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Portmanteau Ascendant: Post-Release Regulations and Sex Offender Recidivism

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The purported purpose of sex offender post-release regulations (e.g., community notification and residency restrictions) is the reduction of sex offender recidivism. On their face, these laws seem well-designed and likely to be effective. A simple economic framework of offender behavior can be used to formalize these basic intuitions: in essence, post-release regulations either increase the probability of detection or increase the immediate cost of engaging in the prohibited activity (or both), and so should reduce the likelihood of criminal behavior. These laws aim to incapacitate people outside of prison. Yet, empirical researchers to date have found essentially no reliable evidence that these laws work to reduce sex offender recidivism (despite years and years of effort), and some evidence (and plenty of expert sentiment) suggests that these laws may increase sex offender recidivism. In this Article, I develop a more comprehensive economic model of criminal behavior—or, rather, I present a simple, but complete model—that clarifies that these laws have at best a theoretically ambiguous effect on recidivism levels. First, I argue that the conditions that must hold for these laws to increase the legal and physical costs of returning to sex crime are difficult to satisfy. There are simply too many necessary conditions, some of which are at odds with others. Second, I contend that even when these conditions hold, our intuitions mislead us in this domain by ignoring a critical aspect of criminal deterrence: to be deterred, potential offenders must have something to lose. I conclude that post-release laws are much more likely to succeed if they are combined with robust reintegration efforts to give previously convicted sex offenders a stake in society, and therefore, in eschewing future criminal activity.

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Portmanteau Ascendant: Post-Release Regulations and Sex Offender Recidivism

J.J. PRESCOTT*

I. INTRODUCTION

The primary aim of sex offender post-release regulations (e.g., community notification and residency restrictions) is the incapacitation of potential recidivists following their release from prison. Over the last thirty years,¹ this relatively young area of law has been in near constant motion. Its proponents have often been innovative, and the laws themselves have been subject to controversy in the courts and in the press from the outset.² Nevertheless, the scope and importance of sex offender post-release (SOPR) laws today were in many ways simply inevitable. Incarceration is very effective at reducing recidivism risk, but keeping people behind bars indefinitely is also very costly. With modern information and monitoring technology transforming our lives almost daily, it was only a matter of time before policymakers recognized that incapacitating people *outside* of prison might be the best of all worlds: relatively small price tag, but potentially very effective control and therefore minimal recidivism.³

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¹ Many features of these laws are still novel as many as thirty years later. Even so, in many ways, the sex offender laws that federal, state, and local policymakers have developed and implemented in recent decades are just the latest incarnation (along with many cousins and second cousins) of age-old felon registration laws. See Note, *Criminal Registration Ordinances: Police Control over Potential Recidivists*, 103 U. PA. L. REV. 60, 62 n.14 (1954) (discussing the emergence of criminal registration statutes in the 1930s); see also, e.g., ALA. CODE § 13A-11-181 (2015) (requiring that persons who have been convicted of a felony more than twice register within twenty-four hours of arrival); FLA. STAT. ANN. § 775.13(2)–(3) (West 2015) (requiring that persons who have been convicted of a felony in Florida, or any crime in any federal or other state court, register within forty-eight hours of arrival).

² See, e.g., *California: Housing Restrictions Overturned for Sex Offenders*, N.Y. TIMES (Mar. 2, 2015), http://www.nytimes.com/2015/03/03/us/california-housing-restrictions-overturned-for-sex-offenders.html?_r=1; L.L. Brasier, *Does Michigan's Sex Offender Registry Keep Us Safer?*, DETROIT FREE PRESS (May 18, 2015), <http://www.freep.com/wlna/news/local/michigan/2015/05/16/sex-offender-registries-fire-michigan/27453025/> [<https://perma.cc/8NVL-Q5DN>]; L.L. Brasier, *Judge: Parts of State's Sex Offender Law Unconstitutional*, DETROIT FREE PRESS (Apr. 6, 2015), <http://www.freep.com/story/news/local/michigan/2015/04/06/michigan-sex-offender-registry-judge-rob-ert-cleland-state-police-governor-snyder/25385625/> [<https://perma.cc/8M9Z-8HSJ>].

³ See Wayne A. Logan, *Federal Habeas in the Information Age*, 85 MINN. L. REV. 147, 173–74 (2000) (describing the American public's struggle between the desire to control the number of criminal offenders and the financial costs of doing so). Admittedly, these developments were also motivated by

Efforts to reduce sex crime through the enactment and enforcement of these laws continue apace. Today's strategies include information dissemination (registration and community notification laws),⁴ geographic isolation (residency restrictions),⁵ routine restraints and disabilities (employment, travel, and activity restrictions),⁶ and intensive real-time observation (GPS monitoring).⁷ In a limited sense, these developments are encouraging.⁸ Abstracting from the current arrangement of our world, one would predict that a well-functioning criminal justice system would employ a wide range of punishments, treatments, and other tools to modify behavior—even for serious crimes.⁹ Some of these would surely include the tools currently deployed against released sex offenders, and in fact parole and probation officers *do* make use of these devices when non-sex offenders are released, albeit in a more individually tailored way.¹⁰

constitutional *ex post facto* restrictions. As the public began to panic over sex offenders in the late 1980s and 1990s, imposing longer sentences on *already incarcerated* offenders was off the table. See *Collins v. Youngblood*, 497 U.S. 37, 43 (1990) (stating that legislatures cannot retroactively increase the length of punishment for criminal acts). Consequently, for any of a number of potential reasons, policymakers had to devise a means for incarcerating sex offenders while still releasing them at the end of their prison sentences. Whether the motivation was discharging anger or disgust by making sex offenders leap through endless shame-inducing hoops (punishment) or simply reducing the threat they pose going forward (regulation), the result was the same: isolation and disability. See Jill S. Levenson et al., *Public Perceptions About Sex Offenders and Community Protection Policies*, 7 ANALYSES SOC. ISSUES & PUB. POL'Y 137, 139–40 (2007) (reporting community members' reactions to sex offender notification and the perceived consequences of such notification).

⁴ Levenson et al., *supra* note 3, at 138–39 (summarizing various SOPR laws that require states to maintain registries of sex offenders' addresses, permit law enforcement personnel to disclose such information to community residents, and establish online databases of sex offender registry information).

⁵ Brian J. Love, *Regulating for Safety or Punishing Depravity? A Pathfinder for Sex Offender Residency Restriction Statutes*, 43 CRIM. L. BULL. 834, 836 (2007) (“[R]esidency restrictions represent the next wave in a continuing effort by state legislatures to respond to public concerns regarding the presence of convicted sex offenders in their constituent communities.”).

⁶ Bret R. Hobson, *Banishing Acts: How Far May States Go to Keep Convicted Sex Offenders Away from Children?*, 40 GA. L. REV. 961, 963–64 (2006) (noting that some states have enacted laws that ban sex offenders from working or traveling in certain areas).

⁷ Peter M. Thomson, *A Comprehensive Strategy Targeting Recidivist Criminals with Continuous Real-Time GPS Monitoring: Is Reverse Engineering Crime Control Possible?*, ENGAGE, Nov. 2011, at 23, 24 (describing the functionality of tracking individuals with GPS technology).

⁸ The idea that we ought to punish and/or rehabilitate *all* felons (or almost all felons) by locking them up in buildings for long periods of time is outmoded. At the time it became important, incarceration in penitentiaries was a humane alternative to death or torture and shame, but it seems hard to believe that virtually all serious criminals are best punished by imprisonment, with the only question being how long they ought to remain behind bars.

⁹ Imprisonment as punishment assumes that incarceration denies people, on average, what they want most in the world (presumably physical freedom and interaction with their loved ones). We might be better off trying to ascertain the most cost-effective form of disability or restraint, something presumably more targeted, that produces fewer third-party effects (family losses) and diffuse social costs (community dysfunction).

¹⁰ *E.g.*, David Iversen, *On Parole but Free to Go Anywhere*, NEWS8 (May 9, 2014), <http://wtnh.com/2014/05/09/parole-free-go-anywhere> [<https://perma.cc/MUV2-KFSQ>] (linking to a

On paper, SOPR regulations seem clever, carefully crafted, and thus very likely to reduce recidivism. As the story goes, each works by making the commission of another sex offense more difficult, and it does this in a very specific way, targeting one or more particular criminogenic mechanisms.¹¹ These tools are likely to be complementary in the sense that, although some may not alter the behavior of a particular sex offender, at least one of them will, and for most offenders, the combined power of the tools may outdo the effectiveness of any one of them alone—perhaps to the point of approximating the efficacy of incarceration.¹² Moreover, the story continues, even if these laws fail at making crime commission more difficult, compliance costs for reformed sex offenders will be tolerable,¹³ and it seems very unlikely that the laws could do any real harm.

Yet the picture on the ground is very different. For decades, advocates and commentators alike have lamented what they claim are constitutional violations visited daily upon a population that has already paid for its crimes.¹⁴ Others have decried the affront to human dignity implicit in the enforcement of these laws.¹⁵ None of these reactions is surprising.¹⁶ What

document for the acknowledgement of release conditions of a parolee from the Connecticut Board of Pardons and Paroles).

¹¹ Jill S. Levenson & David A. D'Amora, *Social Policies Designed to Prevent Sexual Violence: The Emperor's New Clothes?*, 18 CRIM. JUST. POL'Y REV. 168, 172–74 (2007) (explaining that registration policies were designed to assist law enforcement personnel with tracking and apprehending potential suspects, notification policies were enacted to inform communities, residency restrictions seek to keep sex offenders away from children, and GPS monitoring allows sex offenders to remain in their communities while being under constant surveillance).

¹² Cf. Daniel Simundza, *Criminal Registries, Community Notification, and Optimal Avoidance*, 39 INT'L REV. L. & ECON. 73, 81 (2014) (finding that notification policies are complementary to criminal penalties).

¹³ For example, satisfying public concern for child safety alone can serve as a justification for imposing even burdensome obligations on sex offenders. See, e.g., *Mother Fighting to Change Sex Offender Registry Laws*, WARWICK BEACON (Apr. 28, 2015), <http://warwickonline.com/stories/mother-fighting-to-change-sex-offender-residency-laws,101981> [<https://perma.cc/WNJ5-MUB8>] (quoting a community resident in saying: “I know he still has his rights, but shouldn't the rights of our children and their safety come first? He's a convicted felon.”).

¹⁴ See, for example, *Smith v. Doe*, 538 U.S. 84, 92–106 (2003), for the Supreme Court's seminal ruling on whether sex offender registration and notification statutes violate the Ex Post Facto Clause of the U.S. Constitution. For other Supreme Court cases involving constitutional claims against registration and notification laws, see *United States v. Kebodeaux*, 133 S. Ct. 2496, 2502–05 (2013); *Connecticut Department of Public Safety v. Doe*, 538 U.S. 1, 3–8 (2003); and *Carr v. United States*, 560 U.S. 438, 458 (2010).

¹⁵ See, e.g., Astrid Birgden & Heather Cucolo, *The Treatment of Sex Offenders: Evidence, Ethics, and Human Rights*, 23 SEXUAL ABUSE: J. RES. & TREATMENT 295, 307–08 (2011) (arguing in favor of the treatment of sex offenders with respect and dignity).

¹⁶ Individuals convicted of crimes in the 1970s certainly did not anticipate the arrival of SOPR regulations, and these laws as a practical matter do involve shaming, whether this result is intentional or not. Compare Dan M. Kahan, *Social Influence, Social Meaning, and Deterrence*, 83 VA. L. REV. 349, 384–85 (1997) (asserting that shaming penalties are worthwhile sanctions because they are low-cost and are effective in conveying condemnation), with Dan Markel, *Are Shaming Punishments Beautifully Retributive? Retributivism and the Implications for the Alternative Sanctions Debate*, 54

is surprising is that, in the face of all of this criticism, virtually no reliable empirical evidence exists to support claims that SOPR laws are effective at reducing sex offender recidivism, notwithstanding decades of scholarly effort. Admittedly, it is very difficult to establish statistically that a legal or policy innovation has “no effect” on a particular outcome.¹⁷ Even so, a scholarly consensus has emerged—something very rare indeed—that these laws fail on their own terms,¹⁸ despite decades of research in which the initial goal for some researchers must have been to quantify the extent of the benefits of these laws.¹⁹ Instead, many have now adopted the view that these laws may in fact increase recidivism by exacerbating the risk factors of individuals subject to these laws.²⁰

VAND. L. REV. 2157, 2219 (2001) (denying the retributive value of shaming punishments and arguing, “[b]ecause shaming punishments have as their goal the destruction of a person’s reputation and dignity, the shaming punishment denies the very dignity of moral agency that the retributive encounter is designed to uphold”).

¹⁷ See Priya Ranganathan et al., *Common Pitfalls in Statistical Analysis: “No Evidence of Effect” Versus “Evidence of No Effect”*, 6 PERSP. CLINICAL RES. 62, 62 (2015) (explaining the difference between evidence of “no effect” and “no evidence” of an effect); William Odita Tarnow-Mordi & Michael J.R. Healy, *Distinguishing Between “No Evidence of Effect” and “Evidence of No Effect” in Randomised Controlled Trials and Other Comparisons*, 80 ARCHIVES DISEASE CHILDHOOD 210, 210 (1999) (noting that if a randomized controlled trial fails to show a difference in outcomes, it does not necessarily imply that the treatment failed; the trial may have been unable to detect the effect).

¹⁸ See, e.g., Kelly K. Bonnar-Kidd, *Sexual Offender Laws and Prevention of Sexual Violence or Recidivism*, 100 AM. J. PUB. HEALTH 412, 418 (2010) (“Although additional community-based studies are needed, research to date indicates that after 15 years the laws have had little impact on recidivism rates and the incidence of sexually based crimes.”); Grant Duwe et al., *Does Residential Proximity Matter? A Geographic Analysis of Sex Offense Recidivism*, 35 CRIM. JUST. & BEHAV. 484, 500 (2008) (“[T]he results presented here provide very little support for the notion that residency restriction laws would lower the incidence of sexual recidivism”); Matt R. Nobles et al., *Effectiveness of Residence Restrictions in Preventing Sex Offense Recidivism*, 58 CRIME & DELINQ. 491, 494 (2012) (“There is no established correlation between proximity to schools or child care facilities and sex offense recidivism.”); Richard Tewksbury et al., *A Longitudinal Examination of Sex Offender Recidivism Prior to and Following Implementation of SORN*, 30 BEHAV. SCI. & L. 308, 324 (2012) (finding that sex offender registration and notification “as a policy has little effect on two related and socially important recidivism outcomes using the trajectory methodology: (1) reducing/deterring sexual recidivism; and (2) reducing/deterring recidivism in general”).

¹⁹ But see David M. Bierie, *The Utility of Sex Offender Registration: A Research Note*, J. SEXUAL AGGRESSION 2, 4–6 (2015) (contending that this consensus view is without foundation, discussing some of my own work to make this case, and arguing that these laws *do* matter (citing J.J. Prescott & Jonah E. Rockoff, *Do Sex Offender Registration and Notification Laws Affect Criminal Behavior?*, 54 J.L. & ECON. 161 (2011))).

²⁰ See, e.g., Elizabeth L. Jeglic et al., *The Prevalence and Correlates of Depression and Hopelessness Among Sex Offenders Subject to Community Notification and Residence Restriction Legislation*, 37 AM. J. CRIM. JUST. 46, 55 (2012) (finding that sex offender laws increase feelings of hopelessness and depression among sex offenders, and consequently, “that community protection legislation may in fact be destabilizing to sex offenders, thus operating counter to the intended goal of decreasing sex offender recidivism”); Jill S. Levenson, *An Evidence-Based Perspective on Sexual Offender Registration and Residential Restrictions*, in SEXUAL OFFENDING 861, 865–66 (Amy Phenix & Harry M. Hoberman eds., 2016) (“When prisoners are released from incarceration, they commonly seek housing with relatives, but strict residence laws can eliminate such options for sex offenders.

At least one reason why SOPR laws remain on the books—and indeed continue to expand²¹—despite the absence of any social science or other evidence that they work is no mystery: politics.²² Sex offenders may be the very definition of a “discrete and insular minority.”²³ The number of sex offenders who are subject to these laws continues to grow; so does the number of friends and family members of offenders, who are also negatively affected by these laws. But sex offenders “typically arouse contemptuous anger and disgust.”²⁴ By and large the public has little sympathy for convicted sex offenders.²⁵ Scholars have offered a number of

Unable to reside with family and without the financial resources to pay security deposits and rent payments, some sex offenders face homelessness. Ironically, housing instability is consistently associated with criminal recidivism and absconding.”); Prescott & Rockoff, *supra* note 19, at 192 (“We estimate that . . . the[] benefits [of notification laws] dissipate as more offenders become subject to notification requirements. This pattern is consistent with notification deterring nonregistered individuals but encouraging recidivism among registered offenders, perhaps because of the social and financial costs associated with the public release of their criminal history and personal information. When a registry is of average size, adding a notification regime effectively increases the number of sex offenses by more than 1.57 percent.”); Richard Tewksbury, *Exile at Home: The Unintended Collateral Consequences of Sex Offender Registry Restrictions*, 42 HARV. C.R.-C.L. L. REV. 531, 540 (2007) (discussing the impact of such laws on recidivism). Tewksbury contends:

It seems likely that RSOs [registered sex offenders] will continue to experience persistent stress from difficulties in meeting one of their most basic needs: decent, safe, and affordable housing. As a result, RSOs may feel they have little choice but to abscond from supervision and fail to register. Even worse, they may seek ways to relieve their increasing levels of stress and frustration, which are among the most powerful factors contributing to sex offense recidivism.

Tewksbury, *supra*, at 540.

²¹ See, e.g., *ACLU of Virginia Denounces Governor’s Signing of New Sex Offender Registry Bills*, AUGUSTA FREE PRESS (Mar. 27, 2015), <http://augustafreepress.com/aclu-of-virginia-denounces-governors-signing-of-new-sex-offender-registry-bills/> [<https://perma.cc/3T6R-H2VM>]; Elizabeth Hewitt, *Governor Signs Sex Offender Bill into Law*, VT DIGGER (Feb. 25, 2015), <http://vtdigger.org/2015/02/25/governor-signs-sex-offender-bill-law/> [<https://perma.cc/N77W-5ZNM>].

²² There are various versions of this story. See, e.g., Bela August Walker, *Essay: Deciphering Risk: Sex Offender Statutes and Moral Panic in a Risk Society*, 40 U. BALT. L. REV. 183, 198 (2010) (“Politically, to oppose such statutes would be seen as backing sexual abuse and would mean certain death in the polls.”); Corey Rayburn Yung, *The Emerging Criminal War on Sex Offenders*, 45 HARV. C.R.-C.L. L. REV. 435, 436 (2010) (describing a “sea change” elevating sex offender policies from “political posturing” to a “criminal war on sex offenders”).

²³ See *United States v. Carolene Prods. Co.*, 304 U.S. 144, 152–53 n.4 (1938).

²⁴ TERENCE W. CAMPBELL, *ASSESSING SEX OFFENDERS: PROBLEMS AND PITFALLS* 3 (2d ed. 2007).

²⁵ Individual sex offenders with the right “story” sometimes receive positive attention from a broader slice of the population and the mainstream media. E.g., Julie Bosman, *Teenager’s Jailing Brings a Call to Fix Sex Offender Registries*, N.Y. TIMES (July 4, 2015), <http://www.nytimes.com/2015/07/05/us/teenagers-jailing-brings-a-call-to-fix-sex-offender-registries.html> (recounting the many post-release circumstances faced by a nineteen-year-old young man who had sexual intercourse with a fourteen-year-old young woman and the national attention it drew to the possibility of sex offender registry reform); Tim Vandenack, *Michigan Judge Grants Zach Anderson Leniency, Keeps Him Off Michigan Sex Offender Registry*, ELKHART TRUTH (Oct. 19, 2015), <http://www.elkharttruth.com/news/crime-fire-courts/2015/10/19/Elkhart-s-Zach-Anderson-removed-from-Michigan-sex->

other theories of “stasis” as well.²⁶ Yet the strength of the underlying logic of these laws must play a role. Put simply, SOPR laws sound like good ideas, and good ideas can be so persuasive on their own terms that actual evidence supporting them is unnecessary.²⁷

For example, community notification (often referred to as Megan’s Law) involves making the names and other identifying information of convicted sex offenders publicly available.²⁸ The justification for making this information public is two-fold. First, members of the public who worry they might become victims can use the information to engage in more effective precautionary behavior.²⁹ The classic example in this context is Megan Kanka herself, who was attacked by a neighbor who had been previously convicted of a sex offense; Megan’s parents did not know about his criminal history.³⁰ Second, community notification serves to deputize the public.³¹ With everyone (or at least some number of individuals) in the

offender-registry-granted-Holmes-Youthful-Training-Act-status.html [https://perma.cc/4XT6-G27K] (describing how the offender received a new sentencing hearing at which the judge ruled he was not required to register as a sex offender in Michigan, where the offense took place, but would still have to register in Indiana, where he resided at the time).

²⁶ See generally Wayne A. Logan, *Megan’s Laws as a Case Study in Political Stasis*, 61 SYRACUSE L. REV. 371, 387–99 (2011) (describing factors contributing to the prolonged political success of registration and notification requirements, which include public panic, political maneuvering, risk aversion, information entitlement, and the involvement of the federal government (citing WAYNE A. LOGAN, KNOWLEDGE AS POWER: CRIMINAL REGISTRATION AND COMMUNITY NOTIFICATION LAWS IN AMERICA 85–108 (Markus D. Dubber ed., 2009))).

²⁷ Sarah K. Brem & Lance J. Rips, *Explanation and Evidence in Informal Argument*, 24 COGNITIVE SCI. 573, 595–96 (2000) (“[A]rguers may construct an explanation and then find that explanation so compelling that they terminate the process of search[ing] for and testing hypotheses”); Tania Lombrozo, *The Structure and Function of Explanations*, 10 TRENDS COGNITIVE SCI. 464, 468 (2006) (“In evaluating claims, the existence of explanations can constitute evidence, and serve as a basis for eliminating possibilities to assess probability.”).

²⁸ See, e.g., Daniel M. Filler, *Making the Case for Megan’s Law: A Study in Legislative Rhetoric*, 76 IND. L.J. 315, 316 n.7 (2001) (describing how registration laws require convicted offenders to furnish information such as their address to authorities, how “Megan’s Law” mandates that this information then be disseminated to the public, and how “every state has now adopted some version of Megan’s Law”).

²⁹ Anthony J. Petrosino & Carolyn Petrosino, *The Public Safety Potential of Megan’s Law in Massachusetts: An Assessment from a Sample of Criminal Sexual Psychopaths*, 45 CRIME & DELINQ. 140, 141 (1999) (“If endangered citizens know that a released sex offender is among them, it is assumed that they can take steps to prevent the victimization of themselves and other more vulnerable persons”).

³⁰ Renee Marie Shelby & Anthony Ryan Hatch, *Obscuring Sexual Crime: Examining Media Representations of Sexual Violence in Megan’s Law*, 27 CRIM. JUST. STUD. 402, 402 (2014) (reporting that Megan’s parents asserted after her death that it is a parent’s right to know the locations of sexual predators and that Megan’s death would not have occurred had they been aware of their neighbor’s previous sex offense convictions).

³¹ Amy L. Anderson & Lisa L. Sample, *Public Awareness and Action Resulting from Sex Offender Community Notification Laws*, 19 CRIM. JUST. POL’Y REV. 371, 372 (2008) (explaining that the goals of notification laws include informing citizens about former sex offenders’ whereabouts so they can take protective action and augment public safety provided by other legislation and enforcement activities); see also Simundza, *supra* note 12, at 81 (“Informing the community of

neighborhood keeping their eyes on nearby registered sex offenders, any crime one of these potential recidivists commits is much more likely to be detected, making it less likely that he will attempt the crime in the first place, and more likely that he will be apprehended if he does.

Likewise, residency restrictions seem like no-brainers. If even a few sex offenders may be “impulse” offenders,³² why not require every one of them to live some distance away from places where they are more likely to interact with potential victims?³³ Other restrictions rely on the same logic. If there is even a small chance, for instance, that allowing a registered sex offender to operate an ice cream truck,³⁴ dress up for Halloween,³⁵ or participate in church events³⁶ might lead to a sex crime, isn’t it better to be safe than sorry? Each of these specific limitations seems fairly minor (except perhaps the church ordinance), and the salience and seriousness of

criminals’ identities deters crime by increasing detection rates and making attacking more costly for registered criminals.”).

³² See JILL D. STINSON ET AL., SEX OFFENDING: CAUSAL THEORIES TO INFORM RESEARCH, PREVENTION, AND TREATMENT 187–88 (2008) (describing how impulsivity is a factor that compounds an individual’s “self-regulatory difficulties to create a willingness to engage in sexually inappropriate [behavior]”); Judith V. Becker, *Offenders: Characteristics and Treatment*, 4 FUTURE CHILD 176, 182 (1994) (enumerating factors, including poor impulse control, that are theorized to be necessary for pedophilic action).

³³ Cf. Melanie Clark Mogavero & Leslie W. Kennedy, *The Social and Geographical Patterns of Sexual Offending: Is Sex Offender Residence Restriction Legislation Practical?*, VICTIMS & OFFENDERS 2 (Nov. 7, 2015), <http://www.tandfonline.com/doi/pdf/10.1080/15564886.2015.1084962> [<https://perma.cc/Z86L-BLKQ>] (noting that, to date, thirty states have enacted residency restrictions of varying severity—ranging from 500 feet to 2,500 feet from particular landmarks—in the hope of preventing sex offenders from residing in close proximity to children and explaining that the creation of sex-offender-free zones provides communities with a sense of security).

³⁴ For example, in Massachusetts, New York, and Tennessee, registrants cannot operate ice cream trucks. MASS. GEN. LAWS ANN. ch. 265, § 48 (West 2015); N.Y. CORRECT. LAW § 168-v (McKinney 2015); TENN. CODE ANN. § 40-39-215(a)(3) (West 2015).

³⁵ In Tennessee, certain sex offender registrants may not “[p]retend to be, dress as, impersonate or otherwise assume the identity of a real or fictional person or character or a member of a profession, vocation or occupation while in the presence of a minor.” TENN. CODE ANN. § 40-39-215(a)(1).

³⁶ In Georgia, registrants cannot work or volunteer at a church. GA. CODE ANN. § 42-1-15(c)(1) (West 2015). In Oklahoma, registrants must receive written permission from the “religious leader” of a church or other institution before entering to worship. OKLA. STAT. ANN. tit. 21, § 1125(E) (West 2015). Under a law on the books in North Carolina, certain registrants may not be present in any place where minors gather for “regularly scheduled educational, recreational, or social programs.” N.C. GEN. STAT. ANN. § 14-208.18(a)(3) (West 2015). That includes churches and other institutions of religious worship. See Bonnie Rochman, *Should Sex Offenders Be Barred from Church?*, TIME (Oct. 14, 2009), <http://content.time.com/time/nation/article/0,8599,1929736,00.html> [<http://web.archive.org/web/20150912062113/http://content.time.com/time/nation/article/0,8599,1929736,00.html>] (discussing the North Carolina law and its consequence of excluding sex offenders from religious worship). The North Carolina law was recently declared unconstitutional by the Middle District. *Does v. Cooper*, No. 1:13-cv-711, 2015 WL 8179498, at *10 (M.D.N.C. Dec. 7, 2015) (“[S]ubsection (a)(3) is indeed unconstitutionally vague because it does not ‘define the criminal offense with sufficient definiteness [such] that ordinary people can understand what conduct is prohibited and in a manner that does not encourage arbitrary and discriminatory enforcement.’” (quoting *Kolender v. Lawson*, 461 U.S. 352, 357 (1983))).

even a single criminal incident is significant. If one also happens to discount the costs imposed by these laws on registered sex offenders and their friends and family members and instead considers *only* the role these regulations may play in enhancing public safety, SOPR laws just seem like common sense.

In this Article, I address the impasse that appears to exist in this debate. On one side, many scholars see no upside to these laws, many downsides, and perhaps even more crime as a consequence of enacting them. On the other side, many policymakers and members of the public have trouble comprehending how these laws could *fail* to work, at least at the margin, and find the idea that these laws might actually make recidivism rates worse to be utterly unintelligible. In what follows, I present a simple economic framework—an economic model of crime—to formalize the intuitions of both sides. The model does just what a good model ought to do: crystallize thinking and identify issues that fly under the radar. The takeaway from this analysis is that these laws have, at best, a theoretically ambiguous effect on recidivism levels.

A big part of the confusion derives from a typically neglected parameter of the standard economic model of crime. This parameter—Becker’s “portmanteau variable”³⁷—is often uninteresting and remains in the shadows because punishment is usually in the form of incarceration or a fine to be imposed *after* someone is convicted, and because policy changes are usually evaluated in isolation.³⁸ In the sex offender post-release context, however, this parameter becomes critical, because SOPR laws affect many aspects of a registered offender’s life other than just the prospect of prison for committing a crime. These indirect effects may swamp the direct effects,³⁹ leading to unexpected consequences.⁴⁰ For

³⁷ Gary S. Becker, *Crime and Punishment: An Economic Approach*, 76 J. POL. ECON. 169, 177 (1968) (characterizing the portmanteau variable as part of an equation for determining whether an individual will engage in crime, and defining the variable as representing “other influences” such as “the income available to him in legal and other illegal activities, the frequency of nuisance arrests, and his willingness to commit an illegal act”).

³⁸ See *id.* at 177 n.15 (noting that “among other things,” the portmanteau variable “depends on the *p*’s and *f*’s meted out for other competing offenses,” which many analyses assume will remain constant).

³⁹ See, e.g., Richard Tewksbury, *Collateral Consequences of Sex Offender Registration*, 21 J. CONTEMP. CRIM. JUST. 67, 79 (2005) (“[I]t is clear that the collateral consequences of sex offender registration as a criminal sanction may be quite serious and harmful, for individual offenders, for their families and loved ones, and for communities in general.”).

⁴⁰ See Prescott & Rockoff, *supra* note 19, at 164 (“[N]otification laws were designed to reduce recidivism . . . but notification may also reduce crime by enhancing the punishment for first-time or nonregistered sex offenders. . . .”); cf. J.J. Prescott, *Child Pornography and Community Notification: How an Attempt to Reduce Crime Can Achieve the Opposite*, 24 FED. SENT’G REP. 93, 98 (2011) (“As technology evolves to allow better law enforcement monitoring of the Internet, potential offenders will presumably find it increasingly difficult to establish, expand, or locate child pornography networks without some means of identifying individuals with similar inclinations or experiences. Web registry

those who study re-entry issues, none of this will be surprising.⁴¹ The same dynamics lead to recommendations to provide jobs and stable housing to the recently released in hopes of giving them a stake in society.⁴² Unfortunately, the indirect effects of SOPR laws do exactly the opposite, and so the question becomes: are the direct effects of these laws so great so as to make up the difference?⁴³

II. FRAMEWORK

Here I introduce a simple economic model of crime. These are standard ideas; they have been around for decades, some even longer.⁴⁴ With the arrival of post-incarceration incapacitation, however, certain typically neglected features of the model step into the spotlight. Using this framework, it is easier to understand how SOPR laws are likely to affect offender behavior, sometimes in offsetting ways.

The notions behind economic models of crime are simple: potential offenders prefer pleasure to pain (however defined) and are at least minimally rational in how they behave.⁴⁵ The minimal rationality condition is satisfied when potential offenders 1) can observe at least some of their environment (including laws and legal changes), 2) can react at least some of the time to changes in their environment by altering their behavior, and 3) are at least somewhat forward looking such that future consequences (including punishments imposed in the future) are considered part of the

data may provide the key, because offender listings ‘expressly indicate, or can be used to help establish, an individual’s proclivities—including sexual interest in children.’”)

⁴¹ See JEREMY TRAVIS, BUT THEY ALL COME BACK: FACING THE CHALLENGES FOR PRISON REENTRY xxiv, 143–47, 172–76, 238–39 (2005) (discussing aspects of these connections).

⁴² Cf. George Lipsitz, “*In an Avalanche Every Snowflake Pleads Not Guilty*”: *The Collateral Consequences of Mass Incarceration and Impediments to Women’s Fair Housing Rights*, 59 UCLA L. REV. 1746, 1787 (2012) (explaining that, according to moral hazard theory, the “best behavior comes from people with a stake in society”).

⁴³ A natural question is whether there might be a way to tweak SOPR laws so as to achieve the direct effects of these laws without also generating the counterproductive indirect effects. The bottom-line answer to this question is “no”; these laws *work* by disclosing information to the public and by limiting the movement and choices of offenders, regardless of whether they are at risk of re-offending. Low-burden registration requirements and free, reliable, real-time GPS monitoring devices that cannot be detected by the public may be realistic “tweaks” that have a much better chance of succeeding, but only if they are imposed without other SOPR laws. All of that said, it must be the case that, at the margin, efforts taken to better target these laws—or to limit their burdens, even somewhat—will make these laws more effective.

⁴⁴ See, e.g., Becker, *supra* note 37, at 177. For related textbook treatments, see A. MITCHELL POLINSKY, AN INTRODUCTION TO LAW AND ECONOMICS 91–101 (2003); PETER SCHMIDT & ANN D. WITTE, AN ECONOMIC ANALYSIS OF CRIME AND JUSTICE: THEORY, METHODS, AND APPLICATIONS 151–57 (1984); STEVEN SHAVELL, FOUNDATIONS OF ECONOMIC ANALYSIS OF LAW 492–530 (2004).

⁴⁵ See, e.g., Rafael di Tella & Ernesto Schargrodsky, *Do Police Reduce Crime? Estimates Using the Allocation of Police Forces After a Terrorist Attack*, 94 AM. ECON. REV. 115, 115 (2004) (“Classical criminology assumes that criminals are rational beings who weigh the costs and benefits of their actions.”).

landscape.⁴⁶ Importantly, rationality need not be perfect for an economic approach to be useful at modeling and understanding behavior.⁴⁷ Potential offenders can be impulsive, hyperbolic discounters, and suffer from many types of cognitive and behavioral biases.⁴⁸ Still, even an extremely irrational criminal will only rarely, for example, commit a crime in front of a police officer when there is a dark alley nearby.

Gary Becker's early model of criminal behavior framed the decision of whether to commit a crime as a function of three parameters: p_j , f_j , and u_j .⁴⁹ The parameter p_j represents the probability of punishment.⁵⁰ The parameter f_j captures the severity of the punishment, but is typically (and significantly) measured as the size of the fine or the number of years of incarceration.⁵¹ The parameter u_j captures "other variables, such as the income available to him in legal and other illegal activities, the frequency of nuisance arrests, and his willingness to commit an illegal act."⁵² In a footnote, Becker further comments that "[a]mong other things, u_j depends on the p 's and f 's meted out for other competing offenses."⁵³

At least in principle, the probability of detection (p_j) and the severity of punishment (f_j) have relatively predictable consequences for the likelihood

⁴⁶ Cf. Ronet Bachman et al., *The Rationality of Sexual Offending: Testing a Deterrence/Rational Choice Conception of Sexual Assault*, 26 LAW & SOC'Y REV. 343, 346 (1992) (summarizing rational choice theorists' views that potential offenders are influenced by the perceived costs and benefits of their actions, including "the likelihood of social censure").

⁴⁷ See Wim Bernasco & Richard Block, *Where Offenders Choose to Attack: A Discrete Choice Model of Robberies in Chicago*, 47 CRIMINOLOGY 93, 95–96 (2009) (presenting a model of robbery locations as one of criminal choice, in which some actors behave rationally, while others stumble into opportunities to act); see also Christine Jolls, *On Law Enforcement with Boundedly Rational Actors*, in THE LAW AND ECONOMICS OF IRRATIONAL BEHAVIOR 268, 272–73 (Francesco Parisi & Vernon Smith eds., 2005) (noting that bounded rationality takes into account that "judgment errors and departures from expected utility theory" can affect offenders' cost-benefit comparisons and therefore behavior); Michael E. O'Neill, *The Biology of Irrationality: Crime and the Contingency of Deterrence*, in THE LAW AND ECONOMICS OF IRRATIONAL BEHAVIOR, *supra*, at 287, 295–98 (providing an overview of bounded rationality models).

⁴⁸ See David A. Anderson, *The Deterrence Hypothesis and Picking Pockets at the Pickpocket's Hanging*, 4 AM. L. & ECON. REV. 295, 306–07 (2002) (discussing criminals' occasionally impulsive behavior and noting that some individuals inaccurately perceive the marginal costs of their behavior); Jolls, *supra* note 47, at 270–72 (explaining bounded rationality and contending that human cognitive abilities are often fraught with judgment errors and departures from sound decision making).

⁴⁹ See Becker, *supra* note 37, at 177 (describing these as determinants of the number of crimes an offender will commit, although the characterization works just as well for whether the offender will choose to commit crime j or not: $O_j = O_j(p_j, f_j, u_j)$); see also Aaron Chalfin & Justin McCrary, *Criminal Deterrence: A Review of the Literature*, J. ECON. LIT. (forthcoming) (manuscript at 4), <https://pdfs.semanticscholar.org/b2e9/7824cfc61b9c908f016d1223cc1ab8c3f706.pdf> [<https://perma.cc/G25X-BX23>] (recounting the basics of Becker's model in different terms).

⁵⁰ The probability of punishment is the product of other probabilities: the probability of detection, the probability of apprehension, the probability of being charged, the probability of being convicted, and so on.

⁵¹ Chalfin & McCrary, *supra* note 49 (manuscript at 4).

⁵² Becker, *supra* note 37, at 177.

⁵³ *Id.* at 177 n.15.

that a potential offender will commit a crime. As Becker summarizes, “[a]n increase in either p_j or f_j would reduce the utility expected from an offense and thus would tend to reduce the number of offenses because either the probability of ‘paying’ the higher ‘price’ or the ‘price’ itself would increase.”⁵⁴ This standard analysis is straightforward so long as we assume that an offender must commit the crime for either of these two parameters to affect his utility level and therefore to make a difference in his behavior. The argument runs as follows: if an offender currently prefers lawful behavior, it does not matter to the offender’s behavior whether detection probabilities (p_j) or punishment levels (f_j) increase, because he will not be touched by either of these policy changes.⁵⁵

Unfortunately, as Becker hints, this is not entirely true in the real world. Because the portmanteau parameter captures “the frequency of nuisance arrests,”⁵⁶ which probably also ought to include the likelihood of a false conviction, changes in both p_j and f_j may have indirect effects that could either increase or decrease the likelihood of reoffending. For instance, one might surmise that suffering through many false arrests might “harden” a reformed offender. An arrest, even a false one or one for a minor offense, might make the prospect of returning to prison less frightening, which could induce an offender who would otherwise have remained on the straight and narrow to revert to crime.⁵⁷ A false arrest might also result in a lost job, a broken relationship, or other difficulties,⁵⁸ increasing the likelihood of a former offender returning to crime.⁵⁹

There are also scenarios in which an increase in average detection probabilities might generate a greater willingness to commit crime even among individuals who, at the time they decide to commit a crime, have not yet been “falsely” arrested. For example, imagine a shift in law enforcement strategy that brings extreme detection inaccuracy with more

⁵⁴ *Id.* at 177.

⁵⁵ To further elaborate, the intuition is that *if* the offender’s privately optimal choice at time zero is to forgo committing another crime, then an increase in the likelihood of detection or the level of punishment at time one cannot possibly affect that choice. Indeed, the superiority of the initial choice becomes even more obvious, barring something strange, like a preference for committing a crime when detection is high (e.g., the offender does not want to commit the crime unless he is caught) or a desire to experience only a particularly severe punishment.

⁵⁶ Becker, *supra* note 37, at 177.

⁵⁷ There is some evidence that “scared straight” programs may have this unintended effect. See Daniel P. Mears, *Towards Rational and Evidence-Based Crime Policy*, 35 J. CRIM. JUST. 667, 671 (2007) (describing “scared straight” programs, including prison visitation and boot camps).

⁵⁸ Eisha Jain, *Arrests as Regulation*, 67 STAN. L. REV. 809, 852–54 (2015). “Arrests alone—regardless of whether they result in conviction—can lead to a range of consequences, including . . . eviction, license suspension, custody disruption, or adverse employment actions.” *Id.* at 809.

⁵⁹ See Zieva Dauber Konvisser, *Psychological Consequences of Wrongful Conviction in Women and the Possibility of Positive Change*, 5 DEPAUL J. SOC. JUST. 221, 250–52 (2012) (analyzing the observed traumatic effects of a false arrest, including “enduring personality change” and disillusionment with the justice system).

intense investigation.⁶⁰ The mere prospect of being arrested, convicted, and punished *in spite* of your lawful behavior can reduce deterrence for the simple reason that you have less ability to affect the final outcome with your behavior.⁶¹ On the other side of the ledger, and for the obverse reason, lower average conviction or clearance rates may not reduce deterrence if better detection accuracy more than compensates for this decline in conviction or clearance rates.⁶²

In practice, however, these idiosyncratic possibilities are very unlikely to occur in the context of traditional reforms to criminal justice policy.⁶³ The influence of the portmanteau variable—or more usefully, the set of indirect effects that traditional policy levers have on criminal behavior—in typical settings is small. Nuisance arrests and wrongful convictions, while extremely serious, are not so systemic or pervasive as to reverse the crime-reducing effects of an increase in the likelihood of crime detection (p_j).⁶⁴ Furthermore, increasing the severity of punishment a criminal is to suffer upon conviction (f_j) seemingly *cannot* push an otherwise reformed former offender to commit a crime *unless* this change in severity affects the likelihood that accused offenders are convicted. Nullification on the basis of excessive sentences happens,⁶⁵ but probably not to the extent necessary

⁶⁰ See Richard Craswell & John E. Calfee, *Deterrence and Uncertain Legal Standards*, 2 J.L. ECON. & ORG. 279, 280 (1986) (“We conclude that overcompliance is likely to be common, even when all parties are risk-neutral, in a variety of situations where the uncertainty is relatively small. Very broad uncertainty, on the other hand, is more likely to lead to undercompliance.”).

⁶¹ See Nuno Garoupa & Matteo Rizzolli, *Wrongful Convictions Do Lower Deterrence*, 168 J. INSTITUTIONAL & THEORETICAL ECON. 224, 224–25 (2012) (noting that wrongful convictions reduce the expected benefits of law-abiding behavior). Imagine an enforcement regime in which a crime was rarely if ever punished (but in which even small probabilities of punishment were sufficient to deter large numbers of potential offenders) transitioning to a dragnet approach that implicated large numbers of innocents. In the extreme, if wrongful convictions and acquittals increase to the point where conviction is random, crime will increase even if the likelihood of punishment goes from 1% to 5%. *But see* Henrik Lando, *Does Wrongful Conviction Lower Deterrence?*, 35 J. LEGAL STUD. 327, 328–29 (2006) (suggesting that wrongful convictions will minimally affect deterrence).

⁶² Of course indirect effects can work in the same direction as direct effects. Consider sophisticated criminals who face no real chance of detection (and so are not directly affected by increases in p_j and f_j), but the fact that safer neighborhoods result from increases in p_j and f_j might indirectly persuade these offenders to trade in their criminal enterprises for some more legitimate way to spend their time. This example highlights the importance of lawful alternative opportunities in a complete model of criminal behavior. At least for those who engage in crime for financial reasons, alternative means of earning money are always in the mix. *See* Chalfin & McCrary, *supra* note 49 (manuscript at 5–6).

⁶³ *See* Lando, *supra* note 61, at 333 (“However, the main point to be stressed here is that the effect, whether positive or negative, is likely to be of little quantitative importance. Under most normal circumstances, an innocent person’s risk of being wrongfully convicted will be small.”).

⁶⁴ *Id.* at 328–29 (discounting the significance of any indirect effects of wrongful convictions because “the probability of any individual being wrongfully convicted is low since the number of wrongful convictions is relatively small and many people share the risk”).

⁶⁵ *See* James Andreoni, *Reasonable Doubt and the Optimal Magnitude of Fines: Should the Penalty Fit the Crime?*, 22 RAND J. ECON. 385, 385–86 (1991) (“Jurors are very sensitive to the

to offset the upsides of heightened punitive sanctions, even if evidence suggests that any deterrence gains from increasing sanctions (at least from their present levels) is very small.⁶⁶

III. SOPR LAWS

In this part of the Article, I analyze possible consequences of SOPR laws for sex offender recidivism when viewed through the prism of Becker's simple economic model of crime. I do not systematically evaluate the potential consequences of every type of SOPR law; instead, I examine several archetypes (specifically, registration, notification, residency restrictions, and GPS monitoring), an exercise that is sufficient to illustrate the basic mechanics of how these laws are designed to work. Also, I add another parameter— c_i —to the standard framework. This parameter represents the physical costs of committing a crime, including travel costs, victim targeting costs, etc. SOPR laws specifically seek to influence this parameter (most criminal laws do not, except indirectly through p_j and f_j), so it makes sense to pull it out of the portmanteau.⁶⁷

According to traditional theory, and all else being equal, a registered sex offender will be less likely to return to crime when p_j , f_j , and c_j are at relatively high levels. The portmanteau variable (u_j) is a grab bag of other influences, but it is helpful to conceive of it as capturing the quality of life the offender can expect if he remains free from punishment, either because he does not commit a crime or because he is not caught, convicted, and punished for a crime he does actually commit.⁶⁸ Another way to think of this parameter is as the relative value of avoiding imprisonment: what a sex offender stands to lose if he returns to crime. It also helps that, with this frame, u_j has an association with recidivism of the “same sign” as p_j , f_j , and c_j ; in other words, as u_j increases, the likelihood of committing a crime drops, just as when p_j , f_j , and c_j rise.

To evaluate the likely effect of a particular legal change on sex offender recidivism, recognize that each variable begins at some initial

potential penalties defendants may pay, with higher penalties leading to lower probabilities of conviction. This effect is evident in recent econometric studies on the deterrent effect of penalties that show that higher penalties reduce the number of convictions.” (citations omitted); Adriaan Lanni, Note, *Jury Sentencing in Noncapital Cases: An Idea Whose Time Has Come (Again)?*, 108 YALE L.J. 1775, 1784–85 (1999) (arguing that jury nullification is likely to increase in response to overly harsh determinate sentencing penalties); Paul Butler, *Jurors Need to Know that They Can Say No*, N.Y. TIMES (Dec. 20, 2011), http://www.nytimes.com/2011/12/21/opinion/jurors-can-say-no.html?_r=0 (describing instances of jury nullification).

⁶⁶ See J.J. Prescott, *Deterrence and Criminal Sanction*, in ENCYCLOPEDIA OF LAW AND ECONOMICS 7–9 (Jürgen Backhaus ed., 2015), http://link.springer.com/referenceworkentry/10.1007/978-1-4614-7883-6_19-1 [<https://perma.cc/TCZ4-XJH9>].

⁶⁷ To keep it all in one place, this model can be represented formally as $O_j = O_j(p_j, f_j, c_j, u_j)$.

⁶⁸ See Becker, *supra* note 37, at 177 (noting that an increase in u_j reduces the incentive to engage in illegal activity and therefore reduces the number of criminal offenses).

value (e.g., a convicted sex offender might have a five percent chance of being apprehended and convicted as a baseline), which then changes with an innovation in policy. By being precise about the channels through which a law might conceivably operate on criminal behavior and decision making, we may be able to determine the range of possible effects that might follow a law's implementation and enforcement.⁶⁹

Registration—sometimes referred to as private registration, in which only law enforcement personnel are made aware of a registered offender's identity, location, and criminal history—operates by increasing the likelihood that an offender's commission of a crime will result in his apprehension, conviction, and punishment. Registration allows law enforcement officers to better monitor potential sex offender recidivists, and when crime occurs, the police can look to registered offenders as “usual suspects.”⁷⁰ Both facets of the policy elevate p_j .

With respect to f_j , note that an already-registered offender does not face longer sentences solely as a result of the enactment or application of a SOPR law. Higher sentences for recidivist sex crimes are a distinct phenomenon, as are “failure to comply” violations.⁷¹ Technically, it is possible that a second offense might lead to a longer registration period (which presumably results in some loss of utility, however discounted), but registration obligations are already so long (sometimes lifelong) and would only start to run upon the offender's re-release,⁷² that this prospect seems

⁶⁹ The primary purpose of SOPR laws is reducing recidivism rather than deterring “first time” or “potential” offenders from committing their first sex offense, and so for sake of brevity, I discuss only the effects these laws have on recidivism—i.e., the effects on the willingness of a convicted sex offender who would be covered by these laws to commit another such offense. SOPR laws are sufficiently salient, however, that they might indeed reduce crime simply by threatening potential offenders with being subjected to these laws after they serve any sentence for a future crime. See Prescott & Rockoff, *supra* note 19, at 168 (explaining how registration and notification laws may affect a non-registered individual's behavior by threatening to impose future burdens if he or she is convicted of a sex crime). There is a great deal of variation in the scope and coverage of these laws, *see id.* at 166–67 (illustrating the differences in the timing and content of sex offender laws in a number of states), and some SOPR laws apply to relatively small subsets of the overall class of what most would consider “sex offenders,” *id.* at 182 n.35 (stating that one-third of the sampled states do not apply their most stringent notification requirements to all registered sex offenders).

⁷⁰ See Marissa Ceglian, Note, *Predators or Prey: Mandatory Listing of Non-Predatory Offenders on Predatory Offender Registries*, 12 J.L. & POL'Y 843, 872 (2004) (“While the police cannot arrest a registered sex offender based solely on his inclusion within the registry, they can pressure him to come to the police station and question him as a suspect.”).

⁷¹ See Grant Duwe & William Donnay, *The Effects of Failure to Register on Sex Offender Recidivism*, 37 CRIM. JUST. & BEHAV. 520, 520–21 (2010); Kristen M. Zgoba & Jill Levenson, *Failure to Register as a Predictor of Sex Offense Recidivism: The Big Bad Wolf or a Red Herring?*, 24 SEXUAL ABUSE: J. RES. & TREATMENT 328, 330–32, 340 (2011) (summarizing the literature on the significance and causes of an offender's failure to register and reporting findings that “cast[] doubt” on the belief that failing to register is associated with heightened dangerousness).

⁷² Most sex offender registration obligations run from either conviction or release, whichever is later. *E.g.*, Adam Walsh Child Protection and Safety Act, Pub. L. No. 109–248, § 115, 120 Stat. 587,

unlikely to matter at the margin. With respect to c_j , at least in theory, registration information remains confidential,⁷³ and so community members (including potential victims) are unable to make it more difficult for a specific offender to locate and attack a victim, even if the information can be used *ex post* to apprehend the offender.

Is there anything left to include in the portmanteau parameter u_j ? SOPR laws, unlike criminal laws generally, impose affirmative obligations on convicted sex offenders and often occasion further hardships through police and third-party reactions to an individual's SOPR status. Whereas potential offenders are indifferent to changes in criminal law unless they perceive some chance of being convicted of a crime, these affirmative facets of SOPR laws are largely unavoidable;⁷⁴ they apply to offenders regardless of their behavior, including those who are veritable saints after they reenter society.⁷⁵ In its purest form, however, registration requires *relatively* little—just information (and the regular delivery of that information)—of those who are subject to it.⁷⁶ Historically, offenders who were privately registered had to regularly confirm or update their information to law enforcement,⁷⁷ satisfy procedural requirements,⁷⁸ and

595 (2006) (codified at 42 U.S.C. § 16915 (2012)) (providing that “[a] sex offender shall keep the registration current for the full registration period[,]” which is fifteen years, twenty-five years, or a lifetime period depending on the severity of the crime, “excluding any time the sex offender is in custody or civilly committed”).

⁷³ Prescott & Rockoff, *supra* note 19, at 163.

⁷⁴ Not *everyone* who might be considered a “sex offender” in the colloquial sense is required to register. SOPR laws define the individuals covered by the laws, with coverage typically turning on whether an individual committed one of a specific set of crimes, *see, e.g.*, N.J. STAT. ANN. § 2C:7-2(b) (West 2015) (defining a sex offense to be, *inter alia*, sexual assault or false imprisonment where the victim is a minor and the offender is not the parent), and possibly, depending on the state, on a risk assessment of the offender in question, *see, e.g.*, CAL. PENAL CODE § 290.46(e)(4) (West 2015) (“Effective January 1, 2012, no person shall be excluded [from the sex offender registry] pursuant to this subdivision [upon approval of an application to the Department of Justice] unless the offender has submitted to the department documentation sufficient for the department to determine that he or she has a SARATSO risk level of low or moderate-low.”).

⁷⁵ In some circumstances, it is possible to petition a state to be removed from a sex offender registry. Wayne A. Logan, *Database Infamia: Exit from the Sex Offender Registries*, 2015 WIS. L. REV. 219, 227–30 (surveying a number of states’ lifetime registration mandates and their registry removal procedures).

⁷⁶ Exceptions to this rule include the registration requirements for sex offenders who are homeless. Their obligations are more onerous. Homeless offenders are often required to check in once a week, sometimes to multiple government agencies. *E.g.*, *McGuire v. Strange*, 83 F. Supp. 3d 1231, 1239 (M.D. Ala. 2015) (describing the extensive registration burden on the homeless in the process of declaring certain Alabama sex offender registration statutes unconstitutional (citing ALA. CODE §§ 15-20A-4(13), 15-20A-12(b))).

⁷⁷ *See, e.g.*, MO. ANN. STAT. § 589.414(1) (West 2015) (requiring a registration update within three business days after any change of name, residence, employment, or student status). Historically, registering by mail was often acceptable. *See, e.g.*, *Sex Offender Registration Bill Endorsed by House Panel*, ARKANSASONLINE (Jan. 21, 2011), <http://www.arkansasonline.com/news/2011/jan/21/sex-offender-registration-bill-endorsed-house-pane> [<https://perma.cc/344B-XL92>] (noting that as of

suffer occasional harassment at the hands of law enforcement.⁷⁹ On paper, registration obligations track the burdens of parole supervision.⁸⁰ Yet, as community notification has taken root, the scope and intensity of many of these burdens has exploded.

Community notification—or *public* registration—builds on traditional registration by making almost all of the information law enforcement collects on registered offenders available to the public. How this information is made public obviously matters, and early versions of these statutes proceeded by allowing written requests for information, facilitating public inspection of paper records, publishing notices in newspapers, promoting community meetings, and, in more active jurisdictions, by sending a postcard or even having a police officer spread the word to a registrant’s nearby neighbors.⁸¹ Today, notification is best known in its manifestation as a “web registry,” as mandated by federal law, through which members of the public can search for registered offenders near a particular address or for the location of a particular offender.⁸²

As a well-defined extension of private registration, notification has more complex implications for sex offender recidivism, at least in theory. By deputizing community members to closely monitor individuals who

January 2011, “registration by mail [was] the . . . requirement under law). Today, in-person registration is usually required. *E.g.*, MO. ANN. STAT. § 589.414(1) (requiring “appear[ance] in person”).

⁷⁸ *See, e.g.*, CONN. GEN. STAT. § 54-251(a) (2015) (“Any person who has been convicted or found not guilty by reason of mental disease or defect of a criminal offense against a victim who is a minor or a nonviolent sexual offense, and is released into the community on or after October 1, 1998, shall, within three days following such release or, if such person is in the custody of the Commissioner of Correction, at such time prior to release as the commissioner shall direct, and whether or not such person’s place of residence is in this state, register such person’s name, identifying factors, criminal history record, residence address and electronic mail address, instant message address or other similar Internet communication identifier, if any, with the Commissioner of Emergency Services and Public Protection . . .”).

⁷⁹ *Cf. id.* (“During such period of registration, each registrant shall complete and return forms mailed to such registrant to verify such registrant’s residence address and shall submit to the retaking of a photographic image *upon request* of the Commissioner of Emergency Services and Public Protection.” (emphasis added)).

⁸⁰ *See* TRAVIS, *supra* note 41, at 47. Travis reports a “significant expansion” in the numbers of released offenders who are subject to parole supervision in recent years. *Id.* at 44–47. Parole supervision affects many if not most released felons, yet at the same time, the imposition of parole conditions is temporary. *Id.*

⁸¹ *See* Jill S. Levenson & Leo P. Cotter, *The Effect of Megan’s Law on Sex Offender Reintegration*, 21 J. CONTEMP. CRIM. JUST. 49, 50 (2005) (describing the wide scope of notification methods among the states (citing extensively SCOTT MATSON & ROXANNE LIEB, WASH. STATE INST. FOR PUB. POLICY, COMMUNITY NOTIFICATION IN WASHINGTON STATE: 1996 SURVEY OF LAW ENFORCEMENT (1996), http://pgn-stage.wsipp.wa.gov/ReportFile/1242/Wsipp_Community-Notification-in-Washington-State-1996-Survey-of-Law-Enforcement_Full-Report.pdf [<https://perma.cc/Y8EF-NYHW>])).

⁸² 42 U.S.C. § 16918(a) (2012) (“[E]ach jurisdiction shall make available on the Internet . . . to the public, all information about each sex offender on the registry.”); Levenson & Cotter, *supra* note 81, at 51.

will be publicly known as sex offenders under the law,⁸³ notification further elevates the likelihood of punishment for the commission of a sex crime (p_j). Legislatures also intend community notification to foster precautionary behavior,⁸⁴ which is best modeled as an increase in the offender's cost of targeting a particular potential victim (c_j). If a potential victim learns that a neighbor has been convicted of a sex offense, not only can she monitor the offender's behavior for anything suspicious, but she can also alter her personal behavior to reduce her risk of victimization.⁸⁵ Precautionary behavior might include keeping a wide berth around the registrant, sharing registration information, and altering daily routines.⁸⁶

Notification laws may impose additional penalties (f_j): e.g., extension of notification period duration,⁸⁷ reduction in the likelihood of exiting the registry,⁸⁸ and elevation of future risk assessment scores.⁸⁹ But, as in the case of registration, these penalties will occur years in the future, and even if we ignore discounting, their significance is very uncertain. None of these enhancements will matter in many jurisdictions,⁹⁰ and even in jurisdictions where they might, they will affect relatively few registrants.

The portmanteau variable (u_j) may take on a much more important role in the notification context than it does with registration, however. In the

⁸³ For an extreme version of this, see Charles Lane, *N.Y. County Outsources the Job of Monitoring Sex Offenders*, NPR (Aug. 25, 2013), <http://www.npr.org/2013/08/24/214925854/n-y-county-outsources-the-job-of-monitoring-sex-offenders> [<https://perma.cc/QYG7-PWQG>].

⁸⁴ E.g., ALA. CODE § 15-20A-2(1) (2015) (“This release of information creates better awareness and informs the public of the presence of sex offenders in the community, thereby enabling the public to take action to protect themselves.”).

⁸⁵ See Poco D. Kernsmith et al., *The Relationship Between Sex Offender Registry Utilization and Awareness*, 21 SEXUAL ABUSE: J. RES. & TREATMENT 181, 182 (2009) (“The existence of these registries provides the public with the perceived ability to avoid dangerous individuals . . .”).

⁸⁶ Anderson & Sample, *supra* note 31, at 387 (surveying Nebraska citizens on which, if any, preventative measures they took in response to the publication of sex offender registration information, and discovering measures that included, but were not limited to, “spread[ing] the word,” “locking the door when I’m home alone,” and evicting a tenant whose name appeared on the registry).

⁸⁷ See 730 ILL. COMP. STAT. ANN. §150/7 (West 2015) (“The registration period for any sex offender who fails to comply with any provision of the Act shall extend the period of registration by 10 years beginning from the first date of registration after the violation.”).

⁸⁸ See Logan, *supra* note 75, at 230 (indicating various ways an individual can be disqualified from exiting a registry). Elsewhere, Logan notes that “very little or no realistic prospect of exit exists” in most states. *Id.* at 233.

⁸⁹ See Stephie-Anna Kapourales Frenslar, *Pennsylvania’s “Registration of Sexual Offenders” Statute: Can It Survive a Constitutional Challenge?*, 36 DUQ. L. REV. 563, 564–65, 565 n.11 (1998) (describing the interplay between risk assessment determinations and notification practices in one state). The federal registration law, 42 U.S.C. § 16915(a) (2012), has replaced the use of risk assessment in evaluating offenders with a tier system.

⁹⁰ Most states use crime of conviction and have lifetime notification periods. See, e.g., N.Y. CORRECT. LAW § 168-h(2) (McKinney 2015) (“The duration of registration and verification for a sex offender who, on or after March eleventh, two thousand two, is designated a sexual predator, or a sexually violent offender, or a predicate sex offender, or who is classified as a level two or level three risk, shall be annually for life.”).

abstract, the only significant difference between a pure registration law and a pure notification law is the disclosure of the registrant's identity to the public at large, and this disclosure is usually effected by law enforcement or other government officials.⁹¹ The registrant himself does not have to "do" much in a proactive sense to alert members of the public (as opposed to alerting law enforcement officials). Unlike historical offenders who were sentenced to time in stocks, the modern sex offender is not obligated to present himself openly to the community for ridicule.⁹²

In practice, though, notification today is coupled with many *affirmative* obligations, which generate difficulties beyond the shame and knock-on effects of publicity. As notification has replaced registration as the SOPR baseline,⁹³ the affirmative obligations associated with being a "registrant" have ballooned.⁹⁴ For instance, the modern publicly registered sex offender often has to jump through a staggering number of hoops simply to travel to another state.⁹⁵ These can include obtaining travel permits and submitting detailed travel plans in advance,⁹⁶ and arriving in another state often triggers new obligations there, even for a stay of just a few days.⁹⁷ SOPR

⁹¹ See MICH. COMP. LAWS ANN. § 28.728(7) (West 2015) ("The department shall make the public internet website available to the public by electronic, computerized, or other similar means accessible to the public. The electronic, computerized, or other similar means shall provide for a search by name, village, city, township, and county designation, zip code, and geographical area."); Prescott & Rockoff, *supra* note 19, at 193 (noting that, historically, state laws have varied considerably in the restrictions they place on access to registration information by the public).

⁹² See *Smith v. Doe*, 538 U.S. 84, 86 (2003) (rejecting the comparison of notification requirements to public shaming punishments).

⁹³ Community notification programs are required under federal law, so no pure form of registration exists today. See 42 U.S.C. §§ 16918, 16921 (2012) (requiring public access to sex offender registry information and creating the Megan Nicole Kanka and Alexandra Nicole Zapp Community Notification Program). This has been true for many years. See *Megan's Law*, Pub. L. No. 104-145, § 2, 110 Stat. 1345, 1345 (1996).

⁹⁴ See Expert Report/Declaration of James J. Prescott, J.D., PhD at 10–12, *Doe v. Snyder*, 101 F. Supp. 3d 672 (E.D. Mich. 2015) (No. 2:12-cv-11194), 2012 WL 12099604 (highlighting numerous responsibilities and constraints placed on registered sex offenders).

⁹⁵ See *id.* at 11–12 (reporting that registered sex offenders may be forced to register in other states or face restrictions on where they stay while traveling); see also Plaintiffs' Rule 52 Motion for Judgment on the Papers at 26, *Snyder*, 101 F. Supp. 3d 672 (No. 2:12-cv-11194), 2014 WL 11033294 (contending that retroactive lifetime registration requirements create obligations that affect every aspect of an individual's life).

⁹⁶ For instance, according to the law on the books, registrants in Alabama must obtain travel permits if they intend to leave their county for more than two days. ALA. CODE § 15-20A-15 (2015). The law requires a detailed travel itinerary if an offender will be away, or intends to be away, from their registered residence for more than two days in Illinois, 730 ILL. COMP. STAT. ANN. 150/3 (West 2015), for visits longer than two days in Alabama, ALA. CODE § 15-20A-15, and for visits longer than five days in Iowa, IOWA CODE ANN. § 692A.105 (West 2015).

⁹⁷ In Illinois and Maryland, registrants from other states must register if they stay for more than two days. See 730 ILL. COMP. STAT. ANN. 150/3(a)(1); MD. CODE ANN. CRIM. PROC. § 11-705(b)(5)(3) (West 2015); see also ALASKA STAT. ANN. § 12.63.010 (West 2015) (requiring registration in Alaska by the next working day after arrival in the state); IND. CODE ANN. § 11-8-8-7(a) (West 2015) (directing registrants to register in Indiana if they spend a week in the state over any six-month period).

laws have mutated a convicted sex offender's public obligations as well—for example, offenders are sometimes required to renew their driver's licenses or ID cards more often than others, and they can be forced to carry special cards at all times that indicate their status as a sex offender.⁹⁸ Some states even require that registered offenders conspicuously absent themselves from particular holidays by posting warning signs in front of their homes, or by secluding themselves with other sex offenders.⁹⁹

One can speculate, however, that these affirmative duties pale in comparison to the fallout of being publicly known as a convicted sex offender.¹⁰⁰ Criminal records alone are difficult enough for offenders to overcome;¹⁰¹ most agree that carrying the label “sex offender” is an order of magnitude more difficult to surmount.¹⁰² The many consequences are diverse, but research often highlights a few key associations.

First, convicted sex offenders have a great deal of difficulty finding employment.¹⁰³ Although felons generally face challenges finding work, employer and customer taste-based discrimination against sex offender applicants rises to another level.¹⁰⁴ True, even without notification, a background check would presumably reveal to *an employer* that a particular applicant was a convicted sex offender.¹⁰⁵ But under notification,

⁹⁸ See, e.g., ALA. CODE § 15-20A-18(a) (2015); FLA. STAT. ANN. § 322.141 (West 2015); IND. CODE ANN. § 11-8-8-15 (West 2015); TENN. CODE ANN. §§ 40-39-213, 55-50-353 (West 2015); TEX. CODE CRIM. PROC. ANN. art. 62.060 (West 2015); TEX. TRANSP. CODE ANN. § 521.057 (West 2015).

⁹⁹ See *Judge Tells Sex Offender to Put Up Signs*, USA TODAY (Mar. 24, 2008), http://usatoday30.usatoday.com/news/nation/2008-03-24-3294287324_x.htm [<https://perma.cc/8XH5-NVJD>]; Anat Rubin, *Is Halloween Really More Dangerous for Kids?: A Lack of Evidence Doesn't Stop Cities from Rounding Up Sexual Offenders on the Holiday*, MARSHALL PROJECT (Oct. 28, 2015), <https://www.themarshallproject.org/2015/10/28/is-halloween-really-more-dangerous-for-kids> [<https://perma.cc/DE7F-3X2Y>].

¹⁰⁰ There is a large literature on the “stigma” that results from a criminal record and the effect that this might have on the willingness of individuals to engage in criminal behavior in the first place, as well as the likelihood that the stigmatized offender returns to crime. See, e.g., Patricia Funk, *On the Effective Use of Stigma as a Crime-Deterrent*, 48 EURO. ECON. REV. 715, 716 (2004) (investigating stigma as a crime deterrent); Kaku Furuya, *A Socio-Economic Model of Stigma and Related Social Problems*, 48 J. ECON. BEHAV. & ORG. 281, 282–83 (2002) (describing the economic consequences of stigma); Eric Rasmusen, *Stigma and Self-Fulfilling Expectations of Criminality*, 39 J.L. & ECON. 519, 520–32 (1996) (defining stigma, identifying its consequences for offenders, and modeling its effects on offender behavior generally).

¹⁰¹ See JAMES B. JACOBS, *THE ETERNAL CRIMINAL RECORD* 246–74 (2015) (describing the numerous legal limitations faced by those with a criminal record).

¹⁰² See Douglas N. Evans & Michelle A. Cubellis, *Coping with Stigma: How Registered Sex Offenders Manage Their Public Identities*, 40 AM. J. CRIM. JUST. 593, 593–96 (2015) (explaining the “harsh stigmatization” that sex offenders face in society).

¹⁰³ *Id.* at 599.

¹⁰⁴ See *id.* at 593, 599, 608 (examining the high unemployment rate among registered sex offenders); see also Tewksbury, *supra* note 39, at 68–69, 75–76 (analyzing the percentage of registered sex offenders who believe their status negatively affects their employment prospects).

¹⁰⁵ Many states have employment restrictions, which prohibit sex offenders from working in particular industries or occupations. In Louisiana, registrants cannot operate any bus, taxicab, or

other employees and possibly customers would also learn of the applicant's status, reducing his likelihood of being hired.¹⁰⁶ Second, sex offenders have trouble securing stable, quality, reasonably priced housing.¹⁰⁷ There are many potential explanations for this phenomenon, but a palpable one is discrimination on the part of landlords and harassment by neighbors.¹⁰⁸ Third, pervasive public awareness that one has committed a sex crime makes it difficult to form and maintain relationships, both with family members (who might suffer from the association) and those with whom one might wish to build a family.¹⁰⁹

One particularly salient consequence of making the identities and addresses of known sex offenders broadly available to the community is the harassment and even violent assault that members of the public sometimes inflict on registered offenders.¹¹⁰ Many, if not all, web registries include language like the following, which is made conspicuous in large, all-capital letters and in red type on the Connecticut sex offender registry: "Any person who uses information in this registry to injure, harass or commit a criminal act against any person included in the registry or any other person is subject to criminal prosecution."¹¹¹

limousine, or work in any service position that would involve entering a residence. LA. STAT. ANN. § 15:553 (2015). Also, because sex offenders are sometimes prohibited from working in particular places or under particular conditions, even an employer who wants to hire a sex offender may be unable to as a result of activity restrictions. *See, e.g.*, MICH. COMP. LAWS ANN. § 28.734 (West 2015) (prohibiting registered sex offenders from working in or loitering in a "student safety zone").

¹⁰⁶ Cf. Max Chafkin, *Megan's Law and Your Business*, INC. (Nov. 1, 2005), <http://www.inc.com/magazine/20051101/priority-employees.html> [<https://perma.cc/LW72-M3W3>] (advising employers to search the national sex offender database before hiring employees).

¹⁰⁷ Any person whose household includes a person subject to lifetime registration is barred from accessing federally subsidized housing. 42 U.S.C. § 13663 (2012). Laws often make it difficult for registered offenders to live together. In California, a registrant on parole may not live with any other registrant in a "single family dwelling." CAL. PENAL CODE § 3003.5(a) (West 2015). In Oregon, registrants on probation, parole, or supervision may not "reside in any dwelling" together. OR. REV. STAT. ANN. § 144.642 (West 2015). In Idaho and Oklahoma, a registrant may not live with more than one other registrant. IDAHO CODE ANN. § 18-8331 (West 2015); OKLA. STAT. ANN. tit. 57, § 590.1 (West 2015). Of these states, only California and Oklahoma provide statutory exceptions to allow married or related registrants to live together.

¹⁰⁸ *See* Tewksbury, *supra* note 39, at 75–76 (analyzing harassment data).

¹⁰⁹ *See* Evans & Cubellis, *supra* note 102, at 601, 607–09 (reviewing some of the social and psychological consequences that sex offenders encounter).

¹¹⁰ *See* Michael P. Lasher & Robert J. McGrath, *The Impact of Community Notification on Sex Offender Reintegration: A Quantitative Review of the Research Literature*, 56 INT'L J. OFFENDER THERAPY & COMP. CRIMINOLOGY 6, 10 (2012) (finding that almost ten percent of offenders surveyed reported being the victims of vigilante attacks); Tewksbury, *supra* note 39, at 68, 75, 76, 78 (discussing sex offender harassment); Steven Yoder, *Life on the List*, AM. PROSPECT (Apr. 4, 2011), <http://www.prospect.org/article/life-list> [<https://perma.cc/7EUY-JE22>] ("There is also ample evidence that . . . vigilantes have used sex-offender registries to threaten, harass, and inflict violence on hundreds of offenders and their families.").

¹¹¹ *Acknowledgement and Warning: Connecticut Sex Offender Registry*, CONN. DEP'T EMERGENCY SERVICES & PUB. PROTECTION, http://www.communitynotification.com/cap_office_disclaimer.php?office=54567 [<https://perma.cc/N32R-2PWF>] (last visited Feb. 3, 2016).

It is also worth adding that publicity and its associated consequences may magnify the difficulties of complying with affirmative registration duties. For example, if notification makes employment or housing more difficult to obtain and maintain, offenders may be more likely to find themselves without a place to live.¹¹² Homelessness, in turn, generates more onerous registration requirements, often including a weekly physical appearance in one or more law enforcement agencies.¹¹³

In sum, although notification may work to reduce crime, all else equal, by increasing the likelihood of crime detection (p_j), the accompanying notoriety may simultaneously produce a lonely, poor, and idle ex-offender with no permanent connection to any community.¹¹⁴ Sociological evidence suggests that unemployment, poverty, loneliness, and residency in a disorganized community are factors that tend to increase recidivism risk.¹¹⁵ Accordingly, by lowering the portmanteau variable (u_j), notification *increases* the likelihood of recidivism, all else equal—i.e., not considering its potentially offsetting effects on other parameters.

Residency restrictions are designed to function simply by increasing the difficulty of attacking potential victims (c_j).¹¹⁶ The assumptions

¹¹² See John Zarrella & Patrick Oppmann, *Florida Housing Sex Offenders Under Bridge*, CNN (Apr. 6, 2007), <http://www.cnn.com/2007/LAW/04/05/bridge.sex.offenders/> [<https://perma.cc/7Q3J-J962>] (highlighting the lack of available housing for sex offenders in Florida).

¹¹³ For instance, in Delaware, Illinois, and Washington, among other states, homeless registrants must verify their registry information, in person, once a week. See DEL. CODE ANN. tit. 11, § 4121(k)(1) (West 2015) (“A Tier III sex offender designated as ‘homeless’ shall appear in person at locations designated by the Superintendent of the Delaware State Police to verify all registration information every week”); 730 ILL. COMP. STAT. 150/3(a) (West 2015) (“Any [sex offender] who lacks a fixed residence must report weekly, in person, with the sheriff’s office of the county . . . or with the chief of police in the municipality in which he or she is located.”); WASH. REV. CODE ANN. § 9A.44.130(6)(b) (West 2015) (“A person who lacks a fixed residence must report weekly, in person, to the sheriff of the county where he or she is registered.”).

¹¹⁴ There may be ways to remedy these concerns with respect to criminal records generally. See Murat C. Mungan, *Reducing Crime Through Expungements 1* (Jan. 4, 2016) (unpublished manuscript), http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2711024 (describing the social benefits that may derive from record expungement policies). But SOPR laws do not solely rely on information dissemination, and when they do, information dissemination is the whole point. Still, it may well be possible to tweak SOPR laws, at least at the margin, to improve their effects on recidivism. See *supra* note 43 (acknowledging this possibility).

¹¹⁵ See Alex Friedmann, *Lowering Recidivism Through Family Communication*, PRISON LEGAL NEWS (Apr. 15, 2014), <https://www.prisonlegalnews.org/news/2014/apr/15/lowering-recidivism-through-family-communication/> [<https://perma.cc/GMJ4-4XUA>] (summarizing studies that demonstrate that “prisoners who maintain close contact with their family members while incarcerated have better post-release outcomes and lower recidivism rates”).

¹¹⁶ SOPR laws are also popular, for better or worse, because they tend to make the public *feel* as if the community is safer, even if the laws do not necessarily generate less recidivism. See Anderson & Sample, *supra* note 31, at 386–87 (reporting survey respondent responses to whether they feel safer after learning sex offender registry information); Molly J. Walker Wilson, *The Expansion of Criminal Registries and the Illusion of Control*, 73 LA. L. REV. 509, 551 (2013) (discussing the psychological appeal of the community policing function as it relates to sex offender registries, and providing supportive empirical evidence).

underlying this category of SOPR laws are: 1) that potential victims, or at least especially vulnerable victims, are geographically concentrated; and 2) that the presence of sex offenders in places that are geographically proximate to these vulnerable populations makes it easier for one of these offenders to discover and prey on these would-be victims.¹¹⁷ Residency restrictions are unlikely to alter punishment levels (f_j) for recidivism for the same reasons registration and notification laws are unlikely to do so. The effect on the probability of punishment (p_j), however, is unclear. The chance of being apprehended will drop if sex offenders choose instead to commit crimes in neighborhoods unfamiliar to them, where they are less likely to be identified.¹¹⁸ But potential recidivists are also more likely to live in clusters in less populated and more socially disorganized neighborhoods.¹¹⁹ As such, these offenders may be easier to locate and potentially arrest, but living in close quarters with other sex offenders and relatively few others may hamper investigations,¹²⁰ at least in the context of sex offenses committed by offenders unknown to the victims.

Does anything remain in the residency restriction portmanteau? Residency restrictions certainly do not make sex offenders' lives easier. They generally force offenders to live in worse neighborhoods with higher crime rates¹²¹ and often keep them apart from their families.¹²² The

¹¹⁷ The first assumption is surely true if only because we teach children in schools and populations are denser in certain areas. The second assumption, however, is much less certain. Sex offenders have good reasons to prefer to offend away from the places where they live, work, and are therefore known, despite the time and expense of travel and the difficulty of navigating a less familiar place. Indeed, there is evidence that sex offenders are actually less likely to offend in their own neighborhoods, all else equal. See Amanda Y. Agan & J.J. Prescott, *Sex Offender Law and the Geography of Victimization*, 11 J. EMPIRICAL LEGAL STUD. 786, 812 (2014) (“[S]ex offense victimization risks are generally lower . . . in neighborhoods that have more [registered sex offender] residents.”).

¹¹⁸ In this sense, residency restrictions and community notification work at cross-purposes. Residency restrictions are also likely to reduce candor and compliance regarding address information, which may reduce the value of registration and notification.

¹¹⁹ See Elizabeth Ehrhardt Mustaine et al., *Social Disorganization and Residential Locations of Registered Sex Offenders: Is This a Collateral Consequence?*, 27 DEVIANT BEHAV. 329, 343 (2006) (“The findings of this study show that communities with characteristics of social disorganization are likely to be homes to a higher prevalence of registered sex offenders.”); Kelly M. Socia, *Residence Restrictions and the Association with Registered Sex Offender Clustering*, 24 CRIM. JUST. POL’Y REV. 441, 458 (2012) (stating that registered sex offenders were expected to be significantly more clustered in disadvantaged areas).

¹²⁰ If sex offenders feel that they are ill-used by the criminal justice system, they are less likely to cooperate with police during investigations. See Tom R. Tyler & Jeffrey Fagan, *Legitimacy and Cooperation: Why Do People Help the Police Fight Crime in Their Communities*, 6 OHIO ST. J. CRIM. L. 231, 265 (2008) (suggesting that people believe profiling by the police is unfair, and that “procedural injustice leads to lowered legitimacy and diminished cooperation with the police”).

¹²¹ See Jill S. Levenson & Leo P. Cotter, *The Impact of Sex Offender Residence Restrictions: 1,000 Feet from Danger or One Step from Absurd?*, 49 INT’L J. OFFENDER THERAPY & COMP. CRIMINOLOGY 168, 169 (2005) (“The dispersal of parks and schools may lead to overlapping restriction zones thus making it essentially impossible for sex offenders in some cities to find suitable housing. In some urban areas, offenders might be forced to cluster in high-crime neighborhoods. Such

restrictions are usually quite strict, eliminating a large majority of the residential areas in most cities,¹²³ which in all likelihood lengthens commute times and other travel costs, and makes life generally more taxing. Residency restrictions are also notoriously vague,¹²⁴ which makes compliance difficult and frustrating, and the relatively common shifting of the relevant boundaries translates to sex offender transience.¹²⁵ In theory, sex offender ghettos might allow registered sex offenders to find a community of individuals facing similar challenges. Moreover, living away from “normal” neighborhoods might reduce the abuse and harassment that often results from notification. Both of these dynamics would increase u_j , reducing recidivism, if all else were to remain equal. At the same time, concentrations of sex offenders may engender more crime if 1) proximity facilitates conspiracy,¹²⁶ 2) concentrations cause offenders to perceive their transgressive behavior as normal,¹²⁷ or 3) police are able to more easily

restrictions can lead to homelessness and transience, which interfere with effective tracking, monitoring, and close probationary supervision.”).

¹²² See Jill S. Levenson & Andrea L. Hern, *Sex Offender Residence Restrictions: Unintended Consequences and Community Reentry*, 9 JUST. RES. & POL’Y 59, 65 (2007) (“More than a third (37%) reported that they were unable to live with supportive family members.”).

¹²³ See Levenson & Cotter, *supra* note 121, at 169 (noting that sex offender restrictions may further isolate offenders and may not “be a viable method for controlling sexual offender recidivism”); see also Kristen M. Zgoba et al., *Examining the Impact of Sex Offender Residence Restrictions on Housing Availability*, 20 CRIM. JUST. POL’Y REV. 91, 105 (2009) (“Because 80% of [Camden County, New Jersey’s] population live in dwellings that fall within 2,500 ft of schools and day care centers, we can infer that few residences would be deemed suitable for sex offenders if zoning laws were put in place.”); Mary Beth Lane, *Sex-Offender Ghettos*, COLUMBUS DISPATCH (Oct. 7, 2007), http://www.dispatch.com/content/stories/local/2007/10/07/sexoff.new.ART_ART_10-07-07_A1_8884374.html [<https://perma.cc/9S6B-TS2D>] (discussing the growing number of communities in Ohio that have approved local ordinances further restricting where registered sex offenders may live and reporting sex offenders clustering in certain locations as a result).

¹²⁴ See, e.g., *Doe v. Snyder*, 101 F. Supp. 3d 672, 684 (E.D. Mich. 2015) (“SORA does not provide sufficiently definite guidelines for registrants and law enforcement to determine from where to measure the 1,000 foot distance used to determine the exclusion zones, and neither the registrants nor law enforcement have the necessary data to determine the zones even if there were a consensus about how they should be measured.”).

¹²⁵ See Jill Levenson et al., *Where for Art Thou? Transient Sex Offenders and Residence Restrictions*, 26 CRIM. JUST. POL’Y REV. 319, 320 (2015) (“These well-intended laws appear to create unintended consequences including transience, homelessness, and housing instability”); Corey Rayburn Yung, *Banishment by a Thousand Laws: Residency Restrictions on Sex Offenders*, 85 WASH. U. L. REV. 101, 149–50 (2007) (discussing the uncertainty surrounding the implementation and enforcement of sex offender residency restrictions).

¹²⁶ See Neal Kumar Katyal, *Conspiracy Theory*, 112 YALE L.J. 1307, 1312 (2003) (explaining the dangers associated with group activity and “that groups cultivate a special social identity. This identity often encourages risky behavior, leads individuals to behave against their self-interest, solidifies loyalty, and facilitates harm against nonmembers”); cf. Prescott, *supra* note 40, at 98 (“[L]aw enforcement strategies should focus on isolating released offenders from other potential offenders (and perhaps also from potential victims, but not from employers, family, and friends) . . .”).

¹²⁷ Cf. Howard B. Kaplan et al., *Social Psychological Perspectives on Deviance*, in HANDBOOK OF SOCIAL PSYCHOLOGY 563, 573–75 (John DeLamater & Amanda Ward eds., 2d ed. 2013) (explaining that “[f]requently people are motivated to behave in ways that conform to the expectations

harass offenders, all of which would result in a decline in the value of u_j , increasing recidivism.

GPS monitoring combines, in different measures, distinctive aspects of registration and notification. In one sense, GPS monitoring operates like a souped up form of registration. Rather than having relatively up-to-date address, work, and other contact information, law enforcement officers have data (or access to data) indicating an offender's precise location at an exact time or in real time. In practice, GPS monitoring is often passive—i.e., as long as the GPS device is transmitting properly, no one is following along in real time. But law enforcement can always inspect a detailed record of the offender's location *ex post*.¹²⁸ This ability to reconstruct the where and when of an offender's day presumably dramatically improves the prospect of crime detection, conviction, and ultimately punishment (p_j), which in theory should result in lower levels of recidivism.¹²⁹

In another sense, GPS monitoring is akin to notification; people may be able to observe the monitoring device, which puts them on notice and may set them on edge, even if they do not know the offender personally or the content of his record.¹³⁰ One would guess that this visibility has the effect of making the carrying out of at least particular aspects of crime more challenging (c_j).¹³¹ GPS monitoring might also heighten the difficulty of committing a crime (c_j) directly if (or when) real-time monitoring became common. In such a world, law enforcement would be able to intervene when the offender engaged in preparatory acts, so successfully completing a crime would require “flying under the radar,” which would surely take time and be costlier than preparation would otherwise be.

The portmanteau variable may also play a critical role in signing the effect of GPS monitoring on recidivism. Life is no doubt worse when wearing a monitor,¹³² which translates to a lower u_j , even for those who

of members of their own groups, but by doing so deviate from the expectations of members of other groups to which they do not belong and/or to which they do not desire to belong” and offering supporting theory and pertinent evidence).

¹²⁸ Sarah Turner et al., *Does GPS Improve Recidivism Among High Risk Sex Offenders? Outcomes for California's GPS Pilot for High Risk Sex Offender Parolees*, 10 VICTIMS & OFFENDERS 1, 5 (2015).

¹²⁹ Stephen Gies et al., *Monitoring High-Risk Sex Offenders with GPS*, 29 CRIM. JUST. STUD. 1, 4–6 (2016).

¹³⁰ *Belleau v. Wall*, No. 15-3225, 2016 WL 374111, at *2 (7th Cir. Jan. 29, 2016) (“When the ankleted person is wearing trousers the anklet is visible only if he sits down and his trousers hike up several inches and as a result no longer cover it. The plaintiff complains that when this happens in the presence of other people and they spot the anklet, his privacy is invaded, in violation of the Fourth Amendment, because the viewers assume that he is a criminal and decide to shun him.”).

¹³¹ With respect to the effect of GPS monitoring, there is no obvious change in the absolute severity of threatened future punishment (f_j), unless something about the fact of wearing a monitor itself leads to a change in the nature of the charge an offender believes might be filed against him.

¹³² *Grady v. North Carolina*, 135 S. Ct. 1368, 1371 (2015) (describing GPS monitoring as “intruding on a subject’s body”).

otherwise serve as upstanding, law-abiding citizens. At our current level of technology—but perhaps not in the future—GPS monitoring distorts every aspect of an offender’s day.¹³³ Maintaining the monitor and its connection to law enforcement is not only expensive, but it requires almost ceaseless charging, interferes with travel (even entering large buildings or underground garages), renders bathing and sleeping difficult, and causes physical irritation and pain.¹³⁴ Additionally, many registrants are subject to such monitoring *for life*, amplifying these effects.¹³⁵

Although wearing a monitor may (or may not be) miserable,¹³⁶ there are countervailing considerations that may make the effect of GPS monitoring on u_j uncertain *relative* to the effect of notification on u_j . It is true that people who interact with a GPS-monitored offender may know to be wary and on guard around him—even the many of those who never use sex offender web registries or who are strangers to the offender (i.e., not neighbors or acquaintances) and so could not easily use the registry to learn of and about him.¹³⁷ At the same time, an offender’s status and criminal history is not linked explicitly to a name and an address and

¹³³ For an excruciating picture of life with a GPS monitor, see Brief for ACLU of Michigan & Criminal Defense Attorneys of Michigan as Amici Curiae at 43 app., *People v. Cole*, 817 N.W.2d 497 (Mich. 2012) (No. 143046), 2012 WL 697464 [hereinafter Brief for ACLU Michigan] (supplying an appendix containing letters that detail the burdens of wearing a monitor written by sex offenders who must wear them). *But see Belleau*, 2016 WL 374111, at *2 (“The type of anklet worn by the plaintiff is waterproof to a depth of fifteen feet, so one can bathe or shower while wearing it. It must however be plugged into a wall outlet for an hour each day (while being worn) in order to recharge it. There are no restrictions on where the person wearing the anklet can travel, as long as he has access to an electrical outlet. Should he move away from Wisconsin, he ceases having to wear it. And while he’s supposed to pay a monthly fee to compensate for the cost of the anklet, the plaintiff in this case does not pay it and the Department of Corrections appears not to have tried to compel him to do so.”).

¹³⁴ See Brief for ACLU Michigan, *supra* note 133, at 20 (“A number of the letter writers note that these devices make it difficult to bathe . . . at least some of the devices are heavy and can be tight when attached, causing pain and discomfort, and making it difficult to sleep. Multiple writers report that their devices rub their skin raw.”).

¹³⁵ See *Belleau*, 2016 WL 374111, at *14 (asserting that pedophilia is a lifelong affliction and that lifetime monitoring is not punitive); see also Steve Carmody, *Lifetime Electronic Monitoring of Some Sex Offenders Might Violate the Constitution*, MICH. RADIO (Mar. 31, 2015), <http://michiganradio.org/post/lifetime-electronic-monitoring-some-sex-offenders-might-violate-constitution#stream/0> [<https://perma.cc/8BEW-NFHK>] (reporting that eight states require “some sex offenders to wear a monitor for life”).

¹³⁶ See *supra* notes 132–34 and accompanying text. In my analysis, I assume that the disutility of incarceration in prison is unaffected by SOPR laws. Wearing a GPS monitor reduces u_j either way, but if the severity of prison increases (f) by a sufficient amount (determined by the offender’s preferences), then an offender’s behavior need not change at all (even assuming *no* change in p_j or in the length of prison sentence (another dimension of f)). One could imagine combining SOPR laws with especially harsh prison conditions to achieve this balance, but the Constitution and practical considerations limit policymakers’ freedom to innovate in this direction.

¹³⁷ See Andrew J. Harris & Rebecca Cudmore, *Community Experience with Public Sex Offender Registries in the United States: A National Survey*, CRIM. JUST. POL’Y REV. 1, 4–5 (2016), <http://cjp.sagepub.com/content/early/2016/01/25/0887403415627195.abstract> [<https://perma.cc/F5MR-GG24>] (indicating relatively low sex offender registry awareness and usage levels).

placed (potentially) forever on the internet.¹³⁸ Monitoring devices can always be removed.¹³⁹ Off the internet, out of mind?

The type of “notice” these two SOPR laws give to the community and potential victims is thus different, and so their consequences may also be different. Despite the scarlet letter-like aspect of wearing something on your body that may be visible to everyone,¹⁴⁰ GPS monitoring may matter less to u_j than notification. Compare to this situation the arguments revolving around the “Ban the Box” campaign, which is premised *not* on the idea that employers and others will not eventually discover that an individual has a criminal record, but rather on the idea that unearthing that information at a later stage of the hiring or contracting process might give employers the cognitive ammo to overcome any distaste for an otherwise qualified applicant.¹⁴¹ Consequently, employment may be easier to obtain, and relationships may be easier to begin. GPS monitoring may for the same reason leave a smaller footprint than notification does by making a potentially smaller circle of people aware of an offender’s status typically only *at or after* an initial face-to-face meeting.¹⁴²

* * *

In this part of the Article, I have explicitly linked the operation and consequences of four SOPR laws—registration, notification, residency restrictions, and GPS monitoring—to the four parameters that drive sex offending behavior in a simple economic model of crime. With the possible exception of registration, *all* of the laws are likely to significantly shift Becker’s portmanteau variable (u_j), which will in turn influence tendencies to recidivism. The portmanteau variable is all-important in the SOPR context because these laws apply regardless of whether the offender

¹³⁸ See JACOBS, *supra* note 101, at 30–31 (explaining the need to balance aiding law enforcement in preventing future crimes with protecting individual civil liberties and personal information from being accessed through the internet).

¹³⁹ See *Belleau*, 2016 WL 374111, at *2 (suggesting that a monitored sex offender would no longer have to wear his monitor if he left the state).

¹⁴⁰ See *Commonwealth v. Hanson H.*, 985 N.E.2d 1179, 1186 (Mass. 2013) (referring to GPS monitoring as “a modern-day scarlet letter” (citing *Commonwealth v. Cory*, 911 N.E.2d 187, 196 n.18 (Mass. 2009))).

¹⁴¹ Annie-Rose Strasser, *How One Box Locks Thousands of Americans Out of Employment and into a Life of Crime*, THINKPROGRESS (Feb. 13, 2014), <http://thinkprogress.org/justice/2014/02/13/3283081/ban-box-movement/> [<https://perma.cc/5QWR-7EXE>] (“Employers can still ask whether the applicant has committed a crime, but they can’t do it on initial job applications. And Williams said that’s eliminated the automatic discrimination that never let him get his foot in the door.”).

¹⁴² In this sense, future generations of GPS monitoring technology—which will likely be smaller, lighter, more comfortable, more efficient, and more reliable—may represent the successful “tweak” that SOPR laws need to succeed at reducing recidivism: in effect, a SOPR law that is more effective than registration (almost by definition) and perhaps better able than notification to reduce recidivism by boosting the traditional economic model of crime parameters while *also* enhancing the value of the portmanteau parameter (u_j) relative to notification. See *supra* note 43.

behaves well. The primary consequence of this feature is that sex offenders experience the criminogenic burdens of these laws even when traditional channels—changes in p_j , f_j , and c_j —are unable to reduce recidivism risk. I show in the next Part that under certain conditions, such laws will actually increase recidivism levels and therefore the social costs of crime while simultaneously draining law enforcement resources from other more fruitful areas—a double whammy.

IV. ANALYSIS

The portmanteau variable performs a critical role in understanding the potential consequences of SOPR laws for criminal recidivism. In short, the design of current SOPR laws effectively ensures a negative relationship—an inherent trade-off—between the “traditional” economic model of crime parameters and the portmanteau variable.¹⁴³ SOPR laws that work by increasing the likelihood of detection (p_j), which makes returning to crime less attractive all else equal, also seem invariably to reduce the quality of life for registered sex offenders (u_j). As a result, reoffending becomes less costly to offenders, and recidivism becomes more likely.¹⁴⁴ The question of which effect dominates is an empirical one, and the answer depends on the particulars of the law and the nature of each individual sex offender. Yet the fixity of this trade-off remains, and derives from the fact that SOPR laws impose significant costs on sex offenders *regardless* of whether they engage in criminal activity.¹⁴⁵

Importantly, general criminal laws and sentencing enhancements are different in this regard.¹⁴⁶ These laws can be counterproductive in a range

¹⁴³ To be clear, it is conceivable that there could be a positive relationship *if* it were the case that SOPR laws, like other re-entry laws, made life easier, better, etc., post-release. Unfortunately, re-entry program components—housing assistance, job training, etc.—are missing from SOPR laws.

¹⁴⁴ Alissa R. Ackerman & Meghan Sacks, *Can General Strain Theory Be Used to Explain Recidivism Among Registered Sex Offenders?*, 40 J. CRIM. JUST. 187, 191 (2012) (defining strain as the imposition of negative stimuli, the loss of positive stimuli, and the inability to achieve goals, and finding that recidivism is more likely among those individuals reporting high levels of strain).

¹⁴⁵ See Michael P. Lasher & Robert J. McGrath, *The Impact of Community Notification on Sex Offender Reintegration: A Quantitative Review of the Research Literature*, 56 INT'L J. OFFENDER THERAPY & COMP. CRIMINOLOGY 6, 19–20 (2012) (describing the negative consequences associated with notification policies, including job loss and relocation, and noting that such policies may increase the risk of reoffending for offenders categorized as being low-risk for recidivism).

¹⁴⁶ I acknowledge that SOPR laws are in fact criminal laws in the sense that refusing to comply with them produces criminal penalties. See, e.g., 42 U.S.C. § 16913(e) (2012) (“Each jurisdiction, other than a Federally recognized Indian tribe, shall provide a criminal penalty that includes a maximum term of imprisonment that is greater than 1 year for the failure of a sex offender to comply with the requirements of this subchapter.”). Yet SOPR laws target the reduction of other criminal behavior—sex crimes—and the failure to comply with SOPR laws is harmful only to the extent it facilitates (directly or indirectly) the commission of a later sex crime. Therefore, when considering “recidivism” I am, like policymakers, concerned solely with the effect of SOPR laws on sex offense recidivism, not the almost-tautological fact that enacting a SOPR law will lead to an increase in the violation of that law.

of ways,¹⁴⁷ and there can be negative spillovers that affect the innocent—even causing them to turn to crime—to the point of swamping any social gains from enforcement.¹⁴⁸ But it is hard to imagine circumstances in which enforcing or threatening to enforce a criminal law against an individual can push that individual to commit that crime when, absent the law at issue, he would otherwise have abstained.¹⁴⁹ *If we ignore the portmanteau variable (u_j), increasing enforcement levels (p_j), making penalties more severe (f_j), and directly hindering the commission of crime (c_j) ought to have theoretically unambiguous effects: less recidivism. The traditional parameters all point in the same direction,¹⁵⁰ and with criminal laws, the traditional parameters are essentially all that matter.¹⁵¹ Indeed, it is our natural tendency to focus on the likely consequences of these parameters alone that makes SOPR laws instinctively sound so attractive as policy innovations.¹⁵²*

Unfortunately, the portmanteau variable may be ascendant in the SOPR context. Although it is a hodge-podge of different considerations and consequences, this typically ignored bundle simply cannot be ignored when seeking to understand and reform these post-release laws. The effects of SOPR laws on the traditional parameters of criminal behavior may well be relatively minor when compared to their portmanteau effects.

¹⁴⁷ Enforcement may be counterproductive, especially when the effects of punishment are concentrated. *See, e.g.*, Dorothy E. Roberts, *The Social and Moral Cost of Mass Incarceration in African American Communities*, 56 STAN. L. REV. 1271, 1281–97 (2004) (describing theories of community harm such as weak social networks with family and kin, disorganized communities, out-of-balance gender populations, and the destruction of social citizenship). Even assuming that some anti-social behavior must be forbidden, the medicine for those who cross the line can be worse (from society’s perspective) than the sickness, if punishment destroys the ability of individuals or communities to contribute to society. *Cf.* Robert J. Sampson & Charles Loeffler, *Punishment’s Place: The Local Concentration of Mass Incarceration*, DAEDALUS, Summer 2010, at 20, 29 (noting that communities with high rates of incarceration are harmed by the removal of individuals from these communities and the subsequent limitations on reintegration that these individuals face upon return).

¹⁴⁸ For example, a criminal law may punish an offender who commits a crime, and as a result of that punishment, the offender’s son may himself eventually turn to crime, when in the counterfactual, the son would have shunned criminality. Here, the focus is on SOPR laws and the behavior of a single person in response to the application of those laws to him (and not his father).

¹⁴⁹ *But see infra* note 183 (identifying possible Giffen behavior scenarios).

¹⁵⁰ *See* SCHMIDT & WITTE, *supra* note 44, at 165–83; Chalfin & McCrary, *supra* note 49 (manuscript at 1–3).

¹⁵¹ Admittedly, criminal laws can, *upon conviction*, also lead to stigma, which does affect the portmanteau variable in at least the same direction as SOPR laws, if not to the same extent. However, the stigma that results from a criminal conviction is distinct from the formal penalties of the law itself, and can therefore be adjusted or eliminated, at least in some contexts. *See* Mungan, *supra* note 114, at 2–3 (outlining the potential value of using expungements more strategically to reduce the social stigma that arises from conviction for particular individuals).

¹⁵² *See, e.g.*, Levenson & D’Amora, *supra* note 11, at 172–75, 180, 192 (describing the disconnect between sex offender policy and research, accounting for the appeal of SOPR policies to members of the public, and describing how inaccurate “beliefs . . . provoke the development of policies created on the basis of ‘common knowledge’ that lack empirical support”).

In this Part, I clarify the conditions under which recidivism might increase following the introduction of a SOPR law, a consequence that would almost surely result from changes in the value of the portmanteau or “quality of life” parameter.¹⁵³ SOPR laws are varied and work in complicated ways, so I begin by moving from the discussion of specific SOPR laws to an abstract, generic SOPR law, after which I home in on the necessary conditions for an increase in recidivism. Finally, I consider precisely how these conditions might hold in practice.

* * *

The consequences of implementing a SOPR law will depend not only on the kind of law and its specific features, but also on the “preferences” of the individuals to whom the law is applied.¹⁵⁴ Of course this is always true, but because of the prominence of the portmanteau variable in the SOPR setting, these laws have the real possibility of making recidivism more, rather than less, likely. By contrast, while criminal laws and sentencing reforms may be ineffective, they are not nearly as likely to backfire in a direct way by causing the offender to prefer to commit more crime.¹⁵⁵ The following is a rough summary of how basic SOPR laws are likely to affect the parameters of the economic model of crime for a “typical” offender, although, as a rough summary, it will be inaccurate for some.¹⁵⁶

Registration:	p_j (↑)	f_j (↑ or ↔)	c_j (↔)	u_j (↓ or ↔)
Notification:	p_j (↑↑)	f_j (↑ or ↔)	c_j (↑)	u_j (↓↓)
Residency Restrictions:	p_j (↔)	f_j (↔)	c_j (↑)	u_j (↓)
GPS Monitoring:	p_j (↑↑)	f_j (↔)	c_j (↑)	u_j (↓↓)

¹⁵³ It is conceivable, although very unlikely, that SOPR laws might be counterproductive *without* portmanteau effects and without spillovers to other people, depending on the preferences of the potential offender. This might also be true in the context of normal criminal laws. I discuss this possibility in *infra* note 183.

¹⁵⁴ “Preferences” is the term economists use to describe how behavioral “inputs” are turned into “behavior.” So, when a good’s price increases, a person’s preferences for that item, and other items, along with a budget constraint, allow us to predict what the person will do in response to the change. See Jeanne L. Schroeder, *Rationality in Law and Economics Scholarship*, 79 OR. L. REV. 147, 169 (2000) (collecting various definitions of preferences, including Paul Samuelson’s definition of preferences in terms of what people tend to actually choose and Gary Becker’s definition of preferences in broad, universal terms).

¹⁵⁵ Certain reforms to criminal laws might backfire if conviction under those laws brings stigma (a separate choice, potentially, see Mungan, *supra* note 114). Consider the following example: A reform reduces sentence length (f_j) and increases detection probabilities (p_j) for a crime such that the expected sanction for the crime remains the same. This scenario results in more sentences, but shorter ones. If criminal records are made public, if stigma turns on the fact of a conviction alone, and stigma increases recidivism risk, then in theory the likelihood of recidivating will increase following the reform.

¹⁵⁶ The symbols mean the following: ↑ = increases; ↑↑ = substantially increases; ↔ = neither increases nor decreases; ↓ = decreases; ↓↓ = substantially decreases.

To generalize, existing SOPR laws work by increasing the likelihood of apprehension, conviction, and punishment (p_j) and by increasing the cost of targeting and attacking a victim (c_j).¹⁵⁷ These laws probably matter little in terms of increasing the severity of punishment (f_j). But *every* SOPR law seems to reduce the value of the portmanteau variable by a nontrivial amount (with the possible exception of bare-bones registration laws). There are differences across these laws, but in general, SOPR laws do increase (or at least do not reduce) the values of all of the *traditional* variables found in standard economic models of crime. But, again, they also simultaneously reduce the value of the portmanteau variable.

At this point, it makes sense to revisit the definition and scope of the portmanteau variable in light of Part III's discussion.¹⁵⁸ The traditional parameters (p_j , f_j , c_j) capture the costs associated with the commission of (or the attempt to commit) a crime. The portmanteau variable captures everything else that might plausibly affect someone's desire to engage in criminal activity.¹⁵⁹ This includes how much an individual benefits from committing the crime in question, an individual's impulsiveness or other behavioral characteristics that are conducive to criminal behavior, etc.¹⁶⁰ Fortunately, for the present analysis, we need only focus on those aspects of the portmanteau— u_j —that *change* in response to the enactment and enforcement of a SOPR law. This translates to asking: other than increasing the likelihood of detection and the cost of committing an offense, how do these laws *alter* a potential offender's environment, and how are these environmental changes likely to impact behavior?

To reiterate the conclusion of Part III, SOPR laws *necessarily* make life more difficult for those individuals who are subject to them.¹⁶¹ For many convicted offenders, these laws make their lives lonelier, more poverty-ridden, idle, and less connected.¹⁶² What influence are these life changes likely to have on an individual's tendencies to commit crime?

¹⁵⁷ *Supra* text accompanying notes 70–80 (registration); *supra* text accompanying notes 81–115 (community notification); *supra* text accompanying notes 116–27 (residency restrictions); *supra* text accompanying notes 128–41 (GPS monitoring).

¹⁵⁸ See *supra* text accompanying notes 67–68.

¹⁵⁹ Becker, *supra* note 37, at 177.

¹⁶⁰ See *id.* (noting that the portmanteau variable encompasses other variables that bear on an individual's willingness to commit a crime, including the financial gain or other benefits from committing a crime as compared to not committing a crime).

¹⁶¹ It seems safe to claim that life is never easier under these laws, but it also seems clear that the difficulties that result from these laws are disproportionately larger for those with fewer financial and other resources. To the extent that these individuals are already at higher risk of returning to crime, SOPR laws may be particularly criminogenic.

¹⁶² See, e.g., LA. STAT. ANN. § 15:553 (2015) (detailing restriction on sex offenders' employment opportunities); Anderson & Sample, *supra* note 31, at 372 (describing the isolating steps individuals reported taking after finding out that individuals in their communities were on sex offender registries); Hobson, *supra* note 6, at 963 (noting that many states impose restrictions on where sex offenders can work or travel).

Scholars often characterize these impairments as exacerbating recidivism risk factors—i.e., they increase someone’s propensity to commit (or to return to) crime.¹⁶³ These behavioral claims are grounded in sociological or psychological theory,¹⁶⁴ but they have also been empirically validated.¹⁶⁵ Much of this research has no theoretical link to an economic model of crime (i.e., deterrence considerations). For instance, it is not necessarily the case that poverty increases an individual’s likelihood of committing a crime *because* a poor person is better able to evade detection (p_j) or for some reason fears punishment less (f_j).¹⁶⁶

Neoclassical economists *do* think in terms of deterrence, however, and so they ask a slightly different question: how does increasing poverty, loneliness, idleness, and disconnectedness alter the potential offender’s (perhaps subconscious) calculation of the costs and benefits of committing a crime? Two broad possibilities come to mind. First, the benefits of committing crime may increase for the offender living in this new environment. This idea makes the most sense in the context of economic crimes, but it might also explain other crimes if legal substitutes to those activities are off the table.¹⁶⁷ Second, the costs of committing a crime may decrease under the new conditions. This possibility speaks directly to the intuition that if the law is to successfully deter potential offenders from committing crimes, it has to be able to take something of value from them.¹⁶⁸ The offender must have something to lose.

All of this leads to a straightforward conclusion: a SOPR law will render convicted sex offenders more likely to recidivate when the policy reduces u_j by an amount sufficient to increase an offender’s tendency to

¹⁶³ See, e.g., Lindsay A. Wagner, *Sex Offender Residency Restrictions: How Common Sense Places Children at Risk*, 1 DREXEL L. REV. 175, 175–76 (2009) (“[Residency restrictions] are ill-advised policy choices based on faulty reasoning. They aggravate recidivism risk factors, and hence may actually make communities *less* safe.”).

¹⁶⁴ Ackerman & Sacks, *supra* note 144, at 191.

¹⁶⁵ See Wagner, *supra* note 163, at 195 (summarizing a number of empirical studies that support the conclusion that removing sex offenders from their communities and support systems, thereby alienating them, increases the risk of recidivism).

¹⁶⁶ See, e.g., STINSON ET AL., *supra* note 32, at 127–28 (defining and describing the male deprivation hypothesis).

¹⁶⁷ See, e.g., Harry M. Hoberman, *Personality and Sexual Offending: Non-Sexual Motivators and Disinhibition in Context*, in SEXUAL OFFENDING 119, 158 (Amy Phenix & Harry M. Hoberman eds., 2016) (depicting the lack of belonging and connection to other human beings as a likely cause of sexual offending: “select sexual offenders seek out interactions with adults, adolescents, and children out of a desire to belong”).

¹⁶⁸ ANGELA DEVLIN & BOB TURNEY, GOING STRAIGHT AFTER CRIME AND PUNISHMENT 12, 31–32 (1999) (“[I]t is clear that the more people have to lose and the more they become stakeholders in society—not just in monetary terms but by being valued in their work and in their relationships—the less likely they are to reoffend, and moving away from crime becomes a cumulative process. [One interviewee] sums up the feelings of many: . . . ‘Actually I couldn’t give a toss about going back to prison. The deterrent for me is what I would lose if I went back inside. It isn’t prison itself, it’s all the things I have got now in my life: a job, a relationship—things I don’t want to lose.’”).

engage in crime by more than the policy's increase of p_j and/or c_j reduces the offender's tendency to engage in crime.¹⁶⁹ It is helpful to break this calculation down into two different parts. Whether a SOPR law increases or decreases crime depends, first, on how much the law affects the parameter levels (p_j , c_j , and u_j) themselves for an individual,¹⁷⁰ and second, on the level or extent of influence those changes in parameter levels have on an individual's likelihood of returning to crime,¹⁷¹ whether through a direct or an indirect channel.¹⁷² One can appreciate these dynamics by considering the range of potential consequences that might attend the enactment and implementation of a community notification law. By varying one or two of these important inputs while holding everything else constant, simple hypotheticals suffice to illustrate the different channels through which a newly implemented notification law might lead to higher recidivism levels among registered sex offenders.¹⁷³

¹⁶⁹ More formally, assume that s_i indicates the extent to which offender i is subject to a SOPR law, and that the function that defines the relationship between the decision to reoffend and the parameters of the economic model of crime is characterized, as before, as:

$$O_{ij} = O_{ij}(p_{ij}, f_{ij}, c_{ij}, u_{ij}).$$

If we ignore the small effect a SOPR law is likely to have on the severity of punishment, an offender becomes more likely to commit offense j if:

$$\frac{\partial O_{ij}}{\partial s_i} = \frac{\partial O_{ij}}{\partial p_{ij}} \cdot \frac{\partial p_{ij}}{\partial s_i} + \frac{\partial O_{ij}}{\partial c_{ij}} \cdot \frac{\partial c_{ij}}{\partial s_i} + \frac{\partial O_{ij}}{\partial u_{ij}} \cdot \frac{\partial u_{ij}}{\partial s_i} > 0.$$

Or, rearranging:

$$\frac{\partial O_{ij}}{\partial p_{ij}} \cdot \frac{\partial p_{ij}}{\partial s_i} + \frac{\partial O_{ij}}{\partial c_{ij}} \cdot \frac{\partial c_{ij}}{\partial s_i} > - \frac{\partial O_{ij}}{\partial u_{ij}} \cdot \frac{\partial u_{ij}}{\partial s_i}.$$

¹⁷⁰ For example, if a sex offender commits a sex offense, how much does the probability of detection by law enforcement actually increase? Or, for someone covered by the SOPR law, how much *more* difficult does committing a sex crime become? An increase in a traditional parameter is equivalent to an increase in price.

¹⁷¹ The second part captures the role of preferences in determining the behavioral response. As the probability of detection increases, some individuals may not respond at all, some may respond a bit, and others a lot. Formally, this facet is represented by the shape of the O_{ij} function.

¹⁷² Although I assume away general equilibrium effects, they may also play a role, although I suspect a minor one. For instance, different SOPR laws might affect the quality of housing or employment practices with respect to registered sex offenders, which will in turn affect offender behavior. See Kenneth Burdett, *Crime, Inequality, and Unemployment*, 93 AM. ECON. REV. 1764, 1764 (2003) (noting that two identical neighborhoods may have different amounts of crime based in part on good—i.e., high-wage—jobs, and further noting that when the crime rate falls the relative benefits to legitimate activity increase, reducing the incentive to be a criminal). More likely is that SOPR laws will affect whether someone is convicted of a sex crime in the first place. See Elizabeth J. Letourneau et al., *The Effects of Sex Offender Registration and Notification on Judicial Decisions*, 35 CRIM. JUST. REV. 295, 312 (2010) (finding that South Carolina's SORN law implementation was associated with sex crime charges being reduced to non-sex charges).

¹⁷³ Here, I assume that offenders are rational, calculating the costs and benefits of their actions, including criminal behavior. This notion is a useful way to identify key moving parts, but it should be taken with the grains of salt liberally sprinkled at the beginning of Part II.

1) Optimistic and Patient Offender: The notification law increases the likelihood that the offender is captured, but by assumption, *this* offender is indifferent to this change because he believes (falsely) that he can avoid detection just as easily as before. The law also increases his costs of targeting a victim, and notification alerts many potential victims to the offender's status. But, by assumption again, this offender is extremely patient, and is not bothered by a long search.¹⁷⁴ From *his* perspective, therefore, the law does not increase the costs of committing a crime. His status makes him a pariah in his neighborhood, however, and he loses his job.¹⁷⁵ The law thus reduces what he has to lose, and this increases his likelihood of recidivating.

2) Clever and Non-Threatening Offender: This offender is sensitive to increases in the likelihood of detection that result from the implementation of notification, but because the offender is clever, he knows (perhaps subconsciously) that he will be able to commit a sex crime with no increase in *his* personal likelihood of being detected. The offender also lacks patience; an increase in targeting costs would reduce his interest in recidivating. But the notification law actually has no effect on *his* ability to locate a victim because he is perceived by others as non-threatening. Potential victims do not steer clear of him notwithstanding his now-known status as a sex offender. He thus does not perceive a change in the cost or difficulty of recidivating. This offender is laid off, however, and he regards registration as extremely degrading. Consequently, his likelihood of reoffending increases.

3) Sensitive and Poor Offender: Neither optimistic nor patient, this offender is also incapable of shielding himself from higher detection probabilities, and publicity about his status makes it harder for him to reoffend. With respect to *this* offender, notification thus seems likely to work. Yet the offender is particularly sensitive to his pariah status, and the notification regime leaves him depressed. Moreover, he loses his job, his housing, and his connections to others. If he were

¹⁷⁴ I assume for purposes of this example that targeting costs rise for covered offenders because many, but not all, of the best targets now engage in precautionary behavior. Search, therefore, requires more time. Someone has to value time, however, to consider a longer search for a victim to be a "cost" and thus to produce a change in behavior.

¹⁷⁵ Imagine in this case that while his employer does not have a problem hiring individuals with certain criminal records, the fact that his customers begin to object to his employing a registered sex offender is sufficient for the employer to dismiss him.

well-off financially, he may have been partially insulated from these latter effects. In his particular case, the increases in the probability of detection and in the cost of targeting a victim are not sufficient to offset the misery he now experiences. He determines that he does not care whether he has to go back to prison because it is no worse than his current situation, and so the likelihood of him returning to crime increases.

These examples illustrate several ways SOPR laws might affect the behavior of an individual registered sex offender. In just a few paragraphs, I turn to a discussion of how to think about translating this method of modeling an individual's behavior to the question of whether recidivism rates should increase in response to the implementation of a SOPR law. First, however, I draw out the lessons from the hypotheticals above, and identify a few of the most obvious reasons why SOPR laws might increase (or at least fail to decrease) an offender's recidivism risk.

To begin with, there are compelling reasons to believe that SOPR laws may fail to raise the values of the traditional model parameters in any significant way. In the case of community notification, as I have noted elsewhere,¹⁷⁶ much has to be true in order for these SOPR laws to work to increase p_j and c_j . First, someone must access the registry information and find a registrant who realistically poses a threat.¹⁷⁷ Second, that someone has to be newly informed by what he or she learns about the registrant.¹⁷⁸ Third, the information has to be *useful* to the newly informed person—i.e., she must be either in a position to effectively monitor the offender or a potential victim who can take effective precautionary steps.¹⁷⁹ Finally, it

¹⁷⁶ J.J. Prescott, *Do Sex Offender Registries Make Us Less Safe?*, 35 REGULATION 48, 55 (2012).

¹⁷⁷ See Anderson & Sample, *supra* note 31, at 371 (“The results [from Nebraska respondents] suggest that the majority of citizens had not accessed registry information, although the majority of people knew the registry existed”); Harris & Cudmore, *supra* note 137, at 18 (“Forty-five percent of our sample reported having accessed an SOR at least once, and only 7.2% of [the] overall sample indicat[ed] that they were unaware of the registry’s existence. These national estimates of SOR usage and awareness are moderately higher than those rates reported in previous surveys”).

¹⁷⁸ As is well known, a large majority of victims are related to or know their attackers. See ERIC S. JANUS, *FAILURE TO PROTECT: AMERICA’S SEXUAL PREDATOR LAWS AND THE RISE OF THE PREVENTATIVE STATE 3* (2006); Yung, *supra* note 22, at 453–54 (asserting that the “stranger danger” myth obscures the reality that rape and child molestation are predominantly committed by persons known to the victim). With respect to family members, in particular, it seems unlikely that registry information will *newly* inform. Even for those who are newly informed, we must ask whether they would have learned about the offender’s status in short order anyway had the notification regime not been in place—i.e., did they just learn the information sooner than they otherwise would have?

¹⁷⁹ Anderson & Sample, *supra* note 31, at 388 (“Despite federal legislation mandating public access to sex offender registries, it seems that the majority of people in Nebraska do not proactively seek sex offender information using the Internet-based sex offender registry. A lack of awareness of the registry cannot explain this finding, as most people reported being aware of the availability of sex offender information.”); Rachel Bandy, *Measuring the Impact of Sex Offender Notification on*

must be the case that there are enough newly informed people who can use the information effectively to make committing a new crime more difficult for the offender. Those are a lot of necessary steps.

Importantly, the same basic analysis does *not* apply to whether an individual's portmanteau parameter drops significantly in value in response to the implementation of a notification law. In particular, employers and landlords are much more likely to search out notification information merely on the chance that the public may become aware of it. Also, it stands to reason that those who are most at-risk (family members, friends, acquaintances) are not only more likely to already be aware of the offender's criminal history, but may also form the set of people least likely to harass the offender in question on the basis of that history. In other words, it may well be that notification supplies information to those least likely to benefit from it and most likely to use it to cause harm to the offender. Finally, while it may not be all that easy for someone to use notification information to engage in effective precautionary behavior, spreading notification information to others (and thereby magnifying its negative consequences) is easy.¹⁸⁰ Indeed, spreading the word is by far the most common behavioral response to registry information.¹⁸¹

For residency restriction laws, the analysis is more straightforward, but equally speculative. Simply, do residency restrictions in fact make it more difficult for an offender to locate and attack a victim?¹⁸² By contrast, GPS monitoring seems more likely to be effective, at least for offenses likely to be reported. The ability of law enforcement to place an individual at the scene of the crime seems highly probative for identifying the offender, apprehending him after the crime, and proving his guilt at trial.

If we assume SOPR laws increase the "price" of committing another sex crime at least somewhat, under what circumstances might the offender become *more* likely to reoffend? There seems to be one realistic possibility that emerges from the economic model of criminal behavior:¹⁸³ the SOPR

Community Adoption of Protective Behaviors, 10 CRIMINOLOGY & PUB. POL'Y 237, 255 (2011) ("[T]his study found no statistically significant relationship between receiving notification about a high-risk sex offender and the adoption of self-protective behaviors, controlling for differences in sociodemographics and neighborhood type."); Harris & Cudmore, *supra* note 137, at 17.

¹⁸⁰ Cf. Jacob Hornik et al., *Information Dissemination via Electronic Word-of-Mouth: Good News Travels Fast, Bad News Travels Faster!*, 45 COMPUTERS HUM. BEHAV. 273, 277–78 (2015) (reporting experiments showing that not only were subjects more sensitive to negative information but they also disseminated it more frequently and to more recipients over longer periods of time).

¹⁸¹ Harris & Cudmore, *supra* note 137, at 17.

¹⁸² The answer to this question in all probability depends on the nature of the offender. A pure impulse criminal may possibly be affected, but anyone else seems capable of travelling a few thousand feet (or a few miles) to find a victim. See Levenson & Cotter, *supra* note 121, at 174 ("[M]any respondents pointed out that they have always been careful not to reoffend in close proximity to their homes, so geographical restrictions provided little deterrence.").

¹⁸³ There is also a less realistic possibility. Economists long ago identified the theoretical

law that increases the “price” of committing a sex crime *also* dramatically reduces the value of the portmanteau variable—i.e., reduces the quality of life relative to life in prison. In other words, even if SOPR laws work as our intuition suggests they ought to (i.e., making crime detection more likely and increasing search and targeting costs), these laws also influence an offender’s behavior through other channels, and in some settings, these “indirect” effects can more than offset their direct effects. This possibility seems more probable the less effective SOPR policies are at increasing p_j and c_j . One can easily identify—especially in individual cases—incredibly intrusive aspects of SOPR laws that realistically make no difference to p_j and c_j , but that are sure to lower u_j . One easy-to-point-to example is that many of these laws charge offenders fees for the SOPR “services” they receive. GPS monitoring devices require a monthly fee, for instance, and sex offenders are often expected to pay it.¹⁸⁴ One can understand the sentiment behind this policy choice,¹⁸⁵ yet, at the same time, its practical effect is to drive most offenders deeper into poverty,¹⁸⁶ or worse,¹⁸⁷ neither of which is likely to be a recipe for rehabilitation.

conditions under which an increase in the price of a good (increase in the cost of behavior) might actually lead to more consumption of the good (more of the behavior) in question. Situations that satisfy these conditions—called “Giffen” situations—occur when the income effect of the price change overwhelms the substitution effect. At least in theory, something akin to this dynamic could happen in the SOPR context, but Giffen situations are rare, and would also likely require a significant “price” increase, which seems unlikely, except perhaps in the context of GPS monitoring. A classic (although perhaps historically inaccurate) example comes out of the potato famine in Ireland. The price of potatoes increased by so much that people could no longer afford meat, and were forced to buy even more potatoes to ingest sufficient calories. See John E. Davies, *Giffen Goods, the Survival Imperative, and the Irish Potato Culture*, 102 J. POL. ECON. 547, 549–50 (1994) (discussing the ensuing survival imperative when a consumer is reduced to subsistence levels and must actually increase his consumption of a price-increased commodity, such as potatoes). In the sex offender context, imagine that an offender is engaged in some level of undetected crime or in behavior that is borderline criminal (i.e., he is “consuming” some level of sex crime). The legislature now enacts a SOPR law that increases the cost or enforcement (detection) level. In the abstract, the offender might determine that he is now likely to be caught, at least eventually, and so he increases rather than decreases his criminal activity. Alternatively, if finding a victim takes more time, we might think that the offender will spend less time searching. But when a price goes up, we often balance the effect—we buy less, but pay more overall. Here, the offender might aim to offend less, but spend more time searching, which might eventually lead to him having even more time, perhaps because he loses his job or his existing relationships fall apart. With more time on his hands, he not only spends more time searching, but so much more time searching he winds up offending more often than he had prior to the implementation of the SOPR law. For a discussion of Giffen goods generally, see NEW INSIGHTS INTO THE THEORY OF GIFFEN GOODS (Wim Heijman & Pierre von Mouche eds., 2012). See also Uriel Spiegel, *The Case of a “Giffen Good”*, 25 J. ECON. EDUC. 137, 137–39 (1994) (arguing that Giffen goods are more prevalent than commonly recognized and providing various examples).

¹⁸⁴ Deanna M. Button et al., *Using Electronic Monitoring to Supervise Sex Offenders: Legislative Patterns and Implications for Community Corrections Officers*, 20 CRIM. JUST. POL’Y REV. 414, 419, 425 (2009).

¹⁸⁵ *Id.* at 427 (citing frugality).

¹⁸⁶ See Brief for ACLU Michigan, *supra* note 133, at 18; cf. Alexis Harris et al., *Drawing Blood from Stones: Legal Debt and Social Inequality in the Contemporary United States*, 115 AM. J. SOC.

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It can be no surprise that SOPR policies may sometimes fail to make a particular offender less dangerous—or may even backfire from time to time. The possibility that some number of offenders might become more dangerous under SOPR laws, however, does *not* imply that most will. And even *if* most sex offenders do become more dangerous under these laws, they may become only a shade more dangerous, while a minority might become significantly less dangerous—a scenario that would still produce less recidivist crime. To better understand the conditions that will produce higher recidivism rates, it is helpful to get a handle on how large the group of offenders who become *more* dangerous is likely to be.

Consider the following three categories of sex offenders (defined in Figure 1 below).¹⁸⁸ The first group is actually a combination of two subgroups (A & D) of sex offenders whose criminal behavior is unaffected by the implementation of a SOPR law, even if they “feel” the effects of the law.¹⁸⁹ The application of a particular law to a particular set of registered offenders may not matter to recidivism levels at all, *either* because these offenders would have returned to crime regardless (group A) or because they would never have committed another crime (group D), even absent the law. Yet we pay, either way: society sacrifices for what are typically considered fairly expensive laws,¹⁹⁰ and offenders and their families suffer

1753, 1787–88 (2010) (observing that fees result in continued entanglement in the criminal justice system); Leah A. Plunkett, *Captive Markets*, 65 HASTINGS L.J. 57, 78–79, 85 (2013) (noting enforcement efforts to collect unpaid fees and the difficulty of finding employment once non-payment is reported to credit bureaus). See generally ALICIA BANNON ET AL., BRENNAN CTR. FOR JUSTICE, CRIMINAL JUSTICE DEBT: A BARRIER TO REENTRY 1–2 (2010), <http://www.brennancenter.org/sites/default/files/legacy/Fees%20and%20Fines%20FINAL.pdf> [<https://perma.cc/N4CV-B9DG>].

¹⁸⁷ See Eric Markowitz, *Chain Gang 2.0: If You Can't Afford This GPS Ankle Bracelet, You Get Thrown in Jail*, INT'L BUS. TIMES (Sept. 21, 2015), <http://www.ibtimes.com/chain-gang-20-if-you-cant-afford-gps-ankle-bracelet-you-get-thrown-jail-2065283> [<https://perma.cc/NXP9-UTBF>] (detailing the story of an offender for whom the cost of an electronic monitor had “sent him into debt and nearly wrecked his life”).

¹⁸⁸ To simplify matters, I assume that an offender either returns to crime or does not, and that the level of harm created by returning to crime is identical across individuals. This assumption is not necessary to make these points, but it keeps the discussion more intuitive.

¹⁸⁹ In other words, the behavior of some sex offenders may be “inelastic” with respect to changes in the parameters of the economic model of criminal behavior—i.e., their behavior may not change (or may change very little) regardless of any changes in the “prices” they must pay for their choices. In this context, because the “price” is not a transfer, the more inelastic offenders are with respect to SOPR laws, the less attractive these laws are, all else equal.

¹⁹⁰ See, e.g., Sam Wood, *N.J. Study Scrutinizes Megan's Law Effect*, PHILLY.COM (May 6, 2007), http://articles.philly.com/2007-05-06/news/25229023_1_new-jersey-s-megan-s-law-community-notification-laws-megan-kanka [<https://perma.cc/V8ZP-22PL>] (noting that the implementation of Megan's Law, including notification and tracking provisions, costs the state millions of dollars); *What Will It Cost States to Comply with the Sex Offender Registration and Notification Act?*, JUST. POL'Y INST. (Sept. 2, 2008), http://www.justicepolicy.org/images/upload/08-08_fac_sornacosts_jj.pdf [<https://perma.cc/MN7G-23BA>] (finding that SORNA laws were projected to cost, to cite a few examples, nearly

the negative consequences of these laws (lower u_j) regardless of whether offenders change their behavior. Although policymakers may purport not to care about the latter issue, the former category of social waste must matter to all, as the time, effort, and money could be better spent on other crime reduction policies—or education, tax relief, what have you.¹⁹¹

Figure 1:
Potential SOPR Law Consequences

		SOPR Laws	
		Would Recidivate	Would <u>Not</u> Recidivate
No SOPR Laws	Would Recidivate	A: Unaffected, but Burdened	B: Burdened, but Successful
	Would <u>Not</u> Recidivate	C: Burdened AND Counterproductive	D: Unaffected, but Burdened

Second, a SOPR law may work as intended, causing some set of offenders who would have committed further crimes to forgo doing so (group B). The public and policymakers, infused with the optimism that comes with “doing something,” focus perhaps too much on this group of offenders.¹⁹² Finally, enforcing SOPR laws against registered sex offenders has the potential to cause some offenders to choose to return to crime even though, in the counterfactual “no SOPR law” scenario, these individuals would never have recidivated (group C). This latter group of offenders is

\$60 million to implement in California, around \$5.6 million in Connecticut, and \$14 million in New Jersey in 2009).

¹⁹¹ Presumably, if we could identify these “inelastic” sex offenders, we would optimally choose not to apply SOPR laws to those who will not commit new crimes and go with a more aggressive approach—perhaps civil commitment—for those who will return to crime regardless of these laws.

¹⁹² Even if we assume that this set of offenders is sizable, we must still consider whether these costly laws are worth the candle. The question is not whether the laws work at all, but whether they work better than equally costly alternative approaches at improving public safety. Cf. J.J. Prescott, *The Challenges of Calculating the Benefits of Providing Access to Legal Services*, 37 *FORDHAM URB. L.J.* 303, 307–10 (2010) (reiterating and elaborating on the claim that optimal allocation decisions weigh “all relevant costs and benefits of funding all possible public enterprises”).

both extremely important to the analysis of this Article and often simply ignored because it is basically negligible when considering the likely consequences of reforming traditional criminal laws.¹⁹³ Figure 1 above organizes the three categories of offenders.¹⁹⁴

In what follows, I largely ignore the unaffected groups (A & D) for two reasons. First, the debate over SOPR laws has primarily to do with their effects on recidivism, and by assumption, the criminal behavior of the members of these groups is fixed as regards SOPR laws. Second, to the extent these groups do matter to how we might *reform* these laws, they matter because members may shift back and forth between A and B or between D and C, and thus B and C will grow or shrink in response. Policymakers should not ignore groups A and D, however. The members of these groups suffer the collateral damage of SOPR laws.¹⁹⁵ SOPR laws are irrelevant to whether these individuals recidivate, but still cause them to suffer unnecessarily at taxpayer expense. If a large percentage of convicted sex offenders fell into the “unaffected” categories, we would do well to consider policies that were not only more effective, but more efficient, and spread the social burden more equally.

The relative sizes of groups B and C determine the overall effect of a SOPR law on recidivism levels. How they compare to each other will differ depending on the specifics of the SOPR law, on the type of crime at issue, and on the distribution of the “preferences” or beliefs and behavioral tendencies of the sex offender population.¹⁹⁶ Namely, the arguments above regarding the likely behavioral consequences—and in particular, how the laws might go wrong—determine the relative size of these groups.

¹⁹³ The exception here being a Giffen-type situation, at least in my simplified framework. See *supra* note 183.

¹⁹⁴ The figure makes salient that, in all cases, these SOPR laws burden those who are subjected to them. To the extent we include these costs in our calculations (which requires setting them against public safety concerns), it is conceivable that even laws that target only individuals who fall into group B—i.e., those who choose not to reoffend *because* of the enforcement of a SOPR law—would still be welfare-reducing.

¹⁹⁵ See, e.g., Richard Tewksbury & Elizabeth Ehrhardt Mustaine, *Where Registered Sex Offenders Live: Community Characteristics and Proximity to Possible Victims*, 3 VICTIMS & OFFENDERS 86, 88 (2008) (listing the many collateral consequences that registered sex offenders suffer on account of the enactment, implementation, and enforcement of SOPR laws).

¹⁹⁶ SOPR laws were, in part, driven by panic over “stranger danger” and the fear of child molesters. E.g., Karen J. Terry, *Sex Offender Laws in the United States: Smart Policy or Disproportionate Sanctions?*, 39 INT’L J. COMP. & APPLIED CRIM. JUST. 113, 113 (2015). These laws often apply to all sex offenders, regardless of whether a particular SOPR law really makes sense for a specific offender in light of his history and other characteristics. In the end, though, the relative size of group B turns on the effectiveness of these laws, and unfortunately, conducting reliable social science research in this area is challenging. See Kristen Zgoba et al., *An Analysis of the Effectiveness of Community Notification and Registration: Do the Best Intentions Predict the Best Practices?*, 27 JUST. Q. 667, 669 (2010) (“Measuring the effectiveness of policy variables on crime reduction, however, can be complicated and often confounded by other variables that are strongly correlated to measures of recidivism . . .”).

When we believe that the effects of a SOPR law on the traditional parameters are quite small, and that a large part of the sex offender population will not be responsive to these small changes in the probability of detection and conviction (p_j) and the physical difficulty of carrying out the crime (c_j), *and* we believe that the SOPR law significantly reduces the value of the portmanteau parameter, and that its value is important to the offender's behavior, *then* the relative size of group B will be small. Higher recidivism rates are more likely. When we believe the opposite, the relative size of group C will be small, and we can worry less about sex offender recidivism increasing in response to the enforcement of the law.

The portmanteau parameter is important to careful policy analysis because it forces policymakers to explicitly acknowledge that SOPR laws will only be attractive options under certain conditions, and that they may be counterproductive under others. SOPR laws should not be reflexively applied, but should instead be targeted at those situations where we believe that reducing recidivism is the more likely outcome. These general points are anything but new, but the approach laid out here facilitates precise thinking about how to proceed going forward by identifying the key considerations necessary to make the right trade-offs. For instance, as currently deployed, GPS monitoring may be superior to community notification because, even if the two policies affect the portmanteau parameter in similar ways,¹⁹⁷ monitoring seems likely to increase the probability of apprehension (p_j) and thus reduce recidivism by more than notification is likely to do through its watered-down ability to increase the p_j and c_j parameters.¹⁹⁸ If it turns out that this characterization is true for all or almost all released sex offenders, perhaps we should retire notification and turn more heavily to GPS monitoring.

Absolutely essential is recognizing that reforming a law can alter the size of each of the offender groups in Figure 1. One important and perhaps counterintuitive scenario is that by reducing how burdensome these laws are for offenders (increasing u_j), policymakers may be able to shrink the number of incorrigibles—offenders who recidivate under SOPR laws—by making these laws easier to bear. The model makes explicit that we have more tools for reducing recidivism than just the typical instruments of crime control— p_j , f_j , and even c_j . Depending on the population's preferences, using the portmanteau variable as the primary channel to influence behavior may be the most effective and least costly choice. Ignoring the portmanteau variable not only eliminates it as an affirmative

¹⁹⁷ See *supra* notes 128–42 and accompanying discussion.

¹⁹⁸ See Brian K. Payne & Matthew DeMichele, *Sex Offender Policies: Considering Unanticipated Consequences of GPS Sex Offender Monitoring*, 16 *AGGRESSION & VIOLENT BEHAV.* 177, 179 (2011) (describing the benefits GPS monitoring has over alternative sanctions, including incarceration and community notification).

tool, but raises the possibility that a SOPR law will increase recidivism by “accidentally” reducing u_j .

V. CONCLUSION

For years, reentry advocates have recognized that reducing recidivism turns significantly on an offender’s reintegration into society.¹⁹⁹ Offering housing support, facilitating employment and training, and providing counseling and opportunities for social integration and guidance are all standard tools.²⁰⁰ The design of criminal laws, including SOPR laws, has typically ignored these tools as a way to reduce crime. The traditional parameters—increasing the likelihood of detection and conviction, making punishment more severe, and increasing the difficulty of carrying out a crime—almost always have the policy (and research) spotlight. There are exceptions, however.²⁰¹ And, over the last few years, a number of large cities have begun employing strategies that use what appear to be “reentry” tools as a way to reduce crime (particularly gun violence) in the first instance.²⁰² In particular, rather than threatening potential offenders with punishment, law enforcement and other community groups offer these “at risk” individuals social services, guidance, assistance, and trust—a way out.²⁰³ Implicitly, these strategies recognize the value of the portmanteau parameter in criminal behavior.

It may be too much in today’s political climate to expect policymakers to reduce sex offender recidivism by passing laws that affirmatively help offenders rebuild their lives. Or, to the extent they offer some services, doubling down on those investments. But policymakers ignore the portmanteau at their peril. SOPR laws should, at a minimum, minimize the *unnecessary* suffering of sex offenders. We should not do this because sex offenders “deserve” better treatment (although this may be true, also), but

¹⁹⁹ E.g., James M. Cole, *The Justice Department and Reentry Policy: Building Engagement, Improving Outcomes*, JUDGE’S J., Fall 2012, at 19, 20.

²⁰⁰ *Id.* at 21.

²⁰¹ Cf. VERA INST. OF JUSTICE, THE MANHATTAN COURT EMPLOYMENT PROJECT: FINAL REPORT NOV. 1967–DEC. 1970 (1970), <http://www.vera.org/sites/default/files/resources/downloads/the-manhattan-court-employment-project.pdf> [<https://perma.cc/W4C9-CWHR>]. It is notable that the Manhattan Court Employment Project and other historical initiatives were designed to reduce the collateral consequences commonly associated with criminal convictions by providing social services, counseling, and employment to individuals charged with certain non-violent offenses in lieu of prosecuting them.

²⁰² E.g., Emily Lane, *BRAVE Using Unique Approach in an Attempt to Reduce Crime in Baton Rouge*, TIMES-PICAYUNE (Dec. 11, 2013), http://www.nola.com/crime/baton-rouge/index.ssf/2013/12/brave_using_unique_approach_in.html [<https://perma.cc/G6VQ-RQ96>] (“BRAVE gives the most violent offenders a way out. The program does this by offering free educational, addiction, employment or faith-based services.”).

²⁰³ E.g., ANDREW M. FOX ET AL., MEASURING THE IMPACT OF KANSAS CITY’S NO VIOLENCE ALLIANCE 8 (2015), <http://cas.umkc.edu/cjc/pdfs/NoVA-impact-report-Aug2015.pdf> [<https://perma.cc/DJ5Q-VBK9>].

because imposing disabilities and restraints on sex offenders may not be different in kind from reducing monitoring and punishment levels. Suffering usually leads to more crime on average, all else being equal, and unless the suffering is productive on some other dimension, we ought to abandon it solely on public safety grounds.

There is another implication of this logic. Despite the apparent consensus to the contrary, at least with respect to notification and residency restrictions, even if one or more SOPR laws *do* work to reduce recidivism, they would work better if they also gave sex offenders something to lose if they reoffended.²⁰⁴ If it is politically unrealistic to design *u_j*-increasing SOPR regulations, policymakers should try to identify and remedy situations in which SOPR laws lead to avoidable hardship. For instance, large numbers of sex offenders are homeless, and homelessness under these laws does not lead to a reduction in an offender's affirmative obligations, but rather to an increase.²⁰⁵ While there are good reasons to keep especially close track of transient sex offenders,²⁰⁶ there are even better reasons to devote considerable energy to reducing or eliminating sex offender homelessness.

Finally, as technology increases our ability to incapacitate individuals *outside* of prison, the role of the portmanteau parameter in criminal behavior will become ever more important to thinking carefully about criminal justice policy. The ability to monitor and control will usually push the "traditional" economic model of crime parameters in the right direction, but will also almost invariably push the portmanteau variable in the wrong direction. When imprisonment dominates our system for controlling criminal activity, the portmanteau variable is much less important. As the face of incapacitation continues to change, however, it must become a habit for us to think about Becker's portmanteau, and how to craft and contour how we incapacitate so we move the ball forward on all dimensions—or at least not backward.

²⁰⁴ Admittedly, this argument does suggest another option: simply increasing the severity of any prison sentence, either the length of sentence or the harshness of the conditions. *See supra* note 136. This option is more socially costly than simply augmenting the quality of life outside of prison, and it is also likely to place a heavier financial burden on the criminal justice system, eliminating one of the chief benefits of SOPR laws.

²⁰⁵ *See supra* notes 76, 113 (discussing the additional reporting obligations that apply to homeless offenders); *see also* Levenson et al., *supra* note 125 (describing the positive correlation between sex offender residence restrictions and homelessness among sex offenders in Florida).

²⁰⁶ *See id.* at 322 (reporting that sex offender transience is associated with recidivism and absconding).