Do Sexually Violent Predator Laws Violate Double Jeopardy or Substantive Due Process - An Empirical Inquiry

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Do Sexually Violent Predator Laws Violate Double Jeopardy or Substantive Due Process?

AN EMPIRICAL INQUIRY

Tamara Rice Laue & Justin McCrary

Where the State has "disavowed any punitive intent"; limited confinement to a small segment of particularly dangerous individuals ... and permitted immediate release upon a showing that the individual is no longer dangerous or mentally impaired, we cannot say that it acted with punitive intent.

Kansas v. Hendricks, 1997

It is the lack of an empirical footing that is and has always been the Achilles heel of constitutional law, not the lack of a good constitutional theory.


INTRODUCTION

In 1997, the Supreme Court held that the sexually violent predator (SVP) act in Kansas did not violate double
jeopardy or substantive due process even though it indefinitely commits an individual to a locked state-run facility after that individual has completed a maximum prison term. In this article, we question a core empirical foundation for the Court's holding in *Hendricks*: that SVPs are so dangerous that they will commit repeat acts of sexual violence if they are not confined. Our findings suggest that SVP laws have had no discernible impact on the incidence of sex crimes. These results challenge the only constitutionally permissible justification for SVP legislation, and they imply that states could more effectively reduce sex crimes by allocating these resources elsewhere. Our argument merits particular attention because we are not asking the Court to reconsider evidence previously presented but deemed insufficient; instead, we are urging the Court to consider evidence that was not yet available when *Hendricks* was decided.

The majority began its analysis in *Kansas v. Hendricks* by noting that in narrow circumstances, "an individual's constitutionally protected interest in avoiding physical restraint may be overridden even in the civil context." To justify such a commitment, the state must prove that the individual is dangerous and suffers from mental illness or a mental abnormality:

A finding of dangerousness, standing alone, is ordinarily not a sufficient ground upon which to justify indefinite involuntary commitment... Civil commitment statutes [have been sustained] when they have coupled proof of dangerousness with the proof of some additional factor, such as a "mental illness" or "mental abnormality." These added statutory requirements serve to limit involuntary civil commitment to those who suffer from a volitional impairment rendering them dangerous beyond their control.³

The SVP act in Kansas met both of these requirements.⁴ Currently twenty states⁵ and the federal government have laws calling for the involuntary civil commitment of SVPs.

³ *Hendricks*, 521 U.S. at 356.
⁴ *Id.* at 358 (citations omitted).
⁵ The Kansas SVP Act requires the state to prove that a person (1) has been convicted of, or charged with, a sexually violent offense, and (2) suffers from a mental abnormality or personality disorder that makes it likely he will commit a future sexually violent offense. *See Kan. Stat. Ann.* §§ 59-29a01 to -29a02 (West 2012).
⁶ Arizona, California, Florida, Illinois, Iowa, Kansas, Massachusetts, Minnesota, Missouri, Nebraska, New Hampshire, New Jersey, New York, North Dakota, Pennsylvania, South Carolina, Texas, Virginia, Washington, and Wisconsin. For a detailed discussion of each of these statutes including date of passage and procedural protections, see Tamara Rice Lave, *Throwing away the Key: Has the Adam Walsh Act Lowered the Threshold for Sexually Violent Predator Commitments Too Far?*, 14 U. PA. J. CONST. L. 391, 409 (2011).
As of the summer of 2008, at least 4446 individuals were confined nationwide pursuant to SVP laws.\(^7\) Two years earlier, the total civil commitment budget across the country equaled $454.7 million, with states spending an average of $94,017 per year on each committed SVP.\(^8\)

SVP laws allow the state to use civil law to lock people away in circumstances that constitute the functional equivalent of punishment. They are forced to reside in secure facilities with armed guards,\(^9\) are not free to leave and are subject to important limitations regarding diet, visitors, and activities. Most significantly, they have no idea when, or if, they will ever be released.\(^10\) Given that the Fifth and Fourteenth Amendments bar the state from punishing a person twice for the same crime and that SVP laws are designed to specifically target individuals who have served their maximum prison sentence, the classification of

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\(^7\) This number was calculated using data that we received directly from seventeen states. For the three states that did not provide us data (Florida, Nebraska, and Pennsylvania) and for the state that did not provide us complete data (Massachusetts), we used data that was published by the Washington State Institute for Public Policy. **Kathy Gookin, Comparison of State Laws Authorizing Involuntary Commitment of Sexually Violent Predators: 2006 Update, Revised 1 (August 2007)**, available at http://www.wsipp.wa.gov/pub.asp?docid=07-08-1101. That study reported that the number of persons held under SVP laws in 2006 totaled 4534. Because that data was collected in 2006, and since the laws are still in effect, we are assuming that these states have more committed SVP's now than they did then. For instance, a recent article in the Star Tribune stated that there are currently 650 persons committed under Minnesota's SVP law, and one has just been granted release. Paul McEnroe, **First Sex Offender from State Program is Granted Release, STAR TRIB.**, (Feb. 3, 2012, 11:32 PM), http://www.startribune.com/local/stpaul/138669904.html. For another article about sex offender commitments, see Monica Davey & Abby Goodnough, **Doubts Rise as States Hold Sex Offenders After Prison**, N.Y. TIMES, Mar. 4, 2007, at A1, available at http://www.nytimes.com/2007/03/04/us/04civil.html.

\(^8\) See Gookin, supra note 7, at 5.

\(^9\) See id. at 1; Eric S. Janus, **Failure to Protect: America's Sexual Violent Predator Laws and the Rise of the Preventive State 21-22** (2006); see also Brief for Leroy Hendricks, Cross Petitioner, at 19, Kansas v. Hendricks, 521 U.S. 346 (1997) (No. 95-1649) (“Instead of receiving treatment in a therapeutic setting, respondent is incarcerated in a Department of Corrections facility, in a setting indistinguishable from his former convict status, and denied the privileges given to civilly committed inmates in Kansas.”). For a representative look at a treating hospital, see Cal. Dept' of State Hosps., **DSH—Coalinga: Security**, CA.GOV, http://www.dsh.ca.gov/Coalinga/Security.asp (last visited Mar. 5, 2013) (describing the “state-of-the-art security system” that surrounds the hospital and lists security measures such as random shakedowns, metal detectors, and uniforms of inmates. “[All patients are constantly and directly supervised.”).

\(^10\) See Hendricks, 521 U.S. at 363-64 (“Hendricks focuses on his confinement’s potentially indefinite duration as evidence of the State’s punitive intent. That focus, however, is misplaced. Far from any punitive objective, the confinement’s duration is instead linked to the stated purpose of the commitment, namely, to hold the person until his mental abnormality no longer causes him to be a threat to others.”); see also Janus, supra note 9, at 22.
the law as civil or criminal is critical. If the SVP law were classified as criminal, it would constitute an impermissible second punishment.\textsuperscript{11} If the law is civil, however, the state may continue to hold these individuals because the prohibition on double jeopardy would not apply.\textsuperscript{12}

In \textit{Hendricks}, the Court accepted the state’s classification of the law as civil in large part because the justices simply presumed as true the legislature’s empirical claim that SVPs are “extremely dangerous”\textsuperscript{13} and their “likelihood of engaging in repeat acts of predatory sexual violence is high.”\textsuperscript{14} The rationale for the law could not be deterrence, the Court reasoned, because it empirically assumed SVPs could not be deterred;\textsuperscript{15} nor could it be retributive, because the only purpose for introducing prior criminal history was to show the presence of a mental disorder or dangerousness. Even though the state’s civil commitment scheme involved indefinite confinement,\textsuperscript{16} the Court argued that the legislative findings justified such confinement because, “[f]ar from any punitive objective, the confinement’s duration is instead linked to the stated purposes of the commitment, namely, to hold the person until his mental abnormality no longer causes him to be a threat to others.”\textsuperscript{17}

\textsuperscript{11} In \textit{Ex parte Lange}, the Court explained the principle behind double jeopardy:

If there is anything settled in the jurisprudence of England and America, it is that no man can be twice lawfully punished for the same offence. And . . . there has never been any doubt of its entire and complete protection of the party when a second punishment is proposed in the same court, on the same facts, for the same statutory offence.

\textit{Ex parte Lange}, 85 U.S. (18 Wall.) 163, 168 (1873).

\textsuperscript{12} \textit{Hendricks}, 521 U.S. at 369 (discussing Baxstrom v. Herold, 383 U.S. 107 (1966), in which the Court “expressly recognized that civil commitment could follow the expiration of a prison term without offending double jeopardy principles.”).

\textsuperscript{13} \textit{Id.} at 351.

\textsuperscript{14} \textit{Id.}

\textsuperscript{15} The Court explained why the legislature could not have intended that the Act deter SVPs:

Nor can it be said that the legislature intended the Act to function as a deterrent. Those persons committed under the Act are, by definition, suffering from a “mental abnormality” or a “personality disorder” that prevents them from exercising adequate control over their behavior. Such persons are therefore unlikely to be deterred by the threat of confinement.

\textit{Id.} at 362-63.

\textsuperscript{16} The Court used the term “affirmative restraint” because it is one of the factors from \textit{Kennedy v. Mendoza-Martinez}, 372 U.S. 144 (1963), that is used to distinguish criminal from civil statutes. \textit{Hendricks}, 521 U.S. at 394 (Breyer, J., dissenting).

\textsuperscript{17} \textit{Id.} at 363 (majority opinion).
Many have criticized the Court's holding in *Hendricks*. Eli Rollman argues that several factors show that the law should be considered criminal, including "the fact that implementation of the Act is delayed until the 'anticipated release' of a prisoner, thereby lessening the effect of any treatment while simultaneously maximizing punishment." Andrew Campbell criticizes the majority for allowing the states to "merely redefine any measure which is claimed to be punishment as 'regulation,' and, magically, the Constitution no longer prohibits its imposition." Others have focused their attention on the nebulous quality of a "mental abnormality." The American Psychiatric Association created a task force to evaluate SVP laws and concluded that, "sexual predator commitment laws represent a serious assault on the integrity of psychiatry, particularly with regard to defining mental illness and the clinical conditions for compulsory treatment." Still another line of critique focuses on the use of actuarial instruments to prove dangerousness. Bernard Harcourt criticizes the actuarial nature of SVP laws for treating offenders as objects, while Richard Wolpert and Tamara Lave contend that we simply do not have the ability to accurately predict future dangerousness, which means that these states are locking away people who would not reoffend if released.

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18 For a general critique of sexually violent predator laws, see *Janus*, supra note 9, at 36-38 (arguing that SVP laws undermine the Constitution's due process protections by inappropriately blurring the line between punishment and civil commitment).


21 See Stephen J. Morse, *Fear of Danger, Flight from Culpability*, 4 PSYCHOL. PUB. POLY & L. 250, 261 (1998) (arguing that the term "mental abnormality" is "circularly defined...collap[sing] all badness into madness"); Bruce J. Winick, *Sex Offender Law in the 1990s: A Therapeutic Jurisprudence Analysis*, 4 PSYCHOL. PUB. POLY & L. 505, 525-30 (1998) (arguing that the definition of mental abnormality is so broad that it can apply to any behavior).


23 Bernard E. Harcourt *Against Prediction: Profiling, Policing, and Punishing in an Actuarial Age* (2007) (also contending that the SVP laws are radically inefficient by focusing resources on rare events).


In this article, we expand on these criticisms in a new and important way. We question whether SVPs are "extremely dangerous" and thus highly likely to commit violent sex crimes if released. In our analysis, we use original data gathered directly from SVP states to review commitments across the country. Next, using panel data for the last few decades, we examine the impact of SVP laws on the incidence of sex-related homicide and forcible rape. We also use data collected in the National Child Abuse and Neglect Data System (NCANDS) to examine the impact of SVP legislation on the incidence of non-fatal child sexual abuse. Finally, since underreporting poses problems in accurately measuring the incidence of sex crimes, we also examine gonorrhea rates, a common proxy for the prevalence of sexual abuse.

We found that SVP laws have had no discernible impact on the incidence of sex crimes or gonorrhea—a result that carries enormous constitutional significance. If the state cannot justify its law on incapacitation grounds, then it must offer another reason for locking these individuals away indefinitely—under the constraints imposed by the Constitution. The state may not continue to hold persons in custody who have served their


27 At first glance, it may appear that our methodology is ruled out by McCleskey v. Kemp, 481 U.S. 279 (1987), where the Court held that even if a large scientific study showed the death penalty had a racially discriminatory impact, a petitioner must still show that the discrimination was purposeful. Unlike in McCleskey, however, we are not using statistics to make an equal protection argument but instead to examine whether SVP law is civil or criminal. If the state cannot justify SVP law on non-punitive grounds, then it must be struck down as a violation of double jeopardy. In Green v. United States, 355 U.S. 184 (1957), the Supreme Court reversed Green's conviction for first degree murder on the grounds that it constituted double jeopardy. Justice Black explained why the framers considered double jeopardy such a serious infringement of a person's rights:

The constitutional prohibition against "double jeopardy" was designed to protect an individual from being subjected to the hazards of trial and possible conviction more than once for an alleged offense... The underlying idea, one that is deeply ingrained in at least the Anglo-American system of jurisprudence, is that the State with all its resources and power should not be allowed to make repeated attempts to convict an individual for an alleged offense, thereby subjecting him to embarrassment, expense and ordeal and compelling him to live in a continuing state of anxiety and insecurity, as well as enhancing the possibility that even though innocent he may be found guilty.

355 U.S. 184, 187-88. Therefore it does not make sense to argue that individual SVPs must make a showing particular to their case, because if the law is not constitutional, then the state is barred from trying to commit anyone under it in the first place.
maximum prison sentence under a justification that they deserve additional custody to pay for their crimes. Nor may the state lock up persons as SVPs to deter would-be offenders. Both these reasons are punitive, and they violate double jeopardy.

Furthermore, because SVP laws infringe on a fundamental liberty interest, they are subject to heightened scrutiny under the Fifth and Fourteenth Amendments. The Court has consistently held that, to meet the demands of substantive due process, a civil commitment law must only apply to individuals who are mentally ill and dangerous. Our findings show that SVP laws are not so narrowly tailored.

We believe that our contribution is methodological, substantive, and theoretical. Too often in the debate over sex offender policy, politicians and judges make empirical claims about sex offenders without ever questioning the veracity of those claims. We hope that by challenging some of those empirical claims, we will influence more policy makers to do the same.

Secondly, these laws are expressly premised on the claim that SVPs currently suffer from mental illness, which causes them to have “serious difficulty in controlling behavior,” thus making them distinguishable “from the dangerous but typical recidivist.” Yet we show that the best available evidence of those in SVP custody suggests that these individuals are not in fact distinguishable from the “dangerous but typical recidivist,” which is pivotal to the distinction between civil and criminal laws.

Finally, there is a robust debate in legal academia regarding the extent to which courts should defer to legislative findings. We

28 “Freedom from physical restraint being a fundamental right, the State must have a particularly convincing reason, which it has not put forward, for such discrimination against insanity acquittees who are no longer mentally ill.” Foucha v. Louisiana, 504 U.S. 71, 86 (1992).
29 “A finding of dangerousness, standing alone, is ordinarily not a sufficient ground upon which to justify indefinite involuntary commitment. We have sustained civil commitment statutes when they have coupled proof of dangerousness with the proof of some additional factor, such as a ‘mental illness’ or ‘mental abnormality.’” Kansas v. Hendricks, 521 U.S. 346, 358 (1997) (internal citations omitted); see also Addington v. Texas, 441 U.S. 418, 433 (holding that to civilly commit someone to a mental institution, the state is required by the Due Process Clause to prove by, clear and convincing evidence that the person is mentally ill and requires hospitalization for “his own welfare and protection of others”).
32 See, e.g., Caitlin E. Borgmann, Rethinking Judicial Deference to Legislative Fact-Finding, 84 IND. L.J. 1 (2009) (arguing that legislatures are poorly suited for gathering and evaluating facts impartially, especially when considering legislation restricting controversial or minority rights and thus advocating that courts should
hope that our article will lend support to the importance of independent fact-finding, especially when fundamental rights of unpopular groups are at stake.

Our article proceeds as follows. In Part I, we discuss the theory explaining why SVP laws should have an impact on sex crimes. In Part II, we introduce the original data that we gathered to conduct part of our analysis. In Part III, we evaluate whether SVP laws have resulted in increased commitments, and in Part IV we analyze whether they have had an impact on the incidence of sexual homicide, forcible rape, child sexual abuse, and/or gonorrhea. In Part V, we suggest that our findings are not surprising in light of the literature on aging and dangerousness. Part VI briefly explores whether our results are due at least in part to the state’s inability to accurately predict who will re-offend, and Part VII is devoted to considering whether the state might more effectively fight sex crimes by directing resources elsewhere. Finally, Part VIII discusses the constitutional implications for our findings.

I. THEORY: WHAT ARE THE IMPLICATIONS OF SVP LAW FOR THE RATE OF SEX CRIMES?

SVP laws are explicitly premised on the notion that there is a small, readily identifiable segment of the population that is so dangerous that public safety demands they be locked away. If this claim were true then we would expect to see what criminologists term an “incapacitation effect”—in other words, removing these dangerous people from the community should discernibly reduce the rate of crimes that they are at risk of

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33 "The bill is narrowly tailored to focus on the smaller number of habitual sex offenders who, because of their psychological makeup, pose an immediate danger to the public as soon as they are released from prison." In re Care & Treatment of Hendricks, 912 P.2d 129, 140 (Kan. 1996) (Larson, J., dissenting) (quoting testimony of State Senator Bob Vancrum before Kansas Senate Judiciary Committee on Feb. 22, 1994) (internal quotation marks omitted), rev’d sub. nom. Kansas v. Hendricks, 521 U.S. 346 (1997).
committing." Specifically, we would expect to see a noticeable decrease in the rate of sexual homicide, forcible rape, and child sexual abuse.

Of course, it is also possible that SVP laws have an impact on the incidence of certain crimes because they deter would-be sex offenders from violating the law. A deterrence theory is modeled on a rational choice view, which assumes that if the costs of violating a law are high enough, a person will choose not to offend. This would be the case if a would-be sex offender decided not to violate the law because he did not want to risk lifetime commitment as a SVP.

Extensive literature exists on the impact of law on crime, and such studies have played an important role in the debate over the death penalty. Some scholars contend that the death penalty saves lives, but others find no significant evidence of deterrence.

34 For a general discussion of incapacitation and deterrence, see Daniel S. Nagin, Deterrence and Incapacitation, in THE HANDBOOK OF CRIME AND PUNISHMENT 345-68 (Michael Tonry ed., 1998).

35 See THOMAS HOBBES, LEVIATHAN 162 (Richard Tuck ed., Cambridge Univ. Press 1996) (1651) (arguing that the purpose of punishment is to convince people to obey the law, "If the harm inflicted be lesse than the benefit, or contentment that naturally followeth the crime committed, that harm is not within the definition; and is rather the Price, or Redemption, than the Punishment of a Crime; Because it is of the nature of Punishment, to have for end, the disposing of men to obey the Law; which end (if it be lesse than the benefit of transgression) it attaineth not, but worketh a contrary effect"); CESARE BONESANA & MARCHESE BECCARIA, OF CRIMES AND PUNISHMENTS (Edward D. Ingraham, trans., 1819) (arguing that "[t]he end of punishment, therefore, is no other than to prevent the criminal from doing further injury to society, and to prevent others from committing the like offence. Such punishments, therefore, and such a mode of inflicting them, ought to be chosen, as will make the strongest and most lasting impressions on the minds of others, with the least torment to the body of the criminal . . . . Crimes are more effectually prevented by the certainty than the severity of punishment . . . . That a punishment may produce the effect required, it is sufficient that the evil it occasions should exceed the good expected from the crime, including in the calculation the certainty of the punishment, and the privation of the expected advantage."); JEREMY BENTHAM, AN INTRODUCTION TO THE PRINCIPLES OF MORALS AND LEGISLATION (Macmillan 1948) (1789) (contending that the purpose of punishment is to dissuade wrongdoing: "the value of the punishment must not less in any case than what is sufficient to outweigh that of the profit of the offense.").


In a 2005 article in the *Stanford Law Review*, John J. Donohue and Justin Wolfers tested the robustness of these studies, ultimately concluding that, "existing evidence for deterrence is surprisingly fragile." Other scholars argue that the death penalty actually increases the murder rate. In 2012, however, the National Academy of Sciences published a report in which they found that there is insufficient evidence from the research conducted to date to show definitively whether the death penalty has an impact of any kind on the homicide rate.

Although we use many of the same methodologies to evaluate the impact of SVP legislation, our analysis contains a key difference as compared to the death penalty debate. Even if the death penalty does not deter murder, it may still be constitutional. A proponent of capital punishment could argue that the death penalty is justified because the offender deserves it; indeed, a retributivist would argue that deterrence is irrelevant to what punishment a person should receive. A proponent of SVP laws, in contrast, cannot ignore that the laws may have no incapacitation effect. Such a proponent would not be able to say that a SVP deserves to be locked away based on the severity of the SVP’s underlying conduct because that would be a punitive rationale, which would make the laws criminal and not civil. Deterrence is also a punitive rationale, which means that a proponent cannot

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Deterrence, and the Incidence of Murder, 7 J. APPLIED ECON. 163 (2004) (arguing that a state execution deters approximately fourteen murders per year on average).

38 See, e.g., Lawrence Katz et al., *Prison Conditions, Capital Punishment, and Deterrence*, 5 Am. L. & Econ. Rev. 318 (2003) (arguing that there is little systematic evidence that the execution rate influences the crime rate).


42 "Judicial punishment can never be used merely as a means to promote some other good for the criminal himself or for civil society, but instead it must in all cases be imposed on him only on the ground that he has committed a crime . . . ." IMMANUEL KANT, THE METAPHYSICAL ELEMENTS OF JUSTICE 138 (John Ladd, trans., 2d ed. 1999) (1797) (emphasis added).

43 “If the apparent magnitude, or rather value of that pain be greater than the apparent magnitude or value of the pleasure or good he expects to be the consequence of the act, he will be absolutely prevented from performing it.” Jeremy
justify SVP legislation under the theory that it dissuades other would-be sex offenders from violating the law. In a criminal law regime, the state may not imprison someone subsequent to serving the maximum jail sentence—as SVPs by definition have—because the additional time would constitute a second punishment for the same crime and thus violate the Fifth Amendment ban on double jeopardy.

A. How Much of an Impact Should We Expect?

Evaluating the impact of SVP laws on the incidence of forcible rape and sex-related homicide requires taking a stance on the counterfactual—what would have happened to rates of crime and sexual abuse in SVP states had these laws never been passed? Taking a stance is necessary because the estimated impact of the law is the gap between the observed prevalence of crime or sexual abuse and the prevalence shown in the counterfactual. In this context, approximating the counterfactual is complicated by two factors. First, most SVP laws were passed during a period of decreasing crime in the United States. Thus, it is easy for a simplistic analysis to conflate the effect of SVP passage on the incidence of crime and sexual abuse with secular trends in crime. Crime and disorder are lower after SVP passage than before, but this holds true for states that have not passed any SVP law. Second, states that passed SVP legislation are not necessarily comparable to states that did not. In particular, these two groups of states might have had rates of crime and sexual abuse that differed, even if no SVP law had been enacted.

To address these difficulties, we focus on two research designs. The first of these is a difference-in-differences design that compares the incidence of crime, for example, between SVP and non-SVP states after passage, to create a benchmark for how different crime would have been had no SVP law ever been passed. The benchmark taken is the difference in the incidence of crime between SVP and non-SVP states before passage. The core assumption behind this method is that the difference between the counterfactual prevalence of crime in SVP states and observed prevalence of crime in non-SVP states

Bentham, Principles of Penal Law, in 1 THE WORKS OF JEREMY BENTHAM 396 (John Bowring ed. 1843).

does not change over time. Our second approach is a generalization of the difference-in-differences approach that takes advantage of the idiosyncratic timing of the year each state passed SVP legislation. This second approach supplements the use of non-SVP states as a control group by using the prevalence of crime in an SVP state prior to SVP passage. This method fully exploits the assumption of no anticipatory behavior, by which we mean that SVP laws should not affect the prevalence of crime until after date of passage.

As is the case with many empirical examinations of the social impact of law, our results are subject to statistical imprecision. Overall, however, our estimates are consistent with SVP laws having no discernible deterrent or incapacitation effects. We use the existing literature to assess the statistical power delivered by this design.

B. Does Underreporting Distort our Results?

Many contend that the rate of underreporting in sex cases is high, which means that our results could be skewed downwards as a result. To get around this potential problem, we also analyze whether SVP laws have had an impact on the incidence of gonorrhea, as it is frequently used as a proxy for the incidence of sexual abuse. Sue Whaitiri and Patrick Kelly studied all children seen at an Auckland, New Zealand hospital since 1992 who had been diagnosed with genital gonorrhea. They found that at least forty percent of these children had gotten the disease through sexual abuse. Sten Vermund and others studied medical screening data collected on 2521 adolescents at entry into juvenile detention facilities in New York City between 1983 and 1984, and they found that a

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45 See, e.g., Jody Clay-Warner & Callie Harbin Burt, Rape Reporting After Reforms: Have Times Really Changed?, 11 VIOLENCE AGAINST WOMEN 150 (2005); Bonnie S. Fisher et al., Reporting Sexual Victimization to the Police and Others: Results From a National-Level Study of College Women, 30 CRIM. JUST. & BEHAV. 6, 7 (2003); Lita Furby et al., Sex Offender Recidivism: A Review, 105 PSYCHOL. BULL. 3, 9 (1989); Mary P. Koss et al., The Scope of Rape: Incidence and Prevalence of Sexual Aggression and Victimization in a National Sample of Higher Education Students, 55 J. COUNSELING & CLINICAL PSYCHOL., 162-70 (1987); John J. Sloan III et al., Assessing the Student Right to Know and Campus Security Act of 1999: An Analysis of the Victim Reporting Practices of College and University Students, 43 CRIME & DELINQUENCY 148, 158 (1997) (finding that only 22 percent of rape and 17 percent of sexual assaults were reported to local law enforcement, campus police or security or other authorities). For a critical discussion of underreporting in sex crimes, see Lave, supra note 25, at 221-24.

history of sexual abuse was strongly correlated with gonorrhea or syphilis.\textsuperscript{47}

C. How Much of an Impact Is Required for SVP Laws to be Constitutional?

In \textit{Hendricks}, the Supreme Court upheld SVP legislation under the theory that the state had the right to lock up persons who suffer from a mental disorder that causes them to be "extremely dangerous."\textsuperscript{48} To assess whether this claim is true, however, we must have some way of quantifying what "extremely dangerous" means. In other words, how dangerous must a person be for the Constitution to allow the state to lock that person away?

In \textit{Kansas v. Crane}, the Court attempted to clarify the \textit{Hendricks} standard for "mental abnormality" or "personality disorder," which originally required that the disorder make it "difficult if not impossible for the person to control his behavior."\textsuperscript{50} Michael Crane, a convicted sex offender, appealed his commitment as a SVP. The Kansas Supreme Court overturned the commitment because no finding had been made at trial that Crane was unable to control his dangerous behavior, as required under the U.S. Constitution by \textit{Hendricks}.

The state of Kansas appealed, arguing that the Kansas Supreme Court had interpreted the holding in \textit{Hendricks} too restrictively.\textsuperscript{51} In a 7-2 decision, the Court agreed and vacated the Kansas Supreme Court's judgment.\textsuperscript{52}

Even though the \textit{Hendricks} opinion had specifically described the Kansas law as being akin to laws that provided for the "forcible civil detention of people who are unable to control their behavior,"\textsuperscript{53} the Court now held that the state did

\textsuperscript{47} Sten H. Vermund et al., \textit{History of Sexual Abuse in Incarcerated Adolescents with Gonorrhea or Syphilis}, 11 J. ADOLESCENT HEALTH CARE 449 (1990); see also Stephen C. Boos, \textit{Abuse Detection and Screening}, in CHILD ABUSE AND NEGLECT, GUIDELINES FOR IDENTIFICATION, ASSESSMENT, AND CASE MANAGEMENT 10 (Marilyn Strachan Peterson & Michael Durfee eds. 2003) ("Diseases such as gonorrhea, syphilis, chlamydia, genital herpes and genital warts usually have the same implication in children as in adults. Sexually transmitted diseases require an evaluation for sexual abuse."); Kristen Alexander et al., \textit{Interviewing Children}, in CHILD ABUSE AND NEGLECT, supra.


\textsuperscript{49} Id. at 358 (citing KAN. STAT. ANN. § 59-20a02(b) (1994)).

\textsuperscript{50} Kansas v. Crane, 534 U.S. 407, 411 (2002).

\textsuperscript{51} Id. at 409.

\textsuperscript{52} Id. at 415.

\textsuperscript{53} Hendricks, 521 U.S. at 357 (emphasis added).
not need to prove an inability to control." Yet the Court did not adopt Kansas's position that a person could be committed as a SVP "without any lack of control determination." Instead, it held that the standard was "proof of serious difficulty in controlling behavior." The Court noted that a large population of the prison population is mentally ill." To ensure that the confinement remains civil and not criminal, the Court stated that the SVP must be distinguishable from other sex offenders: "The severity of the mental abnormality itself, must be sufficient to distinguish the dangerous sexual offender whose serious mental illness, abnormality, or disorder subjects him to civil commitment from the dangerous but typical recidivist convicted in an ordinary criminal case."

The holdings in Hendricks and Crane highlight the constitutional significance of our analysis. According to Hendricks, the only legally permissible justification for SVP laws is that SVPs suffer from mental illness, which makes them so dangerous that they need to be incapacitated. It would, however, constitute double jeopardy to send them to a locked mental hospital to make them pay for having committed reprehensible crimes or to discourage others from committing similar crimes. Crane establishes how dangerous these offenders must be in order for the SVP law to withstand heightened substantive due process scrutiny. Their inability to control must be sufficient to distinguish them from the "dangerous but typical recidivist." Thus, if our analysis shows that SVP laws have had little influence on the rate of sex-related homicide, forcible rape, or child sexual abuse, then there is reason to call into question the only constitutionally permissible rationale for the laws.

II. DATA

To conduct these analyses, we gathered data from states on SVP commitments. We also gathered data from national crime databases on the incidence of forcible rape and sexual homicide. For data on child sexual abuse, we turned to records

54 Crane, 534 U.S. at 411.
55 Id. at 412.
56 Id. at 413.
57 Id. at 412.
58 Id.
59 See infra notes 69-70.
collected in the National Child Abuse and Neglect Data System (NCANDS). Our gonorrhea data came from the Center for Disease Control. The purpose of this section is mostly descriptive, however, we also analyze whether SVP laws have actually resulted in increased commitments or whether they are purely symbolic. We find that SVP passage has had a strong effect on rates of commitment.

A. Commitment Data from the States

On August 12, 2008, one of the authors, Lave, wrote to the Association for the Treatment of Sexual Abusers and requested data on SVP commitments. The Association was unable to provide information, however, they did give contact information for each SVP state. Lave then wrote to each state and requested information on SVP commitments. Each state required more than one contact to provide information, and typically, there were several email exchanges and often a phone conversation. Some states required requests in writing, and California mandated a formal FOIA request.

We received commitment data by year from sixteen of the twenty SVP states: Arizona, California, Illinois, Iowa, Kansas, Minnesota, Missouri, New Hampshire, New Jersey, New York, North Dakota, South Carolina, Texas, Virginia, Washington and Wisconsin. Because Massachusetts only provided one year’s worth of data, for 2009, we supplemented the data using the number of commitments (121) reported by the Washington State Institute for Public Policy. Overall, we received information on the date of commitment for close to 1000 individuals.

It should be noted that the total number of commitments reported by each of these sixteen states differed from the total number of commitments reported by the Washington State Institute for Public Policy. Since we did not have access to the underlying data used by Washington State, it is unclear whether the inconsistency is due in part to differing definitions of “committed”—whether it is people who are pending commitment hearings or only those who have already

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60 See infra note 71.
61 See infra note 72.
62 See GOOKIN, supra note 7, at exhibit 1.
63 For instance, Gookin reported that, as of 2006, there were 305 commitments in Washington State, 161 in Kansas, 342 in Minnesota, 500 in Wisconsin, 414 in Arizona, 558 in California, 307 in Illinois, 75 in North Dakota, 69 in Iowa, 342 in New Jersey, 119 in South Carolina, 143 in Missouri, 69 in Texas, and 37 in Virginia. Id. at 3-4.
been formally adjudicated to be SVPs. As will be explained in more detail below, this inconsistency in the number of commitments does not impact the validity of our results.

In addition, we received age data from thirteen states. For eleven of these states (Arizona, Illinois, Iowa, Kansas, Missouri, New Jersey, South Carolina, Texas, Virginia, Washington, and Wisconsin), we were able to calculate the age of commitment and the current age for each SVP. Two states, Minnesota and North Dakota, provided the age range of those committed.

Despite repeated requests, we did not receive any data from Florida, Nebraska, or Pennsylvania. According to a 2007 report from the Washington State Institute for Public Policy, these states did commit individuals as SVPs. As of 2006, Florida had 942 SVP commitments, while Nebraska had eighteen and Pennsylvania had twelve.

Table 1 shows the passage date for each SVP law, the nature of commitment in each state, and the number of people committed and released based on the data that we received. Unless otherwise specified, that date is August 2008. As indicated above, we were unable to gather commitment information from Florida, Massachusetts, Nebraska, and Pennsylvania, and so that information comes from the Washington State Institute for Public Policy. Where available, we also include information on the 2006 civil commitment budget for each state, which comes from the same Washington State report.

B. Crime and Gonorrhea Data

We gathered our crime data from two primary, publicly-available sources. The forcible rape data is provided by a Department of Justice, Federal Bureau of Investigations, Uniform Crime Reports (UCR) website. The sex homicide data comes from the UCR Supplementary Homicide Reports (SHR) available from the Inter-University Consortium for Political

64 Id. at exhibit 1.
65 Id. at 3.
66 Table 1 can be found in the appendix at the end of this article.
67 Id.
68 Id.
and Social Research (ICPSR) website. Since there is no special classification for "sex related homicide" in the SHR, we combined three types of homicides to create the sex-related homicide category: rape, other sex offenses, and prostitution or vice. For both forcible rape and sex-related homicide, we used data from 1976 to 2009.

Although child sexual abuse is not a UCR specified crime, data is available from the National Child Abuse and Neglect Data System (NCANDS). We use data from the NCANDS for 1990 through 2008. NCANDS does not contain criminal records, but instead contains data collected by the Department of Health and Human Services.

The data on gonorrhea is from the Center for Disease Control. In conducting our analyses, we used data from 1984 to 2008.

III. DID SVP LEGISLATION ACTUALLY RESULT IN INCREASED COMMITMENTS?

Before we analyze whether SVP laws have had an effect on the incidence of sex crimes, we must first establish that people have actually been committed pursuant to these laws. To do that, as explained above, we gathered data from SVP states regarding the number of commitments per year under the program.

We then ran a regression of commitments in a given state and year on a series of dummy variables for the states, for the years, and dummy variables corresponding to the leads and lags of SVP passage date. More details on the regression specification and the definition of the dummies are given in Part V, below. The coefficients from this regression are displayed in the figures below. The x-axis corresponds to years since SVP passage; hence zero is the year of SVP passage. The y-axis gives the number of commitments, relative to the number of commitments in year of SVP passage.

70 FED. BUREAU OF INVESTIGATION, UNIFORM CRIME REPORTING PROGRAM DATA: SUPPLEMENTARY HOMICIDE REPORTS (2009), available at http://www.icpsr.umich.edu/icbarweb/ICPSR/studies/30767?q=supplementary+homicide+reports&permit%5B0%5D=AVAILABLE.

71 The Children's Bureau at the Department of Health and Human Services collects child abuse and neglect data from the states. It requests data from Child and Protective Services. The data is supplied voluntarily. See NCANDS DATA, supra note 26.

Figure 1 shows convincingly that SVP passage had a strong effect on commitments, with roughly fifteen to twenty new commitments per year in the years following passage. This is either a low or a high number, depending on notions of the latent criminality of those committed. This figure is similar in organization to a variety of such figures we present below, so it is worth describing this figure in some detail. The open circles correspond to estimates of the effect of SVP passage on the outcome—here, SVP commitments—leading up to and subsequent to SVP passage. The dashed lines convey the scope of uncertainty surrounding these estimates because we have a sample of information, rather than the universe of possible information. These are standard in the empirical legal studies literature. The figure shows that the estimates leading up to SVP passage should be approximately zero if the timing of SVP passage is essentially random. A trend in the pre-passage estimates would be consistent with trends in the outcome predicting the date of SVP passage, which is inconsistent with the maintained assumption that the timing of SVP passage is random. Here, there is little indication of SVP commitments prior to SVP passage—that is, the pre-passage estimates are essentially zero. This indicates the robustness of our methodology, since the technique should not estimate any effect of SVP passage on commitments prior to SVP passage.

The post-passage estimates represent our best guess regarding the effect of SVP passage on the cumulative annual increase in SVP commitments in a typical state. SVP commitments increased roughly linearly in time, suggesting that there is a constant rate of inflow into SVP confinement.

We return to methodological detail below and for now focus on the substantive interpretation of the estimated effects of SVP passage on commitments. Regarding the level, our data likely underestimates the number of commitments, since the data was directly provided by states. Some states were unwilling to provide information, leading us to undercount the scope of SVP programs nationally. External estimates tend to find much higher numbers of commitments nationally, with less detail than is shown in our data. These differences can be explained by a few factors. First, the number of commitments has been growing since we collected our data, and we do not adjust our numbers to reflect these increases. In addition, we did not receive data from all SVP states.
and so we were forced to rely on data from alternative sources. Because we segregate our analysis of confinement patterns from our analysis of the impact of SVP passage on other outcomes, any errors in the number of confinements do not affect our analyses of crime and sexual abuse.

Figure 1. Effect of SVP Passage on SVP Commitments

IV. DID SVP LEGISLATION HAVE AN INCAPACITATION EFFECT?

Although scholars recognize the importance of evaluating whether SVP laws have had an impact on the incidence of sex crimes, we are aware of no one who has done such an analysis. In this paper, we used recognized statistical techniques to evaluate the impact of SVP laws on the incidence of sex crimes: a difference-in-differences analysis and a panel data technique.

A. Difference-in-Differences Analysis

First, we conduct a difference-in-differences analysis of the effect of SVP passage on the rate of sex-related homicide, forcible rape, and child sexual abuse. This approach examines the difference in an outcome, on average, between SVP and non-SVP states after SVP passage and measures that difference against the benchmark of the analogous difference between SVP and non-SVP states before SVP passage. The

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hope is that any differences between SVP and non-SVP states in the incidence of the outcome that would be observed in the absence of SVP passage are the same over time. Under that assumption, the benchmark pre-passage difference between SVP and non-SVP states measures the counterfactual difference in outcomes after SVP passage, as if the SVP states had never adopted SVP laws.

Florida has failed to provide figures to the SHR system since 1996, and so we dropped it and designated the other nineteen SVP states as treatment states. We designated the thirty non-SVP states as the control group. Table 2 lists the treatment states and the date of SVP passage.

<table>
<thead>
<tr>
<th>Treatment State</th>
<th>Year of SVP Passage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Washington</td>
<td>1990</td>
</tr>
<tr>
<td>Kansas, Minnesota, Wisconsin</td>
<td>1994</td>
</tr>
<tr>
<td>Arizona, California</td>
<td>1995</td>
</tr>
<tr>
<td>Illinois, North Dakota</td>
<td>1997</td>
</tr>
<tr>
<td>Florida (Dropped), Iowa, New Jersey, South Carolina</td>
<td>1998</td>
</tr>
<tr>
<td>Massachusetts, Missouri, Texas, Virginia</td>
<td>1999</td>
</tr>
<tr>
<td>Pennsylvania</td>
<td>2003</td>
</tr>
<tr>
<td>Nebraska, New Hampshire</td>
<td>2006</td>
</tr>
<tr>
<td>New York</td>
<td>2007</td>
</tr>
</tbody>
</table>

Table 2. Treatment States by Date of SVP Passage

Next, we decided which years to designate as being before and after treatment. We chose 1989 as our pre-treatment year since it was prior to passage of all SVP legislation. We chose 2009 as our post-treatment year since it is the most recent year for which data is currently available.

1. Sex-Related Homicide

We then computed the mean rate of sex-related homicides in treated and control states, between 1989 and 2009. As Table 3 below shows, the mean rate of sex-related homicides dropped substantially in SVP states between 1989 and 2009 and much less substantially in non-SVP states over the same period. This pattern leads to a superficial impression that SVP passage may have led to fewer sex killings.

This inference, however, is not justified upon closer inspection of the data. Figure 2 gives the time series plot for sex killings since 1976, separately for SVP and non-SVP states and reveals three important patterns. First, sex killings have been in secular decline since at least the mid-1970s. Second, this trend is largely similar in both SVP and non-SVP states, which would not occur if SVP laws were having an effect on the incidence of sex killings. Third, 2008 and 2009 appear to be aberrant years for non-SVP states, in the sense that sex killings are unusually high in those years relative to 2006 and 2007, for example. In particular, a difference-in-differences estimate based on 1989 and 2007 would have been consistent with no program effect, as opposed to a decrease of 0.055 in the rate of sex killing.

### Table 3. Mean Rate of Sex Homicides (per 100,000) in SVP and Non-SVP States Between 1989 and 2009

<table>
<thead>
<tr>
<th>Class</th>
<th>Mean Rate of Sex Homicides (per 100,000)</th>
<th>After Passage—Before Passage</th>
<th>Number of States</th>
</tr>
</thead>
<tbody>
<tr>
<td>SVP States (1989)</td>
<td>0.072</td>
<td></td>
<td>19</td>
</tr>
<tr>
<td>SVP states (2009)</td>
<td>0.066</td>
<td>-0.066</td>
<td>19</td>
</tr>
<tr>
<td>Non-SVP states (1989)</td>
<td>0.061</td>
<td></td>
<td>30</td>
</tr>
<tr>
<td>Non-SVP states (2009)</td>
<td>0.050</td>
<td>-0.011</td>
<td>30</td>
</tr>
<tr>
<td>Difference-in-Difference Estimate</td>
<td>-0.055</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Figure 2. Prevalence of Sex Killings, by SVP Status
2. Forcible Rape

We turn now to the same research design for forcible rape. For this measure, we have valid data for Florida, and so each of the fifty states is represented. Again using 1989 and 2009 as reference years, we see that incidence of rape in SVP states falls by 4.7 rapes per 100,000 after passage, and that the incidence of rape in non-SVP states falls by 3.2 rapes per 100,000. This implies a difference-in-differences estimate of 1.5 fewer forcible rapes associated with SVP passage.

<table>
<thead>
<tr>
<th>Class</th>
<th>Mean Rate of Forcible Rapes (per 100,000)</th>
<th>After Passage—Before Passage</th>
<th>Number of States</th>
</tr>
</thead>
<tbody>
<tr>
<td>SVP States (1989)</td>
<td>33.1</td>
<td></td>
<td>20</td>
</tr>
<tr>
<td>SVP States (2009)</td>
<td>28.4</td>
<td>-4.7</td>
<td>20</td>
</tr>
<tr>
<td>Non-SVP States (1989)</td>
<td>37.8</td>
<td></td>
<td>30</td>
</tr>
<tr>
<td>Non-SVP States (2009)</td>
<td>34.6</td>
<td>-3.2</td>
<td>30</td>
</tr>
<tr>
<td>Difference-in-Difference Estimate</td>
<td>-1.5</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 4. Mean Rate of Forcible Rapes (per 100,000) in SVP and Non-SVP States Between 1989 and 2009

As with our analysis of sex killings, however, a naïve difference-in-differences estimate is misleading in this context because the differences between SVP and non-SVP states in the prevalence of rape are not time-invariant. Figure 3 plots forcible rape in SVP and non-SVP states for the years 1960–2009. These data indicate a high degree of fluctuation in the gap seen in the incidence of rape between SVP and non-SVP states prior to 1990. This empirical pattern falsifies the core assumption of a difference-in-differences design.
Figure 3. Prevalence of Forcible Rape, by SVP Status

3. Child Sexual Abuse

We turn now to the same research design for child sexual abuse. These data are available beginning in 1990, but for only a subset of the states, and the most recent year available is currently 2008. Table 5 shows the same difference-in-differences analysis, but with a beginning year of 1990 and an ending year of 2008, for the states for which data is available.

<table>
<thead>
<tr>
<th>Class</th>
<th>Mean Rate of Abuse (per 100,000)</th>
<th>After Passage—Before Passage</th>
<th>Number of States</th>
</tr>
</thead>
<tbody>
<tr>
<td>SVP States (1990)</td>
<td>44.9</td>
<td></td>
<td>17</td>
</tr>
<tr>
<td>SVP states (2008)</td>
<td>19.4</td>
<td>-25.5</td>
<td>17</td>
</tr>
<tr>
<td>Non-SVP states (1990)</td>
<td>61.2</td>
<td></td>
<td>24</td>
</tr>
<tr>
<td>Non-SVP states (2008)</td>
<td>33.2</td>
<td>-28.0</td>
<td>24</td>
</tr>
<tr>
<td>Difference-in-Difference Estimate</td>
<td>2.5</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 5. Mean Rate of Child Sexual Abuse (per 100,000) in SVP and Non-SVP States Between 1990 and 2008

Similar to our analysis of forcible rape, however, a naïve difference-in-differences estimate is misleading in this context because the differences between SVP and non-SVP states in the prevalence of child sexual abuse are not time-invariant. Figure 4 plots child sexual abuse rates in SVP and non-SVP states for 1990 to 2008. Data prior to SVP implementation are
not available. This is unfortunate, as data prior to program implementation are usually a key means of assessing the comparability of states that do and do not adopt SVP statutes. Nonetheless, this simple picture is useful for assessing the hypothesis that SVP passage leads to increased safety, as measured by the lack of child sexual abuse. Under a theory of increased safety, we should expect to see a widening gap between SVP and non-SVP states over time. First, more states have adopted SVP statutes over time. Further, within each state passing an SVP law, the program initially incapacitates a small number of persons relative to a mature SVP program.76 Figure 4, however, does not indicate such a pattern and, indeed, is somewhat suggestive of the opposite pattern.

![Figure 4. Prevalence of Child Sexual Abuse, by SVP Status](image)

Below, we subject the sex killing, forcible rape, and childhood sexual abuse data to the more rigorous research design of generalized difference-in-differences. That more sophisticated analysis confirms the first impression of Figures 2, 3, and 4: namely, that there is little evidence SVP passage had a discernible effect on sex crimes. In light of the susceptibility of difference-in-differences to time-varying disparities between SVP and non-SVP states, we defer an analysis of gonorrhea rates until after we have described the generalized difference-in-differences approach.

76 Cf. fig.1, supra.
B. Panel Data Technique

Now, we focus on the generalized difference-in-differences technique first used by Louis Jacobson, Robert LaLonde, and Daniel Sullivan.\textsuperscript{77} Jacobson, LaLonde, and Sullivan estimated the magnitude and temporal pattern of the earnings lost by displaced Pennsylvania workers. One of us (McCrary) used the same model to estimate the effect of court-ordered hiring quotas on the racial composition of municipal police departments.\textsuperscript{78} This technique is appropriate for estimating the impact of SVP laws for two main reasons. First, we have sex homicide and forcible rape data that spans a long period of time, from 1976 to 2008. Second, the laws themselves were passed in different states at different times. Both of these factors are necessary for a sound implementation of the generalized difference-in-differences methodology. A long time period is necessary because the technique implicitly estimates the effect of SVP passage, prior to its passage as well as subsequent to its passage by examining the level of the outcome—here, sex homicide and forcible rape—in the years leading up to and subsequent to passage. Consequently, data prior to the first passage date is desirable to obtain a robust estimate of the "effect" of SVP passage prior to its passage, just as data after the last passage date is desirable to obtain a robust estimate of the effect of SVP passage subsequent to its passage. Because the states passed the laws at different times, the methodology is able to distinguish the effects of secular changes—i.e., general national trends—in sex homicide and forcible rape from the effects of SVP passage in specific.

The model can then standardize the date of SVP passage for all states to time 0. For example, Washington passed its SVP law in 1990 and California passed its SVP law in 1995. Thus, 1990 will be equivalent to Time 0 for Washington, and 1995 will be equivalent to time 0 for California. Time 1 will reflect data from 1991 in Washington and 1996 in California. Likewise, Time -1 will reflect data from 1989 in Washington and 1995 in California. We will then run a series of regressions that estimate the difference in the rate of sexual homicide, forcible rape, and child sexual abuse after the


\textsuperscript{78} Justin McCrary, The Effect of Court-Ordered Hiring Quotas on the Composition and Quality of Police, 97 AM. ECON. REV. 318, 318-20 (2007).
One of the advantages of the generalized difference-in-differences methodology is that it legitimately enables us to make what is, at first blush, an apples-to-oranges comparison of different states passing SVP statutes in different years, but the methodology actually presents a reliable apples-to-apples comparison of the average experience of states in the first year after SVP passage, the second year after SVP passage, and so on. The methodology accomplishes this because different states are observed at different calendar times and event study times. For example, consider two states passing SVP statutes one year apart and suppose that SVP passage lowers the outcome. Compared to the later adopting state, the early adopting state should see declines in the outcome earlier. With many states and many different passage dates, these predictions become richer. The methodology can see whether the patterns in the outcome accord with these predictions and can choose the parameter estimates to best fit the cross-state and cross-time pattern of the outcome.

1. Defining the Model

This model allows an estimation of the impact that SVP laws have had on the rate of both sex-related homicide and forcible rape.

The estimates correspond to least squares estimates of \( \theta_j \) in the regression model,

\[
Y_{it} = \alpha_i + \beta_t + \sum_{j} \theta_j D_{it}^j + \epsilon_{it},
\]

where the summation ranges over \( j \), from \(-11\) to \(11\), but omitting the term corresponding to \( j=0 \). \( Y_{it} \) denotes the rate of sex killings or forcible rape in state \( i \) at time \( t \), and \( D_{it}^j \) are leads and lags of SVP passage. There are \(11\) leads and \(11\) lags. For \( a < j < b \), these are defined as \( D_{it}^j = D_i1(t = T_i + j) \), where \( 1(A) \) equals 1 if \( A \) is true and is 0 otherwise. For \( j=a \), we define \( D_{it}^j \) as \( D_i1(t \leq T_i + a) \), and for \( j=b \), we define \( D_{it}^j=D_i1(t \geq T_i + b) \), as this implies that the coefficients \( \theta_j \) are measured in deviations from the date of passage.\(^79\) The variable \( D_i \) shows whether the state ever passed SVP legislation. It is coded as a 1 for all SVP states and a zero for non-SVP states. \( T_i \) gives the year that the SVP legislation was passed. There are also dummy variables for each year (\( \beta_t \)) and each state (\( \alpha_i \)). Intuitively speaking, this method allows for states to have different levels of the outcome.

\(^{79}\) Id. at 330.
(these are the state fixed effects, or the \( \alpha_i \), for each year to differ due to secular, or national, trends in the outcome (these are the year fixed effects, or the \( \beta_t \)), and for the effects of SVP passage (these are the lead and lag coefficients, or the \( \theta_j \)).

Although the x-axis in the event study graph stretches from -10 to +10, the sample of states that drive the identification of \( \theta_j \) changes. Although all of the SVP states have data that stretches back ten years before date of passage, only four states—Kansas, Minnesota, Washington and Wisconsin—have data that stretches forward ten years after date of passage.

2. Sexual Homicide

States like Washington and California enacted SVP legislation in response to high profile sex crimes. The public clamored for the government to protect them from dangerous sexual predators, and the government responded by passing SVP laws. Yet as Figure 5 shows, the rate of sex killings was actually quite flat prior to the enactment of SVP legislation. The interpretation of this figure is the same as that for Figure 1, discussed above. The open circles are estimates of the \( \theta_j \) parameters specified in the generalized difference-in-differences methodology. The dashed lines represent 95 percent confidence intervals for the estimated \( \theta_j \) parameters. These indicate the degree of uncertainty associated with the estimates because we have a sample of information, rather than the whole universe of possible information. In repeated instantiations of the sampling and measurement process, the true \( \theta_j \) parameters would lie inside these confidence intervals 95 percent of the time. As noted in the discussion of Figure 1, pre-passage estimates are a robustness check on the methodology and should be approximately zero if the date of SVP passage is random, while post-passage estimates are our best guess regarding the effect of SVP passage on the outcome—here, the rate of sex killings.
Figure 5 also shows the rate of sex killings after the passage of SVP legislation. In theory, the rate of sex killings could have dropped immediately, due to the increased deterrent of the specter of spending life in a locked mental hospital for a sex offense. It is of course also possible that sex killings are less influenced by policy than by urges and circumstances, in which case a deterrent effect might not have been expected. Sex killings, however, might have also been expected to decrease linearly due to SVP passage; this is, for example, the natural implication of Figure 2, which shows that commitments after SVP passage increased linearly.

Interestingly, however, Figure 5 provides no discernible evidence that SVP passage led to either deterrence or incapacitation. Deterrence would manifest itself by a discontinuous shift down in the estimate immediately after passage, whereas incapacitation would manifest itself by a linear trend down following passage. Overall, the picture is consistent with no statistically important change. The dashed lines give twice standard error bands, which can be thought of as a 95 percent margin of error on the solid line.

3. Forcible Rape

Figure 6 shows the same analysis, but applied to the rate of forcible rape in SVP states before and after the passage of the sexually violent predator laws. Before the passage of SVP laws, the forcible rape rate is relatively flat. After the passage of SVP laws, the rate appears to drop from year 1 to
year 3, and then remains flat or declines slightly. The decline is statistically indistinguishable from zero, since zero is within the margin of error. As with the analysis of sex killings, the data indicate that SVP laws have had no discernible deterrent or incapacitation effects on the rate of forcible rape.

4. Childhood Sexual Abuse

Figure 7 shows the same analysis, but applied to the rate of childhood sexual abuse in SVP states before and after the passage of SVP laws. Before the passage of SVP laws, the rate of childhood sexual abuse is relatively flat. After the passage of SVP laws, the rate also appears flat, but bounces above and below zero more often. These changes, however, appear to have little structure to them. The data do not appear to be consistent with either a discontinuous shift down in the rate, nor with a shift downwards in the trend. Thus, as with the analysis of sex killings, the data indicate that SVP laws have had no discernible deterrent or incapacitation effect on the rate of child sexual abuse.
C. Corroboration: Event Study Estimates of the Impact of SVP Law on Gonorrhea Rate

To corroborate these findings, we additionally examine, in Figures 8 and 9, the patterns in the prevalence of gonorrhea leading up to and subsequent to SVP law passage. Both figures indicate that SVP laws have had no discernible impact on the prevalence of sexual abuse.

As with previous findings, Figure 8 shows that SVP and non-SVP states are generally different in terms of risk factors for the types of crimes SVPs are thought to be at risk of committing. In particular, SVP states have lower rates of forcible rape, child sexual abuse, and gonorrhea, albeit similar—but low—rates of sex killing.

Figure 7. Effect of SVP Passage on Child Sexual Abuse

Figure 8. Prevalence of Gonorrhea, by SVP Status
Figure 9 also reinforces the conclusions from the preceding analysis. An incapacitation effect of SVP statutes on child sexual abuse would be expected to lead to a break in the trend of the gonorrhea coefficients following passage, specifically a break in the negative direction. A deterrent effect of SVP statutes on child sexual abuse would be expected to lead to a drop in the gonorrhea coefficients immediately following passage. Figure 9 gives no indication of either pattern. We emphasize that only an incapacitation effect would be consistent with the constitutional argument justifying SVP statutes.

![Figure 9. Effect of SVP Passage on Rate of Gonorrhea](image)

D. Summary of Findings

Undoubtedly, those confined under SVP programs are prevented from committing crimes that would have been committed had they not been imprisoned. But the social choice is not between SVP programs and no SVP programs, but rather between SVP programs and alternative programs that are underfunded or not funded because of SVP outlays.  

We estimated two regression models to test the effect of SVP laws on sex crimes. First, we used a difference-in-differences design to see whether the trends in sex-related homicide, rape, and child sexual abuse in states with this new legislation were different from the trends in states that did not use these incapacitation innovations. Second, we used an event

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80 Part VII, infra, details some of these tradeoffs including a dearth of funds for testing rape kits and significant cuts in probation supervision and sex offender treatment.
study estimate to see whether there was any impact upon the rate of sex-related homicide, forcible rape, child sexual abuse, or gonorrhea post passage of SVP laws. Neither approach provides discernible evidence of preventive effects. Either there are no preventive benefits associated with these laws, or the benefits are too small to measure with these methods.

Proponents of SVP laws might respond that our study failed to take into account the fact that some would-be-offenders simply moved to non-SVP states to avoid the threat of lifetime incarceration for their crimes. If endogenous mobility were an operative phenomenon, however, we would have expected to see a decline in offense rates following SVP passage. As previously noted, we did not see such a decline.

These results are especially significant considering the hundreds of millions of dollars that have been allocated to expand the prosecution of sex offenders across the country.81 Given the additional resources devoted to arresting and prosecuting sex offenders, it would make sense for the detection rate of sex crimes to be higher; yet even in an atmosphere of increased sensitivity to sex offenses, our analyses found no evidence that SVP laws had a preventive effect.

V. RECIDIVISM AND AGE

Although our findings may seem surprising, the results are to be expected when the advanced age of SVPs is taken into account. Studies show that, like other types of offenders, as sex offenders age, their recidivism rate drops. Our data indicate that the median age at admission for an SVP is roughly 43,

81 Garrine P. Laney, Violence Against Women Act: History and Federal Funding (Feb. 26, 2010), available at http://digitalcommons.ilr.cornell.edu/cgi/viewcontent.cgi?article=1716&context=key_workplace. The STOP Program furthers a coordinated, multidisciplinary approach to improving the criminal justice system's response to violent crimes against women. It does this by developing and strengthening effective law enforcement and prosecution and strengthening victim services. For instance, the program trains law enforcement, judges, court personnel, and prosecutors to more effectively identify and respond to violent crimes against women, including sexual assault. The 1994 Violence Against Women Act required each state to distribute 75 percent of its S.T.O.P. Program funds in equal parts to: law enforcement, prosecution, and victim services. The use of the remaining 25 percent was discretionary, within parameters defined by the law. The 2000 Violence against Women Act modified this allocation to require that not less than 25% of STOP funds go to law enforcement, 25% to prosecution, 30% to victim services and 5% to state and local courts, leaving 15% discretionary. S.T.O.P. Annual Report 6 (2004), https://www.ncjrs.gov/pdffiles1/ovw/214639.pdf. For a breakdown in the millions of dollars given to S.T.O.P. from 1999-2003, see id. tbl.2. For a breakdown of more recent budgets, see Laney, supra, at 10-19 tbls.1 & 2.
which is to be expected since SVP laws are targeted exclusively at individuals about to be released from prison after serving time for a new conviction or a parole violation. Yet targeting an older population does not make much sense because as sex offenders age, they actually pose less risk to society. In 2002, Karl Hanson used data from ten follow-up studies of adult male sex offenders ages 18–70+ (with a combined sample of 4673) to study the relationship between age and sexual recidivism. He found that, “In the total sample, the recidivism rate declined steadily with age . . . [and t]he association was linear . . . .” Other researchers have come to similar results.

Interestingly, advancing age seems to affect sex offenders at different rates. Hanson found that the recidivism rate of both incest offenders and rapists declined steadily over time, and neither type of offender released after age 60 recidivated. Although the recidivism rate of extra-familial child molesters also declined steadily with age, the drop was much less dramatic until the offender reached age 49, when recidivism dropped dramatically.

The age effect exists even in high-risk offenders. In 2007, Prentky and Lee looked at the age effect on a group of 136 rapists and 115 child molesters who had been civilly

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82 R. Karl Hanson, Recidivism and Age: Follow-Up Data from 4,673 Sexual Offenders, 17 J. INTERPERS. VIOLENCE 1046, 1048, 1056 (2002).
83 Id. at 1053.
84 See, e.g., Howard E. Babaree et al., Aging Versus Stable Enduring Traits as Explanatory Constructs in Sex Offender Recidivism: Partitioning Actuarial Prediction into Conceptually Meaningful Components, 36 CRIM. JUST. & BEHAV. 443, 461-63 (2009) (showing age at release provided unique and significant predictive ability); Patrick Lussier & Jay Healey, Rediscovering Quetelet, Again: The “Aging” Offender and the Prediction of Reoffending in a Sample of Adult Sex Offenders, 26 JUST. Q. 828-56 (2009) (arguing that risk assessors should adjust the risk of reoffending based on the offender’s age at release); Patrick Lussier et al., Criminal Trajectories of Adult Sex Offenders and the Age Effect: Examining the Dynamic Aspect of Offending in Adulthood, 20 INT'L CRIM. JUST. REV. 147-68 (2010) (challenging the conception of sex offenders' risk as high, stable, and linear); Michelle L. Meloy, The Sex Offender Next Door: An Analysis of Recidivism, Risk Factors, and Deterrence of Sex Offenders on Probation, 16 CRIM. JUST. POLY. REV. 211, 222-23 (2005) (showing that results indicate that under the right set of conditions, probation is the most appropriate criminal sanction for some types of sex offenders); Richard Wollert et al., Recent Research (N = 9,305) Underscores the Importance of Using Age-Stratified Actuarial Tables in Sex Offender Risk Assessments, 22 SEX ABUSE 47 (2010) (arguing that "evaluators should report recidivism estimates from age-stratified tables when they are assessing sexual recidivism risk, particularly when evaluating the aging sex offender").
85 See Hanson, supra note 82, at 1054.
committed to a Massachusetts prison and were then followed for 25 years. They found that with rapists, recidivism dropped linearly as a function of age. With child molesters, however, they found that recidivism increased from age 20 to age 40 and then declined slightly at age 50 and significantly at age 60. As Prentky and Lee point out, their sample is statistically small, and it is comprised of offenders with a higher base rate of recidivism than that of the general prison population:

Although this latter consideration might be regarded as a limitation in terms of generalizability, it may also be seen as a strength of the study. Presumably, using a higher risk sample is a more severe test of the age-crime hypothesis, providing confirmatory support for the rapists and “amplifying” or exaggerating the quadratic blip in Hanson’s (2002) data for child molesters.

VI. PREDICTION PROBLEMS

It is possible that the reason we see no discernible impact on the incidence of sex crimes is that because, even if there is indeed a small group of dangerous sex offenders, the state simply does not have the ability to identify those who are risk of reoffending.

In Kansas v. Hendricks, the Court merely assumed that the state would be able to distinguish SVPs, but this is actually a difficult task. Clinicians are not very good at predicting who will re-offend, and so the state uses actuarial instruments like the Static 99 at SVP commitment hearings. Even the best instruments are only about 70 percent accurate, which results in many false positives when used on a population that has a low base rate of reoffending. If the explanation for our results is due at least in part to the state’s inability to accurately predict who

87 Id. at 45, 50.
88 See id. at 58.
89 See generally, e.g., JOHN MONAHAN, THE CLINICAL PREDICTION OF VIOLENT BEHAVIOR (1981); R. Karl Hanson, What Do We Know About Sex Offender Risk Assessment, 4 PSYCHOL. PUB. POL'Y & L. 50, 54 (1998) (arguing the research is more useful for identifying high-risk offenders than for determining when they could be safely released into the community); Vernon L. Quinsey & Rudolf Ambtman, Variables Affecting Psychiatrists' and Teachers' Assessments of the Dangerousness of Mentally Ill Offenders, 47 J. CONSULTING & CLINICAL PSYCHOL. 353 (1979) (arguing that predictions of dangerousness are conservative and of low accuracy); Vernon L. Quinsey & Anne Maguire, Maximum Security Psychiatric Patients: Actuarial and Clinical Predictions of Dangerousness, 1 J. INTERPERS. VIOLENCE 143 (1986) (showing lack of relation between clinical judgment model and outcome of re-offense).
will reoffend, then this raises significant procedural due process issues, which we will not be exploring in this article.\footnote{For a detailed analysis of this problem, see generally Lave, \textit{supra} note 25.}

VII. \textbf{PUBLIC POLICY IMPLICATIONS OF OUR FINDINGS}

We have shown that SVP laws had no discernible impact on the incidence of sexual homicide, forcible rape, child sexual abuse, or gonorrhea. In addition to the constitutional significance of these findings, they also have important public policy implications. Given the high price tag for implementing SVP laws, we believe states could more effectively fight sex crimes by allocating scarce resources elsewhere.

In 2006, the total civil commitment budget across the country equaled $454.7 million dollars, with SVP states spending an average of $94,017 per year on each committed SVP.\footnote{See \textit{GOOKIN}, \textit{supra} note 7, at 5.} California's 2006 civil commitment budget was the highest with a total of $147.3 million, and Texas—which provided only outpatient care—spent the least at $1.2 million.\footnote{Id. at 5.} Security and legal fees, including the cost for attorneys and experts, are often not included, which means the total cost of SVP programs is significantly higher than these figures represent.\footnote{Id. at 1.} In the state of Washington, for instance, the legal fees per offender added up to $60,000 per year.\footnote{Id.}

To pay for SVP programs, some states have taken measures such as reducing the number of probation officers, even though at least one study showed that felony sex offenders on probation have a lower recidivism rate than those not on probation.\footnote{See Meloy, \textit{supra} note 84, at 227.} Others have cut funding for domestic violence and sexual violence prevention programs.\footnote{See \textit{JANUS}, \textit{supra} note 9, at 115. Janus writes that in 2004, California "spent more than $78 million to lock up 535 predators, while providing no substantial sex offender treatment for the seventeen thousand sex offenders in its prisons . . . ." \textit{Id.} Janus also writes that in 2004, "Minnesota spent $26 million to lock up 235 predators." That same year, pecuniary problems forced the state to propose cutting 137 of its 778 police officers and to actually eliminate 100 probation officers' positions despite rising caseloads, and it cut its funding for domestic violence and sexual violence prevention programs by $3.6 million per year. \textit{Id.}} Still others have...
slashed funding for sex offender treatment programs that have been shown to reduce recidivism by as much as 30 to 40 percent.\textsuperscript{97}

Perhaps most poignantly, the funds currently used to pay for SVP programs could be directed toward the thousands of rape kits that languish in police departments across the country.\textsuperscript{88} According to a 2009 Human Rights Watch report, in Los Angeles alone, there were at least 12,669 untested sexual assault response team kits (known as SART or rape kits).\textsuperscript{99} In order to test these kits, Los Angeles would need to hire additional staff in their DNA laboratory at a cost of $1.6 million a year.\textsuperscript{100} Although the Los Angeles Police Department has made some progress in reducing the number of unanalyzed kits, the California budget crisis has led to mandatory work furloughs that have slowed down these efforts.\textsuperscript{101}

Not testing rape kits has serious consequences. Rape kits often contain DNA and other physical evidence that can be critical in identifying perpetrators—especially in cases where the assailant is a stranger. Indeed, researchers have found that prosecutors are more likely to file rape cases when there is physical evidence.\textsuperscript{102} New York City’s experience illustrates the crime-solving power of these kits. In 1999, the city decided to eradicate the backlog of 16,000 untested rape kits in police

\textsuperscript{97} Id. at 115, 126 (describing lack of funding for sex offender treatment programs in California and Massachusetts). Other researchers have also found that sex offenders who complete sex offender treatment have lower recidivism rates than those who do not. See, e.g., WILLIAM L. MARSHALL ET AL., COGNITIVE BEHAVIOURAL TREATMENT OF SEXUAL OFFENDERS 157-58 (1999); Margaret A. Alexander, Sexual Offender Treatment Efficacy Revisited, 11 SEXUAL ABUSE 101-16 (1999); Donna Mailloux et al., Dosage of Treatment to Sexual Offenders: Are We Overprescribing?, 47 INT'L J. OFFENDER THERAPY & COMPARATIVE CRIMINOLOGY 171-94 (2000); R. Karl Hanson et al., First Report of the Collaborative Outcome Data Project on the Effectiveness of Psychological Treatment for Sex Offenders, 14 SEXUAL ABUSE 169, (2002).

\textsuperscript{98} In 2004, Congress passed the Debbie Smith Act as part of the Justice for All Act, which was specifically created to provide federal funds so that state and local law enforcement could test untested rape kits. Despite its stated purpose, the Act lets states use the money to test any kind of DNA backlog, not just rape kits. Thus it is hard to know how much money has actually been used to test rape kits. Perhaps this is why the rape kits backlog continued to grow in Los Angeles despite millions of dollars in Debbie Smith funding. HUMAN RTS. WATCH, TESTING JUSTICE: THE RAPE KIT BACKLOG IN LOS ANGELES CITY AND COUNTY 21, 29 (2009).

\textsuperscript{99} See id. at 1.

\textsuperscript{100} Id. at 32-33.


\textsuperscript{102} See Dawn Beichner & Cassia Spohn, Prosecutorial Charging Decisions in Sexual Assault Cases: Examining the Impact of a Specialized Prosecution Unit, 16 CRIM. JUST. POL'Y REV. 461, 491 (2005).
storage by 2003.\textsuperscript{103} As of January 2009, the tested kits had resulted in 2000 cold hits\textsuperscript{104} and an additional 200 active investigations, arrests, or prosecutions.\textsuperscript{105}

If New York's results are predictive for Los Angeles, then testing L.A.'s kits should lead to approximately 1580 cold hits and an additional 158 active investigations, arrests, or prosecutions.\textsuperscript{106} Thus, instead of paying $166,000 per year to lock up ten SVPs, California could reallocate those $1.6 million to prosecute sixteen times as many rapists.\textsuperscript{107}

VIII. CONSTITUTIONAL IMPLICATIONS OF OUR FINDINGS

We have shown that SVP laws have had no discernible effect on the incidence of sexual homicide, forcible rape, child sexual abuse, or gonorrhea. This finding is significant because it challenges the only constitutionally permissible justification for the laws: civil incapacitation of the dangerous mentally ill. Our findings can also be used to mount a substantive due process challenge to SVP laws. Since both types of challenge require the Court to look independently at empirical findings, we will begin by discussing judicial deference to legislative findings of fact.

A. Judicial Deference to Legislative Findings of Fact

Historically, the Court has been deferential to Congressional and state legislative findings.\textsuperscript{108} When constitutional rights are at stake, however, the Court should

\textsuperscript{103} See HUMAN RTS. WATCH, supra note 98, at 55.
\textsuperscript{105} Although critical, a cold hit is just the first step in the investigatory process. For instance, law enforcement must get a confirmatory DNA sample from the suspect, and ideally, law enforcement will get the chance to interview the suspect. Id.
\textsuperscript{106} HUMAN RTS. WATCH, supra note 98, at 55.
\textsuperscript{107} 12,669 / 16,000 = .79; .79 x 2,000 = 1,580; .79 x 200 = 158.
\textsuperscript{108} See Borgmann, supra note 32, at 6-7; Neal Devins, Congressional Factfinding and the Scope of Judicial Review: A Preliminary Analysis, 50 DUKE L.J. 1169, 1178-81 (2001).
maintain a more detached and critical perspective," as it acknowledged: "Although we review congressional factfinding under a deferential standard, we do not in the circumstances here place dispositive weight on Congress' findings. The Court retains an independent constitutional duty to review factual findings where constitutional rights are at stake." The Supreme Court has recognized that constitutional rights are at stake in SVP commitment, stating, "[i]t is clear that commitment for any purpose constitutes a significant deprivation of liberty that requires due process protection." Consequently, the Court has a duty to independently review the finding that SVPs are extremely dangerous since that finding provides the factual groundwork for the legislation's civil classification.

Although the Court has not always undertaken such a review when fundamental rights are at stake, it should certainly do so here. First, the people whose rights are being taken away are sex offenders, and they are one of the most loathed groups in the country. It would be political suicide for legislators to challenge commonly held beliefs about sex offenders, and so public choice theory tells us they will not tackle this issue. In factual disputes over highly contentious issues like this one, courts are in a better position than legislatures to demand claims be proven true instead of merely presumed true. Judges are less beholden to the populace because many have lifetime appointments, and they can slow proceedings down to allow the presentation of complicated and nuanced evidence.

Furthermore, there was no real factual finding regarding the dangerousness of so-called SVPs; that they were extremely dangerous was just assumed to be true. Thus, we are not asking the Court to reconsider evidence that was presented but deemed insufficient; instead, we are asking the Court to

109 But see Borgmann, supra note 32, at 78 (arguing that the Court does not always defer when it is supposed to or remain critical when it is supposed to).
112 Caitlin E. Borgmann calls these "dispositive' social facts," and she describes them as "the plainly empirical as opposed to doctrinal issues that a decision maker must resolve before determining a law's constitutionality." Borgmann, supra note 32, at 5.
113 See id. at 21-28.
114 See generally 1 CHARLES K. ROWLEY, PUBLIC CHOICE THEORY (1993).
115 Devins, supra note 108, at 1185-87.
116 Id. at 1182-87; Borgmann, supra note 32, at 21-46.
consider evidence that was not even available at the time it decided *Hendricks*. This is exactly the kind of research that Chief Judge Posner requested fourteen years ago: “I would like to see the legal professoriat redirect its research and teaching efforts toward fuller participation in the enterprise of social science, and by doing this make social science a better aid to judges’ understanding of the social problems that get thrust at them in the form of constitutional issues.”

B. Legitimacy of Empirical Studies in Constitutional Analysis

Our request of the Court is nothing new; there is precedent for using empirical studies to challenge the constitutionality of a particular law, even when it requires overturning legislative findings of fact. In a span of less than twenty-five years, the Court went from holding that execution of 16- and 17-year-olds did *not* violate the Eighth Amendment ban on cruel and unusual punishment to holding that mandatory life without possibility of parole (LWOP) for juveniles who had been convicted of homicide did.

Scientific studies of the developing adolescent brain led the Court to overturn its own precedent as well as factual findings of various lower courts and legislatures. In 1989, the Court held in *Stanford v. Kentucky* that executing 16- and 17-year-olds did not violate the Constitution. In his majority opinion, Justice Scalia was openly dismissive of the studies presented regarding the cognitive and emotional development of juveniles. As he explained, “The battle must be fought, then, on the field of the Eighth Amendment; and in that struggle socioscientific, ethicoscientific, or even purely scientific

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117 Posner, supra note 2, at 12.
118 See e.g., *Brown v. Bd. of Educ. of Topeka, Kan.*, 347 U.S. 483 (1954) (where the Court held that segregated public school education violated the Equal Protection Clause). In coming to this conclusion, the Court contradicted specific findings to the contrary by state legislatures and courts. Indeed, in *Plessy v Ferguson*, 163 U.S. 537 (1896), the Court had held that “separate but equal” did not violate equal protection. Key to the Court’s decision in *Brown* were psychological studies that showed the detrimental impact of segregated education on minority children. The Court held that these studies were relevant regardless of whether they had existed at the time *Plessy* was decided. “Whatever may have been the extent of psychological knowledge at the time *Plessy* v. *Ferguson* was decided, this finding is amply supported by modern authority. Any language in *Plessy* v. *Ferguson* contrary to this finding is rejected.” *Brown*, 347 U.S. at 494-95.
evidence is not an available weapon." Just sixteen years later, the Court pointed to "scientific and sociological studies" in striking down the juvenile death penalty in Roper v. Simmons. By 2010, the Court was specifically citing brain imaging in its decision that LWOP for juveniles not guilty of murder violated the Eighth Amendment, and brain studies also figured in the Court's 2012 holding that mandatory LWOP for juveniles guilty of murder violated the Eighth Amendment.

The studies that ended up proving so influential to the Court were due in large part to advances in brain imaging technology which allowed scientists to observe that the adolescent brain was still developing until a person was in his or her mid-20s, including in areas of the brain that governed impulse control, reasoning, and judgment. These findings contradicted conventional wisdom that the brain had finished developing in early childhood. It led advocates to contend that juveniles should not be punished in the same way as adults because their impulsivity made them less culpable and because they were likely to be able to learn from their mistakes.

No recent data provide reason to reconsider the Court's observations in Roper about the nature of juveniles. As petitioner's amici point out, developments in psychology and brain science continue to show fundamental differences between juvenile and adult minds. For example, parts of the brain involved in behavior control continue to mature through late adolescence.


In Miller v. Alabama, the Court pointed to the importance of studies on adolescent brain development in its jurisprudence on the juvenile death penalty. 132 S. Ct. 2455 (2012). It then quoted several amici briefs and concluded, "The evidence presented to us in these cases indicates that the science and social science supporting Roper's and Graham's conclusions have become even stronger." Id. at 2464 n.5.


See, e.g., Mary Berkheiser, Developments in Criminal and Evidence Law: Death Is Not So Different After All: Graham v. Florida and the Court's "Kids are Different" Eighth Amendment Jurisprudence, 36 VT. L. REV. 1 (2011) (discussing the Court's changing jurisprudence towards children and arguing that under principles of penal proportionality, all adolescent punishment should be mitigated by the fact that juveniles lack the fully developed decision making capacity of adults); Jeffrey Fagan, Atkins, Adolescence, and the Maturity Heuristic: Rationales for a Categorical Exception for Juveniles from Capital Punishment, 33 N.M. L. REV. 207 (2003) (arguing that the Court's rationale for outlawing execution of the mentally retarded on the grounds of diminished culpability should apply to juveniles as well); Barry C. Feld, Competence, Culpability, and Punishment: Implications of Atkins for Executing and Sentencing Adolescents, 32 HOFSTRA L. REV. 463 (2003) (contending that the same psychological and developmental characteristics that render mentally retarded offenders less blameworthy than competent adult offenders also characterize the immaturity of
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Now that we have discussed the Court's authority and responsibility to review legislative findings of fact, we turn to the relevance of our findings to the constitutionality of SVP legislation.

C. Double Jeopardy

SVP laws allow the state to use civil law to lock people away in what constitutes the functional equivalent of punishment. Because SVP laws are specifically targeted at those who have served their maximum prison sentence, the classification of the law as civil or criminal is critical. The Fifth and Fourteenth Amendments bar the state from punishing a person twice for the same crime, and so if the law were criminal, it would constitute an impermissible second punishment. If the law is civil, however, the state may continue to detain these individuals because the prohibition on double jeopardy does not apply.

On appeal, Leroy Hendricks challenged the civil classification of the Kansas SVP law. While acknowledging that "a civil label is not always dispositive,"128 the Court nonetheless stated that showing a statute establishes criminal proceedings constitutes a "heavy burden."29 In its opinion, the Court stated, "we will reject the legislature's manifest intent only where a party challenging the statute provides 'the clearest proof that 'the statutory scheme [is] so punitive either in purpose or effect as to negate [the State's] intention' to deem it 'civil.'"30

The challenger rarely prevails in these sorts of cases,131 and Hendricks was no exception. The Court accepted the

judgment and reduced culpability of adolescents and should likewise prohibit their execution, and more broadly, that because the generic culpability of adolescents differs from that of responsible adults, penal proportionality requires formal, categorical recognition of youthfulness as a mitigating factor in sentencing.

129 Id.
130 Id. (alterations in original) (quoting United States v. Ward, 448 U.S. 242, 248-49 (1980)).
131 See, e.g., Allen v. Illinois, 478 U.S. 364 (1986) (holding that Fifth Amendment protections did not apply to proceedings under the Illinois Sexually Dangerous Persons Act because, although they were similar to criminal proceedings in that they were accompanied by strict procedural safeguards, they were essentially civil in nature); United States v. Ursery, 518 U.S. 267 (1996) (holding that in rem civil forfeiture proceedings were civil and not criminal); United States v. Ward, 448 U.S. 242 (1980) (holding that a civil penalty assessed for violations of the Federal Water Pollution Control Act was civil and insufficiently punitive to require Fifth Amendment protections). But see Kennedy v. Mendoza-Martinez, 372 U.S. 144 (1963) (holding that two federal statutes which stripped American citizenship from individuals evading military service were punitive in nature and thus unconstitutional because they
state's classification of the law as civil in large part because the justices simply accepted as true the empirical claim that SVPs are "extremely dangerous." The rationale could not be deterrence, the Court reasoned, because SVPs cannot be deterred. Nor could it be retributive because the only purpose for introducing the prior criminal history was to show the presence of a mental order or dangerousness. Here, the Court simply begged the question—their prior history is used to prove what they already believe to be true. Furthermore, the fact that Kansas' civil commitment scheme involved an indefinite affirmative restraint did not alter the Court's holding because the legislative findings justified it. As the Court saw it, "Far from any punitive objective, the confinement's duration is instead linked to the stated purposes of the commitment, namely, to hold the person until his mental abnormality no longer causes him to be a threat to others."

In analyzing whether the SVP law is really criminal, we took a different tack. Mindful of the inherent difficulties in trying to assess the actual motives of legislators at the time they pass a law, we assumed their stated motivation accurately reflected their intent. Instead, we looked at whether empirical evidence ruled out their rationale. Ironically, this was what the majority in Hendricks did when dismissing deterrence as a possible rationale; the difference is that they assumed certain empirical evidence to be true, and we did not. We asked what the world would look like if SVPs were as dangerous as the legislature claimed them to be and then saw whether that description proved to be accurate. In conducting this inquiry, we used information that was neither available at the time the law was enacted nor when the Court decided Hendricks.

The Kansas legislature premised its SVP law on the fact that they were incapacitating "[a] small but extremely dangerous group . . . [whose] likelihood of engaging in repeat imposed punishment without providing the protections required by the Fifth and Sixth Amendments); Int'l Union, United Mine Workers of Am. v. Bagwell, 512 U.S. 821 (1994) (holding that less deference is appropriate when a single judge declares a particular sanction to be civil and that serious contempt fines are criminal and constitutionally can not be imposed absent a jury trial).

132 Hendricks, 521 U.S. at 363.

133 "Judicial inquiries into Congressional motives are at best a hazardous matter, and when that inquiry seeks to go behind objective manifestations it becomes a dubious affair indeed." Flemming v. Nestor, 363 U.S. 603, 617 (1960).
acts of predatory sexual violence is high." If SVPs were as dangerous as the legislature described, we would expect that their civil commitment would have an impact on the incidence of violent sex crime. Yet we find that SVP laws have had no discernible impact. Our findings are significant because they challenge the legislature’s rationale for the law. If the state cannot justify its law on incapacitation grounds, then it must provide another reason for locking these individuals away indefinitely—under the constraints imposed by the Constitution. Arguing that they deserve additional custody to pay for their crimes is an unacceptable alternative. Sending a message to deter would-be offenders is also off the table. Both these reasons are punitive, and they violate double jeopardy.

D. Substantive Due Process

The Supreme Court has repeatedly held that "civil commitment for any purpose constitutes a significant deprivation of liberty that requires due process protection." For this reason, the Constitution strictly limits civil commitment to individuals who are both mentally ill and dangerous. Although the Court held in Hendricks that the SVP law in Kansas did not violate substantive due process, that challenge was based on whether mental abnormality constituted mental illness. We believe that our findings can serve as the basis for a due process challenge on other grounds, namely that so-called SVPs are not sufficiently dangerous to justify indefinite, involuntary commitment.

SVP laws clearly infringe upon a fundamental liberty interest. The Court has recognized that indefinite, involuntary civil commitment to a locked mental institution constitutes a "significant deprivation" and "massive curtailment" of liberty. Indeed, the Court began its analysis in Hendricks by recognizing that "freedom from physical restraint has always

134 Hendricks, 521 U.S. at 351 (quoting KAN. STAT. ANN. §59-21a01 (1994)).
135 Addington v. Texas, 441 U.S. 418, 425 (1979). The Court has also recognized that an individual will suffer significant adverse consequences if he is involuntarily committed to a mental institution. Id. at 425-26.
137 Hendricks argued that his Due Process rights were violated because a mental abnormality did not constitute mental illness. The Court disagreed stating that, "the term 'mental illness' is devoid of any talismanic significance." Hendricks, 521 U.S. at 359.
138 Foucha, 504 U.S. at 80 (quoting Jones v. United States, 463 U.S. 354, 361 (1983)).
been at the core of the liberty protected by the Due Process Clause from arbitrary governmental action." The liberty interest at stake in SVP commitment involves both the freedom from bodily restraint and the freedom from indefinite, involuntary commitment in a mental institution. The loss of liberty goes beyond a freedom from confinement to include the stigma associated with such confinement, or as the Court put it, "adverse social consequences . . . that . . . can have a significant impact on the individual."

Because SVP laws infringe on fundamental rights, they are subject to heightened scrutiny. In Reno v. Flores, the Court laid out how heightened scrutiny applies to a substantive due process claim: "[T]he Fifth and Fourteenth Amendments' guarantee of 'due process of law' . . . include[s] a substantive component, which forbids the government to infringe certain 'fundamental' liberty interests at all, no matter what process is provided, unless the infringement is narrowly tailored to serve a compelling state interest." Another articulation of the strict scrutiny standard requires that "the law . . . advance a compelling state interest by the least restrictive means available." We recognize that although strict scrutiny is a demanding standard, it by no means implies a death knell for legislation.

Protecting people from dangerous sex offenders clearly constitutes a "compelling government interest," but our findings show that locking up adjudicated SVPs is not "narrowly tailored" to meet this goal. The lack of an incapacitation effect means that we are indefinitely confining many people who are at low risk of committing a violent sexual offense if released. Our findings show that SVP legislation is neither "carefully limited" regarding the circumstances under

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140 Hendricks, 521 U.S. at 356 (quoting Foucha, 504 U.S. at 80).
141 Foucha, 504 U.S. at 80.
142 Id. at 82.
143 Vitek, 445 U.S. at 492.
which detention is allowed, nor “sharply focused”\textsuperscript{146} on the problem of preventing violent sex crimes. Instead, we show that SVP legislation is just a “scattershot attempt”\textsuperscript{149} at addressing a serious problem that results from the indefinite commitment of many people who would not reoffend.

Furthermore, our findings show that SVP laws do not comport with the level of dangerousness required to justify indefinite civil commitment. The state of Kansas had argued that it should not have to prove that a person had difficulty controlling his dangerous behavior in order to commit him as an SVP, but the Court held otherwise in \textit{Kansas v. Crane}\textsuperscript{150}:

We do not agree with the State, however, insofar as it seeks to claim that the Constitution permits commitment of the type of dangerous sexual offender considered in \textit{Hendricks} without \textit{any} lack-of-control determination. \textit{Hendricks} underscored the constitutional importance of distinguishing a dangerous sexual offender subject to civil commitment “from other dangerous persons who are perhaps more properly dealt with exclusively through criminal proceedings.” That distinction is necessary lest “civil commitment” become a “mechanism for retribution or general deterrence”—functions properly those of criminal law, not civil commitment.\textsuperscript{151}

Instead, the Court held that the demands of due process required the state to prove that the person has a “mental abnormality” or “personality disorder” that makes it “\textit{difficult, if not impossible, for the [dangerous] person to control his dangerous behavior}.”\textsuperscript{152} The Court further described that “[t]he severity of the mental abnormality itself, must be sufficient to distinguish the dangerous sexual offender whose serious mental illness, abnormality, or disorder subjects him to civil commitment from the dangerous but typical recidivist convicted in an ordinary criminal case.”\textsuperscript{153}

Our findings show that this threshold for dangerousness has not been met. If the state was successfully locking up \textit{only} those who had a difficult if not impossible time refraining from committing violent sex crimes, then there should be an incapacitation effect. The lack of such an effect as demonstrated

\textsuperscript{146} Foucault v. Louisiana, 504 U.S. 71, 81 (1992) (describing the pre-trial detention scheme which the Court upheld in \textit{Salerno}, 481 U.S. 739).
\textsuperscript{149} \textit{Salerno}, 481 U.S. at 750.
\textsuperscript{151} \textit{Id.} (citations omitted) (quoting Kansas v. Hendricks, 521 U.S. 346, 360 (1997)).
\textsuperscript{152} \textit{Id.} at 411 (alteration in original) (quoting \textit{Hendricks}, 521 U.S. at 358).
\textsuperscript{153} \textit{Id.} at 413.
by our data suggests that the state is locking up people who are equally or even less dangerous than the typical recidivist.

CONCLUSION

SVP laws are premised on incapacitating dangerous sex offenders who would be committing sexually violent crimes if they were released into the community after serving their prison terms. One way of testing this theory is to see whether the rates of sex killing, forcible rape, and child sexual abuse change after the passage of SVP laws. If the offenders truly are as dangerous as the law purports, we would expect sex crime rates to drop post-passage.

In this article, we analyzed that theory from three different perspectives. First, we ran a difference-in-differences regression. We found that there is no statistically significant change in the incidence of sex homicide, forcible rape, or child sexual abuse post passage. We then ran a disparate impact analysis and once again found that SVP laws have had no noticeable effect on the rate of sex killing, forcible rape, or child sexual abuse. Finally, we analyzed whether SVP laws have had an impact on the incidence of gonorrhea, and we find that they have not.

In a sense, the small number of committed SVPs stacks the deck against conventional tests of statistical significance on issues such as homicides resulting from sex crimes and even forcible rape. There are only a few thousand SVPs incarcerated in the United States as compared to over a million persons locked up in conventional prisons. There are, however, two reasons why a sustained analysis of the impact of this legislation on sex crime rates is an indispensable part of any comprehensive analysis of such laws. First, despite the small number of persons confined, the aggregate costs of this strategy are relatively substantial. As noted above, implementing these laws costs hundreds of millions of dollars per year, and this high cost has forced some states to reduce funding for law enforcement and violence prevention programs. Nowhere is this borne out more than in the untested rape kits. As the analysis above showed, instead of paying $166,000 a year per detainee to lock up ten SVPs, California could reallocate that $1.6 million to prosecute sixteen times as many rapists.

154 See supra Part VII.
Second, as difficult as the prospect of a visible preventive effect may be, it is the only constitutionally acceptable rationale for enacting SVP laws and confining those deemed to be SVPs for lengthy periods of time. The only other possible justification—that these individuals deserve to be punished because they did bad things—would violate the Constitution's double jeopardy prohibition.\textsuperscript{155} Thus, prevention is not merely the most important objective of SVP strategy; it is the only legitimate objective.

All of the empirical indicators developed in this article are consistent with the proposition that SVP laws do not demonstrably prevent sex killing, forcible rape, or child sexual abuse. Of course, there can be no formal proof of zero effectiveness in the real world. Yet in light of the considerable costs of these laws, both in terms of the opportunity costs to the states and the lost liberty to the individuals, states would be wise to consider suspending the laws unless and until they prove effective.

More significantly, in light of the fact that our findings undermine the only constitutionally permissible justification for SVP laws, we believe that states and the federal government should either definitively demonstrate that there is an incapacitation effect from these laws or suspend them immediately. We recognize, however, that our findings may not be strong enough for a court to find that we have met the "heavy burden" in showing that SVP legislation should be considered criminal. For that reason, our substantive due process analysis gains enormous significance. Because SVP laws infringe on fundamental rights, they are subject to heightened scrutiny, and the burden is on the government to show that the infringement on liberty is narrowly tailored to serve a compelling interest. Our findings show that SVP states are confining many individuals who are not dangerous, and are certainly no more dangerous than the typical recidivist. Thus, the government is clearly not able to meet its burden.

<table>
<thead>
<tr>
<th>State</th>
<th>Passage</th>
<th>Length and Type of Commitment</th>
<th>Summer 2008</th>
<th>Released</th>
<th>(Millions)</th>
</tr>
</thead>
<tbody>
<tr>
<td>WA</td>
<td>1990</td>
<td>Indeterminate – Placement in a secure facility operated by the Department of Social and Health Services for control, care and treatment.</td>
<td>213</td>
<td>Unknown</td>
<td>40.5</td>
</tr>
<tr>
<td>KS</td>
<td>1994</td>
<td>Indeterminate – Placement in a secure facility.</td>
<td>216</td>
<td>13</td>
<td>10.9</td>
</tr>
<tr>
<td>MN</td>
<td>1994</td>
<td>Indeterminate – Placement in a secure treatment facility unless person proves by clear and convincing evidence that a less restrictive treatment facility is consistent with his treatment needs and safety of the public.</td>
<td>516</td>
<td>0</td>
<td>54.9</td>
</tr>
<tr>
<td>WI</td>
<td>1994</td>
<td>Indeterminate – “Committed to the custody of the department for control, care and treatment until such time as the person is no longer a sexually violent person.”</td>
<td>352</td>
<td>36</td>
<td>34.7</td>
</tr>
<tr>
<td>AZ</td>
<td>1995</td>
<td>Indeterminate – Placement in a state hospital licensed facility.</td>
<td>88</td>
<td>114</td>
<td>11.3</td>
</tr>
<tr>
<td>CA</td>
<td>1995</td>
<td>Indeterminate – Placement in a locked state-run hospital.</td>
<td>808</td>
<td>24</td>
<td>147.3</td>
</tr>
<tr>
<td>IL</td>
<td>1997</td>
<td>Indeterminate – Order of commitment to a secure facility or conditional release.</td>
<td>224 (206 in house, 18 on conditional release)</td>
<td>18</td>
<td>25.6</td>
</tr>
<tr>
<td>ND</td>
<td>1997</td>
<td>Indeterminate – Placement in the least restrictive but appropriate treatment facility possible.</td>
<td>58</td>
<td>0</td>
<td>12.7</td>
</tr>
<tr>
<td>FL</td>
<td>1998</td>
<td>Indeterminate – Placement in a secure state run facility</td>
<td>942</td>
<td>28</td>
<td>23.3</td>
</tr>
<tr>
<td>IA</td>
<td>1998</td>
<td>Indeterminate – Placement in a state facility designed to confine but not necessarily treat SVP.</td>
<td>75</td>
<td>14</td>
<td>5.0</td>
</tr>
<tr>
<td>SC</td>
<td>1998</td>
<td>Indeterminate – Committed to custody of Department of Mental Health for control, care and treatment.</td>
<td>94</td>
<td>Unknown</td>
<td>2.9</td>
</tr>
<tr>
<td>MA</td>
<td>1999</td>
<td>Indeterminate – Committed to a treatment center.</td>
<td>121</td>
<td>54</td>
<td>30.7</td>
</tr>
<tr>
<td>MO</td>
<td>1999</td>
<td>Indeterminate – Committed to the custody of the director of the Department of Mental Health for control, care and treatment.</td>
<td>110</td>
<td>0</td>
<td>8.3</td>
</tr>
<tr>
<td>TX</td>
<td>1999</td>
<td>Outpatient.</td>
<td>99 (50 in prison awaiting release and 49 in half way houses or jail for violation of civil commitment)</td>
<td>Outpatient</td>
<td>1.2</td>
</tr>
<tr>
<td>State</td>
<td>Year</td>
<td>Indeterminate - Less restrictive alternatives to involuntary secure inpatient treatment are possible if they have been investigated and deemed suitable.</td>
<td>138</td>
<td>Unknown</td>
<td>8.2</td>
</tr>
<tr>
<td>-------</td>
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<td>---------------------------------------------------------------------------------</td>
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<tr>
<td>PA</td>
<td>2003</td>
<td>Lifetime registration with the police, verify their residence on a quarterly basis and attend monthly counseling sessions.</td>
<td>12</td>
<td>0</td>
<td>1.8</td>
</tr>
<tr>
<td>NE</td>
<td>2006</td>
<td>Indeterminate - “State must prove by clear and convincing evidence that neither voluntary hospitalization nor other treatment alternatives less restrictive of the subject's liberty than inpatient or outpatient treatment ordered by the Board are available or would suffice to prevent the harm.”</td>
<td>18</td>
<td>18</td>
<td>13.5</td>
</tr>
<tr>
<td>NH</td>
<td>2006</td>
<td>Indeterminate - “Commitment to the custody of the department of corrections for control, care, and treatment until such time as the person’s mental abnormality or personality disorder has so changed that the person no longer poses a potentially serious likelihood of danger to others. Persons who are detained or committed under this chapter shall be held at the secure psychiatric unit of the New Hampshire state prison or other appropriate facility controlled or contracted by the department of corrections if available.”</td>
<td>0</td>
<td>Not applicable</td>
<td>Unk.</td>
</tr>
<tr>
<td>USA</td>
<td>2006</td>
<td>Indeterminate - Released to state for custody, care, and treatment. Otherwise Attorney General will assume such responsibility.</td>
<td>Unknown</td>
<td>Unknown</td>
<td>Unk.</td>
</tr>
<tr>
<td>NY</td>
<td>2007</td>
<td>Indeterminate - “The respondent shall be committed to a secure treatment facility for care, treatment, and control until such time as he or she no longer requires confinement.”</td>
<td>52</td>
<td>Unknown</td>
<td>Unk.</td>
</tr>
</tbody>
</table>

Table 1. Sexually Violent Predator Statutes in the United States