of black men as criminals and general misconceptions promoted by the mass media; Trump’s campaign mirrored this strategy, simply utilizing a different portion of a discriminated against population: Mexican Americans.

This fear, perpetuated by ignorance of drug addiction, mental illness, and criminal behavior, causes the average citizen to prefer caging human beings rather than come to grips with the socioeconomic, political, and racial circumstances that drive individuals to criminality in the first place. Throwing bodies in cages continues to ignore the underlying problem of drug use, putting a Band-Aid on a 200-year-old wound.

The effects of mass incarceration are particularly appalling for our nation’s children. As we continue to incarcerate children at the highest rate in the world, for petty crimes and self-injurious offenses, we ignore the real issues that bring our children to the juvenile justice system. A 2010 study found that the average reported age of “first sexual encounter” for girls in the juvenile justice system was less than 7 years old.¹⁸⁰ A survey of youth in residential placement revealed that 72% of incarcerated children experienced direct victimization.¹⁸¹ Nearly one-third of children in custody had been sexually or physically abused, and a quarter of those children reported the abuse to be frequent or injurious.¹⁸² What leads our children to detention centers is much more complicated and emotional than what our system of mass incarceration takes into account. Eventually, our nation’s harmless childhood offenders become full-

178. See, e.g., Ashley Parker, Nick Corasaniti & Erica Bernstein, *Voices from Donald Trump’s Rallies, Uncensored*, N.Y. TIMES (Aug. 3, 2016), http://www.nytimes.com/2016/08/04/us/politics/donald-trump-supporters.html?_r=0.

179. See generally *id.*

180. BERNSTEIN, *supra* note 2, at 153.

181. *Id.* at 152.

182. *Id.*

grown adults who may be shackled to the criminal justice system for life.

The failure of our criminal justice system to rehabilitate people, as demonstrated through the sky-high recidivism rates for adults and juveniles alike,¹⁸³ begs the question of whether we are doing what is *appropriate* or simply what is *available*. One also begins to wonder if perhaps the system is not broken to begin with but, rather, if it is functioning exactly as designed. Although our system is not reforming people, it has created a billion-dollar enterprise,¹⁸⁴ while simultaneously “dealing” with “bad” people with very little effort. In fact, we are left with a system that creates a continuous supply of returning customers and a bail industry that extorts thousands of dollars from poor people, money that would be hard to obtain if it were not for the threat of jail time. As a business model, the prison industry is self-sustaining and profitable. The prison system is also successful if viewed from the lens that its main purpose is not rehabilitation, but some other goal, like seeking “justice” for its victims. If rehabilitation and minimal recidivism rates are not the priority, then the focus of this conversation easily shifts. Indeed, people with different backgrounds and academic disciplines disagree about the purpose of punishment.¹⁸⁵

Our citizens have become so desensitized and normalized to mass incarceration that the hierarchy of power is left virtually unchallenged to perpetuate the oppression of a certain population of individuals while keeping those who benefit at the top. It is easier to throw someone in a cell and forget about them rather than confront the deeper reasons for what led them to criminality and how we can help change their life. Talking about solutions to this never-ending cycle of incarceration requires discussion about what leads people to prison cells in the first place. Indeed, conversations about prison reform have to be contemporaneous with discussions of drug addiction, education, poverty alleviation, and mental health issues that plague our nation. Once that conversation begins, we can talk about what happens behind bars, how it continues to be profitable for the incumbency, and the collateral consequences of criminal convictions.¹⁸⁶ The scope of this article is narrow, and while the num-

183. *Id.* at 7.

184. 13TH, *supra* note 5.

185. See, e.g., Richard S. Frase, *Punishment Purposes*, 58 STAN. L. REV. 67 (2005) (demonstrating the numerous “purposes” that academia has recognized for incarcerating an individual).

186. One of the most alarming collateral consequences in Pennsylvania for a drug conviction, for example, is the loss of an individual’s driver’s license. There is no rationale, other

bers are startling, many topics have been left intentionally untouched. The issues are multicausal, and the need for reform is broad. The analysis has only just begun.

VIII. CONCLUSION

For decades, there has been no empirical evidence that jail time creates a reformed person.¹⁸⁷ In fact, studies repeatedly demonstrate that the exact opposite is true.¹⁸⁸ Why do we continue to operate under a failing system? Until more people start to care about what goes on behind prison walls, little reform will take place. The reality is that this system is built upon years of racism, promoted by politicians who benefit from irrational fear, easily manipulated minds, and the ignorance of the American people. Do not forget the influence of corporations that promote a “tough on crime” stance so they can continue to build financial empires. None of the reasons for mass incarceration are due to helping or protecting our community because we know that this system has not led to that. The only reason we continue to lock people up at exorbitant rates is because the system remains unchallenged by the American people, while politicians and the media continue to promote it for the benefit of their own agendas.¹⁸⁹

Step one for changing the current system is to educate people about what is going on: the exponentially higher rate at which people of color are being arrested, charged, and sentenced for crimes that have been proven to be committed more commonly by white people; the rates of abuse in prison, particularly for our children; the profits corporations make from mass incarceration; politicians promoting racism to further political campaigns; and the startling number of people we lock away each year compared to every other country in the world. Without informing people about what is going on behind the smokescreen, there is no way for them to challenge it or become angry at the injustice that has unfolded in our nation.

The more people who become enraged about how they have been manipulated for the personal incentive of incumbents, the further we can push back against the hierarchy that keeps the system in

than purely punitive incentives, to revoke an individual’s driver’s license for a conviction that never involved traffic laws, driving, or safe transit. For current legislative action on this issue, see e.g., Ryan Gallagher, *Proposed Legislation in PA Could End License Suspensions for Non-Driving-Related Crimes*, DMV (Nov. 17, 2017), <https://www.dmv.org/articles/pennsylvania-considers-dropping-license-suspension-for-non-driving-crimes>.

187. Karakatsanis, *supra* note 58.

188. *Id.*

place. We can do this by not supporting corporations that use prison labor and not voting for politicians who are funded by the bail system or prison lobbyists. Recently, Ibram Kendi, one of the leading academics on racism, expressed his belief that the answer to racism was not through promoting education but, instead, through removing self-interest.¹⁹⁰ If the monetary benefits of jail time stem from the desire of our political elites to maintain the status quo, then the only way to alleviate the issue is to eliminate selfishness. Inherently, those who are financially benefiting from our current system are not interested in reform. It is far more difficult to encourage people to lighten up on prison sentences when the alternative avenue promises financial stability.

In sum, my conclusion is simple. Sentencing for drug offenses, like nearly all other sentences, are bias and prejudicial to minorities in our nation. Given the self-injurious nature of drug abuse,¹⁹¹ I suggest that we completely stop incarcerating people for possession and use of narcotics. Incarceration does not lead to reformed people. If we are concerned about people hurting themselves (especially children), then the solution we provide them should actually help combat their drug addiction.¹⁹² If jail time is not making the problem any better, then why are we incarcerating people, particularly when statistics dictate they will be released and continue on the same pattern that brought them to jail in the first place? With a \$60 billion annual prison budget,¹⁹³ the money already exists to create programs that actually produce results. If we took the existing budget, more than \$2 billion in Pennsylvania alone,¹⁹⁴ and reallocated it to effective programs and services for drug offenders, our

190. "The actual foundation of racism is not ignorance and hate, but self-interest." O'Neal, *supra* note 29.

191. I admit that drug abuse is never truly just self-injurious. The family and loved ones of addicts around the world will readily attest that the havoc drug abuse wreaks on the addict's community is profound. As someone who understands the pangs of drug abuse, I do not intend to minimize the effect drugs have on those other than the user.

192. Much of this would involve not incarcerating individuals for violations of their probation or parole due to drug addiction. Take for example, the Philadelphia rapper Meek Mill, who was recently sentenced to two to four years in a Pennsylvania prison for a failed drug test and other technical violations of his probation. Meek Mill has been on probation for ten years for charges he incurred at the age of 18. Whatever your feelings on Philly hip-hop, Meek's fame and publicity sheds light on an inherent injustice in our Pennsylvania sentencing scheme. For more on this, see Deena Zaru, *Is Meek Mill a Poster Child for Mass Incarceration? What the Outrage is All About.*, CNN POLITICS (Nov. 25, 2017) <https://www.cnn.com/2017/11/24/politics/meek-mill-prison-judge-mass-incarceration/index.html>.

193. Ford, *supra* note 1, at 330.

194. Nicole Brambila, *Recidivism Risk Assessment as Sentencing Tool is Controversial*, READING EAGLE (Sept. 28, 2016), http://www.readingeagle.com/news/article/recidivism-risk-assessment-as-sentencing-tool-is-controversial#.Wcg7V2Xw_ow.

recidivism rates would yield lower numbers. While this would take planning and patience, we already have the funding necessary to implement a better system.

One example of implementing programs that work is drug courts: courts that combine drug abuse treatment with intense judicial supervision.¹⁹⁵ Indeed, drug courts have been proven to reduce drug abuse and crime over an extended period of time.¹⁹⁶ This is but one example of understanding the problem that plagues individuals involved in the criminal justice system (i.e., the fact that roughly 80% of offenders meet a “broad definition of substance involvement”)¹⁹⁷ and allocating resources to appropriately combat the problem.

Admittedly, this idea is not widely accepted or promoted by the American public. Similar to issues surrounding harsh child pornography sentences, not many people are willing to have a conversation about drugs. The taboo nature of drug use and the illegality that surrounds this activity makes it difficult for people in positions of influence to discuss this rhetoric without political retaliation or being deemed unfavorable candidates. As history demonstrates, it is unpopular to be “soft on crime.” In this regard, starting the conversation is important. Making sure people understand the issue and the prejudicial nature of our criminal “justice” system helps facilitate an honest conversation. It is important for people to know what is going on. Spread the word.

195. Douglas B. Marlowe, *Evidence-Based Sentencing for Drug Offenders: An Analysis of Prognostic Risks and Criminogenic Needs*, CHAP. J. CRIM. JUST. 167, 172-73 (2009) (“Substantial research indicates that drug courts significantly reduce crime and drug abuse.”).

196. *Id.* at 173.

197. *Id.* at 167.

Cell Phone or Government Tracking Device? Protecting Cell Site Location Information with Probable Cause

*Samantha G. Zimmer**

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I. INTRODUCTION

Assume it is Saturday morning, and you wake up and check your cell phone. You text your friend on your walk to brunch, and post a photo of your waffle on Instagram while there. Afterwards, you call your family as you drive to the pharmacy, where you check your

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email while you are in line. All in these few hours, your phone has connected to cell towers¹ close to you as you move, even crossing into cells created by different towers as you travel. Each time you begin one of these activities, you connect to your cell phone carrier's network.

The average cell phone user connects to the cell phone carrier's network countless times a day, whether the user is cognizant of it or not.² When calls are placed, text messages are sent, or pictures are posted to social media, the phone connects to the network via a nearby cell tower.³ When this happens, information relating to this network connection is collected by cell phone carriers as part of routine business practices.⁴ This information that is generated and recorded by the carriers ("Cell Site Location Information" or "CSLI") contains not only an approximation of the location of the phone, but also information about date and time of calls, duration of calls, and to whom calls are placed.⁵ CSLI is highly prolific, as is evidenced by Timothy Carpenter, whose case is about to come before the Supreme Court. Carpenter connected to his carrier's network so many times over the course of 127 days that it created 12,898 data points regarding his cell site location.⁶ Under the current law, law enforcement officers were able to obtain this significant amount of sensitive information without probable cause.⁷

Timothy Carpenter's case is not unusual. As the presence of technology increases rapidly, personal information about users becomes less private.⁸ But in a world where technology changes almost daily and laws remain stagnant for decades, courts and legislatures are tasked with finding the delicate balance between outdated laws,

1. Cell phone towers are pole-like structures that rise hundreds of feet tall. Marshall Brian et al., *How Cell Phones Work, Cell-phone Towers*, HOW STUFF WORKS (Nov. 14, 2000), <http://electronics.howstuffworks.com/cell-phone13.htm>.

2. See Brief for the American Civil Liberties Union et al. as Amici Curiae Supporting Appellants, *United States v. Carpenter*, 819 F.3d 990 (6th Cir. 2016) (No. 14-1572) (noting that cell phones regularly connect to the network and continue to do so more frequently, as phones are checking for new emails and other data).

3. Steven M. Harkins, *CSLI Disclosure: Why Probable Cause is Necessary to Protect What's Left of the Fourth Amendment*, 68 WASH. & LEE L. REV. 1875, 1882 (2011).

4. Patrick E. Corbett, *The Fourth Amendment and Cell Site Location Information: What should we do while we wait for the Supremes?*, 8 FED. CTS. L. REV. 215, 217 (2015).

5. *Id.*

6. *In re Application for Tel. Info. Needed for a Criminal Investigation*, 119 F. Supp. 3d 1011, 1015 (N.D. Cal. 2015).

7. *United States v. Carpenter*, 819 F.3d 880, 884 (6th Cir. 2016).

8. Kathleen Mitchell Reitmayer, *Emerging Technology and the Fourth Amendment*, 1 SABER AND SCROLL 99, 99 (2012), <http://digitalcommons.apus.edu/cgi/viewcontent.cgi?article=1022&context=saberandscroll>.

technological advancement, and personal liberties.⁹ The Fourth Amendment¹⁰ has become the center of this balancing act, as the right to be free from unreasonable searches and seizures is analyzed in this new light.¹¹ With the advancement of technology leading to the proliferation of cell phones,¹² many law enforcement agencies seek CSLI when gathering evidence in a criminal investigation.¹³ Warrantless acquisition of CSLI by law enforcement officers from cell phone carriers presents one example of the increasing tension between government interests and individual privacy in the technological age.¹⁴

CSLI searches hang in the balance of this tension with courts coming to different conclusions about the amount of protection CSLI should receive under the Fourth Amendment. Some courts have relied upon the third-party doctrine, finding that individuals lose a reasonable expectation of privacy in CSLI since it is voluntarily conveyed to the carrier.¹⁵ Some courts have rejected the third-party doctrine, alternatively finding that this information is

9. Laurie Buchan Serafino, *"I know my rights, so you go'n need a warrant for that": The Fourth Amendment, Riley's Impact, and Warrantless Searches of Third Party Clouds*, 19 BERKELEY J. CRIM. L. 154, 156 (2014).

10. U.S. CONST. amend. IV. Specifically, the Fourth Amendment states that:
[t]he right of the people to be secure in their persons, houses, papers, and effects, against unreasonable searches and seizures, shall not be violated, and no Warrants shall issue, but upon probable cause, supported by Oath or affirmation, and particularly describing the place to be searched, and the persons or things to be seized.

11. Reitmayer, *supra* note 8, at 99.

12. See *Annual Wireless Industry Survey*, CTIA, <http://www.ctia.org/industry-data/ctia-annual-wireless-industry-survey> (last visited Jan. 13, 2017). In a recent survey of cell phone usage, it was found that there were 377.9 million wireless subscriber connections. *Id.* Additionally, the wireless penetration rate (the number of active wireless units divided by the total United States population) was 115.7%. *Id.*

13. See *Transparency Report*, AT&T, <http://about.att.com/content/csr/home/frequently-requested/info/governance/transparencyreport.html> (last visited Jan. 12, 2017) (reporting receiving 16,077 general court orders for historic and real-time CSLI data from January to June 2016 alone).

14. See, e.g., Jenima Kiss, *Does Technology Pose a Threat to our Private Life?*, THE GUARDIAN (Aug. 20, 2010, 7:07 PM), <https://www.theguardian.com/technology/2010/aug/21/facebook-places-google> (recognizing the emergence of privacy issues in the context of technology, particularly social media location services); Abigail Tracy, *While the Supreme Court Hesitates on Warrantless Cell Location Data Collection, Your Privacy Remains at Risk*, FORBES (Oct. 16, 2015), <http://www.forbes.com/sites/abigailtracy/2015/10/16/while-the-supreme-court-hesitates-on-warrantless-cell-location-data-collection-your-privacy-remains-at-risk/#7e6906893056> (acknowledging that the issue of CSLI could have "broad implications for the future of digital privacy").

15. See generally United States v. Davis, 785 F.3d 498 (11th Cir. 2015). The third-party doctrine establishes that an individual has no reasonable expectation of privacy in "information he voluntarily turns over to third parties." Smith v. Maryland, 442 U.S. 735, 743-44 (1979).

not conveyed voluntarily.¹⁶ As a result, those courts have held that gathering CSLI is a Fourth Amendment search, because users have a reasonable expectation of privacy.¹⁷ Still other courts have avoided the third-party doctrine in relation to location data, favoring instead an analysis of the prolonged search on the whole under what is termed as the mosaic theory.¹⁸

Courts will remain divided on the issue of CSLI until some action is taken by both the Supreme Court and Congress to clarify this ambiguous area with its varied doctrines and precedent. Under current law, there are no sufficient solutions. The established Fourth Amendment jurisprudence is insufficient to cover the unique nature of CSLI. Additionally, the third-party doctrine is impractical applied to modern technologies, and the mosaic theory poses more questions than answers. The recent split in circuit courts of appeal on this issue demonstrates that the courts alone are not the proper vehicle through which to increase CSLI search and seizure protection. The Supreme Court is now posed to finally take on the issue on appeal in *United States v. Carpenter*, but the solution cannot begin and end there.¹⁹ In order to ensure Fourth Amendment protection for CSLI, the Supreme Court should limit continued application of the third-party doctrine in the technological context, specifically as applied to CSLI, as third-parties are inescapable in modern communications. Additionally, Congress should enact a comprehensive statute codifying the requirement of a warrant based on probable cause prior to the government's acquisition of any CSLI.

II. CSLI AND THE STORED COMMUNICATIONS ACT

When cell phones are turned on, they connect to network cell towers via specifically assigned network and cell phone identification

16. See, e.g., United States v. Graham (*Graham I*), 796 F.3d 332 (4th Cir. 2015), vacated, 824 F.3d 421 (*Graham II*) (4th Cir. 2016); *In re Application for Tel. Info. Needed for a Criminal Investigation*, 119 F. Supp. 3d 1011, 1031, 1033, 1035 (N.D. Cal. 2015).

17. *In re Application for Tel. Info. Needed for a Criminal Investigation*, 119 F. Supp. 3d at 1036.

18. See *United States v. Maynard*, 615 F.3d 544, 560-61 (D.C. Cir. 2010). The mosaic theory analyzes searches "as a collective sequence of steps rather than as individual steps." Orin S. Kerr, *The Mosaic Theory of the Fourth Amendment*, 111 MICH. L. REV. 311, 312 (2012). Under this theory, collective police actions can constitute a Fourth Amendment search even though each action in isolation may not. *Id.*

19. *United States v. Carpenter*, 819 F.3d 880 (6th Cir. 2016), cert. granted, 85 U.S.L.W. 3567 (U.S. June 5, 2017) (No. 16-402).

numbers.²⁰ Depending on the location of the phone among the towers, the network then decides through which tower to route the call.²¹ The cell phone continues to send information about the location of the phone in relation to the tower periodically to the carrier while the phone is turned on and connecting to the network.²² When the phone is in an area with more towers, the location of the phone can be more precisely pinpointed.²³ CSLI can be either historical, meaning law enforcement receives the records after the fact, or real-time, where law enforcement can track the suspect's location movement as it is occurring.²⁴ For the purposes of this article, CSLI will refer to both real time and historical.²⁵

Law enforcement can obtain a suspect's CSLI under the procedures set forth in the Stored Communications Act ("SCA").²⁶ Passed over twenty years ago, the SCA is tailored to an older era of technology and focuses on the distinction between content and non-content²⁷ when determining what level of protection certain information receives.²⁸ Specifically, under the SCA, there are certain requirements for obtaining "contents of a wire or electronic communication"²⁹ that differ from non-content.³⁰ Non-content is considered "a record or other information pertaining to a subscriber or to a customer of such service (not including the content of communications)."³¹ For non-content information under the SCA, the government can require a "provider of electronic communication service . . . to disclose a record" after a law enforcement officer obtains a court order.³² The request for the order does not require probable cause, but rather just "specific and articulable facts showing that

20. Brian et al., *supra* note 1. Cell Phones have various codes associated with them for network verification. *Id.* When the cell phone is turned on, the network verifies the user through a system identification code unique to the carrier, as well as an electronic serial number unique to the individual phone. *Id.*

21. Harkins, *supra* note 3, at 1882.

22. *Id.* at 1881-82.

23. *Id.* at 1883.

24. Corbett, *supra* note 4, at 217.

25. For this article, the distinction between real-time and historical CSLI does not factor into the argument or analysis for increased Fourth Amendment protection. Rather, it is argued that all CSLI should be given full protection under the Fourth Amendment regardless of whether it is collected by a third party or the government.

26. See generally 18 U.S.C.A §§ 2701-2712 (West 2016).

27. *Id.* § 2703(a).

28. Corbett, *supra* note 4, at 218.

29. 18 U.S.C.A. § 2703(a) (West 2016).

30. *Id.* § 2703(b).

31. *Id.* § 2703(c).

32. *Id.*

there are reasonable grounds to believe [the records] are relevant and material to an ongoing criminal investigation.”³³

The SCA requires that the records provided pursuant to the Act contain various types of information, including the length of call and service.³⁴ However, the SCA does not specify location information as something that must be on the disclosed records.³⁵ Despite the fact that the SCA is silent with regards to location information, CSLI has been classified by law enforcement and courts as non-content information that falls under the less strict proof standard of the SCA.³⁶ It is this standard of less than probable cause that has been at the center of appeals focused upon greater Fourth Amendment protection for CSLI.³⁷

III. PATCHWORK OF PRECEDENT

The SCA is the statutory provision law enforcement utilizes to obtain CSLI. However, because the SCA does not specifically contemplate this type of information, litigants are raising the issue of whether CSLI collection is a Fourth Amendment search. A recent movement in courts acknowledges the need for increased protection of the copious information mined from technology.³⁸ Yet, the controlling precedent still focuses on specific or outdated technology in limited circumstances.³⁹

33. *Id.* § 2703(d). Under the provisions of the SCA regarding content of communications, the government may only compel disclosure of content of communications after obtaining a warrant based on probable cause or with prior notice to the subscriber and an administrative subpoena or court order. *Id.* § 2703(b).

34. *Id.* § 2703(c)(2).

35. *Id.* The SCA enumerates that the record holder shall disclose the: name; address; local and long distance telephone connection records, or records of session times and durations; length of service (including start date) and types of service utilized; telephone or instrument number or other subscriber number or identity . . . and means and sources of payment for such service (including any credit card or bank account number), of a subscriber to or customer of such service. *Id.*

36. *Id.* § 2703(d).

37. See generally *Graham I*, 796 F.3d 332 (4th Cir. 2015); *United States v. Carpenter*, 819 F.3d 880 (6th Cir. 2015).

38. Compare *Riley v. California*, 134 S. Ct. 2473, 2489 (2014) (acknowledging cell phones collect distinct, revealing information that warrants greater protection), with *United States v. Carpenter*, 819 F.3d 880, 886 (6th Cir. 2015) (comparing CSLI to information found on the outside of a mailing, which is not constitutionally protected).

39. See generally *United States v. Wheeler*, 169 F. Supp. 3d 896 (E.D. Wis. 2016) (providing an expansive summary of Supreme Court Fourth Amendment jurisprudence in the context of CSLI).

A. Reasonable Expectation of Privacy and the Third-Party Doctrine

The Supreme Court has not yet addressed the issue of what, if any, Fourth Amendment protection is awarded to CSLI. Therefore, the Court's established Fourth Amendment jurisprudence is the only guidance for lower courts facing this issue.⁴⁰ Although trespass principals defined early Fourth Amendment analyses, the modern Fourth Amendment construction is largely premised on the concept that the Fourth Amendment "protects people, not places."⁴¹ As such, the Fourth Amendment analysis focuses on whether an individual has both a subjectively and objectively reasonable expectation of privacy that is violated by a particular search.⁴² This analysis, termed the *Katz* test, is two-pronged.⁴³ First, courts determine whether an individual has an actual expectation of privacy.⁴⁴ Second, if the individual does have an actual expectation of privacy, courts determine whether that expectation is "one that society is prepared to recognize as 'reasonable'."⁴⁵

The Supreme Court first looked to Fourth Amendment reasonable expectations of privacy in relation to telecommunications in 1979 in *Smith v. Maryland*, where it brought the established third-party doctrine into an age of technology.⁴⁶ In *Smith*, the police, without a warrant, installed a pen register⁴⁷ on a telephone company's equipment to record the phone numbers dialed from the defendant's landline phone.⁴⁸ The Court held that there was no reasonable subjective expectation of privacy for telephone users when it came to numbers dialed on the phone.⁴⁹ This was because such information must be conveyed to the telephone company, a third party, as part of the transaction.⁵⁰ Further, even if the defendant

40. See *United States v. Jones*, 132 S. Ct. 945, 950 (2012) (discussing current Fourth Amendment jurisprudence to include the *Katz* reasonable expectation of privacy, and *Knotts* and *Kyllo* holdings).

41. *Katz v. United States*, 399 U.S. 347, 351 (1967); See also *Jones*, 132 S. Ct. 949 (emphasizing that the history of the Fourth Amendment is closely connected to the principles of property and trespass).

42. *Katz*, 399 U.S. 361 (Harlan, J., concurring).

43. *Id.*

44. *Id.*

45. *Id.*

46. See generally *Smith*, 442 U.S. 735 (1979).

47. The pen register was not a listening device for wiretapping purposes, but instead recorded the telephone numbers dialed from a suspect's home phone. *Id.* at 737.

48. *Id.*

49. *Id.* at 743.

50. *Id.*

did have a subjective expectation of privacy, there was no reasonable objective expectation that this information would be private.⁵¹ In noting this, the Court harkened back to the established third-party doctrine, whereby an individual does not have a reasonable expectation of privacy in information voluntarily given to third parties.⁵² Thus, since the defendant “voluntarily conveyed to [the phone company] information that it had facilities for recording and that it was free to record . . . [the defendant] assumed the risk that the information would be divulged to police.”⁵³

Many of the twenty-first century concerns about the third-party doctrine, including assumption of the risk and lack of technology alternatives, were present when *Smith* was decided.⁵⁴ Justice Marshall dissented from the majority in *Smith*, presenting some of the first arguments as to the possible shortcomings of the third-party doctrine when applied to technology.⁵⁵ Marshall was skeptical of the majority’s assumption that individuals are generally aware that the information they convey to phone companies is recorded and compiled as part of business records.⁵⁶ Additionally, Marshall argued against the majority’s reliance upon the consumer’s assumption of the risk of disclosure under the third-party doctrine.⁵⁷ He advocated that it was unfair to claim assumption of the risk when there was no practical alternative to using the phone.⁵⁸ The only alternative to avoid this possible disclosure was to “forgo use of what for many has become a personal or professional necessity.”⁵⁹

Marshall argued instead that the test for a reasonable expectation of privacy under *Katz* should be dependent on the risks an individual “should be forced to assume in a free and open society.”⁶⁰ Thus, Marshall would have held that there is a reasonable expectation of privacy in phone numbers dialed, and that law enforcement

51. *Id.* at 743-44.

52. *Id.* at 743-44; see, e.g., *United States v. Miller*, 425 U.S. 435, 443 (1976) (noting that in terms of banking information, “the Fourth Amendment does not prohibit the obtaining of information revealed to a third party”); *Couch v. United States*, 409 U.S. 322, 335 (1973) (finding there to be no expectation of privacy in records given to an accountant).

53. *Smith*, 442 U.S. at 745.

54. See generally *id.* at 749-50 (Marshall, J., dissenting).

55. *Id.* at 748-49. As will be discussed later, Justice Stewart dissented separately from the *Smith* majority, presenting the first sentiments that would come to resemble the mosaic theory. *Id.* at 748 (Stewart, J., dissenting).

56. *Id.* at 749 (Marshall, J., dissenting).

57. *Id.*

58. *Id.* at 750.

59. *Id.*

60. *Id.*

officers should be required to obtain warrants prior to asking a telephone company to disclose such information.⁶¹ Nevertheless, despite the concerns voiced by Justice Marshall, the third-party doctrine prevails and constitutes the primary standard under which courts determine that technological information does not have full Fourth Amendment protection.⁶²

B. The Mosaic Theory and Location Tracking Devices

As Fourth Amendment jurisprudence has developed along with technological advancements, the mosaic theory has emerged as a possible replacement to the third-party doctrine.⁶³ While something similar to the mosaic theory appeared in Justice Stewart's dissenting opinion in *Smith v. Maryland*,⁶⁴ the modern mosaic theory is largely credited to the District of Columbia Circuit Court of Appeals in the case of *United States v. Maynard*.⁶⁵ In *Maynard*, the police attached a GPS tracking device to the defendant's jeep without a warrant and tracked his movements with the device for approximately a month.⁶⁶ The Circuit Court found the *Maynard* case to present an issue typically left unanswered by past precedent: "whether 'wholesale' or 'mass' surveillance of an individual requires a warrant."⁶⁷ After finding that the attachment of a GPS tracking device did constitute a search under the Fourth Amendment, the court applied *Katz* and found the defendant had a reasonable expectation of privacy in the whole of his movements.⁶⁸

The court used *Smith* to support this interpretation of the Fourth Amendment, noting that the *Smith* Court's analysis was focused not only on a reasonable expectation of privacy in the numbers dialed, but also on a reasonable expectation that the numbers dialed would be compiled in a list.⁶⁹ As a result, the reasonable expectation of privacy was composed of "parts" (the numbers dialed) that make up the "whole" (the compiled list of the numbers dialed).⁷⁰

61. *Id.* at 752.

62. Serafino, *supra* note 9, at 168.

63. Kerr, *supra* note 18, at 313.

64. *Smith*, 442 U.S. 735, 748 (1979) (Stewart, J., dissenting) (noting the information from the pen register should be protected not because it could be incriminating, but because the information taken together shows the people and places called, thus revealing "the most intimate details of a person's life").

65. *United States v. Maynard*, 615 F.3d 544 (D.C. Cir. 2010), *aff'd sub nom.*, *United States v. Jones*, 132 S. Ct. 945 (2012).

66. *Id.* at 555.

67. *Id.* at 558.

68. *Id.* at 560.

69. *Id.* at 561.

70. *Id.*

The D.C. Circuit Court then reasoned that the privacy interest in the whole could be greater than the privacy interests in the parts.⁷¹

The concept of the mosaic theory by the *Maynard* court suggests that the prolonged search of an individual's location compiled on the whole reveals a more detailed picture of a person's life than one piece of tracking information alone.⁷² Consequently, there is an objectively reasonable expectation of privacy in society for such a search.⁷³ For example, the court notes that while location data showing a visit to the gynecologist is not particularly revealing on its own, that snippet of location information coupled with data indicating another location to be a trip to a baby supply store is indeed revealing.⁷⁴

On appeal, in the consolidated case *United States v. Jones*, the Supreme Court affirmed the D.C. Circuit Court, finding that the GPS tracking did constitute a search of a protected area under the Fourth Amendment.⁷⁵ However, the Court declined to apply the *Katz* reasonableness analysis or the D.C. Circuit's mosaic theory, and applied traditional trespass principles instead.⁷⁶ The Court noted that *Katz* did not "narrow the Fourth Amendment's scope," thus, the traditional property and trespass principles of the Fourth Amendment remained and were sufficient to settle the dispute in this case.⁷⁷ As a result, the warrantless attachment of the GPS to the car was an intrusion on a constitutionally protected area that violated the Fourth Amendment.⁷⁸

The *Jones* opinion is perhaps most interesting in the evolving Fourth Amendment jurisprudence because of the concurring opinions presented.⁷⁹ Although the Court chose not to give weight to the mosaic theory analysis utilized by the D.C. Circuit, Justice Sotomayor expressed some support for the theory in her concurrence, as technological advances make non-trespassory surveillances more common.⁸⁰ Sotomayor noted that "in cases involving even short-term monitoring, some unique attributes of GPS surveillance relevant to the *Katz* analysis will require particular attention."⁸¹ In her

71. *Id.*

72. *Id.* at 562.

73. *Id.* at 563.

74. *Id.* at 562.

75. *United States v. Jones*, 132 S. Ct. 945, 952 (2012).

76. *Id.* at 951.

77. *Id.* Specifically, the Court stated that "Fourth Amendment jurisprudence . . . [is] tied to common-law trespass." *Id.* at 947.

78. *Id.* at 951.

79. See generally *id.* at 954.

80. *Id.* at 955 (Sotomayor, J., concurring).

81. *Id.*

view, GPS tracking provides a widespread and detailed record of an individual's movements, thus reflecting details about "political, professional, religious, and sexual associations."⁸²

Sotomayor argued that for future analyses courts should focus on whether an individual reasonably expects his or her movements to be recorded and gathered in a way that allows the government to discover personal details from the aggregate of the GPS tracking.⁸³ Most notably, Sotomayor concluded her concurrence by indicating the need to reconsider the third-party doctrine, as it is particularly unworkable in the current digital era, where large quantities of individual information are shared even in the most uninteresting transactions.⁸⁴ Although not adopted by the Supreme Court, the mosaic theory has gained some traction in certain courts, while others have deferred on the issue.⁸⁵

Two Supreme Court decisions predating *Jones* and focusing on a more rudimentary form of location tracking, the beeper,⁸⁶ frequently enter the CSLI discussion.⁸⁷ In *United States v. Knotts*, law enforcement officers installed a beeper inside a container the defendant was transporting.⁸⁸ Law enforcement then used the information generated from the beeper to create probable cause for a search warrant.⁸⁹ The Court held that the defendant had no reasonable expectation of privacy in his movement on public roads as it was tracked by the beeper.⁹⁰ In *United States v. Karo*, law enforcement officers obtained a court order to install a beeper on a can of ether the defendant would be carrying.⁹¹ There, the Court found

82. *Id.*

83. *Id.* at 956.

84. *Id.* at 957.

85. Compare *United States v. White*, 62 F. Supp. 3d 614, 623 (E.D. Mich. 2014) (citing to Justice Sotomayor's concurring opinion in *Jones* to find there was a violation of a reasonable expectation of privacy in the month-long tracking of a defendant's cell phone location), with *United States v. Ashburn*, 76 F. Supp. 3d 401, 414 (E.D.N.Y. 2014) (declining to decide admissibility of long-term location tracking information under the mosaic theory, but utilizing a good faith exception instead).

86. beepers are "battery-powered radio transmitter[s] that emit recurrent signals at a set frequency." Note, *Tracking Katz: Beepers, Privacy and the Fourth Amendment*, 86 YALE L.J. 1461, 1461 (1977). When the beepers are attached to an object, the location of the beeper and object can be monitored for extended periods of time via a receiver to which the beeper transmits signals. *Id.*

87. See generally *United States v. Karo*, 468 U.S. 705 (1984); *United States v. Knotts*, 460 U.S. 276 (2001).

88. *Knotts*, 460 U.S. at 278.

89. *Id.* at 279.

90. *Id.* at 285.

91. *Karo*, 468 U.S. at 708.

the government's monitoring or location tracking of the beeper constituted a search because it tracked the defendant while he was in his home.⁹²

Both *Knotts* and *Karo* clarify where there is a reasonable expectation of privacy in terms of location tracking. More importantly, however, they also necessarily implicate the distinction between GPS tracking implemented by the government and location information collected by a third party and later obtained by the government.⁹³ As such, they are often cited to or distinguished in cases involving CSLI as an important part of Supreme Court precedent shaping these decisions.⁹⁴ Both of the beeper cases demonstrate the Court's willingness to protect an individual's reasonable expectation of privacy in her location, so long as the government is the entity carrying out the activity.⁹⁵

Recently, the Supreme Court again showed a willingness to protect individual privacy in the face of government intrusion.⁹⁶ In *Riley v. California*, the Court expanded Fourth Amendment protection to cell phones in specific circumstances.⁹⁷ While the Court in *Riley* was concerned only with searches of cell phone contents in searches incident to arrest, much of the Court's reasoning extended some of the principles of the mosaic theory to cell phone technology.⁹⁸ Specifically, the Court noted that the information contained in a cell phone reveals significant personal details when viewed comprehensively, and that "the sum of an individual's private life can be reconstructed" through the various pictures, locations, and information stored on the phone.⁹⁹ Interestingly, the Court referenced *Jones* and acknowledged that "[h]istoric location information is a standard feature of many smart phones and can reconstruct someone's specific movements down to the minute."¹⁰⁰

92. *Id.* at 714.

93. See *In re Application of the U.S. for Historical Cell Site Data (In re Application Fifth Circuit)*, 724 F.3d 600, 609 (5th Cir. 2013). The Fifth Circuit distinguished *Karo* from *Smith* on the basis that in *Karo*, "the Government was the one collecting and recording the information." *Id.* The court also stated that for Fourth Amendment intrusions, the finding of a search is dependent on whether the government or a third party collects the information. *Id.* at 610.

94. See, e.g., *Graham I*, 796 F.3d 332, 347 (4th Cir. 2015) (distinguishing CSLI from the beepers in *Karo*, as CSLI can reveal more information); *United States v. Wheeler*, 169 F. Supp. 3d 896, 903 (E.D. Wis. 2016) (summarizing the *Karo* holding as important Supreme Court precedent when deciding on a CSLI Fourth Amendment search).

95. *In re Application Fifth Circuit*, 724 F.3d at 610.

96. See generally *Riley v. California*, 134 S. Ct. 2473 (2014).

97. *Id.* at 2485.

98. See generally *id.* at 2489.

99. *Id.*

100. *Id.* at 2490.

Ultimately, the Court held that police were required to obtain a warrant before searching cell phones seized on suspects; specifically noting that the personal information accumulated from technology does not lose its right to Fourth Amendment protection simply because individuals carry such information with them.¹⁰¹ This varied precedent indicates a trend by the Supreme Court towards recognizing that technology challenges traditional Fourth Amendment application and that there is a need to adequately protect location information under these changing circumstances. Despite this trend, the precedent above does not apply specifically to CSLI, so the third-party doctrine still controls CSLI cases decided by lower courts.

IV. CIRCUIT SPLIT AND REALIGNMENT

Since the Supreme Court has failed to address where CSLI falls within the evolving precedent of the third-party doctrine and the mosaic theory, circuit courts of appeals have been without guidance when facing this issue. During 2015 alone, three federal circuits ruled differently on the Fourth Amendment protection of CSLI with varying rationales.¹⁰² The circuit split seemed to resolve in 2016 with the circuits agreeing again, at least for now.¹⁰³ However, the previous circuit split and recent realignment provide insight into how courts are grappling with CSLI and show that they are still in need of resolution from a higher authority.¹⁰⁴

101. *Id.* at 2495.

102. Compare *United States v. Carpenter*, 819 F.3d 880, 887 (6th Cir. 2016) (holding the collection of CSLI was not a search under the Fourth Amendment, focusing on CSLI as non-content used for business purposes), and *United States v. Davis*, 785 F.3d 498, 507 (11th Cir. 2015) (applying the third-party doctrine and holding that the government's acquisition of CSLI was not a Fourth Amendment search), *with Graham I*, 796 F.3d 332, 361 (4th Cir. 2015) (declining to apply the third-party doctrine and holding that there is a reasonable expectation of privacy in CSLI).

103. *Does Seeking Cell Site Location Information Require a Search Warrant?*, COLUMBIA LAW CAPI (Aug. 2009), http://web.law.columbia.edu/sites/default/files/microsites/public-integrity/files/does_seeking_cell_site_location_information_require_a_search_warrant_-wesley_cheng_august2016update_0.pdf. Following *Graham II*, the circuit courts of appeals may now be in agreement that CSLI does not warrant Fourth Amendment protection. *Id.* However, most other circuits have still not ruled on this issue, and while district courts have mostly conformed, some have not. *Id.*

104. Robinson Meyer, *No One Will Save You from Cellphone Tracking*, THE ATLANTIC (June 2, 2016), <http://www.theatlantic.com/technology/archive/2016/06/fourth-circuit-csli-cellphone-location-tracking-legal/485225/>. As noted by Orin Kerr, it will likely not be long before the Supreme Court rules on the CSLI issue, as all it would take is at least one jurisdiction to go against the grain by providing Fourth Amendment protection. *Id.*

A. Eleventh Circuit Approach

The Eleventh Circuit Court of Appeals, facing an issue of first impression, was asked to determine the place of CSLI in the scope of the Fourth Amendment in *United States v. Davis*.¹⁰⁵ In *Davis*, the defendant was convicted for various armed robberies with evidence including his CSLI, which the government obtained by compelling its production from the cell phone carrier's business records.¹⁰⁶ The defendant argued that the compelled production of these records constituted a Fourth Amendment search requiring probable cause.¹⁰⁷ The court held that the SCA order used to compel production of the CSLI was not a search under the Fourth Amendment, because there was no reasonable expectation of privacy in a third party's business records.¹⁰⁸ The court found that since the records were non-content under the SCA,¹⁰⁹ the defendant had neither a property interest in the records, nor a subjective or objective reasonable expectation of privacy in them.¹¹⁰

The Eleventh Circuit rejected the defendant's argument to apply *Jones*, which held that attaching a GPS tracking device was a physical intrusion requiring a search warrant.¹¹¹ The Eleventh Circuit distinguished CSLI from real-time GPS tracking, finding CSLI to be less precise in pinpointing location than GPS data.¹¹² Analyzing the concurring opinions in *Jones*, the Eleventh Circuit declined to apply the mosaic theory approach as well.¹¹³ The court found that the concurring opinions "underscore[d] why this [c]ourt is bound by [the third-party doctrine]."¹¹⁴ Reading Justice Sotomayor's concurrence, the court found the questions it raised to be simply that: questions.¹¹⁵ While acknowledging that Justice Sotomayor may have hinted at the need to reevaluate the third-party doctrine in the modern context, the court emphasized that she still ultimately concurred in the physical trespass holding of the majority.¹¹⁶ As a result, her subsequent questions or statements were not binding.¹¹⁷

105. See generally 785 F.3d 498, 500 (11th Cir. 2015).

106. *Id.* at 501.

107. *Id.* at 503.

108. *Id.* at 507 (citing *Smith v. Maryland*, 442 U.S. 735 (1979)).

109. See *supra* notes 29-31 and accompanying text.

110. *United States v. Davis*, 785 F.3d 498, 511 (11th Cir. 2015).

111. *United States v. Jones*, 132 S. Ct. 945, 949 (2012).

112. *Davis*, 785 F.3d at 514.

113. *Id.*

114. *Id.*

115. *Id.*

116. *Id.*

117. *Id.*

The Eleventh Circuit strictly applied the third-party doctrine, recognizing that even if obtaining CSLI constituted a search, it was not unreasonable because there is no reasonable expectation of privacy in business records created and kept by a third party.¹¹⁸ The court chose not to discard the third-party doctrine simply because the records can reveal user location, even claiming that the records at issue in *Smith* technically revealed location as well since the information was tied to a landline home phone.¹¹⁹

Finally, the court came back to the SCA as the ultimate guide, emphasizing that the reasonable suspicion requirement prior to obtaining a court order for CSLI constitutes built-in statutory privacy protections.¹²⁰ The court determined that because CSLI is crucial in investigations, the SCA was intended to build probable cause rather than require it.¹²¹ As a result, the Eleventh Circuit ultimately concluded there was no Fourth Amendment search when the government obtained a defendant's CSLI under the SCA.¹²²

B. Sixth Circuit Approach

After the Eleventh Circuit decision in *Davis*, the Sixth Circuit confronted the same issue in *United States v. Carpenter*, where the defendant was convicted of robbery with CSLI evidence obtained under the SCA.¹²³ Although reaching a similar result as the Eleventh Circuit in finding that acquiring CSLI was not a search under the Fourth Amendment, the Sixth Circuit deviated slightly in its reasoning.¹²⁴ The court focused upon the general non-content nature of CSLI in relation to traditional Fourth Amendment law, even without the SCA distinction as such.¹²⁵ Specifically, the court likened CSLI to address information found on the outside of mail envelopes, as opposed to the letters inside the envelopes.¹²⁶ Authority has long held that the information written on the outside of mail envelopes is non-content, as it only relays routing details for business purposes.¹²⁷ Following this rationale, the court decided that

118. *Id.* at 517.

119. *Id.* at 511-12.

120. *Id.* at 517.

121. *Id.* at 518. Specifically, the court notes that SCA orders like the one here help to build probable cause, “[d]eflect suspicion from the innocent, aid in the search for truth, and judiciously allocate scarce investigative resources.” *Id.*

122. *Id.* at 511.

123. *United States v. Carpenter*, 819 F.3d 880, 884 (6th Cir. 2016).

124. *Id.* at 890.

125. *Id.* at 887.

126. *Id.* at 886.

127. *Id.*

CSLI is used only for routine business purposes and thus does not share the same level of protection afforded to the content of the communications.¹²⁸

Similar to the Eleventh Circuit, the Sixth Circuit rejected the defendant's argument to expand the *Jones* holding to CSLI.¹²⁹ The Sixth Circuit distinguished CSLI from the GPS tracking in *Jones* on two points.¹³⁰ First, the GPS intrusion in *Jones* was a physical trespass, whereas the search here was into third party business records.¹³¹ Second, the GPS tracking in *Jones* had the potential to reveal detailed information, which CSLI could not do.¹³² The court would not extend the concept of the mosaic theory to CSLI, claiming that CSLI could not provide location information with the precision that other forms of GPS tracking could.¹³³

The Sixth Circuit relied primarily upon the third-party doctrine and found it to be appropriate to address the issue of CSLI as well as to distinguish *Jones*, which was a physical trespass by the government, not a compelled production of third party records.¹³⁴ The court emphasized the distinction between the government actions in both cases.¹³⁵ The CSLI obtained in *Carpenter* was from a third-party's business records, so the defendant had a diminished expectation of privacy with regards to those records.¹³⁶ In contrast, the information obtained in *Jones* was not first revealed to a third party, but rather directly tracked by the government.¹³⁷ As a result, the expectation of privacy and the type of government intrusion in the present case were fundamentally different from those in *Jones*.¹³⁸

The Sixth Circuit rationalized that collecting CSLI contained in business records was squarely within the third-party doctrine, in stark contrast to the warrantless attachment of a GPS device to an

128. *Id.* at 887.

129. *Id.* at 888.

130. *Id.*

131. *Id.* at 889.

132. *Id.* (citing *United States v. Jones*, 132 S. Ct. 945, 956 (2012) (Sotomayor, J., concurring)).

133. *Id.*

134. *Id.* Using traditional trespass principles, the Court in *Jones* held that law enforcement is required to obtain a warrant prior to attaching a GPS tracking device to a defendant's vehicle for long-term location tracking. *United States v. Jones*, 132 S. Ct. 945, 949 (2012).

135. *Carpenter*, 819 F.3d at 888.

136. *Id.* at 889.

137. *Id.* at 888. Specifically, the court compared and contrasted the differences between the type of government action. *Id.* For example, the court noted that while the government's wiretap of a telephone conversation would invade a reasonable expectation of privacy, that same conversation overheard on an airplane would not. *Id.*

138. *Id.* at 889.

individual's car as in *Jones*.¹³⁹ Ultimately, the Sixth Circuit concluded that procuring CSLI was not a search, CSLI is appropriately protected by the SCA, and any reevaluation of how CSLI is obtained by law enforcement should be done by the legislature.¹⁴⁰

C. Fourth Circuit Approach

Under facts similar to *Carpenter*, the Fourth Circuit Court of Appeals was the first circuit court to define the Fourth Amendment protection given to CSLI in a vastly different way in its decision in *Graham I*.¹⁴¹ Although the Fourth Circuit did grant a rehearing en banc and eventually aligned its position with the Eleventh and Sixth Circuits, the rationale behind *Graham I* provides valuable insight on the divide regarding how to treat CSLI.¹⁴² In *Graham*, law enforcement officers sought disclosure of CSLI under the SCA for calls and text messages from two defendants convicted of robbery.¹⁴³

The Fourth Circuit initially held that when law enforcement officers obtain historic CSLI, they conduct a search within the meaning of the Fourth Amendment.¹⁴⁴ The court in *Graham I* found that CSLI searches track movements and reveal personal details in which cell phone users have a reasonable expectation of privacy.¹⁴⁵ The court cited to the beeper cases, *Karo* and *Knotts*,¹⁴⁶ to establish the premise that "the Supreme Court has recognized an individual's privacy interests in comprehensive accounts of her movements in her location . . . particularly when such information is available only through technological means not in use by the general public."¹⁴⁷ The court was particularly concerned about the long-term tracking device, the cell phone, being carried on the person, because it could track the individual even while at the home, a place where Fourth Amendment protection is at its strongest.¹⁴⁸ As a result, the court in *Graham I* declined the rationale of the other circuits, finding

139. *Id.*

140. *Id.* at 890.

141. *Graham I*, 796 F.3d 332, 338 (4th Cir. 2015).

142. See generally *Graham II*, 824 F.3d 421 (4th Cir. 2016).

143. *Graham I*, 796 F.3d at 341.

144. *Id.* at 344-45.

145. *Id.* at 345.

146. In *Karo*, the Court found that a warrant was required when a location tracking beeper tracked a defendant in his house. *United States v. Karo*, 468 U.S. 705, 714 (1984). On the other hand, in *Knotts*, the Court found that there was no Fourth Amendment search when a beeper tracked the defendant on public roads. *United States v. Knotts*, 460 U.S. 276, 285 (1983).

147. *Graham I*, 796 F.3d at 345.

148. *Id.* at 347; see also *Karo*, 468 U.S. at 714 (noting the established principle that "private residences are places in which the individual normally expects privacy free of government intrusion").

CSLI was fundamentally similar to other types of location tracking, despite the presence of a third party.¹⁴⁹

The court in *Graham I* addressed both the *Jones* holding as well as the third-party doctrine while affording CSLI the greatest protection under the Fourth Amendment seen thus far by a court.¹⁵⁰ While analyzing the majority and concurring opinions in *Jones*, the Fourth Circuit found that the privacy interests implicated in *Jones* were equal to, if not greater than, the privacy interests in CSLI.¹⁵¹ Further, since the long-term location information comprehensively reveals details of an individual's life, a search into CSLI invades a reasonable expectation of privacy.¹⁵²

While addressing the third-party doctrine, the *Graham I* court focused primarily on voluntary conveyance of information as the determining factor for assumption of risk.¹⁵³ The court declined to extend the third-party doctrine to cell phones, as "a cell phone user does not 'convey' CSLI to her service provider at all," and thus does not assume the risk that such information will be disclosed.¹⁵⁴ Additionally, the court did not extend the third-party doctrine, because it found that the doctrine should not be categorically applied when there is a reasonable expectation of privacy in information "generated and recorded by a third party through an accident of technology."¹⁵⁵ The *Graham I* court concluded that individuals have a reasonable expectation of privacy in CSLI, implicating Fourth Amendment protection.¹⁵⁶ As a result, law enforcement officers in the Fourth Circuit would have to obtain a warrant based on probable cause before collecting CSLI in the future.¹⁵⁷

After a rehearing en banc, the Fourth Circuit joined the Eleventh and Sixth Circuits, acknowledging that "[t]he Supreme Court may in the future limit, or even eliminate, the third-party doctrine," or "Congress may act to require a warrant for CSLI."¹⁵⁸ However, until that time, the Fourth Circuit determined it was bound by existing precedent, which required a finding that warrantless acquisition of CSLI did not violate the Fourth Amendment.¹⁵⁹ The court

149. *Graham I*, 796 F.3d at 361.

150. *Id.*

151. *Id.* at 348.

152. *Id.*

153. *Id.* at 354.

154. *Id.*

155. *Id.* at 360.

156. *Id.* at 361.

157. *Id.*

158. *Graham II*, 824 F.3d 421, 425 (4th Cir. 2016).

159. *Id.*

in *Graham II* found that the defendant mischaracterized the governmental activity by relying upon the beeper cases.¹⁶⁰ The court rejected the notion that the beeper cases stood for the proposition that there is an individual expectation of privacy when location is being tracked.¹⁶¹ Rather, the court drew upon the third-party doctrine and distinguished how this case involved government collection of third party records, not government tracking of individuals.¹⁶² Like the Sixth Circuit, the Fourth Circuit in *Graham II* found the nature of the government activity to be different in cases of CSLI, because law enforcement was not actively tracking a defendant, but rather obtaining third-party records.¹⁶³

From there, the court in *Graham II* applied the third-party doctrine as set forth in *Smith*, finding CSLI to be analogous to the telephone numbers recorded by a pen register.¹⁶⁴ According to the court, CSLI was voluntarily conveyed and “unquestionably ‘exposed,’” thus the defendants assumed the risk that the information would be disclosed to the government.¹⁶⁵ As a result, the court held that government acquisition of CSLI did not require a warrant based on probable cause as per the Fourth Amendment.¹⁶⁶ The Fourth Circuit acknowledged that to hold otherwise, as the court did in *Graham I*, would be to conflict with binding Supreme Court precedent and the majority of other federal circuits.¹⁶⁷

V. ARGUMENT

Neither the third-party doctrine nor the mosaic theory is an appropriate solution to protect CSLI under the Fourth Amendment. The Supreme Court should continue its trend of recognizing the unique role of new technology with regards to the Fourth Amendment and overturn the third-party doctrine as applied in such circumstances. However, the Supreme Court alone cannot be the only authority to define the place of CSLI in the Fourth Amendment scheme. Therefore, the legislature should take up the issue of CSLI

160. *Id.* at 426.

161. *Id.*

162. *Id.*

163. *Id.*; see also *In re Application Fifth Circuit*, 724 F.3d at 610 (emphasizing the importance of determining “*who* is recording an individual’s information initially,” as that determines the individual’s reasonable expectation of privacy) (emphasis in original).

164. *Graham II*, 824 F.3d at 427. Specifically, the court noted that the CSLI that the carrier recorded “was necessary to route Defendants’ cell phone calls and texts, just as the dialed numbers recorded by the pen register in *Smith* were necessary to route the defendant’s landline calls.” *Id.*

165. *Id.*

166. *Id.*

167. *Id.* at 429.

and enact a statute that protects this important information under the Fourth Amendment by requiring a warrant based on probable cause before it is collected.

A. Insufficiency of the Third-Party Doctrine and Mosaic Theory

The third-party doctrine is grounded in reasonable principles for the era in which it was created, but it does not translate into an age of technology.¹⁶⁸ As such, the doctrine is insufficient to protect CSLI.¹⁶⁹ The third-party doctrine is premised on the idea that information is voluntarily conveyed and courts allowing warrantless searches of CSLI have justified holdings based on this concept.¹⁷⁰ However, by its very essence, cell phone technology challenges that foundational aspect of the third-party doctrine.¹⁷¹ CSLI is not voluntarily conveyed, but rather is automatically collected by service providers and not revealed to users.¹⁷² The user does not consent to or participate in the collection or transmission of the location at all besides simply using a personal piece of technology.¹⁷³ In fact,

168. *United States v. Jones*, 132 S. Ct. 945, 957 (2012) (Sotomayor, J., concurring). Sotomayor stated that the third-party doctrine premise is “ill suited to the digital age,” and provided various examples of information disclosed to third parties, including URLs, emails, and phone numbers, which users would not wish to be disclosed without a warrant. *Id.* As a result, Sotomayor concluded that she “would not assume that all information voluntarily disclosed to some member of the public for a limited purpose is, for that reason alone, disentitled to Fourth Amendment protection.” *Id.*

169. See *In re Application of the U.S. for an Order Authorizing the Release of Historical Cell-Site Info.*, 809 F. Supp. 2d 113, 127 (E.D.N.Y. 2011). Specifically, the court for the Eastern District of New York stated:

The fiction that the vast majority of the American population consents to warrantless government access to the records of a significant share of their movements by “choosing” to carry a cell phone must be rejected. In light of drastic developments in technology, the Fourth Amendment doctrine must evolve to preserve cell-phone user’s [sic.] reasonable expectation of privacy in cumulative cell-site-location records.

Id.

170. Compare *United States v. Wheeler*, 169 F. Supp. 3d 896, 910 (E.D. Wis. 2016) (rejecting the *Graham I* court’s conclusion that a cell phone user does not voluntarily convey CSLI under the third-party doctrine), with *United States v. Rogers*, 71 F. Supp. 3d 745, 750 (N.D. Ill. 2014) (finding no reasonable expectation of privacy in CSLI voluntarily conveyed to the cell phone carrier).

171. *Graham I*, 796 F.3d 332, 354 (4th Cir. 2015). Specifically, the court in *Graham I* noted that a “cell phone user does not ‘convey’ CSLI to her service provider at all – voluntarily or otherwise.” *Id.*; see also *In re Application Fifth Circuit*, 724 F.3d 600, 612 (5th Cir. 2013) (summarizing the American Civil Liberties Union argument that a cell phone user receives no indication that he will be located when making a call, thus “[a] user cannot convey something which he does not know he has”).

172. *Graham I*, 796 F.3d at 354; see also *Com. v. Augustine*, 4 N.E.3d 846, 862 (Mass. 2014) (distinguishing CSLI from the phone numbers in *Smith*, because “no cellular telephone user . . . voluntarily conveys CSLI to his or her cellular service provider.”).

173. *Graham I*, 796 F.3d at 354-55.

“CSLI is purely a function and product of cellular telephone technology, created by the provider’s system network.”¹⁷⁴ As a result, CSLI is a natural consequence of cell phone technology, and law enforcement officers seek it not for any information voluntarily given by the user, but rather for the information’s “by-product” – the CSLI.¹⁷⁵ Even conceding that the cell phone provider owns this information, CSLI is vastly different from the types of information the third-party doctrine originally anticipated.¹⁷⁶ Given this, it cannot be said that cell phone users assume the risk of CSLI disclosure when they have not “actively” chosen to disclose it.”¹⁷⁷

The basic third-party doctrine premise of voluntary conveyance is not the only issue preventing the doctrine from transitioning into the technological era. As noted by Justice Marshall in his *Smith* dissent, lack of alternatives makes the third-party doctrine particularly difficult to justify.¹⁷⁸ In *Smith*, Marshall was concerned with the lack of alternative to the traditional landline home phone.¹⁷⁹ Cell phones are arguably even more ubiquitous than home phones,¹⁸⁰ thus escalating the concern originally presented by Justice Marshall. In fact, cell phones have been acknowledged to be “so pervasive that some persons may consider them to be essential means or necessary instruments of self-expression.”¹⁸¹ The lack of meaningful alternatives to a cell phone in the modern age makes it difficult to claim users could avoid unwanted effects of the third-party doctrine, like CSLI disclosure, simply by not owning a cell phone.¹⁸²

174. *Augustine*, 4 N.E.3d at 862.

175. *Id.* at 863.

176. *Id.*

177. *Graham I*, 796 F.3d at 355.

178. *Smith v. Maryland*, 442 U.S. 735, 750 (1979) (Marshall, J., dissenting).

179. *Id.*

180. *Graham I*, 796 F.3d at 355. In declining to accept the voluntary conveyance justification, the *Graham I* court stated:

We cannot accept the proposition that cell phone users volunteer to convey their location information simply by choosing to activate and use their cell phones and to carry the device on their person. Cell phone use is not only ubiquitous in our society today, but at least for an increasing portion of our society, it has become essential to full cultural and economic participation.

Id.

181. *City of Ontario, Cal. v. Quon*, 560 U.S. 746, 760 (2010).

182. See Richard Brust, *Crashing the Third Party: Experts Weigh How Far the Government Can Go in Reading Your Email*, A.B.A. (Aug. 1, 2012), http://www.abajournal.com/magazine/article/crashing_the_third_party_experts_weigh_how_far_the_government_can_go (discussing how there is “no practical alternative to use of [a] third party” when conveying information technologically, meaning the alternative is not to communicate at all); see also *In re Application of the U.S. for an Order Authorizing the Release of Historical Cell-Site Info.*, 809 F. Supp. 2d 113, 126 (E.D.N.Y. 2011) (acknowledging that cell phones have replaced

Additionally, the argument that CSLI falls outside of Fourth Amendment principles simply because the government does not actively collect the information is without merit.¹⁸³ *Knotts* and *Karo* implicate the same privacy interests as CSLI, despite their specific context of law enforcement officers actively tracking rather than obtaining third party records.¹⁸⁴ Simply because CSLI is technically collected first by a third-party rather than the government should not preclude the information from the Fourth Amendment warrant requirement.¹⁸⁵ The mechanism or party doing the collecting does not make the information revealed any less personal or any less worthy of protection.¹⁸⁶

Courts that have looked to the beeper cases, *Knotts* and *Karo*, when analyzing CSLI have done so not only for the third party versus government distinction, but also for the proposition that CSLI can track individuals in constitutionally protected places.¹⁸⁷ By this logic, CSLI should fall within the Fourth Amendment's protection, because cumulative and extended location tracking "implicates a privacy interest on the part of the individual who is the target."¹⁸⁸ While GPS trackers such as the one used in *Jones*, or beepers in *Knotts* and *Karo*, are obviously distinct from CSLI in functionality, they both center around the same interest: an individual's reasonable expectation of privacy in his movements.¹⁸⁹ Since CSLI protects the same privacy interests that are at stake with GPS trackers, this information should not be precluded from Fourth Amendment protection solely because the government goes through an intermediary to obtain it.¹⁹⁰

public telephones like those in *Katz*, but the Fourth Amendment has "not developed to embrace the vital role the cell phone has come to play").

183. See *supra* note 93 and accompanying text.

184. See *Graham I*, 796 F.3d at 346 (likening the search in *Karo* to CSLI, as both searches "allow the government to place an individual and her personal property . . . at the person's home and other private locations").

185. See Brief for the Electronic Frontier Foundation as Amicus Curiae et al. as Amici Curiae Supporting Respondent, *In re Application of the U.S. for an Order Directing a Provider of Elec. Commc'n Serv. to Disclose Records to the Gov't*, 534 F. Supp. 2d 585 (W.D. Pa. 2008), *vacated*, 620 F.3d 304 (3d Cir. 2010).

186. See *Graham I*, 796 F.3d at 360 (remarking that the generation of CSLI is an incident of the technology, and the third-party doctrine is not intended "to diminish Fourth Amendment protections where new technology provides new means for acquiring private information").

187. Commonwealth v. Augustine, 4 N.E.3d 846, 864 (Mass. 2014).

188. *Id.* (citing United States v. Jones, 132 S. Ct. 945, 955 (2012) (Sotomayor, J., concurring)).

189. *Id.* at 865. But see United States v. Davis, 785 F.3d 498, 515 (6th Cir. 2015) (distinguishing between real-time GPS tracking and CSLI by claiming CSLI is not as precise as GPS tracking nor does it warrant the same reasonable expectation of privacy).

190. *In re Application of the U.S. for an Order Authorizing the Release of Historical Cell-Site Info.*, 809 F. Supp. 2d 113, 125 (E.D.N.Y. 2011).

The mosaic theory comes closer to accommodating the Fourth Amendment needs of evolving technology, but is still an insufficient solution to protect CSLI. The general concept of the mosaic theory, which encourages analyzing the government activity on the whole, moves Fourth Amendment jurisprudence into the twenty-first century by acknowledging that metadata poses challenges to existing rules of law.¹⁹¹ However, implementation of the mosaic theory would require courts to define an entirely new doctrine of Fourth Amendment law, an arduous task involving novel questions.¹⁹²

The primary concern with the mosaic theory is that it is stand-alone, which is a problem not easily cured.¹⁹³ As a result, the mosaic theory is not a viable option for the Supreme Court to turn to in the upcoming *Carpenter* case.¹⁹⁴ Courts implementing the theory would be required to determine at what stages of surveillance it applies.¹⁹⁵ For example, whether the mosaic theory applies only to collection of data, analysis of the data following collection, or both.¹⁹⁶ Along the same lines, courts would be forced to define clearer standards with regards to which surveillance methods the theory applies.¹⁹⁷ This task would also involve determining whether different methods should be grouped together as part of one mosaic.¹⁹⁸ For example, if law enforcement used GPS tracking, CSLI, and a surveillance camera to track an individual, courts would need to determine if all of those methods should be grouped together or looked at separately in deciding if there is a Fourth Amendment search under the mosaic theory.¹⁹⁹ Additionally, the mosaic theory complicates the concept of reasonableness that has become so foundational to the understanding of the Fourth Amendment.²⁰⁰ Courts using the mosaic theory would need to determine when such searches are reasonable, as well as when they require

191. W. Scott Kim, *The Fourth Amendment Implications on the Real-Time Tracking of Cell Phones Through the Use of “Stingrays,”* 26 FORDHAM INTELL. PROP. MEDIA & ENT. L.J. 995, 1025 (2016).

192. Kerr, *supra* note 18, at 329.

193. *Id.* at 330.

194. See Orin Kerr, *Supreme Court Agrees to Hear ‘Carpenter v. United States,’ the Fourth Amendment Historical Cell-Site Case,* WASHINGTON POST (June 5, 2017), <https://www.washingtonpost.com/news/volokh-conspiracy/wp/2017/06/05/supreme-court-agrees-to-hear-carpen...d11fe802>.

195. *Id.* at 329.

196. *Id.*

197. *Id.*

198. *Id.*

199. *Id.* at 334. Other parts of this inquiry include whether the mosaic theory should apply only to location surveillance, and whether different officers and investigations should be considered as part of the mosaic grouping. *Id.*

200. *Id.* at 336.

warrants based on probable cause or simply reasonable suspicion.²⁰¹

Last, courts would have to determine what remedies should exist for searches found to be unconstitutional under the mosaic theory.²⁰² This question involves resolving who has standing, the application of the fruit of the poisonous tree doctrine, and whether the exclusionary rule should be categorically applied.²⁰³ Overall, the mosaic theory presents a better solution than the third-party doctrine, but it would be cumbersome for The Supreme Court to implement and may perhaps only lead to more questions than answers.²⁰⁴ Moreover, these issues underscore the importance that a solution to CSLI gathering be a product of both legislation and case law.

B. The Solution: A Blend of the Judiciary and the Legislature

While it would be desirable for the Supreme Court to address the CSLI issue in its entirety, the holding would be limited to the facts and circumstances of *Carpenter*, and could leave open various questions for future litigation. For example, the *Carpenter* holding could not cover all related cell phone location information that originates from other sources such as cell site stimulators or GPS receivers within the cell phone.²⁰⁵ Further, even in finally addressing CSLI while deciding *Carpenter*, the judiciary cannot serve the law-making function as efficiently and re-write the outdated aspects of the SCA. The most effective way to accomplish securing Fourth Amendment protection for CSLI and begin a trend of increasing privacy protection for all new technologies is only with action from both the Supreme Court and Congress.

1. Overruling the Third-Party Doctrine in Carpenter

Although the Supreme Court cannot alone cure the entire CSLI problem when deciding *Carpenter*, it should abandon use of the third-party doctrine in technology cases, as the doctrine is unworkable in the modern context. To allow the third-party doctrine to perpetuate and permeate the field of technological communications

201. *Id.*

202. *Id.* at 340.

203. *Id.*

204. *Id.* at 329.

205. See generally Jemal R. Brinson, *Cell Site Stimulators: How Law Enforcement Can Track You*, CHICAGO TRIBUNE (Feb. 18, 2016), <http://www.chicagotribune.com/news/plus/ct-cellphone-tracking-devices-20160129-htmlstory.html>; *Location Privacy*, ELECTRONIC PRIVACY INFORMATION CENTER, https://epic.org/privacy/location/#tracking_methods (last visited Sept. 23, 2017).

would come at the expense of significant individual privacy rights.²⁰⁶ Rather, the Supreme Court should take *Carpenter* as an opportunity to reevaluate the third-party doctrine and limit its use in the modern era.

On the questionable basis of voluntary conveyance, the third-party doctrine relegates the vast quantity of information contained in CSLI to the same status as records of phone numbers dialed from a landline phone in the 1970s.²⁰⁷ This is a stretched comparison that lacks applicability to CSLI, as CSLI provides significantly more information than simply telephone numbers dialed.²⁰⁸ CSLI is routinely generated as a result of the cell phone's core function,²⁰⁹ much like most technology today, and thus cannot be considered to be voluntarily conveyed by users as required by the third-party doctrine.²¹⁰ As discussed by the dissenting judges in *Graham II*, third-party doctrine precedent appears to demonstrate that voluntary conveyance requires both an individual's knowledge and action.²¹¹ However, it is quite likely that the majority of cell phone users are unaware that they are conveying their location on a regular basis, which greatly undercuts the knowledge aspect of voluntary conveyance.²¹² Even if users possess a vague understanding of the technology involved when a cell phone connects to the network, they do not know through which tower the call is connecting, which again weakens the knowledge component of the conveyance.²¹³

Additionally, users do not actively transmit CSLI, but rather the information is automatically generated as part of the cell phone's technology.²¹⁴ Since cell phone users do not actively transmit CSLI nor possess the requisite knowledge of its transmission, CSLI is not voluntarily conveyed.²¹⁵ This crucial fact demonstrates not only

206. See *United States v. Jones*, 132 S. Ct. 945, 957 (2012) (Sotomayor, J., concurring) (discussing the need to reevaluate the third-party doctrine in the "digital age").

207. *Graham II*, 824 F.3d 421, 436 (4th Cir. 2016) (noting that intrinsic to the third-party doctrine "is an assumption that the quantity of information an individual shares with a third party does not affect whether that individual has a reasonable expectation of privacy").

208. *Commonwealth v. Augustine*, 4 N.E.4d 846, 863 (Mass. 2014). The Massachusetts Supreme Court noted that CSLI may reveal a "treasure trove of very detailed and extensive information about the individual's 'comings and goings' in both public and private cases." *Id.*

209. *Id.* at 862.

210. See *supra* note 171 and accompanying text.

211. *Graham II*, 824 F.3d at 443 (Wynn, J., dissenting). The knowledge requirement involves the individual being aware she is "communicating particular information." *Id.* The action requirement involves the defendant actively transmitting the information, such as through dialing or speaking. *Id.*

212. *Id.* at 445 (citing *In re Application of the U.S. for an Order Directing a Provider of Elec. Commc'n Serv. to Disclose Records to the Gov't*, 620 F.3d 304, 317 (3d Cir. 2010)).

213. *Id.*

214. *Id.*

215. *Id.* at 446.

that CSLI cannot be reconciled with the third-party doctrine, but also that new technologies on the whole are a poor fit with the doctrine. For example, the third-party doctrine has been invoked by various circuit courts of appeals to diminish Fourth Amendment protection for IP addresses, email addresses, and other information that must be transmitted to a third party out of necessity for the technology to operate.²¹⁶

The third-party doctrine also lacks applicability to CSLI because the reasonable expectation of privacy in cell phone and location information is different than that for typical business records.²¹⁷ Although courts declining to extend Fourth Amendment protection to CSLI argue that there is no reasonable expectation of privacy in third party records,²¹⁸ CSLI implicates more than simple business records.²¹⁹ Rather, when CSLI is obtained, cell phones essentially function as tracking devices, providing significant amounts of personal information about an individual's movements.²²⁰ This occurs regardless of if the CSLI is historical or real time, as the information remains the same in either context.²²¹ The movements tracked include those in public as well as both constitutionally protected spaces and spaces where an individual maintains a reasonable expectation of privacy.²²² In fact, organizations in favor of protecting CSLI argue that the compilation of location data implicates both First and Fourth Amendment protections, as the picture painted by location data can reveal political associations, religious affiliations, and other "expressive and associational activities."²²³

216. See, e.g., *United States v. Caira*, 833 F.3d 803, 809 (7th Cir. 2016) (holding that under the third-party doctrine, an email user had no reasonable expectation of privacy in his IP address); *United States v. Forrester*, 512 F.3d 500, 510 (9th Cir. 2008) (relying on the third-party doctrine to establish that internet users have no reasonable expectation of privacy in email addresses).

217. *State v. Earls*, 70 A.3d 630, 642 (N.J. 2013).

218. See *United States v. Davis*, 785 F.3d 498, 507 (11th Cir. 2015) (applying the third-party doctrine to hold there is no reasonable expectation of privacy in CSLI).

219. *Earls*, 70 A.3d at 642.

220. *Id.*

221. See Susan Freiwald, *The Vanishing Distinction Between Real-time and Historical Location Data*, CONCURRING OPINIONS (July 17, 2012), <https://concurringopinions.com/archives/2012/07/the-vanishing-distinction-between-real-time-and-historical-location-data.html>.

222. *Earls*, 70 A.3d at 642. Specifically, the defendant in *Earls* was in a motel room while he was being tracked. *Id.* As a result, law enforcement officers were able to track the defendant in private spaces without a warrant, as they did not know in advance where the defendant would be going. *Id.*

223. See Brief for Electronic Frontier Foundation, et al., as Amici Curiae Supporting Petitioner, *United States v. Carpenter*, 85 U.S.L.W. 3567 (U.S. June 5, 2017) (No. 16-402).

This pervasive nature of cell phones and the vast quantity of information contained in CSLI undercuts not only the voluntary conveyance argument, but also stands for the proposition that reasonable expectations of privacy have changed in the technological era.²²⁴ Because third parties are a necessary aspect of modern communication, it is no longer feasible to claim that the vast quantity of both content and non-content information transmitted to those third parties is not reasonably expected to be private.²²⁵ By reconsidering the third-party doctrine, the Supreme Court must also redefine the *Katz* analysis to accommodate the constant presence of third parties in modern technology.

The inapplicability of third-party doctrine principles aside, the Supreme Court itself has not invoked the doctrine in recent years when presented with the opportunity to do so. This could be seen in *Jones* for example, where the Court mentioned *Smith* in passing, but did not engage in a discussion regarding its application to location decisions, resorting instead to traditional property principles for resolution.²²⁶ Additionally, the Court did not cite or give any mention to the third-party doctrine in *Riley*, even while discussing the fact that cell phone information may be stored on a third party cloud.²²⁷ The Supreme Court's lack of acknowledgment of its own doctrine in recent cases of location tracking and cell phone privacy further demonstrates that the third-party doctrine has lost applicability in the modern context and should be overturned as a precedent in such contexts.²²⁸

One court even compiled the most recent Supreme Court precedent, including *Riley*, *Jones*, *Knotts*, and *Karo* to acknowledge that these decisions together create a new set of Fourth Amendment principles for cell phone tracking.²²⁹ Analyzing these decisions as a composite, the district court for the Northern District of California synthesized the following three principles:

- (1) an individual's expectation of privacy is at its pinnacle when government surveillance intrudes on the home; (2) long-term electronic surveillance by the government implicates an individual's expectation of privacy; and (3) location data generated

224. *United States v. Jones*, 132 S. Ct. 945, 957 (2012) (Sotomayor, J., concurring).

225. *Id.*; see also generally *United States v. Maynard*, 615 F.3d 544 (D.C. Cir. 2010).

226. *Jones*, 132 S. Ct. at 950.

227. *Riley v. California*, 134 S. Ct. 2473, 2491 (2014).

228. *Id.*

229. *In re Application for Tel. Info. Needed for a Criminal Investigation*, 119 F. Supp. 3d 1011, 1023 (N.D. Cal. 2015).

by cell phones, which are ubiquitous in this day and age, can reveal a wealth of private information about an individual.²³⁰

Arguably, these three principles indicate how the Supreme Court has moved away from the third-party doctrine and at least implicitly acknowledged some reasonable expectation of privacy in cell phones.²³¹ Further, although these principles were compiled with regards to active government tracking with a beeper, they are equally applicable to both historical and real-time CSLI.²³²

This shift in precedent from the third-party doctrine can be explained by Professor Orin Kerr's "equilibrium adjustment" theory.²³³ Under this theory, the Supreme Court's Fourth Amendment precedent can be analyzed as part of a longstanding tradition of Fourth Amendment adjustments to obtain equilibrium between individual privacy and government interests.²³⁴ As per the equilibrium adjustment approach, the Court adopts broad Fourth Amendment principles when changing technology makes it difficult for law enforcement to obtain evidence.²³⁵ Conversely, when technological advancements make it easier for law enforcement to obtain evidence, the Court alters the Fourth Amendment principles "to try to restore the prior equilibrium," in favor of privacy.²³⁶ It is argued that under this theory, the Court should wait until a technology has reached a point of stability before intervening to restore privacy protections.²³⁷

This approach further explains the Court's recent shift to protect individual privacy in technology and why the Court should use *Carpenter* as an opportunity to abandon the third-party doctrine,²³⁸ in order to restore individual privacy, as part of its natural return to more privacy protection.²³⁹ CSLI is not a new development and it continues to serve as the foundation for basic cell phone technology, even as phones are updated and changed to possess more location

230. *Id.*

231. *Id.*

232. *Id.* at 1031. Specifically, the court compared CSLI to the beepers used in *Karo*, as both can reveal information that would be otherwise unavailable to law enforcement without a warrant based on probable cause. *Id.*

233. Orin S. Kerr, *An Equilibrium-Adjustment Theory of the Fourth Amendment*, 125 HARV. L. REV. 476, 481 (2011).

234. *Id.*

235. *Id.* at 480.

236. *Id.*

237. *Id.* at 482.

238. See generally *Riley v. California*, 134 S. Ct. 2473 (2014).

239. Kerr, *An Equilibrium-Adjustment Theory of the Fourth Amendment*, 125 HARV. L. REV. 476, 543 (2011).

functionality.²⁴⁰ In order for the Fourth Amendment to remain relevant and applicable in the modern context, its interpretation must be flexible and changing to accommodate evolving technology.²⁴¹

The Sixth Circuit's heavy focus upon the third-party doctrine in its analysis in *Carpenter* provides a perfect opportunity for the Supreme Court to reconsider the third-party doctrine.²⁴² Indeed, the Court's grant of certiorari on a CSLI case at this time when the circuit courts of appeal are in agreement raises the inference as to whether the Court intends to do just that.²⁴³ This is further supported by the fact that the Court did not grant certiorari to *Davis* or *Graham II*, both of which were also appealed.²⁴⁴ Rather, the Court has decided to hear *Carpenter* alone, denying certiorari to *Davis* and choosing not to act on the *Graham II* certiorari petition.²⁴⁵

Additionally, the current composition of the Supreme Court gives some indication that the third-party doctrine may be reconsidered and altered in the upcoming *Carpenter* case. Justice Sotomayor has already voiced her concern regarding comprehensive location data and the third-party doctrine's inapplicability in the "digital age."²⁴⁶ While no other justices joined Justice Sotomayor in *Jones*, Justices Ginsburg, Breyer, and Kagan, joined Justice Alito's separate concurrence, which at least indicated a concern regarding the ease of tracking location with the emergence of new technology.²⁴⁷ Further, Chief Justice Roberts authored the landmark opinion *Riley*, which recognized the need to protect the extensive personal data contained in personal cell phones.²⁴⁸ Although newly appointed Justice Gorsuch's opinions on the third-party doctrine are somewhat unknown, he did acknowledge the uncertainty surrounding the doc-

240. See Brief for the American Civil Liberties Union et al. as Amici Curiae Supporting Appellant, United States v. Carpenter, 819 F.3d 990 (6th Cir. 2016). In its brief, the American Civil Liberties Union also discusses the creation of newer, smaller cells, including microcells, picocells, and femtocells, which "provide service to areas as small as ten meters." *Id.* Thus, location in these newer cells can be tracked through CSLI even more precisely than before. *Id.*

241. *In re Application of the U.S. for an Order Authorizing the Release of Historical Cell-Site Info.*, 809 F. Supp. 2d 113, 126 (E.D.N.Y. 2011).

242. United States v. Carpenter, 819 F.3d 880, 889 (6th Cir. 2016).

243. See *supra* note 158 and accompanying text.

244. See *Graham II*, 824 F.3d 421 (4th Cir. 2016), *petition for cert. filed*, (U.S. Sept. 26, 2016) (No. 16-6308); United States v. Davis, 785 F.3d 498 (11th Cir. 2015), *cert. denied*, 84 U.S.L.W. 3081 (U.S. Nov. 9, 2015) (No. 15-146).

245. United States v. Carpenter, 819 F.3d 880 (6th Cir. 2016), *cert. granted*, 85 U.S.L.W. 3567 (U.S. June 5, 2017) (No. 16-402).

246. United States v. Jones, 132 S. Ct. 945, 957 (2012) (Sotomayor, J., concurring).

247. *Id.* at 963 (Alito, J., concurring).

248. *Riley v. California*, 134 S. Ct. 2473, 2495 (2014).

trine in a Tenth Circuit decision where he found email communications are protected by the Fourth Amendment.²⁴⁹ The Supreme Court should continue its trend of increasing Fourth Amendment protection for new technologies by using *Carpenter* to overrule the third-party doctrine's application in CSLI and future cases implicating third-parties in technology.

2. Congressional Action: Requiring Probable Cause

The Supreme Court is not and cannot be the only entity the public must rely on to protect CSLI.²⁵⁰ The SCA may have been appropriate legislation at the time it was passed, but Congress surely did not envision the sensitive information currently proliferated by new technology when it created a lower cause standard for non-content.²⁵¹ The legislative branch is better suited to determine the public opinion on issues of this nature and balance governmental interests with privacy rights.²⁵² Congress has at its disposal various resources that allow it to strike the balance better than courts may.²⁵³ Through access to expert opinions and testimony in legislative hearings, Congress can receive the information necessary to weigh the interests of investigation techniques with constitutionally protected privacy rights.²⁵⁴

Additionally, when Congress speaks through a statutory enactment, it creates clearer and more uniform standards upon which courts can rely, thus eliminating the legal uncertainty that comes with circuit splits.²⁵⁵ Unlike the Supreme Court, Congress can create broad protections for both real-time and historical CSLI through

249. *United States v. Ackerman*, 831 F.3d 1292, 1304-05 (10th Cir. 2016).

250. See, e.g., *Jones*, 132 S. Ct. at 964 (Alito, J., concurring) (finding “in circumstances involving dramatic technological change, the best solution to privacy concerns may be legislative”); *Graham II*, 824 F.3d 421, 436 (4th Cir. 2016) (stating “application of the third-party doctrine does not render privacy an unavoidable casualty of technological progress – Congress remains free to require greater privacy protection if it believes that desirable”).

251. See Jennifer Lynch, *Sixth Circuit Disregards Privacy in New Cell Site Location Information Decision*, ELECTRONIC FRONTIER FOUNDATION (Apr. 13, 2016), <https://www.eff.org/fr/deeplinks/2016/04/sixth-circuit-disregards-privacy-new-cell-site-location-information-decision?page=6>.

252. *Jones*, 132 S. Ct. at 964 (Alito, J., concurring).

253. *Graham II*, 824 F.3d at 439 (Wilkinson, J., concurring). See also *United States v. Davis*, 785 F.3d 498, 520 (6th Cir. 2015) (Pryor, J., concurring) (declining to extend Fourth Amendment protection to CSLI because Congress “has the institutional competence to evaluate complex and evolving technologies.”).

254. *Graham II*, 824 F.3d at 440 (Wilkinson, J., concurring).

255. *Id.*

a statute rather than being limited to the circumstances surrounding one case.²⁵⁶ Overall, Congress is in the best position to determine how CSLI and indeed, all information proliferated by new technology, can coexist with government searches.²⁵⁷

Perhaps the strongest argument for Fourth Amendment protection of CSLI is simply that CSLI is fundamentally different from the old technologies the precedent intends to accommodate. Telephone numbers revealed via a pen register or records of phone numbers dialed on a landline phone do not reveal nearly the volume of personal detail as do CSLI records.²⁵⁸ Although CSLI does not disclose as precise of a location as a GPS may, CSLI can lead to logical inferences that reveal not just location information, but also personal information about a user on the whole.²⁵⁹

Along with these basic concerns about locational information, CSLI challenges the content and non-content distinction of the SCA era in the age of metadata.²⁶⁰ In fact, while most courts discount CSLI as non-content, “there is no meaningful Fourth Amendment distinction between content and other forms of information, the disclosure of which to the government would be equally intrusive and reveal information society values as private.”²⁶¹ The sheer breadth of information that CSLI and similar bulk data collections can reveal about an individual challenge not only the third-party doctrine, but also the non-content justification created by the SCA.²⁶² All of these concerns make it imperative for Congress to finally define more clear lines in this area and increase Fourth Amendment protection for CSLI.

Congress should be motivated to take up this issue, as there is significant research indicating many Americans are concerned about their lack of privacy, both with the government and with companies facilitating communications.²⁶³ In the aftermath of the Snowden revelations, digital privacy has become more prevalent

256. See Susan Freiwald, *supra* note 221.

257. *Id.* As noted by Judge Wilkinson, Congress has the power to add “democratic legitimacy to a high stakes and highly controversial area,” in the context of emerging communication technologies. *Id.*

258. See Brief for the American Civil Liberties Union, et al. as Amici Curiae Supporting Appellant, *United States v. Carpenter*, 819 F.3d 990 (6th Cir. 2016).

259. *In re Application of the U.S. for an Order Directing a Provider of Elec. Commc’ns Serv. to Disclose Records to the Gov’t*, 620 F.3d 304, 311 (3d Cir. 2010).

260. *In re Application of the U.S. for an Order Authorizing the Release of Historical Cell-Site Info.*, 809 F. Supp. 2d 113, 125 (E.D.N.Y. 2011).

261. *Id.*

262. *See id.*

263. *Public Perceptions of Privacy and Security in the Post-Snowden Era*, PEW RESEARCH CENTER, http://www.pewinternet.org/files/2014/11/PI_PublicPerceptionsofPrivacy_111214.pdf (last visited Jan. 28, 2017).

and more frequently discussed in society.²⁶⁴ This concern directly implicates CSLI, as studies show that the American public considers location data and general cell phone communications to be sensitive information deserving privacy protection.²⁶⁵ These concerns regarding privacy of information expand beyond simply a fear of government,²⁶⁶ as many adults feel they have lost control over the use of their personal information that is gathered by companies too.²⁶⁷ Additionally, in light of the new Trump era, there is increased fear that the balance between personal privacy and government interests will become even more disparate.²⁶⁸ The American public's belief that location information is highly sensitive combined with the drastic increase in cell phone towers and usage that creates highly precise location data makes this a ripe issue for legislation.²⁶⁹ This information indicates that Congress should act on behalf of its constituents to protect information that citizens reasonably believe to be private.

As technologies continue to evolve, metadata consistently accumulates,²⁷⁰ and political rhetoric implies individual privacy must be traded off for security,²⁷¹ Congress must be called upon to draw a clear line that preserves Fourth Amendment protection for CSLI. In fact, a bill was introduced in Congress in 2015 proposing greater

264. *Id.*

265. *Id.* In 2014, half of college educated adults reported believing their individual location information gathered from a cell phone over a long period of time to be "very sensitive" information." *Id.* An additional 32% of college educated adults considered the information to be "somewhat sensitive." *Id.*

266. Only 6% of adults surveyed by Pew Research Center were confident that government agencies could keep their information private. *Americans Attitudes About Privacy, Security and Surveillance*, PEW RESEARCH CENTER, http://assets.pewresearch.org/wp-content/uploads/sites/14/2015/05/Privacy-and-Security-Attitudes-5.19.15_FINAL.pdf (last visited Sept. 19, 2017). Only 6% of adults surveyed by Pew Research Center were confident that government agencies could keep their information private. *Id.*

267. *Public Perceptions of Privacy and Security in the Post-Snowden Era*, *supra* note 263. Specifically, Pew Research Center found that 91% of adults surveyed were concerned about their loss of privacy to third party companies. *Id.*

268. Spender Ackerman & Ewen MacAskill, *Privacy Experts Fear Donald Trump Running Global Surveillance Network*, THE GUARDIAN (Nov. 11, 2016, 12:34 AM), <https://www.theguardian.com/world/2016/nov/11/trump-surveillance-network-nsa-privacy>.

269. See *supra* notes 253-257.

270. See Alexander Galicki, *The End of Smith v. Maryland?: The NSA's Bulk Telephony Metadata Program and the Fourth Amendment in the Cyber Age*, 52 AM. CRIM. L. REV. 375, 389 (2015) (acknowledging that advancements in technology have caused exposure of metadata to telephone companies, Internet service providers, and other third parties).

271. See Lauren Cassani Davis, *How Do Americans Weigh Privacy Versus National Security?*, THE ATLANTIC (Feb. 3, 2016), <https://www.theatlantic.com/technology/archive/2016/02/heartland-monitor-privacy-security/459657/> (analyzing the sentiments among Americans about the tradeoff between individual privacy and security).

protection for location data.²⁷² The Geolocation Privacy and Surveillance (“GPS”) Act would require law enforcement officers to obtain a warrant pursuant to federal or state rules of criminal procedure prior to obtaining geolocation information.²⁷³ The bill defines geolocation information to include “any information that is not the content of a communication, concerning the location of a wireless communication device.”²⁷⁴ This proposed legislation contained enumerated exceptions to the warrant requirement in the cases of emergency situations,²⁷⁵ and provided for civil remedies in the event location information was obtained in violation of the statute.²⁷⁶

The proposed GPS Act would be a vital first step in protecting CSLI and other location information that is currently not covered by the SCA.²⁷⁷ Congress should acknowledge that the content and non-content distinction of the past is blurred when metadata can provide similar individual personal details.²⁷⁸ As part of this, Congress should amend the Stored Communications Act to comply with the Fourth Amendment without regard for the content and non-content distinction. Under the revised act, Congress should require a warrant based on probable cause be issued before any real-time or historical CSLI is obtained.

VI. CONCLUSION

CSLI is a microcosm demonstrating one way in which the courts and the law have not kept pace with current technologies.²⁷⁹ So long as technologies continue to evolve and CSLI proliferates, the third-party doctrine will become strained,²⁸⁰ and the mosaic theory

272. Robinson Meyer, *Do Police Need a Warrant to See Where a Phone Is?*, THE ATLANTIC (Aug. 8, 2015), <http://www.theatlantic.com/technology/archive/2015/08/warrantless-cell-phone-location-tracking/400775/>.

273. Geolocation Privacy and Surveillance Act, H.R. 491, 114th Cong. § 2602 (2015).

274. *Id.* § 2601.

275. *Id.* § 2604. Some exceptions include “immediate danger of death or serious physical injury,” and “conspiratorial activities threatening the national security interest.” *Id.*

276. *Id.* § 2605. Possible damages may include injunctive relief and punitive damages. *Id.* Additionally, the statute provides that location information obtained in violation of the statute must be excluded as evidence. *Id.*

277. See Wyden, *Chaffetz Stand Up for Privacy with GPS Act*, <https://www.wyden.senate.gov/news/press-releases/wyden-chaffetz-stand-up-for-privacy-with-gps-act> (last visited Jan. 28, 2017) (stating that the proposed legislation would “settle the controversy” regarding location information and “provide specific and clear guidelines to ensure this valuable and effective technology is not abused”).

278. *Supra* notes 260-261.

279. See generally Jennifer Valentino-Devries, *How Technology is Testing the Fourth Amendment*, WALL STREET JOURNAL (Sept. 21, 2011, 10:32 PM) <http://blogs.wsj.com/digits/2011/09/21/how-technology-is-testing-the-fourth-amendment/>.

280. See *supra* notes 206-208.

is not in any position to take its place.²⁸¹ Both the judiciary and legislature must come together to protect individual privacy and move Fourth Amendment jurisprudence into the modern era by requiring warrants based on probable cause prior to the acquisition of reasonably private information.

281. *See supra* note 192.



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