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Article in Criminology & Public Policy · November 2016

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### RESEARCH ARTICLE

# EVALUATING OFFENDERS ON COMMUNITY SUPERVISION

# Impact of Swift and Certain Sanctions

# Evaluation of Washington State's Policy for Offenders on Community Supervision

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### **Research Summary**

In the wake of the mass incarceration movement, many states must now manage the rebound of decarceration. Thermodynamic forces of the justice system, however, have pushed former fiscal pressures of institutions onto that of community corrections. Encouraged by the positive findings of recently piloted innovations, several jurisdictions have taken great interest in the implementation of deterrence-based sanctioning models when dealing with supervision violations. Among the first to implement a statewide turn to this style of sanctioning, Washington State's swift-and-certain (SAC) policy was implemented in June 2012. The intent of SAC was to expand the model found in Hawaii's Opportunity Probation and Enforcement (HOPE) to a wider criminal justice

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population, while emphasizing the reduction of confinement costs. This study focused on the impact of SAC with regard to supervision outcomes for participants. By using a quasi-experimental design, we examined confinement, recidivism, treatment, violation, and costs outcomes of SAC participants. Findings reveal that SAC participants were found to incur fewer sanctioned incarceration days after a violation, reduced odds of recidivism, possessed greater treatment program utilization, reduced their propensity of committing violations over time, and as a result, imposed lower correctional and associated costs. The SAC model provides noteworthy positive effects and no appreciable negative impacts on public safety.

### **Policy Implications**

We further discuss the impact of SAC in the context of deterrence-based sanctioning. Specifically, we explain how practices such as SAC may impact the future of sanctioning community supervision conditions. Although many policies that emphasize deterrence demonstrate inconsistent findings, immediate advantages of SAC take the form of fiscal savings, indicating that these novel methods provide a form of justice reinvestment. Additionally, connecting deterrence-based supervision methods to reductions in most recidivism measures suggests that proportionality and quality assurance may increase the effectiveness of these policies. We recommend ways that such nuanced implementation may be fruitful, as well as suggest ways of conceptualizing the theory of deterrence. Policy makers can appropriately work its components into supervision practice without depreciating the importance of treatment and addressing criminogenic needs.

### Keywords

recidivism, violation, deterrence, supervision, repeated measures

uring the last two decades, a large body of research has demonstrated how punitive policies have led to substantial costs, both fiscally and socially (e.g., Clear, 2007; Schmitt, Warner, and Gupta, 2010). Many states have realized that increases in spending on institutional corrections have yielded remarkably little in the way of reducing recidivism and, instead, have triggered additional social costs (Blumstein and Wallman, 2006; Clear, 2007; McNiel, Binder, and Robinson, 2005; Travis and Waul, 2004; Zimring and Hawkins, 1997). Embedded in this realization have been state efforts in decarceration (Barker, 2011), which may be understood as a thermodynamic rebound of mass incarceration (see Wright and Rosky, 2011). As systems aim to relieve practical and fiscal pressures of institutional corrections (e.g., Austin and Fabelo, 2004; Engel, Larivee, and Luedeman, 2009; Richards, Austin, and Jones, 2004; Schmitt et al., 2010), those same pressures may be transferred to community corrections settings rather than being resolved.

Reduced budgets and fewer resources coupled with the supervision of now more than 5 million people have yielded many unforeseen problems in community corrections (e.g.,

supervision caseloads; Pew Center on the States [PEW], 2009). Such problems have driven some officials to seek solutions through system reassessment, which are meant to ensure that resources are being placed into cost-effective and evidence-based supervision practices (e.g., Guevara and Solomon, 2009; Hamilton, van Wormer, Campbell, and Posey, 2015; Rempel, 2014; Taxman and Belenko, 2012). Within this context, one major policy shift that arose to become a national movement is the Justice Reinvestment Initiative (JRI). By emphasizing the strategic placement of finite resources, JRI includes the redistribution of monies from obsolete correctional practices into more effective modes of offender reformation (Clear, 2011; LaVigne et al., 2014).

Nevertheless, where this reinvestment is often necessarily focused toward increasing the opportunities for offender-change programming, larger, more fundamental issues tend to go unaddressed. A particularly large issue surrounds the sanctioning of those who technically violate their terms of supervision and may be perpetually returned to confinement. A substantial portion of the dramatic increase in incarceration over the past two decades has been linked to difficulties related to confinement-based sanctioning for such violations (Grattet, Petersilia, Lin, and Beckman, 2009; Maruschak and Bonczar, 2013). Some scholars have attributed much of this problem to the systematic processes of increasing the supervision intensity (e.g., Blumstein and Beck, 2005; Petersilia, 2009; Visher and Travis, 2003) and "stacking" additional conditions for violators (Blomberg and Lucken, 1994; Kleis, 2010; Marciniak, 2000). Such arguments often have involved criticism of overzealous policies that govern supervision practices, stating that increased intensity in both supervision and sanctions leads to an unnecessary crackdown on violating behavior (e.g., Petersilia and Turner, 1993; Taxman, 2012).

These more traditional methods are most commonly associated with using confinement as a sanction. Typically, these practices involve a question of how frequent and how long the violators are confined. On the whole, confinement has yielded several problematic outcomes such as adding to offenders' criminogenic factors (Bales and Piquero, 2011; Nagin, Cullen, and Jonson, 2009) and being associated with iatrogenic effects among offenders on postrelease supervision (Campbell, 2015; Drake and Aos, 2012). As a result of the potentially misplaced intensity of supervision, problems arise relating to the consistency and proportionality violators receive, where ideally, supervision practices and the use of confinement should take on a role more similar to that found in behavioral conditioning and deterrence theories (e.g., Hawken, 2010). Such conditioning and deterrence approaches have been the

<sup>1.</sup> The term stacking is used here to denote the process by which community supervision officers catalogue multiple counts of violations over time and then request sanctioning for the group simultaneously. For example, if an offender violates by way of a positive urine analysis in his or her first month, being late for a community corrections officer (CCO) visit in month two, and being identified as living in an unauthorized area in month three, the CCO may request a sanction for all three violations and a judge may administer three times the sanction duration than would be expected for a single violation.

focus of projects sponsored by the National Institute of Justice (NIJ) and other agencies, largely encouraged by the recent positive findings from Hawaii's Opportunity Probation and Enforcement (HOPE; Hawken and Kleiman, 2009). This approach emphasizes the use of immediate short-term jail confinement after a violation of supervision conditions. Despite that this approach remains widely untested in its most recent utility to deter criminal behavior (see Drake and Aos, 2012; Hawken and Kleiman, 2009), swift-and-certain (SAC) sanctioning for supervision violators has since been implemented by many jurisdictions or as pilot attempts for larger planned rollouts (e.g., Hawken and Kleiman, 2011; O'Connell, Visher, Martin, Parker, and Brent, 2011). Such rollouts include Alaska's Probation Accountability with Certain Enforcement (PACE) (see Carms and Martin, 2011), Michigan's Swift and Sure Sanctions Probation Program (see DeVall, Lanier, and Hartmann, 2013), Delaware's Decide Your Time (DYT) (see O'Connell, Brent, and Visher, 2016, this issue; O'Connell et al., 2011), Kentucky's Supervision Monitoring Accountability and Treatment (SMART) (see Neal and Shannon, 2013), and South Dakota's 24/7 Sobriety (Caulkins and Dupont, 2010; Loudenburg, Drube, and Young, 2013), to name a few.

The current study focuses on the implementation of SAC in Washington State, which is the first statewide launch of the deterrence-based, SAC sanctioning policy to all offenders on community supervision.<sup>2</sup> The aim of this policy was to address both the fiscal and criminogenic costs of using confinement by increasing its frequency, while minimizing its dose/duration for violators. We provide a rigorous impact evaluation of Washington's implementation of SAC. Specifically, we analyze the effect of SAC on new violating, sanctioning, and criminal events over its rollout period of 2012 to 2015. The study also includes a cost–benefit analysis (CBA) of SAC's collective impact on correctional and associated costs.

### **Review of Literature**

### Deterrence Theory and Its Application

Deterrence has long played a substantial role in U.S. corrections (Bottoms, 1995; Garland, 2001; Gibbs, 1975; Johnson, 2002; Nagin, 2013; Nagin et al., 2009). Generally, deterrence refers to the use of punishment as negative reinforcement that serves to prevent future criminal behavior and is conceptualized to operate under two forms—specific and general. In reference to community supervision, *specific deterrence* would represent jail confinement after a violation of supervision conditions in an attempt to prevent the offender from committing future violations and/or criminal behavior. *General deterrence* represents a broader goal of punishment for society, suggesting that the provision of punishments will be observed by "others" and have a vicarious, or indirect, effect on preventing antisocial behavior (Paternoster and Piquero, 1995; Stafford and Warr, 1993).

Although South Dakota's 24/7 Sobriety program precedes Washington's SAC program, Washington is the first statewide implementation of SAC sanctions to include both probation and postrelease supervision for all types of offenders rather than just for drug-related offenses.

Deterrence theory specifies that the punishment model is most effective when sanctions are incurred swiftly (with celerity), with certainty, and with proportional severity (Gibbs, 1975). The conceptual logic behind swiftness holds that an immediate consequence is more effective than one that is delayed as a result of either officer discretion or procedural restrictions. Without *certainty* that all violations will result in punishment, an offender is likely to take more risks, gambling that a violation behavior will not result in confinement. This gamble will, in turn, result in a greater likelihood for the commission of future violations and the possibility of escalating to criminal behavior commission. Finally, the punishment must be proportional in severity to the violation incurred. Proportionality embodies the sentiment that a punishment must "fit the crime" (see Wilson, 2013). The rationale of this sentiment, however, dates back to Beccaria (1764) and Bentham (1780), who noted that if both minor and major violations are sanctioned the same, then there is no incentive to weigh costs to benefits. This reasoning holds true today when considering the use of equal confinement duration regardless of the supervision violation; offenders question the costs (and benefits) of committing major violations, resulting in both major and minor violation types becoming more likely to be committed. On the whole, however, the "proportionality" of the severity principle is often rationalized to indicate a lack of offender accountability brought on by lenient sanctioning. Thus, in practice, proportional severity is often translated to mean increased severity, all in an effort to deter future criminal and violation behavior.

These core principles of the deterrence doctrine have been widely tested in studies involving nonoffending populations (e.g., convenience samples of college students), as well as in justice-related populations (e.g., incarcerated adult offenders; see Cullen, Pratt, Miceli, and Moon, 2002; Pratt and Cullen, 2005; Pratt, Cullen, Blevins, Daigle, and Madensen, 2006). How the three main principles interact can often be elusive as it is difficult to capture all three in the same population and setting. Studies are often left emphasizing one or two of the components or examining the perception of risk to be sanctioned. The relationship between an individual's perception of risk and severity of punishment varies depending on the population and setting (Apel, 2013). Because humans exercise bounded rationality, increases in severity of punishment are discounted by individuals who overestimate their likelihood of success (see Korobkin and Ulen, 2000). Other recent research on deterrence has provided a wide body of tests ranging from aggregate analyses of general deterrence to those emphasizing individual mental processes and Bentham's (1780) criminal calculus. Despite the variety of methods used, systematic reviews and meta-analyses have shown that deterrence-based measures yield a weak ability to explain deviant behaviors, especially when competing theoretical variables are included in the model (e.g., Pratt et al., 2006).

Although the results are still decidedly mixed, consistently favorable deterrence results have been found in the practice of situational crime prevention or "focused deterrence strategies" (Braga and Weisburd, 2011; <u>Durlauf and Nagin, 2011</u>). Hot-spot or pulling-levers policing strategies draw specifically from deterrence theory to suppress or prevent

crime by increasing a consistent and systematic response to criminal activity (Kennedy, 1996; Sherman and Weisburd, 1995). Put differently, the application of more certainty in the application of crime prevention and focused deterrence measures in policing have been connected to decreases in crime (Clarke, 1983; Mazerolle, Kadleck, and Roehl, 1998; Sampson and Cohen, 1988). With that said, empirical studies of deterrence often suffer from weak methodological approaches. For example, a recent meta-analysis completed by Braga and Weisburd (2011) found only 12 studies that adequately investigated deterrence strategies. Even though the results were in favor of such strategies (e.g., Braga, Kennedy, Waring, and Piehl, 2001; Piehl, Cooper, Braga, and Kennedy, 2003), the studies reviewed focused mainly on policing interventions (e.g., Weisburd, Lum, and Petrosino, 2001; Welsh, Peel, Farrington, Elffers, and Braga, 2010), still leaving much to be examined in other areas such as corrections.

In their systematic review, Braga and Weisburd (2011) noted only one rigorous study that investigated the use of deterrence strategies in the setting of community supervision (Hawken and Kleiman, 2009). Nevertheless, it is important to note that there have been attempts to apply the deterrence principles to community corrections populations prior to the HOPE study. Beginning with the proposed Operation Tripwire (DuPont and Wish, 1992), D.C.'s Drug Court Experiment (Harrell, Cavanagh, and Roman, 1998), Oregon's Structured Sanctions (Baird, Wagner, and DeComo, 1995), Maryland's Break the Cycle (Harrell, Roman, Bhati, and Parthasarathy, 2003; Mitchell and Harrell, 2006; Taxman, Reedy, Moline, Ormond, and Yancey, 2003), and the Texas SWIFT program (Snell, 2007) are all initiatives that have employed some type of SAC sanctioning for probation and/or parole violators. Although they vary in their implementation and type of drug offender (e.g., DUI vs. general drug use), these efforts provide unique insight into the various applications of focused deterrence strategies used in community corrections. Similarly, the variation between programs was also observed in their impact on recidivism and drug use, although program evaluations range in rigor of methodological design. Generally, the findings demonstrate consistent reductions in drug use violations among the highest risk offenders (especially those receiving targeted treatment), and they are relatively supportive across implementation and jurisdictions for measures of recidivism. Each has shown significant cost savings, which were attributed to the reduction in treatment referrals (i.e., issued only for those in greatest need), the reduction in long-term confinement use for violators, or a combination of both.

Across these programs and their evaluations, a common trend regarding deterrence studies becomes apparent. The three core components of the deterrence doctrine (certainty, celerity, and severity) are rarely evaluated together within a single policy (e.g., Maxwell and Gray, 2000). Even when considering the wide number of contemporary efforts assessing the impact of deterrence principles in sentencing and corrections (e.g., Three-Strikes or Truth-in-Sentencing laws; see Bottoms, 1995; Campbell, 2015; Simon, 2007; Walker, 1980; Wilson, 2013), one or more elements is omitted from nearly all examinations. In

particular, celerity (swiftness) is perhaps the principle most commonly absent as due process constraints in the U.S. legal system restrict its ethical and practical measurement (see Nagin, 2013; Paternoster, 2010). Not only does the current study supply one of the few instances in which a deterrence policy has been evaluated accounting for celerity, but it is also one of the few highlighting a focused deterrence strategy among a community supervision population.

### Evaluations of HOPE Models

Because justice system officials often poorly adhere to the important foundational aspects of deterrence, practitioners often feel frustrated when dealing with violating probationers and parolees. After one particular bout of disappointment with how procedures lack connectivity with violators, Hawaii's First Circuit Judge Steven Alm created the HOPE program in 2004. As a result of the high prevalence of drug-offending probationers, the intent of the program was to reduce drug use, new crimes, and incarceration of violators by using SAC sanctions that were less severe than sending violators to prison (Hawken, 2010; Hawken and Kleiman, 2009). To accomplish this goal, HOPE authorized short-term stays in local jails immediately after any violation. When changes among HOPE participants were evident, the program was expanded and formally evaluated by Hawken and Kleiman (2009) through an NIJ initiative. By using a randomized control trial of probationers, Hawken and Kleiman (2009) compared supervision outcomes of 330 HOPE participants with 163 control group offenders who were given "supervision as usual." Researchers discovered that the HOPE program achieved all three of its intended goals. Probationers were found to have significant reductions in positive drug tests, missed appointments, rearrest and revocation rates, and the number of days incarcerated for sanctions (Hawken and Kleiman, 2009: 64). These initial findings were supported in a more recent follow-up evaluation of HOPE after the program took on several modifications (e.g., some positive incentives for nonviolating behavior) and several hundred more participants (see Hawken et al., 2016). The updated evaluation included an intentto-treat randomized control trial of 493 probationers split between HOPE and probation as usual. HOPE participants were again shown to have fewer new charges (especially fewer drug charges), lower reincarceration rates, and revocation rates (Hawken et al., 2016).

Such success was viewed as an indication that stricter adherence to deterrence components may yield beneficial supervision outcomes when dealing with violators. In conjunction with the few initiatives mentioned earlier that are similar to HOPE, this style of deterrence application is a notable break from sentencing applications of deterrence. Some of the most remarkable sentencing applications involved the use of deterrence as the primary rationale to incarcerate more offenders for longer terms, suggesting that increases in the severity of punishment would serve as both specific and general deterrence (Bottoms, 1995; Hirsch, 1976). Examples of such applications were particularly considered to be a political shift rather than an empirically driven one. Policies such as "three-strikes"; "truth in sentencing"; and increased incarceration sentences for drug, sex, and violent offenses were viewed as a "deterrence-style" method of sanctioning, whereas minimal empirical

research was completed examining the effectiveness of these policies and interventions (Campbell, 2015; Johnson, 2002; Pratt and Cullen, 2005; Simon, 2007; Wilson, 2013). This current wave of deterrence interventions (many spawned by HOPE) instead suggests that less, not more, confinement time will result in greater deterrence model fidelity. Nevertheless, the connotations of deterrence principles, along with the reversal of some of the previously held conceptions of its use, have created substantial skepticism around the findings of HOPE. Furthermore, given that the project was a pilot, the need for a larger scale application of the deterrence-based supervision model was needed.

Since HOPE's success, there has been a report of nearly 40 different jurisdictions in 18 states that have implemented programs similar to that of HOPE (see Hawken's discussion in Pearsall, 2014); yet, only a few have attempted to directly replicate its processes. The Bureau of Justice Assistance and the NIJ set out systematically to test the deterrence-based supervision model of HOPE. Termed the "Honest Opportunity Probation Enforcement Demonstration Field Experiment," the Bureau of Justice Assistance funded the launch and evaluation of a series of pilot programs modeled from the original HOPE, in four jurisdictions (Clackamas County, Oregon; Essex County, Massachusetts; Saline County, Arkansas; and Tarrant County, Texas) from October 2011 to September 2015 (Zajac, Lattimore, Dawes, and Winger, 2015). The evaluation used randomized controlled trials for each site's impact evaluation and a process evaluation for fidelity assurance. The multisite evaluation by Lattimore, MacKenzie, Zajac, Dawes, Arsenault and Tueller (2016, this issue) is also featured in this issue along with the current study. By using a total sample of 1,500 high-, moderate-, and some low-risk probationers, the study demonstrated that none of the four sites benefited from HOPE probation. Despite strictly adhering to the HOPE model, the approach did not impact rearrest, revocation, or reconviction in any appreciable way. With few minor exceptions, HOPE was concluded to be no better than probation as usual (Lattimore et al., 2016).

Similarly, funded by the NIJ, O'Connell and colleagues (2016) evaluated in this issue the pilot rollout of the Delaware program modeled from HOPE, called Decide Your Time (DYT). By using a slightly different approach to HOPE-style probation, DYT implemented cognitive behavioral treatment referrals along with all other HOPE aspects (e.g., swift sanctions and frequent urinalysis). Despite this modification, findings from the randomized control trial of 400 high-risk, drug-using probationers indicated that there were no differences observed between DYT and traditional probation across measures of rearrest, new crime, probation violations, and reincarceration (O'Connell et al., 2016). These findings coupled with the multisite evaluation and juxtaposed with the original (and updated) HOPE findings (Hawken et al., 2016), fuel good reason for the substantial debate playing out in the discipline regarding HOPE and SAC sanctions.

### Violation Sanctioning in Washington

In Washington State, as elsewhere, the historical practice of applying sanctions after a violation was previously idiosyncratic and disproportionally based on resources and discretionary variations. Although various sanctions were possible, ranging from a stipulated agreement to a jail confinement, application of said sanctions lacked consistent delivery. Jail confinement sanctions were delivered in durations of 30, 60, 90, and 120 days. Graduated jail confinements were used as sanctions resulting from violations but were primarily provided via officer discretion. The varied severity of confinement duration likely resulted in their inconsistent delivery, which varied by community corrections officer (CCO), hearing officer, and geographic region (Hamilton, van Wormer, Campbell, et al., 2015).

With regard to severity, confinement durations of even 30 days could be detrimental to an offender's reentry (Hamilton, van Wormer, Campbell, et al., 2015). A month out of the community could cause an offender to lose his or her job, delay timely payment of rent or lose his or her place of residency entirely, cause the offender to be removed from a needed treatment program, delay child support reimbursements, and prevent reconnections with the offender's social support network. Such disproportionality of the sentence duration, coupled with the dependent provision of officer discretion, created a variant use of jail confinements. Minor violations could often go unsanctioned in the initial months of supervision. Once the offender had repeatedly ignored warnings of impending sanctions, a violation occurred that "tripped a discretionary trigger" with the offender's CCO, resulting in a jail confinement sanction. Nevertheless, despite the existence of a loose sanctioning equation to structure discretion, the perceived importance and severity of each violation could still differ to a degree with each officer and result in the aforementioned variant application of jail sanctions.

The variations in confinement sanctions also differed by hearing officer and/or geographic region. When the CCO would recommend the application of a jail sanction, a hearing officer would review the case and a formal hearing would proceed as to the merits of the violation case. The hearing officer would consider arguments from the CCO and the offender (or the offender's representative) as to the commission of the violation and the need for a confinement sanction. An offender could accept the violation and begin serving his or her sanction immediately, forgoing a hearing. If a hearing was required, commonly the offender would receive a confinement sanction. In regions where jail space was restricted, hearing officers were known to be more restrictive with the durations of confinement. Urban regions with greater aggregate jail populations, in particular, have restricted space to be used for confinement. In these areas, hearing officers were more likely to sentence offenders to sanctions of 30 days or less (Hamilton, van Wormer, Campbell, et al., 2015). In regions in which jail space was more readily available, hearing officers were more likely to provide greater durations of sanctions and even sanction offenders to consecutive (or stacked) confinements of 30 days (or more) based on multiple violations. For example, if an offender were sanctioned on three violations, he or she could potentially serve consecutive sentences ranging from 90 to 360 days, further extending the variation and disproportionality of the sentence received.

Therefore, deterrence (both general and specific) was applied neither consistently nor proportionately in Washington. The disproportionality of sanction severity, coupled with officer discretion, created an inconsistent application. This prevented sanctions from being applied swiftly, with certainty, and of an appropriate intensity. It was clear that the Washington State Department of Correction's (WADOC's) use of violation sanctions was not in line with deterrence principles. After the promising findings of HOPE, a change was needed to revitalize community corrections. As will be described, these changes were focused on creating formal guidelines for certainty and swiftness of confinement sanction delivery and substantial modifications were made to confinement durations to establish greater proportionality with regard to minor and major violations.

### Policy to Combat Economic Challenges

In response to the economic downturn after the 2008 recession, all state agencies in Washington were required to engage in budget reduction efforts. The WADOC made attempts to reduce costs of community supervision: In 2009 and 2010, roughly 12,000 low- and moderate-risk offenders were removed from supervision caseloads. This community supervision caseload reduction resulted in supervision of only the highest risk offenders, roughly two thirds of the supervised population (WADOC, 2012). These cost reduction efforts provided some positive signs as analysis revealed that public safety was not impacted.<sup>3</sup>

Encouraged by these positive signs, the WADOC embarked on a pilot program in Seattle—the Washington Intensive Supervision Pilot (WISP; Hawken and Kleiman, 2011). Modeled on the principles of the HOPE program (see Hawken and Kleiman, 2009), the WISP program was created to pilot and assess the applicability of the model in Washington and made use of a short (60-day) evaluation period. Although not much in the way of outcomes could be derived from this pilot, positive signs were observed in terms of reduced drug use, incarcerations, and recidivism (WADOC, 2012). In an attempt to counteract the rising fiscal and societal costs of incarceration, the WADOC formulated a new policy to implement a specific type of abbreviated, graduated sanctioning and to reduce the use of confinement sanction frequency and duration resulting from violation behavior. The conceptualized solution derived from the policy was to decrease costs by way of reducing longer incarcerations, which many perceive to be *at odds* with the traditional aims of correctional resources and preservation of public safety.

Furthering their efforts, on May 2, 2012, the Washington State Legislature signed into law Senate Bill 6204—termed "swift and certain (SAC)" (WADOC, 2008). Inspired by the HOPE program, the policy aimed to increase the swiftness with which a sanction is imposed for a violation and the certainty in which it is applied. By using immediate and brief jail stays (DOC 460.130) in lieu of long-term confinement, the law attempted to

<sup>&</sup>quot;Lack of impact" was assessed as a lack of increase in reconviction rates both before and after the modifications to supervision caseloads.

change behavior through *known*, *more frequent*, but *less severe* (i.e., more proportionate), consequences. The WADOC also assembled a "Behavior Accountability Guide" (BAG) to assist in the consistent provision of the statute.<sup>4</sup> Specifically the statute required that:

- 1. Violations to be categorized as either "Low" or "High." After five "Low-Level" violations, the subsequent violation is classified as "High Level."
- On the first "Low-Level" violation, offenders sign a stipulated agreement. Offenders committing two-to-five additional "Low-Level" violations receive up to 3 days of jail confinement.
- 3. After a "High-Level" violation, a mandatory arrest occurs. 6 Offenders with suspended confinement time may have their supervision revoked.
- 4. Offenders committing "High-Level" violations receive (up to) 30 days in jail confinement.
- 5. "Low-Level" confinements do not require a sanctioning hearing and may be provided by the supervision officer with a supervisor's approval and are provided immediately.
- 6. All new crimes committed in an officer's presence are to be reported to law enforcement or filed with the local prosecutor.
- 7. Offenders are informed/educated as to the new violation procedures at release to community supervision.
- 8. Estimated savings generated under Washington State Senate Bill 6204 are to be used to expand evidenced-based offender change programming. Programming modifications were to focus on chemical dependency and/or cognitive behavioral treatments based on offenders' assessed<sup>7</sup> needs.

The objective of SAC in Washington was to reduce incarceration sanctions resulting from community corrections violations by more closely tying practice to deterrence principles. The principle of *certainty* was reestablished as SAC policy indicates that *every* violation received a sanction. The BAG outlined the *proportional severity* of the violation severity and durations, which in contrast to prior deterrence policies, primarily reduced the duration of violation sanctions. Finally, and most uniquely, *swiftness* of sanctioning was increased

<sup>4.</sup> The Behavior Accountability Guide is provided in Appendix A.

<sup>5. &</sup>quot;High" violations include weapons use/possession, prohibited contact, domestic-violence–related behavior, threat/assaultive behavior, search refusal, interfere/alter urine analysis process, warrants/detainers/holds, unapproved residence for sex offender, failure to submit for polygraph, and any behavior that results in an arrest.

Additionally, Low-Level violations may receive a hearing that results in additional confinement time based on aggravating circumstances, including escalating aggression, deliberate harm, physical resistance, significant risk to public safety while on electronic monitoring, and potential threat to harm previous/potential victims.

Both risk and needs are assessed by Washington State Institute for Public Policy (WSIPP)-developed instruments and are administered at reentry after a felony or gross misdemeanor conviction.

as SAC gave CCOs the power to deliver "low-level" sanctions immediately rather than convening a violation hearing.

The current evaluation included a theoretically informed process and outcome evaluation. In the next section, we briefly describe some important modifications that were made to the SAC policy, which likely impacted operations and outcomes. We then describe the study hypotheses and analyses used.

### Modifications After Implementation

The move from pilot program to statewide implementation was expedient as compared with other correctional program implementation efforts. It seems from a careful review of the WADOC policy drafts between 2012 and 2013, as well as from key process evaluation evidence from stakeholders and WADOC administration (Hamilton, van Wormer, Campbell, et al., 2015), that all necessary policy changes and supporting procedures were implemented as intended. This, in part, can be attributed to three important WADOC implementation adherence measures, including

- A "rolling training" model that was launched statewide, and delivered by experts in SAC, which covered the WADOC policy changes, implications for workload, new forms, and the BAG.
- 2. The creation of quality assurance safeguards to monitor the adherence model through a *Sustainability Review* process carried out by the implementation team.
- 3. The use of Community Corrections Weekly Messages to relay important information about SAC.

In addition, operations feedback from CCOs and administration was evaluated on a weekly basis to monitor public safety and program effectiveness. More details regarding the sustainability review, trainings, and communications messaging were provided as part of the process evaluation (Hamilton, van Wormer, Kigerl, Campbell, and Posey, 2015). Nevertheless, some major changes to the SAC policy that resulted from the *Sustainability Review* have important implications for our findings and are worthy of discussion.

In particular, the initial implementation of SAC (May to December 2012) inadvertently created an opportunity for absconding<sup>9</sup> violations to be considered "low-level" violations (WADOC, 2012). WADOC Contact Standards require the offender to meet periodically with CCOs at a local field office or to allow for contacts at their home or work. This distinction was not defined, and all failures to report were sanctioned as a minor violation,

Although not the primary focus of this article, key process evaluation findings are referenced and the full report is also available (see Hamilton, van Wormer, Kigerl, et al., 2015).

For readers' reference, absconding is the act of leaving the jurisdiction or attempting to avoid supervision, which is a violation of the supervision condition to retain contact with CCOs and lawfully reside within the jurisdiction.

such that an offender missing one weekly contact versus an offender that was not located for several months were both sanctioned for a confinement period of 1 to 3 days. This disproportionality of sanctioning was identified early by the Sustainability Review and to be in contrast with deterrence principles. As a result, in December 2013, a SAC policy modification indicated that offenders missing a scheduled CCO contact were warranted for arrest. If the offender surrendered to authorities within 7 days, the warrant would be quashed and the offender would serve confinement for a low-level (1–3-day) violation. If the warrant extended beyond 7 days, once the offender was apprehended, the warrant would be served and the offender would receive a minimum of 30 days in confinement (i.e., a high-level violation). These definitional changes were made to increase the accountability for absconding violations, create greater proportionality of sanctioning, and in turn brought the SAC policy application closer to the deterrence model goal it was seeking to achieve. <sup>10</sup>

Next, by using estimated confinement savings, the WADOC implemented new interventions to help initiate and maintain offenders' behavior change. Cognitive behavioral therapy (CBT) was made available in the community via SAC dollars for eligible participations across the state. Similarly, chemical dependency (CD) treatment was also extended. For substance abusers prior to SAC, CD treatment could be used as sanction in lieu of confinement. After SAC's implementation, CD treatment was only provided if the offender volunteered or requested the intervention. In addition, the WADOC changed CD payments to a "fee for service" contract and eliminated the policy of mandatory treatment termination after two missed sessions. These changes increase contracted treatment staff efforts to motivate offenders to remain in treatment. It was anticipated that CBT participation would expand as a result of SAC and that the duration of offenders' participation in CD treatment would also increase.

Finally, there was an initial slow start of CBT after SAC's implementation. Training and referral processes were not optimal in these early stages. These factors led to a lower-than-expected offender participation rate for CBT during the first 2 years of implementation. In May 2015, the WADOC made a move to repurpose approximately 40 CCOs to become full-time, dedicated CBT facilitators. This adjustment is anticipated to increase facilitator morale, program fidelity, and ultimately program efficacy as facilitators will now be able to focus on this specific aspect rather than have it occur as an ancillary piece of their work. Nevertheless, this change occurred after the completion of the study sample follow-up period and will not be reflected in the current findings.

### Innovative Goals of Swift and Certain

The *innovative* goals of SAC include a three-fold transformation of the criminal justice process in Washington. First, the WADOC sought to reduce the use of long-term

<sup>10.</sup> See Appendix B for a review of pre- and post-SAC policies. This information is discussed in detail by van Wormer, Hamilton, Kigerl, Campbell, and Posey (2015).

confinements for violators. Second, SAC was used as an opportunity to reduce inconsistencies of violation and sanctioning application, dictating that all violations receive sanctioning. Third, the WADOC sought to reduce the overall use of confinement and its associated costs. Confinement was used infrequently before SAC, but when it was imposed, its durations were longer, ultimately amounting to substantial correctional costs. Although it was assumed that this policy would not increase rates of recidivism, an additional hope was that the deterred violation behavior would better stabilize offenders in the community and translate into reductions in recidivism.

Although similar in method to HOPE and several other demonstration projects currently underway (see Pearsall, 2014), the findings of SAC will fill important research gaps. With very little pilot testing, SAC was almost immediately brought to scale; by July 2012, 11 the entire community corrections population was converted to the new supervision model. Washington had thus created a naturalized experiment, absent observation effects that may artificially heighten positive results of small pilots (e.g., unrepresentative samples, sample "creaming" of low-risk subjects, and intensive researcher/practitioner diligence during implementation phases; Shadish, Cook, and Campbell, 2002). Furthermore, the large-scale rollout provided a wealth of offender data to be collected quickly, which allowed for the tracking of violation patterns over time. These observations are critical to the examination of deterrence after SAC's implementation, where greater reductions in violation behaviors should be observed as a result. Finally, SAC includes both felony offenders (i.e., parole) and court-supervised cases (i.e., probation); thus, the policy's effect is examined among a more heterogeneous population (with regard to crime severity and risk). The methods and results to follow provide an examination of SAC's ability to achieve the described goals.

### Method

### Study Hypotheses

As indicated, a primary goal of SAC was to decrease long-term incarceration stays as a result of violations. The SAC policy also sought to provide a more consistent use of graduated sanctioning in an effort to reduce the likelihood of more serious infractions and criminal behavior, where more frequent use of low-severity sanctioning would reduce the need for more serious sanctioning over the course of the offender's supervision. With regard to these goals, five hypotheses were examined. First, although minor ("low-level") violations under SAC were expected to occur more frequently, serious ("high-level") violations would be observed less. Therefore, SAC was anticipated to result in shorter lengths of confinement after a technical violation, which outlined the first study hypothesis:

<sup>11.</sup> Note that the SAC bill was signed into law in May, and early implementation efforts began in June, but the policy was not fully implemented throughout the state until July.

Hypothesis 1: SAC participants will incur fewer days of incarceration resulting from violation sanctions than will comparison subjects.

Second, if SAC successfully reduced confinement, it might also reduce offenders' accountability (as predicted by a deterrence focus on severity), resulting in greater criminal behavior. Nevertheless, in focusing on deterrence effects of certainty and celerity, it is also possible that the impact of graduated sanctioning on offender reconvictions would either be unaffected or deter new crime and thereby result in a reduction in recidivism. Our second hypothesis is stated as follows:

*Hypothesis 2:* SAC participants will display a reduced propensity for reconvictions than will comparison subjects.

By using estimated confinement savings, the WADOC implemented new interventions to help initiate and maintain offenders' behavior change. CBT<sup>12</sup> was made available in the community, and extended funding was provided for CD treatment via SAC dollars for eligible participants. Given these intervention adjustments, our third hypothesis indicates that:

*Hypothesis 3:* SAC participants will possess greater program utilization than will comparison subjects.

Other hypotheses stem from the theoretical connections to deterrence. This particularly includes the concept of specific deterrence as it indicates that if an offender experiences a negative sanctioning event, he or she will be deterred with regard to future violation behavior. A closer adherence to deterrence principles would suggest that SAC would provide greater behavioral compliance with supervision conditions. Therefore, offenders would be expected to incur a greater frequency of nonserious ("low-level") violations early in the supervision process but learn accountability and demonstrate a greater reduction in likelihood of violating over time. We also anticipated that greater accountability for nonserious violations would prevent serious (or "high-level") violations. We then sought to examine the following five-part hypothesis:

Hypothesis 4: SAC participants will engage in fewer violations over time than will comparison subjects.

4a: SAC participants will engage in fewer serious violations than will comparison subjects.

<sup>12.</sup> Before SAC's implementation, CBT interventions were not universally available or applied under a singular model. After SAC's implementation, Thinking for a Change (T4C) was made available for community corrections of

4b: SAC participants will engage in fewer nonserious violations over time than will comparison subjects.

One caveat of the described behaviors is anticipated for abscond violations. As indicated, SAC policies were changed to increase absconding to a "high-level" violation in December 2012. It is anticipated that this policy change effectively reduced the rate of absconding violations postimplementation.

- 4c: SAC participants, prior to the absconding violation policy change, will exhibit an increased propensity for abscond violations than will comparison subjects.
- 4d: SAC participants, after the abscond violation policy change, will exhibit a reduced propensity for abscond violations than will comparison subjects.

Apart from theory, the exorbitant costs resulting from recidivism are well documented (e.g., Clear, 2007; Schmitt et al., 2010). As described, one of the primary distinctions of SAC was its intent to reduce correctional costs. Our fifth hypothesis is intended to test this policy element and is stated as:

Hypothesis 5: SAC participants will impose lower correctional and associated costs than will comparison subjects.

Next, a description of the study design is provided, including the sampling procedure, study groups, measures, matching techniques, and analysis plan.

### Study Design

Although SAC was fully implemented in September 2012, the evaluation was not initiated until 2014. Therefore, a randomized and/or prospective study was not feasible. In using a retrospective quasi-experimental design, we examined the impact of SAC across a variety of outcomes and contrasted it with a historical comparison group. All subjects supervised in the community by the WADOC were eligible for study, which includes offenders convicted of a felony or gross misdemeanor and sentenced to serve a term of community supervision in Washington State. To remove potential study contaminants, only those subjects entering supervision on an initial release were eligible, thus, excluding those individuals reentering from a revocation on a previous violation.

Study groups. Three study groups were created, which included two cohorts of SAC participants and a group of comparison subjects that were supervised by the WADOC prior to the implementation of SAC. Intervention subjects (i.e., SAC participants) were grouped into two cohorts and analyzed separately. Although there was a statewide implementation of SAC in July 2012, the first two months of the rollout were described as "staggered," where full operations were not observed until September. Thus, the first cohort (E1) consisted of

SAC participants newly released to the community during September through November of 2012. This amounted to roughly 740 subjects each month for a total of 2,151 E1 subjects.

As described, SAC was modified in December 2012, where if an offender missed a scheduled contact with his or her CCO, and did not surrender within 7 days, a high-level violation was sanctioned. To identify the impact of this policy change, a second cohort of subjects (E2) was established. These subjects were those that were newly released from the date of the policy change through February 2014. Data collection during this sample frame amounted to roughly 890 subjects<sup>13</sup> each month, for a total of 2,687 E2 subjects.

Because SAC's rollout was implemented statewide, there is a lack of similar offenders released during the same time period that can be used as a comparison group. We instead used a historical comparison group. To prevent overlap of SAC follow-up periods, we selected those offenders released between September 2010 and February 2011. This allowed for a full 12 months of follow-up data collected prior to the implementation of SAC. All potential comparison subjects were identical to SAC participants in terms of eligibility criteria; yet, the extended sample frame allowed for a larger population of potential study subjects (N = 15,561).

For all subjects, study outcomes were observed for 12 months. As most WADOC offenders serve terms of 12 months or less in the community, we feel the outcome observation period is ideal for the examination of confinement after a violation and still adequate for observing group differences on recidivism. To be study eligible, offenders must possess a 12-month follow-up period to observe community supervision and recidivism outcomes after their reentry to the community.

*Measures.* The WADOC is currently implementing the Static Risk Offender Needs Guide-Revised (STRONG-R; see Hamilton et al., 2016). The items of this instrument have been collected for all WADOC offenders/clients supervised since 2008. Items are a mixture of static and dynamic measures across nine offender domains, including Criminal History, Education, Employment, Peers, Residential, Family, Substance Use, Mental Health, and Attitudes/Behaviors. In total, 249 relevant measures were available from data collected via STRONG-R items.

Several measures were collected as dependent variables to examine study hypotheses 1 through 4. Confinement was assessed for each subject as a dichotomous measure (No/Yes) to identify a jail *or* prison sanction after a violation, and a more specific measure of prison-only confinement was also created. A continuous measure of Days Confined was collected for all subjects. For the subgroup of offenders that were confined, an additional measure—If Violation, Days Confined—was created, where subjects that did not receive a sanction after a violation were excluded from the analysis. Several types of reconvictions were collected, including (any) conviction (misdemeanors and felonies), (any) felony, violent

<sup>13.</sup> A noted variation of roughly 150 subjects per month between the E1 and E2 samples is likely a result of random fluctuations of study-eligible releases during described sampling dates.

felony, property felony, and drug felony conviction. Reconvictions were categorized based on WSIPP's classification, which is derived from the Revised Code of Washington (RCW).

SAC's programmatic impact was narrow. Two program types were expanded in use—CD and CBT interventions. <sup>14</sup> A dichotomous (No/Yes) measure of program participation was created, where a subject was identified to participate if they were involved in at least 1 hour of the given WADOC-funded interventions. The total number of hours was also assessed for each subject as an additional measure of participation dosage.

Four measures of supervision violations were collected, including Any (or all types), Serious, Nonserious, and Abscond. These types were operationalized via the WADOC's Behavior Accountability Guide (see Appendix A), where low-level violations were defined as Nonserious; high-level violations listed were defined as Serious; and Absconding, although also considered a Serious violation, was defined separately for the purposes of tracking the policy change occurring in December 2012. To track changes over time, monthly counts of violations were collected. Because of the low monthly frequency of each violation type, dichotomous (No/Yes) measures of violation occurrences were tracked for each subject.<sup>15</sup>

For the subsequent cost-benefit analysis, three cost types were estimated. The first is the cost of treatment programming provided to offenders. Two drug treatment programs were tracked: inpatient/intensive outpatient drug treatment for offenders in the community (valued at \$1,039.82 per class) and outpatient/nonintensive drug treatment for offenders in the community (\$844.35 per class; WSIPP, 2014b). Cognitive behavioral therapy treatment is also tracked, priced at \$427.21 per class. Cost estimates were originally in 2013 USD and adjusted to provide for 2015 USD inflation. The second cost type is the WADOC supervision. The daily costs of community supervision were \$8.04 for comparison group members and \$8.09 for SAC group members. 16 The daily costs of prison and jail per offender were estimated to be \$57.76 and \$93.51, respectively (WSIPP, 2014a). These estimates were adjusted from 2014 to 2015 USD. Finally, costs associated with recidivism during follow-up were also calculated. Specifically, calculated costs account for expenses related to arrest, court processing, and tangible victim costs, and they were calculated for seven different crime types. Specific reconviction crime type costs calculated included felony sex crimes, robbery, aggravated assault, felony property, felony drug, any felony, and misdemeanor (WSIPP, 2014a). These estimates were also adjusted from 2009 to 2015 USD inflation.

<sup>14.</sup> Although CD treatments vary in programmatic content and intensity from region to region, all are certified by the state of Washington. CBT treatment provided via SAC funds were exclusively T4C. Prior to SAC, various CBT program brands were used.

<sup>15.</sup> An offset measure was also needed to adjust for exposure. That is, offenders confined for all, or a portion, of a given month would have a reduced propensity to commit a violation event in that month. A measure of Days in the Community was created and indicates the number of days an individual was not confined in jail or prison for each month.

<sup>16.</sup> It should be noted that a slight increase in costs for SAC participants was observed during the sample frame data collection period, as a result of higher community corrections staff overtime and travel expenses attributed to the SAC program.

TABLE 1
Summary of Propensity Score Matching Descriptives

	Pren	natch	Posti	match
Model Fit Summary	E1 vs. C	E2 vs. C	E1 vs. C	E2 vs. C
Percent Significant Differences	31.7	36.9	4.8	4.8
Mean STD Difference	4.96	4.66	2.09	2.10
Maximum STD Difference	19.21	23.53	12.40	10.68
AUC	0.64	0.67	0.53	0.53

Notes. AUC = area under the curve; C = comparison group; E1 = first cohort; E2 = second cohort; STD = standardized differences.

### Propensity Score Modeling

Although ideally a randomized design would be constructed to eliminate biases stemming from group selection, ethical considerations along with feasibility restrictions prevented the utilization of this "gold standard." To compensate, the quasi-experimental study design took care to collect a sizable group of eligible historical comparison group subjects. Nevertheless, retrospective designs commonly have unanticipated selection bias issues, which could prevent our ability to isolate the impact of SAC. Propensity score modeling (PSM) is the preferred matching technique that typically returns a comparison group that is similar across key demographic, criminal history, and offender needs measures (Guo and Fraser, 2010). To start, we implemented two safeguards. First, all subjects must possess stated eligibility requirements. Second, we created two PSM matches, matching E1 subjects to eligible comparison group pool members and then E2 group subjects with the same pool of comparison offenders. Subjects were matched on all 249 available items, creating a match that was robust.

The procedure begins by assessing the differences between the SAC groups and the comparison group pool on the 249 items. Bivariate comparisons that were completed to identify significant differences between groups are assessed. Standardized differences  $(STDs)^{17}$  were also assessed, where a standardized absolute bias equal to or greater than 20% was used as an indication of imbalance (Rosenbaum and Rubin, 1985). By using a somewhat liberal alpha, those item comparisons indicating at least a marginal significance (p < .1) prematch were included in the PSM. The PSM routine was completed with a one-to-one, greedy matching procedure that uses a selection caliper (less than .1 of a standard deviation unit). A total of 4,838 comparison subjects were selected and matched to the experimental groups. Summary statistics of postmatch results are also provided in Table 1, and additional sample descriptives for all pre- and postmatch measures are provided in Appendix C. The

<sup>17.</sup> The following formula, created by Rosenbaum and Rubin (1985), was used to calculate the standardized absolute differences in percentages,  $100(\bar{X}_t - \bar{X}_c)/([s_t^2 + s_c^2]/2)^{1/2}$ , where  $\bar{X}_t$  and  $\bar{X}_c$  are the means for the treatment and control groups, respectively, and  $s_t^2$  and  $s_c^2$  are the variances.

TABLE 2 **Outcome Descriptives by Follow-Up Period** 

Outcome	n	E1 and C %/M(SE)	n	E2 and C %/M(SE)	n	SAC and C %/M(SE)
Confined Violation	4302	22.5	5374	28.8	9676	26.0
Violation Prison Confinement	4302	11.2	5374	11.1	9676	11.2
Days Confined	4302	14.9(0.6)	5374	17.8 (0.6)	9676	16.5(0.4)
If Violation, Days Confined	947	67.9(2.1)	1148	61.9(1.6)	2489	64.2(1.3)
Conviction (Misd. or Felony)	4302	33.9	5374	29.8	9676	31.7
Felony (any)	4302	18.2	5374	15.6	9676	16.8
Violent Felony	4302	6.4	5374	4.1	9676	5.1
Property Felony	4302	6.3	5374	5.8	9676	6.0
Drug Felony	4302	6.7	5374	5.9	9676	6.2
CD Treatment	4302	17.4	5374	16.3	9676	16.8
CBT	4302	5.7	5374	5.4	9676	5.5
CD Treatment Hours	4302	11.4(0.5)	5374	9.4(0.4)	9676	10.3(0.3)
CBT Hours	4302	2.5(0.2)	5374	1.9(0.2)	9676	2.2(0.1)
If CD, Treatment Hours	750	35.5(2.2)	875	57.7(1.2)	1625	61.3(1.3)
If CBT, Treatment Hours	251	42.4(2.9)	292	35.7(2.0)	543	38.8(1.7)

Notes. C = comparison group; CBT = cognitive behavioral therapy; CD = chemical dependency; E1 = first cohort; E2 = second cohort; SAC = swift and certain group; SE = standard error.

results of the matches revealed suitable comparison group matches for both the E1 and E2 groups. These matched groups were then used to examine the study questions.

After the match, descriptive statistics were created for key outcomes. In Table 2, frequencies are provided for dichotomous outcomes, while means and standard errors are provided for continuous measures. Three columns are presented—one for each match and another that represents the combined (E1 and E2) SAC group.

### Analysis Plan

After the PSM match, analyses were completed for each study question. To examine Hypotheses 1, 2, and 3, cross-tabulations and chi-square tests were computed for dichotomous measures, whereas nonparametric tests (Mann–Whitney U) were computed for continuous count outcomes. <sup>18</sup> For Hypothesis 4, we examined monthly dichotomous (No/Yes) violation outcomes for Any, Serious, Nonserious, and Abscond violations. To examine study group trends across the 12-month supervision follow-up period, binary growth curve models were computed for violation outcomes. The combined SAC group was used to examine Any, Serious, and Nonserious violations, whereas the separate E1 and E2 matched samples were

<sup>18.</sup> It should be noted that Mann–Whitney tests were computed rather than t tests as diagnostic examinations revealed significant right-skewed distributions for all outcomes.

TABLE 3

### **Outcome Event Comparisons by Study Group**

Outcome	%/M(SE)	%/M(SE)	OD /
		( )	OR/r
inement Violation	28.0	24.0***	0.8
n Confinement	19.2	3.1***	0.1
Confinement	24.4(0.8)	8.6(0.3)***	0.2
lation, Days Confinement	85.8(1.9)	37.3(0.9)***	0.5
iction (any)	34.7	28.6***	0.8
ıy (any)	18.0	15.6**	0.8
nt Felony	6.2	4.1***	0.7
erty Felony	6.6	5.4 <sup>*</sup>	0.8
Felony	6.6	5.9	0.9
	16.3	17.3	1.0
	3.6	7.5***	2.2
umber of Hours	8.5(0.4)	12.1(0.5)	0.1
Number of Hours	1.4(0.2)		0.1
, Number of Hours	52.1(1.6)	70.0(2.0)***	0.2
Γ, Number of Hours	39.5(4.1)	38.5(1.7)	< 0.1
0 6 0 / 1 2 1 9	Finement Violation on Confinement of Confirement of Confinement of	on Confinement 19.2 s Confinement 24.4(0.8) solation, Days Confinement 85.8(1.9) viction (any) 34.7 ny (any) 18.0 ent Felony 6.2 erty Felony 6.6 g Felony 6.6 lumber of Hours 8.5(0.4) Number of Hours 1.4(0.2) v, Number of Hours 52.1(1.6)	on Confinement  19.2 3.1***  5 Confinement 24.4(0.8) 8.6(0.3)***  10lation, Days Confinement 24.4(0.8) 8.6(0.3)***  37.3(0.9)***  28.6***  19.2 37.3(0.9)***  28.6***  19.2 19.2 19.2 19.2 19.2 19.2 19.2 19.

Notes. C = comparison group; CBT = cognitive behavioral therapy; CD = chemical dependency; OR = odds ratio; SAC = swift and certain group; SE = standard error.

used for the Abscond violation analysis. Mixed-effects binary logic regression analyses were computed for each model. At the month-level of our growth models, we included both time and study group assignment as violation predictors. Time was modeled as both a linear and a curvilinear (polynomial) trend to assess the shape of monthly violations. Interaction terms were also created with time and the quadratic time measure to assess growth curve shapes between study groups. Finally, monthly exposure time was also included as an offset measure.<sup>19</sup>

### Results

The results of study models are presented for each hypothesis test. For Hypotheses 1, 2, and 3, outcome percentages are presented and chi-square significance tests were completed for dichotomous outcomes, whereas means (standard errors) are presented and Mann–Whitney U tests were computed for count outcomes. Effect sizes are also presented by using odds ratios for categorical measures and correlation coefficients for count outcomes. Findings are presented in Table 3.

To test Hypothesis 1, SAC and comparison group subject differences were examined on the four confinement outcomes. In contrast to the comparison group, SAC subjects

<sup>\*</sup>p < .05. \*\*p < .01. \*\*\*p < .001.

<sup>19.</sup> The offset measure was created by transforming "Days in the Community," multiplying monthly values by the natural log.

were found to have reduced propensities for "Any" (jail or prison) confinement after a violation (p < .001), possessing 20% reduced odds of confinement after a violation. With regard to prison confinement, SAC subjects possessed greater reduced propensities for prison confinement (p < .001) and substantially reduced odds of confinement than did comparison group subjects (OR = 0.1). When examining the number of days confined after a violation, SAC subjects were found to have spent, on average, 16 fewer days confined (p < .001) in contrast to comparison subjects, and this was found to be a moderate effect size (r = 0.2). With regard to the reduced sample of only those subjects experiencing a violation, on average, SAC subjects spent 49 fewer days confined (p < .001) than did comparison subjects, and this was found to be a large effect size (r = 0.5).

SAC and comparison group subject differences were examined on the five reconviction outcomes. SAC participants were found to have significantly reduced reconviction proportions on four of the five outcomes—any reconviction, any felony, violent felony, and property felony—in contrast to comparison subjects. For these four significant contrasts, SAC participants were found to have 20% to 30% reduced odds of reconviction, with the largest reduction identified among violent felonies (OR = 0.7). Objectively, nonsignificant recidivism findings were anticipated as an indication of *maintaining public safety*. Reductions in reconvictions identify an additional level of SAC's effectiveness that exceeded expectations. Although still a reduction, a nonsignificant finding for drug felonies was identified.

When examining program participation, three significant findings were identified, all favoring SAC participants. First, in contrast to comparison subjects, a significantly greater proportion of SAC participants were involved in CBT programming (p < .001). The number of hours of CBT was also significantly greater (p < .001), with SAC participants receiving twice the number of CBT program hours than their matched comparisons received. Lastly, for those offenders that received CD treatment, the average number of hours of SAC participants exceeded that of comparison subjects by nearly 20 hours (p < .001). Although CBT treatment utilization is significantly increased, one might expect an even greater difference; nevertheless, as mentioned, there was an initial slow start of CBT after SAC's implementation. Therefore, one can assume that the CBT utilization difference would likely be even greater with current supervision participants. Furthermore, even though CD utilization overall did not significantly increase as a result of SAC, the policy changes around mandatory terminations after two missed sessions and the restructured fee-forservice contract that the WADOC entered into with treatment providers likely contributed to the significant difference.

To assess Hypothesis 4, and its subcomponents, SAC and comparison group subject differences were examined on the five monthly violation outcomes with mixed-effect binary growth curve models.<sup>20</sup> Model results are presented in Table 4. To provide a

<sup>20.</sup> It should be noted that all analyses included random intercepts and random slopes for each model and examined covariation between random effects by using an "Unstructured" covariance structure.

TABLE 4

Binary Growth-Curve Models of Community Corrections Violations

			SAC vs. C		E1 vs. C	E2 vs. C
Comparison	Predictor	Any	Serious	Nonserious	Abscond	Abscond
SAC vs. C	Fixed Effects	OR(SE)	OR(SE)	OR(SE)	OR(SE)	OR(SE)
	SAC	1.05(0.10)	0.68(0.05)***	1.11(0.11)	1.87(0.22)***	0.63(0.06)***
	Time	0.46(0.07)***	0.41(0.09)***	0.41(0.07)**	0.44(0.10)***	0.45(0.14)*
	Time <sup>2</sup>	0.71(0.05)**	0.72(0.04)***	0.75(0.05)***	0.74(0.06)***	0.91(0.07)
	Study Group × Time	0.69(0.09)**	0.60(0.07)***	0.82(0.10)		0.64(0.10)**
	Study Group $\times$ Time <sup>2</sup>	1.20(0.11)*	_	1.21(0.11)*	_	_
	Random Effects	Logit(SE)	Logit(SE)	Logit(SE)	Logit(SE)	Logit(SE)
	Time	2.48(0.08)*	1.54(0.10)*	2.35(0.08)*	1.82(0.16)*	0.64(0.26)*
	Inter.	3.63(0.07)*	2.54(0.06)*	3.42(0.07)*	2.46(0.07)*	2.27(0.08)*
	Corr. (Inter. Time)‡	0.02(0.06)	0.32(0.09)*	0.03(0.06)	0.15(0.10)	0.39(0.32)
	Log Likelihood	-17,155.13***	-12,881.86 <sup>***</sup>	-16,307.59***	-5,518.11 <sup>***</sup>	-5,599.11***

Notes. The natural log of days of a given month in the community (Log  $\times$  Exposure) was used as an offset measure in all models. Time and Time<sup>2</sup> measures were converted to orthogonal scales for use in binary logistic models. C = control group; E1 = first cohort; E2 = second cohort; OR = odds ratio; SAC = swift and certain group; SE = standard error.

visual representation of each model, Figures 1 through 5 were created by using subjects' predicted probabilities provided from each model. As mentioned, the combined SAC group (E1 and E2) was used to analyze three of the five violation growth trends, whereas separate trends were used to examine absconding violations trends pre- and post-policy modification.

When examining the monthly growth trends of Any violation, what is most notable is the lack of significance via SAC participation. That is, despite the anticipated early increase in the frequency of violations (as shown in Figure 1), the monthly proportion of offenders violating in the SAC group reduces over time and average group differences are nonsignificant. While retaining a slightly larger proportional average, contrasted with the comparison group, the SAC's curvilinear trend reduces to a near equivalent level. The significant interaction (Study Group  $\times$  Time) indicates a greater reduction of violation propensity over time, which is a key indicator of SAC's effectiveness (p < .05).

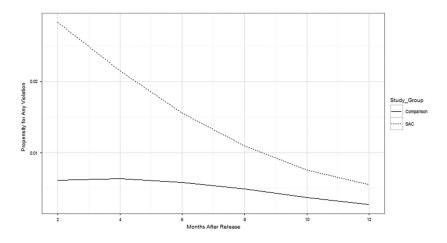
Serious violation trends are depicted in Figure 2. The notable difference from the Any violation growth trend is the significant effect of SAC participation (p < .001), where participants demonstrate a 32% reduced odds of serious violation in reference to comparison group subjects. While similarly establishing a greater predicted frequency of serious violation in the initial 4 months, this trend inverts, with SAC participants indicating a reduced likelihood over time. With regard to deterrence principles, the reduced likelihood of Serious violations is an anticipated finding and suggests that SAC's ability to deter such

<sup>&</sup>lt;sup>‡</sup>All models used an "unstructured" covariance structure.

<sup>\*</sup>p < .05. \*\*p < .01. \*\*\*p < .001.

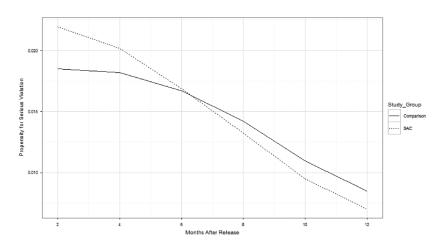
FIGURE

### Violation (Any) Growth Rates by Study Group Over Time—SAC vs. C



### FIGURE 2

### Serious Violation Growth Rates by Study Group Over Time—SAC vs. C

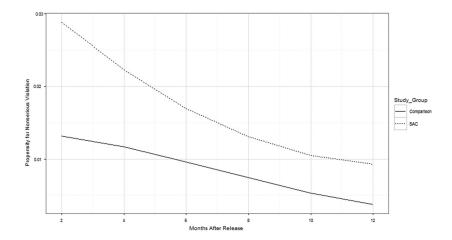


violations by more consistency and certainty in establishing offender accountability for all violations is preventing violations that are more impactful to public safety, over time.

When examining Nonserious violations (Figure 3), a slightly different trend is established. Although SAC participants possess a greater propensity for this violation type, the contrast to comparison subjects fails to reach significance. Even though the effect of Nonserious violations changes significantly over time (p < .001), the interaction of study

### FIGURE 3

### Nonserious Violation Growth Rates by Study Group Over Time—SAC vs. C



group and time is nonsignificant. Overall, the findings indicate that, despite a slightly larger propensity to commit Nonserious violations, participation in SAC has little-to-no impact on this violation type generally and across time.

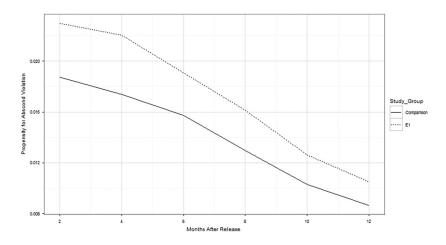
Abscond violations. As a result of the discussed and unforeseen need to adjust the SAC policy regarding absconding violations, it was necessary to conduct additional growth curve analyses. In contrast to prior analyses, the two SAC groups (E1 and E2) were analyzed separately. In the first examination, the E1 group was contrasted with its matched comparison subjects. As depicted in Figure 4, prior to the policy change, SAC participants possessed significantly greater propensities (on average) to commit absconding violations (p < .001). This finding was anticipated along with the logical motivation to make the described policy change, creating the distinction between missed CCO contacts ("low-level") and absconding ("high-level") violations.

After the described policy change, the inverse trend is observed (Figure 5). As indicated, SAC participants possess a reduced likelihood of committing an absconding violation (p < .001), lowering their odds of committing this violation type by 37% in contrast to comparison subjects. This trend is also impacted by time as SAC participants possessed a greater decreased monthly likelihood of absconding by contrast to comparison subjects at a greater rate (Study Group × Time; p < .01). When the results of the E1 and E2 analyses were combined, it was observed that the SAC policy change surrounding absconding violations was not only necessary but effective in achieving the desired effect, further reducing this specified type of serious violation.

To examine Hypothesis 5, five *t* tests were conducted to assess cost differentials. The mean differences of costs were tested for treatment programming, supervision (prison, jail,

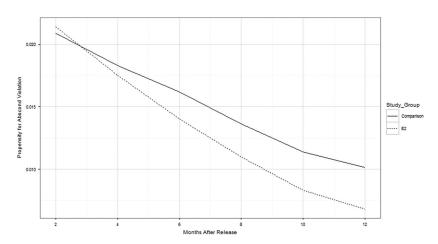
FIGURE 4

### Abscond Violation Growth Rates by Study Group Over Time—E1 vs. C



### FIGURE 5

### Abscond Violation Growth Rates by Study Group Over Time—E2 vs. C



and community supervision), recidivism, and finally total mean costs. The sum of all costs contrasted between SAC and comparison subjects was also reported, from which a ratio of costs to benefits was computed. The results of the cost–benefit analysis (CBA) are presented in Table 5. Differential dollar allotments are organized into Costs, or costs of the treatment program being evaluated, and Benefits, the subsequent benefits of the treatment in the form of reduced DOC incarceration and recidivism costs. Costs of the SAC program included the

T A B L E 5

Average Costs in 2015 USD per Offender

Hypothesis	Cost	CM\$	SAC M\$	t
H4	Costs:			
	Treatment	72.27	99.03	4.58***
	Community Supervision	2,034.03	2,078.36	1.83
	Benefits:			
	Incarceration	1,057.32	292.17	-16.54***
	Recidivism	4,344.71	3,973.38	-0.92
	Total Costs	7,508.33	6,442.93	<b>-2.6</b> **
	Cost-Benefit Ratio	1	16	_

*Notes.* C = comparison group; SAC = swift and certain group; USD = U.S. dollars.

costs of treatment program enrollment and community supervision costs. As anticipated, treatment costs were found to increase significantly for SAC group members, relative to those for comparison subjects. Nevertheless, differences in community supervision costs were not significant, whereas, on average, they were larger for SAC members. In regard to the benefits, incarceration expenses were found to be significantly reduced as a result of SAC participation. Yet, even though recidivism costs were reduced for SAC group members, the differences were not significant. Finally, after combining costs and benefit estimates, the findings revealed significant cost savings for SAC participation, overall. The sum of the costs for treatment programming and community supervision provided to the SAC participants was \$10,534,181, whereas \$10,190,263 was spent on the comparison, resulting in a difference of \$343,917. The total amount of DOC benefits for incarceration and recidivism at follow-up for the SAC and comparison subjects was \$20,636,721 and \$26,135,028, respectively (a difference of \$5,498,307). The amount spent on treatment programming relative to the costs of supervision and recidivism at follow-up yields a costbenefit ratio of 1:16, indicating a \$16 return on investment for every dollar spent on SAC participants.

### Discussion

The current study examined the effectiveness of SAC's achievement of goals related to supervision outcomes and costs—benefits in a statewide rollout for Washington. The findings presented here are consistent with deterrence literature as well as with the promising results of HOPE. Furthermore, our findings demonstrate that a DOC or local jurisdiction can implement SAC sanctions in a meaningful way that results in improved client outcomes and, although successful, that this implementation required leadership, training, and support from staff, similar to that discussed in the implementation of the HOPE Demonstration Field Enforcement (Zajac et al., 2015).

<sup>\*\*</sup>p < .01. \*\*\*p < .001.

SAC builds on the simple idea that where stable compliance can be established through swift, certain, and proportionate sanctioning of violation behaviors, reconvictions (as well as serious and absconding violations) will be reduced as a consequence. In practice, SAC required that every violation received a sanction and mandated CCOs to administer low-level sanctions of 1 to 3 days without formal hearings. Overall, SAC's findings are strongly positive. Many of the positive study outcomes examined were the anticipated results of policy changes, such as reductions in confinement, treatment utilization, and absconding violations. Reductions in recidivism among SAC participants were desired but not anticipated. Although the effects are not universal for SAC (e.g., drug felonies), the positive findings presented here provide evidence for the WADOC's deterrence goals and can build toward further achievements. Furthermore, as one of the primary objectives of the initiative was to reduce correctional costs, there was an expected savings resulting from reduced confinement sanctioning. Greater reductions in the likelihood of any violations were observed over the follow-up period for SAC participants and a reduced likelihood of serious violations was also identified. The benefit associated with reduced reconvictions added to the CBA ratio.

To summarize our findings, our hypotheses tests revealed that:

- 1) SAC participants were found to incur fewer incarceration sanction days after a violation. This reduction was impressive as the odds of confinement were reduced by roughly 20% and the duration of confinement was reduced by an average of 16 days in the initial 12 months after reentry.
- 2) SAC's implementation did *not* impact public safety negatively as participants were found to have a reduced probability of recidivism. SAC participants were found to have 20% reduced odds of any conviction, felony conviction, and property conviction. Furthermore, SAC participants possessed 30% reduced odds of a violent felony conviction.
- 3) SAC participants possessed greater treatment program utilization. The findings indicate that SAC participants had an increased participation and duration of both chemical dependency and cognitive behavioral therapies, with many significant differences identified in the 12 months after reentry.
- 4) SAC participants greatly reduced their propensity of committing "Any" and "Nonserious" violations and a reduced propensity for "Serious" violations. Variations were found among "Absconding" violations as well, where policy alterations for this violation type indicated that SAC participants incurred greater absconding propensities prior to the policy change, whereas those that participated after the policy change possessed reduced propensities in reference to comparison subjects.
- 5) Participants incurred lower correctional and associated costs. Specifically, a cost-savings ratio of \$16 saved for every \$1 spent on SAC was identified.

It is important for readers to note that our null findings relating to drug felonies seem to coincide with the findings of the other two studies in this issue (Lattimore et al., 2016; O'Connell et al., 2016). Readers should note that many prior deterrence-based programs touting SAC sanctions (e.g., HOPE) were created to target drug offenders. In this issue alone, three methodologically sound studies have now highlighted a limited effect of such a program on drug offenders and drug recidivism.

### Fidelity to Deterrence Principles

With regard to community supervision, sanctioning of violations is used to serve the end goals of deterrence, appealing to the individual's cost-benefit calculus. Although, as indicated, questions have been raised about the effectiveness of deterrence, models of focused deterrence strategies such as Hawaii's HOPE project, as well as the findings posited by the current study, suggest that deterrence is effective if used properly. That is, the study's positive findings might be a function of SAC policies forcing community corrections practice to adhere to core deterrence principles—certainty, celerity, and severity. SAC was able to curb and structure the discretion of community supervision officers in a way that created an efficient, assembly line of violator sanctions that were swift, certain, and proportionally severe. Proportionality, in this sense, is almost relative to the fact that an alternative punishment is revocation, which decreases the importance of noncriminal technical violations. Proper implementation of a program of this scope, however, is rarely an easy task within a government structure such as community supervision. The field is replete with examples of policy and program "drift," and as political pressure to control and "get tough" on crime emerged in the 1980s and 1990s, correctional practices drifted away from the principle of proportional severity. As a result, swiftness and certainty were less consistently applied (for deeper discussions of such examples, see Bottoms, 1995; Clear, 1994; Monterosso, 2009; Tonry, 2001).

One rationale for SAC's success was its method of structuring officer discretion. Qualitative findings have shown that the method and severity of sanctions applied to violations of community supervision (probation) is decidedly idiosyncratic and allows for community corrections officers to employ a great deal of discretion (Steen, Opsal, Lovegrove, and McKinzey, 2013). Although a vast amount of research has been conducted to predict recidivism of offenders (e.g., Andrews, Bonta, and Wormith, 2006), the discretion used by community supervision officers can make it difficult to evaluate empirically the nature, frequency, and common characteristics of offenders and community corrections violations. Many minor violations (i.e., treatment termination, failed drug screens, and missed office visits) often do not result in a sanction or confinement. Generally, only after a major violation or an accumulation of minor violations is an offender sanctioned to confinement, often with few-to-no preceding intermediate sanctions. Furthermore, the threshold of violations required for sanctioning varies by officer, offender, and region. It was for this reason that community correction's use of confinement sanctions has been considered overly

punitive and costly (Drake and Aos, 2012; Grattet et al., 2009; Lin, Grattet, and Petersilia, 2010).

Despite the existence of sanctioning grids, the inherent discretion afforded to community supervision officers has created substantial variations in violation enforcement that differs from state to state, as well as from county to county (e.g., Steen et al., 2013). This discretion provides great leeway to correctional officers to make decisions about violation sanctions that are not necessarily substantiated by, and sometimes in opposition to, empirical evidence (e.g., administrative overrides as discussed by Gottfredson and Moriarty, 2006). The lack of consistency that surrounds sanctioning can create confusion and diminish correctional goals; where too much leniency is thought to not hold offenders accountable and enable criminal behavior, strict enforcement may unfairly remove offenders from the community, as well as extend their time in the system and prevent prosocial behavior.

In recent years, the discretionary nature of applying sanctions has become the focus of policy changes and has driven efforts to find effective, yet efficient, ways to address violations. For instance, several states have partnered with the National Institute of Corrections to undergo an integrated case management approach, which emphasizes the use of graduated sanction systems and sanctioning guidelines, to provide both incentives and sanctions after positive/negative offender behavior (Bumby et al., 2007; Burke, Herman, Stroker, and Giguere, 2010). Derived from dosage studies surrounding the provision of sanctioning and incentives in drug courts, the graduated provision of strategies and tactics to be applied after offender behavior has demonstrated effectiveness in reducing antisocial behavior (Marlowe and Kirby, 1999; Marlowe and Wong, 2008; Wilson, Mitchell, and MacKenzie, 2006). The key takeaway from this research is that systems of supervision must determine the right dosage of confinement when dealing with violators, especially given that research has shown that the overuse of confinement is ineffective, criminogenic, and may create adverse effects such as family, treatment, and employment disruption (Austin and Fabelo, 2004; Cullen, Johnson, and Nagin, 2011; Drake and Aos, 2012; Hawken and Kleiman, 2009).

Of course, in addition to the potential positive aspects surrounding the structuring of discretion and use of deterrence principles, such strict adherence may also yield unintended consequences that are not captured in this analysis. For instance, the highly structured parameters on discretion among supervision officers may have adverse effects on both officers and offenders. Our examination found substantial overlap in the opinion of officers and offenders.<sup>21</sup> Both groups held strong negative opinions about the lack of discretion provided under SAC. In addition, there was a desire to individualize case management, providing a wider array of interventions for offenders. A larger point to consider here is

<sup>21.</sup> Although not feasible to include in the discussion of the current study's results, additional focus group and other qualitative findings of SAC's implementation will be published in future manuscripts and are briefly discussed in a report of technical findings (van Wormer et al., 2015).

that the officer's role in Washington may have shifted, yet again, from social worker to law enforcer. This shifting can wear on officers (Lutze, 2013). Especially when considering the amount of resources and time it takes for rural officers to conduct an arrest, it is possible that officers will allow other preventive responsibilities, such as home visits, to be delayed or omitted from their regimen entirely (Hamilton, van Wormer, Kigerl, et al., 2015). Officers may experience such issues as added stressors that create a drop in job satisfaction and increased burnout as their ability to individualize treatment plans has been truncated/eliminated from the job (Lutze, 2013). This may increase the likelihood that officer positions will have a higher rate of turnover and enjoy less rapport with their client populations.

Nevertheless, current supervision practices in many states lack such adherence to deterrence principles, which also provide potential pitfalls. The disproportionality of violation sanction severity, coupled with wide or unbridled officer discretion, creates an inconsistent application. These processes likely prevent sanctions from being applied swiftly, with certainty, and with appropriate intensity. The changes provided through SAC were focused on creating formal guidelines for certainty and swiftness of confinement sanction delivery, and substantial modifications were made to confinement durations to establish greater proportionality than in traditional supervision with regard to minor and major violations.

### Limitations

Although our study is robust and expansive, it is not without important limitations. For one, we made use of a 12-month follow-up period. Even though 12 months is sufficient to examine violations of WADOC offenders, as most offenders are supervised for 12 months or less, this duration is likely viewed as less than ideal for recidivism. Despite a large proportion of recidivism occurring during the first months after release (Langan and Levin, 2002), an 18- to 36-month follow-up is considered appropriate to evaluate reconvictions after reentry (Barnoski, 1997; Hamilton and Campbell, 2013; Taxman and Thanner, 2006). An 18- to 36-month duration was simply not feasible with the current study, however, and given SAC's focus on supervision violations, the reduced duration of follow-up was viewed as sufficient for the primary policy goals. We will continue to monitor the participants going forward, examining if, and how much, outcome findings might change over time.

As mentioned, randomization of SAC and control group subjects could not be implemented for the current, retrospective study. Thus, a historical comparison was created. Because this method lacked the ability to control for other WADOC policy changes and associated impacts, additional factors may be contributing to the reductions in recidivism identified. Although the reduction in recidivism cannot be isolated to SAC alone, it is highly probable that the reductions in reconvictions were a result, in large part, of SAC. We can also say with confidence that public safety was, at the very least, maintained after SAC's implementation as nearly all findings indicate that recidivism and violation behavior reduced

after SAC's implementation. Conversely, as discussed, the discretion and inconsistency of violations recorded prior to SAC's implementation provided a conservative estimate of violations. SAC's improved reporting practices likely contributed to violation rates that were higher than reality. Therefore, SAC's impact on violation reductions is likely underestimated in the current study.

The current study examined the overall effect of the policy. It is possible that deterrence has a variant effect for some individuals more than for others and/or that sanctioning dosage is important to maximize the efficiency of the policy. Moreover, it is possible that such a variant effect among individuals may be a product of the perceptions one holds regarding the deterrence components of the punishment (i.e., swiftness, certainty, and severity). The individual's calculus as well as perceptions of fairness and other measures of procedural justice that likely influence the punishment process are not accounted for here. Although these important aspects are unexamined by the current study, such detailed examinations further exploring the effects of SAC should be a topic of future analysis.

Finally, the current study examination was primarily focused on specific deterrence. That is, the tested hypotheses were formulated to examine its impact on the SAC group participants. The reductions of recidivism may be perceived as initial indications of general deterrence, where SAC efforts are beginning to impact the more serious, criminal behavior propensities as the program continues to reduce propensities of reconvictions based on the observed, or indirect, effects of the program's provision. Nevertheless, it was not feasible to examine both deterrence types within the same study. Efforts to examine SAC's general deterrence effects will be the focus of additional studies currently in preparation.

### Conclusion

Since the promising results of HOPE, many states have ventured to test similar focused deterrence strategies. By expanding the applicable population and scope of the project beyond that of other pilots, Washington State's SAC policy provides a more definitive evaluation of deterrence principles. Specifically, this study confirms that a state DOC can implement a system-wide policy that reduces the discretion of officers but increases the deterrent impact (swift and certain) of their responses. SAC's effects were demonstrated with a heterogeneous and notably high-risk community corrections population. As a result, the WADOC population possessed a greater propensity for recidivistic outcomes and increased incident severity than did prior examinations. The expansive sample resulted in a relatively large data set rarely observed in evaluation research. This large-scale data collection allowed for the examination of violation propensities via growth curve models, illustrating the program's intended effects over time. The study's modeling effort has not yet been attempted for correctional populations and represents a novel illustration of the effect of SAC that will likely be replicated in future correctional program evaluations and examinations of deterrence. Therefore, this evaluation of SAC fills an

important gap in existing research while providing a guide for state supervision practices nationwide.

What is most remarkable about SAC is a potential reconceptualization of the deterrence model in crime control policy. Although deterrence is often used as a rationale to increase the use of incarceration and the duration of offender sentences, it seems here that fidelity to the deterrence principles is important. Specifically, as was the case in Washington, when the duration of sanctions was provided disproportionally and/or with greater severity than necessary, the other principles (swiftness and certainty) were provided idiosyncratically. Once SAC was implemented, the severity of low-level violation sanctions was greatly reduced, which allowed for swiftness and certainty to be reestablished. The reduced sanction durations allowed offenders to have a margin of error, where one violation (or even a few violations) would likely not result in the loss of their job, housing, or treatment slot. Our results indicate that greater severity of sanctioning does not improve the effectiveness of said sanctioning, and that reducing the duration of violation sanctions after a low-level violation provides no appreciable increase in recidivism and produces reductions over time.

Fidelity to the deterrence doctrine has the potential to create logistical problems with regard to confinement (Harrell, Mitchell, Merrill, and Marlowe, 2004; Harrell et al., 2003; Mitchell and Harrell, 2006). In the case of the Breaking the Cycle (BTC) program, the model involved heightened drug testing, use of drug treatment for high-risk offenders, and sanctions from officers as well as the specialty court. Adherence to the BTC model in one site (Tacoma, WA) was associated with severe jail overcrowding (Mitchell and Harrell, 2006). Relatedly, studies of BTC have suggested that such an intervention should target select groups of eligible offenders to build credibility to the threat of a sanction (e.g., Braga and Pierce, 2005), thereby allowing the system to not have to rely so readily on confinement sanctions (Harrell et al., 2004). Although further study is needed, it is possible that many of the overcrowding issues related to prior deterrence strategies have more to do with length of stay than with an increased use of short-term sanctions, as practiced in SAC.

Last, it is essential to understand discussions and progressions of SAC and HOPE-like policies in the context of resource reinvestment. Although the WADOC's initiative was not formally under the scope of JRI, the basic conception and execution mirror that found in justice reinvestment initiatives (Clear, 2011; Kleiman, 2011; LaVigne et al., 2014). Perhaps the aspect of SAC that may best withstand the test of time and differential settings is that of cost savings. Specifically, the potential to reinvest such savings in evidence-based, crime-reduction programs provides a renewed resource for efforts such as community-based treatment, restorative justice practices, or the establishment of incentives or positive reinforcers to be integrated with punishment. Even though calibration of violation sanctioning dosage will likely need to vary from jurisdiction to jurisdiction, the current results extend the promising findings of HOPE and indicate that SAC's broader application of deterrence-based supervision can substantially reduce the impact of incarceration to both offenders and taxpayers, all while maintaining public safety.

### **Appendix A: WADOC Behavior Accountability Guide**

### **VIOLATIONS**

### **High-Level Violations**

### Low-Level Violations

All other violations not listed as

- 6th or subsequent low-level violation process on an open cause
- Weapons use/possession
- Contact with a prohibited business/location or person
- Domestic violence—related violation behavior
- Threatening/Assaultive behavior
- Search refusal
- Use of device/adulterants to interfere with/alter the UA process
- Unauthorized possession of ammunition or explosives
- Absconding from supervision as defined in DOC 350.750 Warrants, Detainers, and Holds
- Unapproved residence for a sex offender (current offense)
- Failure to submit to a scheduled polygraph test
- Any behavior resulting in a new misdemeanor, gross misdemeanor, or felony arrest that requires a Failure to Obey All Laws violation hearing (Underlying Felony offenders only)

### VIOLATION PROCESSES

### 1st Low-Level Violation Process or a Mitigated Arrest—Stipulated Agreement

 If the offender refuses to sign the stipulated agreement or is arrested on a Secretary's Warrant, he or she is ineligible for the nonconfinement option

### 2<sup>nd</sup>—5th Low-Level Violation Process—Mandatory Arrest

- 1—3 days confinement
- Misdemeanor offenders with insufficient suspended confinement time remaining will be referred back to the sentencing court for revocation/termination

# 6th+ Low-Level Process, all High-Level Violations, Low-Level Violations with validated aggravating factor(s), and all Combination Violations (contains both High and Low Violations)—Mandatory Arrest

- Proceed with a Department hearing with a maximum of 30 days confinement
- Misdemeanor offenders with suspended confinement time remaining may have a Department hearing or be referred back to
  the sentencing court for revocation/termination. Misdemeanor offenders with no suspended confinement time remaining
  must be referred back to the court.
- Mandatory 30-day sanction for threats/assault violations committed against employees or their families

### AGGRAVATING FACTORS

# to address Low-Level Violation through a Department Hearing (must be directly related to the alleged violation)

- Escalating aggression
- Behavior during the commission of the violation that manifested deliberate harm, cruelty, or intimidation of the victim(s)
- Physical resistance
- Posing a significant risk to public safety while failing to comply with Department-imposed electronic monitoring
- Offense Cycle Behavior that indicates potential harm or threat of harm to a previous or potential victim(s)

<sup>\*</sup>A low-level violation can be addressed through a Department hearing if defined aggravating factors are present and validated per DOC 460.130 Violations, Hearings, and Appeals.

# Appendix B: WADOC Pre- and Post-SAC Policies

Policy Area	Policy Pre-SAC	Policy Change to Support SAC	Interim Policy Date	Interim Policy Date Standard Policy Date
Intake	Added Policy statement II. On interim policy for staged implementation sites.	Adjusted order of intake process. Adjusted references to other policies.	04/19/12	12/6/13
Arrest and Search	Emergency Arrest.	Emergent Arrest: Defined as an unexpected event that requires prompt attention.	06/01/12	12/6/13
Community	Added interim policy for staged implementation sites.	Incorporated interim policy changes.	04/19/12	12/6/13
Supervision	KIOSK can be used to supplement, but not replace, in-person reporting for High- and Moderate-risk offenders, and Low-risk offenders required to register. DOSA offenders can use KIOSK but also have weekly in-person contact. Nonregistered Low-risk offenders primarily managed by KIOSK. KIOSK may be used to enhance, but not replace, reporting for homeless offenders. KIOSK may be used as a supervision enhancement of legal financial obligations and to assist in scheduling of drug testing requirements.  Community Corrections employees will provide office coverage to ensure that services are available to offenders and stakeholders during requirant brisiness hours.	KIOSK reporting may be used as an enhancement to supervision, but it will not substitute for required face-to-face contacts per new schedule.  Community Corrections employees will provide office coverage to ensure that services are available to offenders and stakeholders during regular business hours. Exentions may be annowed by		
		the Field Administrator/designee.		

Policy Area	Policy Pre-SAC	Policy Change to Support SAC	Interim Policy Date	Interim Policy Date Standard Policy Date
	<ul> <li>High Risk/High Violent: 3 face-to-face per month, 1 of which is out of office and 1 collateral contact per month.</li> <li>High Risk/Nonviolent: 2 face-to-face contacts per month.</li> <li>High Risk/Nonviolent: 2 face-to-face contacts per month, 1 of which is out of the office and 1 collateral contact per month, 1 face-to-face contact out of the office per quarter, and 1 collateral contact per month.</li> <li>Registered Low Risk: 1 face-to-face contact per month, 1 face-to-face contact out of the office per quarter, and 1 collateral contact per month.</li> <li>All other Low Risk: KIOSK reporting when change occurs to address, phone, employment, contact information, or if arrested.</li> <li>Homeless Offenders: 1 face-to-face contact per week in the field if possible.</li> </ul>	High Risk/High Violent: 3 face-to-face per month, 1 of which is out of foffice and 1 collateral contact per month.  High Risk/High Wolent: 3 face-to-face per month, 1 of which is out of fine and 1 collateral contact per month.  Wolerate: 1 face-to-face contact per month, 1 of which is in the office and 1 collateral contact per month.  Moderate: 1 face-to-face office contact per month.  Registered Low Risk: 1 face-to-face contact per month.  All other Low Risk: RiOSK reporting when change occurs to address, phone, employment, contact information, or if arrested.  Homeless Offenders: 1 face-to-face contact per week in the field if possible.	4/19/12 and 06/01/12	12/6/13
Violations, Hearing's and Appeals	Violations, Hearing's Violation response time: "as soon as practical, but not more than and Appeals 14 days."	Violation response time: "at earliest opportunity, but not more than 3 business days."  For those offenders that are SAC eligible and were sentenced before 05/31/12, they must have an orientation to new policy. Those sentenced after 05/31/12 can be sanctioned under SAC regardless of orientation.		

Policy Area	Policy Pre-SAC	Policy Change to Support SAC	Interim Policy Date	Interim Policy Date Standard Policy Date
	<ul> <li>High-level violations</li> <li>6th or subsequent low-level violation process on an open cause.</li> <li>6th or subsequent low-level violation process on an open cause.</li> <li>6 Search refusal.</li> <li>6 Weapons use/ possession</li> <li>6 Contact with a prohibited business/location where the offender's presence posses a threat of physical harm to a previous</li> <li>6 Unapproved resort postential victim.</li> <li>7 Contact with a prohibited person(s) where the offender's presence poses a threat of physical harm to a previous or potential victim.</li> <li>8 Any behavior misdemeanor, potential victim.</li> <li>9 Domestic Violence—related violation behavior that poses a threat of physical harm to a previous or potential victim.</li> <li>9 Threatening Ascaultive behavior</li> <li>10 Threatening Ascaultive behavior</li> <li>11 Threatening Ascaultive behavior</li> </ul>	High-level violations – added the following:  Search refusal.  Use of device/adulterants to interfere/alter UA process.  Unauthorized possession of ammunition/explosives.  Absconding from supervision.  Unapproved residence for sex offender.  Failure to submit to polygraph test.  Any behavior resulting in a new misdemeanor, gross misdemeanor, or felony arrest that requires a failure to Obey All Laws violation hearing (Underlying Felony offenders only).	4/19/12 Revised: 6/1/12 Revised: 6/8/12 Revised: 8/3/12	12/6/13
Warrants, Detainer's and Holds	Secretary's Warrant (SW) issued for absconding.	Warrants may now be issued for violations of supervision, not just absconding.  Absconding now includes (a) Offender fails to report and a Secretary's Warrant (SW) is issued and they have not turned themselves within 7 days; (b) travels out of state without permit and is arrested for a new crime; (c) fails to report after a conditional release. Absconding is now a high-level violation and requires a hearing.  "Escape" no longer used in violation behavior; it is a crime.  Prior to issuing an SW, staff must attempt to call offender by phone.	4/19/12 Revised: 6/1/12 Revised: 6/8/12 Revised: 8/3/12	12/6/13

Appendix C: Propensity Score Modeling and Sample Descriptives

				Prematch				Postmatch	_	
Model Fit Summary Percent Significant Differences Mean STD Difference Maximum STD Difference				31.7 4.96 19.21 0.64	36.9 4.66 23.53 0.67				4.8 2.09 12.40 0.53	4.8 2.10 10.68 0.53
Domain/Measure	E1 %	E2 %	% <b>)</b>	STD % E1 vs. C	STD % E2 vs. C	E1 %	E2 %	% <b>)</b>	STD % E1 vs. C	STD % E2 vs. C
<b>Demographics</b> Age at time of assessment				3.66	15.95				1.24	0.88
+09	1.8	2.3	2.2			2.1	2.2	2.0		
50–59	8.0	8.8	8.4			8.3	9.0	8.1		
40-49	19.1	19.4	20.4			19.3	20.8	19.2		
30–39	28.1	29.4	27.7			56.9	28.6	27.3		
20–29	39.6	36.8	37.5			39.6	37.1	39.8		
18–19	3.1	3.1	3.6			3.6	2.7	3.4		
<18	0.2	0.1	0.2			0.2	0.2	0.2		
Non-White	31.7	34.0	33.6			33.3*	33.1	33.2	2.26	0.74
Criminal History										
Age at first conviction	*	*		5.16	17.90		<del></del>		2.39	1.88
24 or older	29.0	29.6	32.3			31.1	31.1	28.7		
18-23	34.9	33.7	33.5			33.3	34.0	34.2		
15–18	22.3	22.1	20.5			22.3	19.7	22.3		
<15	13.8	14.5	13.7			13.6	15.1	13.8		

				STD %	% QTS				STD %	% QLS
Domain/Measure	E1 %	E2 %	% <b>)</b>	E1 vs. C	E2 vs. C	E1 %	E2 %	% <b>)</b>	E1 vs. C	E2 vs. C
Number of juvenile felony convictions		* *		5.04	13.96				96:0	0.49
, , , ,	74.7	74.5	77.5			74.8	76.9	74.7		
	12.1	12.4	10.9			11.6	10.6	11.9		
2	6.3	6.5	5.5			8.9	0.9	9:9		
2	3.8	3.3	3.2			3.0	3.1	3.3		
4	1.7	2.0	1.5			1.9	1.5	1.8		
5 or more	1.4	1.3	1.5			1.8	1.8	1.7		
Adult Felony Conviction History										
Violent property				4.80	10.4				1.35	2.43
	13.4	12.2	11.8			12.7	12.3	13.1		
2 or more	2.2	7.8	1.9			2.4	2.3	2.2		
Assault	*			5.86	11.54	<del></del>			0.27	0.05
1	18.2	17.8	17.1			16.6	16.7	17.3		
2	3.0	2.9	2.9			3.5	3.4	3.3		
3 or more	1.5	1.0	8.0			1.2	1.0	1.4		
Domestic assault				1.55	12.02				1.82	0.00
1	12.0	13.0	12.1			11.2	13.0	11.7		
2 or more	4.2	5.0	4.5			4.5	4.7	4.3		
Weapon	*			3.33	2.08				0.21	0.10
	9.5	10.2	8.9			9.7	9.2	6.7		
2 or more	2.2	1.5	1.4			1.6	1.8	2.0		
Property	*	*		7.18	0.49		* *		0.77	1.01
	22.6	23.3	22.5			23.0	23.5	22.3		
2	12.2	12.3	10.8			11.2	11.0	11.8		
$\sim$	7.8	7.5	8.9			6.1	7.3	6.9		
4	3.8	4.9	4.7			4.7	5.0	4.5		
5 or more	2.9	7.3	7.4			0.9	7.3	6.4		

Domain/Measure	E1 %	E2 %	% <b>)</b>	STD % E1 vs. C	STD % E2 vs. C	E1 %	E2 %	% <b>)</b>	STD% E1 vs. C	STD % E2 vs. C
Drug				2.75	5.22				1.90	6.50
, ~	23.1	24.5	24.1			26.1	25.4	24.4		
2	9.6	8.7	8.6			10.4	10.6	8.6		
3 ог тоге	8.6	9.2	6.7			10.8	6.6	10.5		
Escape — 1 or more	5.5	5.1	5.2	0.40	1.72	5.0	5.2	5.4	4.80	1.43
Total number of adult felonies	*	* * *		2.18	4.11		*		0.92	1.68
1	9.0	9.0	11.5			10.0	11.2	8.6		
2	9.2	7.4	9.6			9.5	9.2	9.3		
$\sim$	6.7	8.5	7.9			7.6	7.4	7.2		
4	9.9	7.8	7.0			6.9	6.9	8.9		
5	6.5	5.8	0.9			6.2	5.4	6.4		
9	8.9	5.8	6.2			6.7	0.9	9.9		
7 or more	55.3	55.8	51.9			53.1	53.8	53.9		
Adult Misdemeanor Conviction History										
Assault		*		1.26	4.03				1.40	0.83
	19.0	21.8	19.1			18.4	20.2	18.7		
2	9.5	8.6	8.7			9.6	9.8	9.6		
3	4.5	4.5	3.9			4.3	4.1	4.5		
4	3.2	2.1	5.6			3.2	2.7	3.2		
5 ог тоге	3.1	4.0	3.6			3.2	4.0	3.3		
Domestic assault		***		1.87	9.92				3.46	0.45
7	14.0	15.2	14.4			14.0	16.0	14.1		
2 or more	16.4	18.4	15.1			15.2	17.5	16.2		
Sex				2.38	1.11				0.33	2.05
7	7.8	1.9	2.4			2.2	2.1	2.1		
2 or more	0.7	8.0	6.0			0.7	0.7	0.7		

Domain/Measure	E1 %	E2 %	%)	STD % E1 vs. C	STD% E2 vs. C	E1 %	E2 %	%)	STD% E1 vs. C	STD% E2 vs. C
Domestic Nonviolent – 1 or more	4.1	4.8	4.3	2.87	2.02	4.8	4.6	4.5	4.75	69:0
Weapon —1 or more	7.6	7.4	7.2	0.18	0.63	8.9	7.8	7.5	1.81	2.68
Property	*	***		8.25	11.70				5.03	08.0
1	14.9	14.9	15.4			15.4	14.8	15.0		
2	11.6	11.7	6.6			9.6	10.3	10.5		
3 or more	44.3	45.5	40.9			43.7	46.1	43.9		
Drug				3.36	1.58				0.22	1.76
	16.6	16.5	16.1			17.3	17.4	16.9		
2 or more	8.5	8.4	7.6			8.1	8.1	8.2		
Escape — 1 or more	2.2	5.6	2.3	1.84	0.26	2.5	2.2	2.5	1.40	1.47
Alcohol related—1 or more	27.8	28.8**	26.4	2.05	3.85	26.8	28.0*	27.4	2.87	0.55
Institutional										
Time since last conviction occurred	*	*		2.40	3.57				1.92	4.01
No prior conviction		28.1	28.7			24.8	28.4	23.9		
More than 3 years		12.8	13.7			15.5	13.2	14.9		
18 months to 3 years	14.5	13.8	15.0			13.3	13.7	15.1		
6 months to 18 months		33.4	32.4			34.8	33.7	34.9		
Up to 6 months		11.8	10.2			11.2	10.1	11.1		
Prior prison infractions over the person's incarceration history										
Any infraction	* * *	***		19.21	16.54		* *		1.20	7.37
1103		17.9	19.9			17.2	17.4	17.1		
4 to 10		19.8	17.6			17.1	15.4	17.3		
11 or more	18.9	17.5	12.8			15.9	12.9	16.8		
Violent infractions	*			1.73	2.28	<del></del> -			2.86	1.40
1	9.7	8.3	9.8			6.9	5.0	7.1		
2 or more	8.4	7.0	9.9			3.5	2.1	3.4		

P	6	č	è	STD%	STD%	Š	Š	è	STD%	STD%
DOMAIN/Measure	E1 %	<b>62</b> %	%	E I VS. C	E2 VS. C	EI %	<b>EZ</b> %	%	EI VS. C	EZ VS. C
Serious infractions	* *	*		1.08	4.29	*			6.49	1.36
1 to 2	24.2	22.4	20.4			21.6	20.5	22.7		
3 or more	24.1	21.3	21.4			21.4	20.5	11.6		
Prior prison infractions during most recent incarceration										
Any infraction	***	***		19.09	19.58				1.27	3.41
1 to 2	17.0	14.7	16.2			20.9	20.0	21.3		
3 to 6	17.0	15.1	14.2			19.9	18.4	20.1		
7 or more	17.6	14.9	11.5			17.6	16.0	18.2		
Violent infractions	*			4.77	90:0				0.68	1.10
1	9.7	5.7	8.6			8.4	8.1	9.3		
2 or more	8.4	2.7	9.9			8.8	7.0	8.5		
Serious infractions during current incarceration	***	*		4.56	0.59				1.17	3.92
1102	23.6	20.5	20.1			21.5	31.9	23.2		
3 or more	10.9	9.8	10.1			23.7	17.7	23.9		
Prior technical violations while in the community				2.10	0.75		<del>-;-</del>		1.63	0.01
1	10.7	6.6	11.3			11.6	12.1	11.3		
2	10.4	11.1	11.0			10.6	11.6	10.3		
3 or more	20.9	20.5	19.0			19.0	18.0	20.2		
Education										
Highest grade completed—11th grade or less	31.0	32.1	32.2	2.57	1.15	33.5	33.7	33.5	2.50	2.11
Expelled or quit school prior to high-school graduation				3.03	2.83				1.54	3.90
No—expulsion or quit	34.9	35.5	36.9			34.0	37.6	34.4		
Quit	37.0	38.0	36.9			37.8	33.9	37.8		
Expelled	28.1	26.5	76.2			28.2	28.5	27.8		

				%QTS	STD%				STD%	% QTS
Domain/Measure	E1 %	E2 %	% <b>)</b>	E1 vs. C	E2 vs. C	E1 %	E2 %	% <b>)</b>	E1 vs. C	E2 vs. C
Academic motivation	* *	***		3.07	7.65	+-	*		2.96	0.74
Participating in or has a high-school diploma/GED	39.1	36.1	40.7			40.7	37.8	40.6		
Some/No desire to continue education	57.7	60.5	55.0			54.5	57.2	55.3		
Legal mandate to participate in education	3.2	3.4	4.3			4.8	5.0	4.1		
Employment										
Longest period of continuous employment—Less than 3 years				2.37	0.49				3.27	0.73
More than 3 years	38.3	38.9	38.9			36.9	39.0	37.3		
1 to 3 years	25.5	24.0	25.2			25.2	25.4	25.5		
6 months to 1 year	14.9	15.2	15.9			15.2	15.2	15.3		
Less than 6 months	13.4	13.7	12.7			14.0	12.6	13.6		
Never employed	7.9	8.3	7.2			8.6	7.8	8.3		
General labor skills at time of assessment or reassessment	28.3	27.7	28.8	5.35	0.50	26.1	27.8	26.8	1.67	0.52
Primary source of income during the most recent 6 months in the community	* * *	* * *		6.22	0.49	*			3.67	5.77
Income from employment or student loans	33.6	31.8	36.3			33.5	34.4	34.0		
Income dependent	34.3	38.4	35.8			37.5	37.2	35.4		
lllegal income	32.1	29.7	27.9			29.0	28.4	30.0		
Average monthly legal income	* * *	* * *		11.16	7.68	*			4.01	89.9
\$2000+	10.4	10.8	13.1			11.6	11.3	11.1		
\$1000-\$1999	20.7	19.1	19.9			17.0	19.0	18.2		
Less than \$1000	27.3	28.8	29.4			31.1	30.2	29.0		
No legal income	41.6	41.3	37.6			40.3	39.5	41.1		
Does not possess health insurance of any kind	*			7.23	10.11	*			9.19	4.77
Private insurance	7.0	7.2	7.8			6.5	6.9	6.9		
Suspended, public or tribal	20.2	23.9	22.2			24.0	22.4	21.6		
No health insurance	72.8	68.9	70.0			69.5	70.7	71.6		

Domain/Measure	E1 %	<b>E2</b> %	%)	STD % E1 vs. C	STD % E2 vs. C	E1 %	E2 %	%)	STD% E1 vs. C	STD % E2 vs. C
Employment status at time of assessment		* *		99.9	9.37				3.04	5.75
Full-time employment	23.4	21.9	24.6			23.1	22.0	23.6		
Retired, homemaker, or disabled and unable to work	9:9	6.3	6.2			7.4	9.9	6.9		
Part-time employment	13.1	13.3	13.9			12.9	13.9	13.3		
Unemployed but able to work	56.9	58.5	55.3			9.95	57.4	56.2		
Problems while employed since age 18										
Performance-related issues	20.4	20.8	20.9	0.19	0.28	21.9	21.5	21.3	2.40	1.37
Problems with co-workers	10.4	10.5	10.6	1.36	1.23	10.7	11.6	10.5	4.31	3.17
Antisocial behavior on the job	13.9	12.5	13.1	1.15	1.13	14.4	13.3	14.1	0.05	3.78
Barriers unrelated to employment	22.5	22.7	22.8	1.70	4.73	27.3	23.9	22.7	1.07	2.17
Employment barriers										
Poor social skills	9.6	5.5	5.4	2.73	2.63	5.4	6.3	5.5	1.89	1.70
Education related	8.0	8.0	0.7	3.03	4.10	0.7	9.0	8.0	1.40	5.27
Child care issues	1.2	1.4	1.3	2.84	2.72	1.5		1.3	4.31	5.02
Developmental disabilities	2.4	2.2	2.4	0.30	0.25	2.8	2.7	5.6	6.11	1.63
Mental health issues	8.5	9.4	8.1	0.48	2.36	8.8	9.3	8.3	9.56	2.64
Criminal conviction	46.4	45.2**	42.4	12.96	11.23	44.2†	45.2	45.5	12.4	3.67
Drug use	23.4**	26.6***	20.9	11.25	16.89	22.0	23.7	22.6	2.18	9.72
Hnancial Issues										
No interest in finances	8.6	9.1	8.9	1.49	0.16	9.5	9.0	8.6	4.12	0.91
Problems meeting financial obligations	73.1**	73.8***	6.69	6.89	10.75	73.6	73.6	73.2	1.41	6.71
Relies on public assistance	22.9***	25.9***	19.3	11.92	23.34	22.4	24.3	21.8	6.07	10.68
Relies on family	35.7***	39.3***	31.3	15.93	22.88	35.1	37.1	35.8	2.49	8.44
Pays some child support	4.6	5.0	5.3	3.88	1.65	4.2	4.3	4.6	0.36	2.93
Required to pay child support	93.2**	93.0**	94.6	5.46	6.18	92.5	93.1	93.0	3.45	2.57
Relies on illegal activities	19.0***	18.7***	15.4	9.03	8.32	17.8	17.4	18.4	2.39	2.04
Relies on selling drugs	5.4	4.4	4.8	2.63	1.93	5.6	5.0	5.4	0.34	0.65

				%QTS	%QTS				%QLS	% Q LS
Domain/Measure	E1 %	E2 %	% <b>)</b>	E1 vs. C	E2 vs. C	E1 %	E2 %	% <b>)</b>	E1 vs. C	E2 vs. C
Protective payee	9.0	0.7	9.0	0.24	1.89	9.0	0.7	9.0	1.05	0.00
Cannot manage finances	28.2*	26.0	25.9	5.05	0.25	27.3	25.4	27.8	2.51	3.21
Friends/Associates										
No friends	20.0	21.9**	25.0	11.08	7.55	21.8	22.7	21.3	2.59	0.89
Friends are unstable	10.1	11.1	9.5	4.68	3.89	11.4	10.7	10.1	4.28	0.00
Friends willing to help	67.3**	68.9	2.79	0.80	79.7	68.7	8.69	8.79	99.0	00.00
Has prosocial friends	91.0	91.3**	6.06	0.36	1.41	8.06	91.4	91.0	1.63	1.32
Has antisocial friends	44.0	45.6***	39.2	9.62	12.90	42.5	44.4	43.0	2.12	0.18
Gang member friends	6.1	5.9	4.7	5.79	5.33	5.9	9.9	5.8	0.82	0.27
Antisocial friends in the last 6 months				11.09	10.30				0.73	1.09
No antisocial friends or associates	29.8	30.2	35.4			32.2	31.9	34.1		
Chooses not to associate with antisocial friends or associates	14.2	13.7	13.5			12.4	14.0	13.3		
Almost always resists going along with antisocial friends or associates	15.8	16.0	15.2			15.3	15.8	15.6		
Rarely resists going along with antisocial friends or associates	28.0	28.8	25.1			28.2	27.8	28.1		
Never resists, emulates, or leads antisocial friends or associates  Residential	12.1	11.2	10.8			11.7	10.6	11.7		
Residence primary occupant	20.5	20.9**	23.1	6.55	5.41	22.3	21.0**	21.5	4.71	0.84
Family residence	46.8	46.0*	46.1	1.36	0.09	46.5	45.9	46.2	0.93	0.25
Friends residence	11.5	11.7*	11.8	0.82	0.22	12.3	11.9	11.8	2.07	0.29
Group home	3.8*	3.7*	3.1	3.82	3.31	3.8*	3.6	3.1	0.40	0.33
Residential treatment	1.2	0.2	1.0	1.88	3.19	1.2	8.0	1.0	0.35	4.61
Homeless	6.3	8.9	6.1	1.14	3.10	5.7	6.7	0.9	2.73	2.36
Transient	9.8	10.1	8.9	3.21	3.96	8.7	*6:6	9.4	4.17	0.00
Reside with spouse	22.6**	24.3	24.5	4.44	0.50	22.9	24.4	22.6	0.83	1.41
Resides with positive friends	8.6	8.9	9.6	0.85	2.34	6.6	9.1	9.4	1.82	3.89
Reside with adult children	2.7	2.2	2.8	0.17	4.16	2.8	2.1	2.7	0.47	1.67

Domain/Measure	<b>E1</b> %	E2 %	%)	STD % E1 vs. C	STD% E2 vs. C	E1 %	E2 %	%)	STD% E1 vs. C	STD % E2 vs. C
Reside with father	5.1	5.3	5.0	0.41	1.34	5.1	5.4	5.2	0.88	1.18
Reside with minor children	13.6	13.3†	10.0	3.99	4.82	13.3	13.7	13.4	1.47	3.89
Reside alone	8.1	9.7	8.4	1.12	3.22	8.1	7.6	8.2	95.0	1.65
Resides with mother	22.5	28.1	21.5	2.31	0.51	23.0	21.9	22.9	1.49	1.69
Reside with father	12.3***	12.3**	12.7	1.50	1.42	12.2	12.6	12.3	0.35	89.0
Residential support				8.70	86.6				0.45	1.94
Strong prosocial environment	25.7	24.8	26.3			25.4	25.6	25.5		
Living in a remote and isolated area with minimal or neighborhood influence	2.9	3.0	2.9			3.0	3.0	3.0		
Some exposure to antisocial influence, lacking ties/attachment to neighborhood	47.0	48.1	48.1			49.1	48.7	48.2		
Significant barriers (frequent crime, drug transactions, police presence) Family	24.4	24.1	22.8			22.5	22.7	23.0		
Number of minor children				3.74	2.18				1.71	1.55
No minor children	51.7	51.3	52.6			53.0	52.2	52.7		
	19.9	21.9	21.2			19.9	22.2	19.6		
2 or more	28.4	797	26.1			27.1	25.5	27.7		
Offender living with minor children at the time of the offense	19.2	17.9	19.2	0.32	5.13	18.0	17.8	18.6	2.68	0.94
No minor children	20.0	49.3	50.2			20.7	50.3	50.7		
Offender plans to reestablish relationship with the child	32.2	33.9		0.97	2.84	31.3	31.9		0.85	0.35
No minor children	51.7	51.3	52.5			53.0	52.2	52.7		
Currently residing with minor children	8.6	8.4	9.4			9.5	8.9	6.4		
No current partner relationship	64.8	64.9	64.3	1.18	1.38	9.59	65.2	65.3	0.89	0.58
Positive partner influence	81.5	82.5	81.2	0.90	3.46	87.8	82.4	82.0	2.80	0.16
Negative partner influence	3.8	3.5	4.1	1.17	3.10	4.2	3.5	4.0	2.43	9.12
Partner enables antisocial tendencies	2.2*	1.8	1.9	2.26	97.0	2.3	1.8	2.3	0.53	2.36
Partner with drug or alcohol problem	8.9	6.4	6.3	1.97	0.52	7.9	0.9	7.1	1.55	5.86
Partner antisocial	3.6	3.4*	3.1	2.56	1.55	3.9	3.5	3.6	2.12	1.73
Partner criminal	5.2	4.8	5.3	0.44	2.50	5.9	4.7	5.3	3.17	6.79

				% QLS	%QLS				% QLS	% QLS
Domain/Measure	E1 %	E2 %	% <b>)</b>	E1 vs. C	E2 vs. C	E1 %	E2 %	% <b>)</b>	E1 vs. C	E2 vs. C
Partner has employment problems	1.9	1.9	1.6	2.22	2.23	1.6	1.8	1.8	2.56	1.18
Partner mental health issues	1.9	1.6	1.7	1.46	79.7	1.4	2.0	1.6	3.19	2.49
Partner conflict domestic violence perpetrator	0.5	*8.0	0.7	3.45	1.02	9:0	6.0	0.7	2.28	0.00
Partner conflict domestic violence offender is perpetrator	3.0	3.7	3.2	1.42	2.75	3.4	2.7	3.3	2.32	5.24
Partner help occasional	70.9	71.4	71.9	2.16	1.11	73.0	70.5	7.1.7	4.02	1.38
Partner not willing to help	2.1	2.7	2.8	4.78	0.04	3.1	2.8	2.6	6.63	2.49
Partner hostile relationship	0.7	8.0	9.0	0.54	1.91	0.4	6.0	9.0	1.92	1.39
Family influence positive	43.3	44.5	47.0	7.22	5.15	46.1	46.4**	45.7	1.57	0.94
Family influence negative	2.2*	2.1	1.9	2.43	1.36	2.0	1.8	2.0	1.58	1.32
Family estranged	2.9	2.5	2.5	2.47	0.08	3.2	2.2	3.0	3.10	6.36
No family problems	37.5	37.1*	40.7	6.57	7.35	39.8	38.8*	39.5	0.72	1.74
Family problems alcohol	4.1	4.6	4.1	0.38	2.16	4.6	4.2	4.2	2.39	9/.0
Family problems antisocial	2.1	1.91	1.7	2.89	1.83	1.9	1.7	1.8	1.10	1.16
Family problems criminal	2.8	3.2	5.6	1.23	1.99	2.9	2.4	5.6	2.13	2.70
nt problem	1.5†	1.0	1.1	2.87	1.62	1.2	6.0	<u></u>	3.59	2.30
Family member physical or mental health problems	4.8	4.4	3.4	6.43	4.71	4.2	3.9	3.7	4.81	1.61
Family conflict domestic violence perpetrator	0.2	0.1	0.2	0.14	1.91	0.3	0.1	0.2	2.65	2.65
Family conflict domestic violence (offender is perpetrator)	0.5	0.2	0.5	0.52	1.83	9:0	0.4	9.0	1.09	3.43
Family help occasional	29.5	29.3	34.0	9.80	10.23	32.5	31.5	32.0	1.27	1.83
Family not willing to help	3.2	3.1	3.2	0.79	0.70	3.2	2.7	3.2	1.73	2.21
Family hostile	0.4	0.4	0.4	0.94	0.04	0.5	0.3	0.4	0.59	1.1
No minor children	51.7	51.4*	52.6	1.89	2.42	53.2	52.5	52.8	1.48	0.43
Minor children no current contact	**0.6	11.7	8.9	0.19	8.84	9.7*	11.0	9.0	89.0	0.09
Minor children support required	12.8	14.7*	12.0	2.56	7.63	9.1	13.7*	9.5	2.33	0.54
Minor children legal action pending	10.8	9.9†	9.0	5.80	3.12	11.6	9.4	8.6	2.93	2.37
Minor child is victim	*6:0	0.91	1.0	1.36	1.56	6.0	1.0	1.0	98.0	9.02
Minor child resides with offender	95.3	6.56	95.4	0.81	2.14	95.1	6.56	95.5	3.46	2.46

				STD %	%QLS				% QLS	%QTS
Domain/Measure	E1 %	E2 %	% <b>)</b>	E1 vs. C	E2 vs. C	E1 %	E2 %	% <b>)</b>	E1 vs. C	E2 vs. C
Minor child supervised visit	0.66	98.0	98.7	0.98	1.06	95.9	98.8	7.86	4.19	3.74
Minor child no restrictions	97.8	87.1	6.98	1.84	0.61	87.3	86.9	87.3	0.11	1.30
Substance Use/Abuse										
Age of first drug/alcohol use				4.56	3.23				0.40	0.59
>17	19.4	20.7	21.1			19.3	20.6	19.3		
14–16	54.2	52.6	54.0			54.5	52.7	54.4		
<14	26.4	26.7	24.9			26.2	26.3	26.2		
Alcohol abuse	*	****		5.34	3.50				0.54	2.68
History	47.8	48.1	47.9			45.2	49.0	48.0		
Last 6 months prior to incarceration	19.7	18.9	17.8			33.4	18.1	18.8		
Drug abuse	***	****		9.42	17.30				2.78	1.24
History	44.9	42.4	46.4			481	45.7	45.5		
Last 6 months prior to incarceration	34.9	39.1	30.7			33.2	34.8	33.4		
History of problem with:										
Alcohol	68.4	71.3***	67.5	1.87	8.46	8.79	70.8	6.7.9	0.25	1.26
Meth	53.4***	58.9***	47.3	12.28	23.53	52.0	56.0	52.5	1.48	1.18
Cocaine	45.3	47.1**	43.8	3.09	6.62	44.8	45.4	45.1	0.07	1.33
Heroin	23.9***	28.9***	19.0	11.62	21.96	23.8	26.4	23.2	0.36	0.16
Prescription drug use	16.2***	19.2***	13.2	8.04	15.24	14.6	12.5	15.1	2.87	3.26
Use/abuse in the last 6 months										
Alcohol problem	28.8	28.6	28.8	0.04	0.36	27.8	29.4	28.0	0.34	0.13
Meth problem	27.7***	33.6***	23.7	8.83	20.86	25.8	31.6	79.7	3.84	1.66
Cocaine problem	*6.7	6.2***	9.3	5.05	12.52	7.4	6.7	7.7	2.01	0.79
Heroin problem	10.2***	12.6***	7.0	10.70	16.97	9.6	10.5	9.5	1.30	8.24
Prescription drug use	5.1	5.3	2.0	0.46	1.32	9.6	8.9	5.3	2.32	00:00

Domain/Measure	<b>E1</b> %	<b>E2</b> %	%)	STD % E1 vs. C	STD % E2 vs. C	E1 %	E2 %	% <b>)</b>	STD % E1 vs. C	STD % E2 vs. C
Impact of drug use history										
Caused family conflict	59.5	61.7***	58.0	2.90	7.48	57.9	59.7	58.2	1.50	1.53
Education and employment problems	51.0	52.7**	49.7	7.60	6.07	48.6	51.4	49.7	4.36	0.99
Interfered with keeping prosocial friends	67.7**	70.6***	64.8	6.25	12.85	8.79	69.7	67.3	1.24	1.83
Current conviction	61.7***	63.0***	56.9	9.72	12.50	6.09	6.09	2.09	0.79	2.25
IV use	5.8***	5.6***	4.0	7.81	7.25	5.0	4.8	5.1	1.69	1.54
Impact of most recent drug use										
Education and employment problems	18.4	19.2	18.0	1.14	3.19	17.8	19.3	17.8	1.72	0.47
Interfered with keeping prosocial friends	33.0*	36.3***	30.8	4.78	11.48	31.7	35.5	31.9	2.90	1.89
Current conviction	35.9†	38.6	33.9	4.14	9.75	35.8	39.1	35.4	0.32	3.55
IV use	7.1***	8.9***	4.9	8.74	14.17	0.9	6.9	6.1	3.39	3.43
Support for drug use/abuse										
Legal income	37.8	36.2***	39.6	3.85	7.15	37.8	36.4	37.7	0.88	90.0
Illegal income	15.9†	13.7	14.4	4.14	1.94	15.3	13.8	15.9	2.13	0.81
Selling drugs	20.8	21.7	21.3	1.20	1.00	22.8	21.8	21.1	1.86	0.99
Property crime	19.5**	20.7***	17.1	6.16	9.05	17.4*	19.7	18.5	5.31	0.07
Prostitution	6.0	6.0	1.0	1.25	2.63	Ξ:	1.0	6.0	3.45	2.08
Sharing/bartering	43.0**	46.8***	39.8	6.42	13.95	41.9	44.3	41.7	2.48	1.37
Other criminal acts	19.3	20.0	19.4	0.19	1.50	50.6	23.2	19.6	3.77	5.91
Drug treatment	*	*		2.53	2.74				1.31	0.35
Gurrently participating	21.3	19.8	21.8			22.4	20.5	22.0		
Has participated in the past	10.9	10.3	9.4			10.3	10.2	10.3		
Never participated in treatment	42.9	43.2	41.7			42.5	45.9	42.6		
Referred for treatment, but unwilling to participate	24.9	7.97	27.1			24.8	26.4	25.1		

Domain/Measure	E1 %	E2 %	%	STD % E1 vs. C	STD % E2 vs. C	E1 %	E2 %	%)	STD% E1 vs. C	STD% E2 vs. C
Drug protective factors										
Has never been clean	31.0**	30.2*	28.2	5.94	4.14	31.0	29.7	31.2	0.67	2.38
Family/friends	75.8	74.5**	77.1	2.73	5.16	77.4	74.8	83.9	2.30	1.36
Changed residence	2.79	65.91	67.5	2.95	5.79	8.79	2.99	76.8	1.58	0.26
Attends support groups	83.3	82.3**	84.3	0.34	3.29	84.1	83.0	68.3	2.63	0.24
Other	91.2	89.7**	91.4	0.63	5.16	92.1	6.06	92.0	1.93	1.75
Mental Health										
No evidence of mental health issue	35.8*	37.9	35.7	2.23	9.65	33.9	36.3	33.7	0.16	2.51
Mental health diagnosis	35.8	38.0	34.8	2.26	6.58	30.1	36.3	30.7	0.24	2.32
Number of in-patient commitments				1.67	4.27				0.45	0.40
0	64.2	62.0	62.2			0.99	63.7	66.2		
1	26.4	28.5	25.4			24.7	27.1	24.7		
2	5.3	5.3	5.3			5.1	5.2	5.1		
4	4.1	4.1	4.1			4.2	4.0	4.0		
No history of suicide	18.1	17.1	15.9	5.58	3.07	16.5	16.2	16.7	1.22	0.83
Prior suicide attempt	10.1	9.5†	9.8	5.25	3.11	9.5	9.0	9.2	2.49	0.64
Provoked suicide	0.2	0.1	0.3	3.79	0.58	9.0	0.1	0.4	10.86	6.49
Suicidal thoughts in the last 6 months	2.01	2.4	1.7	4.44	2.13	2.3	1.8	2.2	0.79	1.39
Suicide attempt in the last 6 months	1.2***	0.7	0.7	4.98	0.08	*0:1	0.5	1.0	0.79	2.14
No history of outpatient treatment	10.9**	12.1†	11.8	3.01	0.90	10.6	12.1	10.7	0.24	0.09
History of outpatient treatment	21.5**	22.1	19.4	4.93	6.49	20.9*	21.2	20.7	0.57	2.28
Counseling not required	1.0*	8.0	1.2	1.27	4.01	1.0	0.7	1.0	0.38	3.13
Current outpatient treatment	95.1	94.4	95.0	0.59	2.53	95.7	94.9	95.1	5.35	0.82
No medication history	2.7	0.9	6.1	1.70	0.43	5.5	0.9	9.5	1.67	2.35
Medication history	22.9	24.1	20.4	5.73	8.57	21.1	23.0	21.4	3.17	6.03
Current medications used	87.1	86.0	87.1	90:0	3.06	87.4	86.9	86.7	5.28	0.63
Current medications prescribed but not compliant	*	16.0	8.0	2.22	0.21	1.0	0.8	6.0	1.87	0.70

Domain/Measure	E1%	E2 %	%)	STD% E1 vs. C	STD% E2 vs. C	E1 %	E2 %	% <b>)</b>	STD % E1 vs. C	STD% E2 vs. C
Aggression										
Inreatening, aggressive, or violent benaviors during the offenders lifetime	3	3								
In the community	6.09	61.5**	58.4	4.98	6.15	58.9	9.09	29.8	1.35	0.00
During any period of confinement	10.8**	9.4	8.7	6.64	2.43	10.5	6.7	10.6	0.37	2.78
Currently an ongoing issue	5.4†	6.5	6.5	4.57	0.37	9.9	6.7	6.1	5.71	1.41
Characteristics of threatening, aggressive, or violent behaviors over lifetime										
History of aggressive characteristics	63.4	64.0‡	62.3	2.40	3.70	62.8	64.8	63.1	0.80	3.24
Past 6 months prior to incarceration	86.4**	87.3†	88.5	00.9	3.57	97.6	87.2	87.2	2.17	1.52
Domestic violence with current partner	7.2	8.9	6.4	2.95	1.32	8.9	6.9	7.0	09.0	0.62
Domestic violence involving family member	7.9	*[.8	8.9	4.07	4.71	6.9	7.1	7.3	2.18	2.85
Property destruction	7.3	5.9	6.4	3.33	2.30	7.7	5.6	7.2	1.65	2.53
Stalking	2.7	3.8**	5.6	0.47	90.9	2.5	3.3	5.6	0.72	0.26
Fixated unwanted relationship	6.0	=	1.1	2.23	0.57	1.1	1.4	1.0	2.83	0.50
Threats	1.9	1.9	2.2	2.02	1.78	2.1	2.4	2.0	3.16	5.25
Excessive violence	5.4†	4.8	4.6	3.61	1.02	4.8	4.5	5.1	0.51	4.53
Bizarre behavior	0.4	0.4	0.3	1.26	2.07	0.3	9.0	0.4	0.00	0.44
Random violence	3.7	4.2*	3.4	1.49	3.74	3.9	3.8	3.8	1.25	7.50
Fire setting	1.2	1.2	6.0	2.91	2.64	1.2	1.0	1.3	0.00	1.86
Violent conduct during custody	7.5***	· 2.9	5.5	7.30	4.53	7.0	0.9	7.0	0.74	0.12
Physically assault authority	5.4	5.9**	4.6	3.34	5.36	5.5	5.1	5.1	1.05	2.41
Physically assault a child or adolescent	8.0⁴	7.91	7.0	3.67	3.35	9.7	7.4	7.7	0.43	0.70
Physically assault an adult	22.6***	21.8**	19.1	8.18	6.50	21.6	21.2	22.0	1.77	0.83
Physically assault a male	21.1**	20.1*	18.2	6.92	4.76	20.3	19.4	20.2	0.67	0.55
Physically assault a female	21.5**	22.9***	18.5	7.23	10.29	20.8	21.5	20.5	0.76	0.82

				% QLS	% QTS				% QLS	% QTS
Domain/Measure	E1 %	<b>E2</b> %	% <b>)</b>	E1 vs. C	E2 vs. C	E1 %	E2 %	% <b>)</b>	E1 vs. C	E2 vs. C
Motivation for threatening, aggressive, or violent behaviors over lifetime										
Aggressive motives used to achieve goal, including material gain	10.8	10.3	8.6	10.09	1.49	11.6	10.6	11.1	1.62	0.92
Power, dominance, or control	17.8	17.8	17.8	0.10	0.03	18.1	19.8	18.1	0.00	4.17
Impulsive	28.9***	28.7***	25.3	7.74	7.46	27.3	25.9	28.0	98.0	3.89
Peer status, acceptance, attention, or compliance with rules of peer group	5.5*	4.6	4.5	4.55	0.39	5.7	4.3	5.7	0.51	0.45
Retaliation, vengeance	7.4	7.9	9.7	99.0	1.33	7.7	7.7	7.5	2.22	0.23
Excitement, amusement, or fun	3.4	3.8	3.7	1.68	0.57	4.1	4.0	3.9	3.85	0.32
Hatred for other individuals or specific groups	0.7	9.0	9.0	0.16	0.15	8.0	0.7	8.0	1.92	1.58
Chemically induced violent behaviors	21.2**	22.2***	18.9	5.60	7.75	19.4	21.6	20.1	4.51	0.30
Mental health medication issues	2.2	2.2	2.1	0.52	0.73	2.2	2.1	2.2	0.26	0.42
Hostile toward women	1.0	6.0	0.8	2.05	1.07	0.7	8.0	0.7	3.11	1.36
Attitudes/Behaviors										
Motivation for criminal behavior during the offender's lifetime										
Anger	11.2**	12.7	13.4	7.07	2.12	11.0*	12.8	11.2	0.61	1.03
Retaliation, vengeance	13.9	12.6	13.4	1.51	2.52	11.9	13.7	13.1	5.04	2.82
Impulsive, opportunistic	5.9	5.8	6.5	2.44	2.79	7.2	6.4	6.5	99.9	3.06
Sexual gratification	34.5	31.9	33.0	3.21	2.19	34.1	32.1	34.2	0.08	0.53
Reaction to conflict or stress	29.7***	31.7***	76.2	7.59	11.79	29.0	30.5	29.1	1.62	1.88
Power, dominance, or control	8.7	9.6	8.7	0.14	2.85	8.8	9.1	8.8	0.13	2.86
Money or material gain	10.2	10.5	10.4	0.71	0.17	10.6	6.6	10.3	1.79	1.72
Excitement, amusement, or fun	8.9	8.3	8.1	79.7	0.81	9.4	7.4	9.3	1.09	3.25
Peer status, acceptance, or attention	29.4	31.5**	28.4	1.99	6.58	27.4	30.3	28.1	2.56	09:0
Obtain drugs, chemical addiction	50.4***	53.0***	45.6	09.6	14.66	50.2	50.5	50.1	0.00	2.99

				% Q LS	STD %				STD %	% QLS
Domain/Measure	E1 %	E2 %	% <b>)</b>	E1 vs. C	E2 vs. C	E1 %	E2 %	% <b>)</b>	E1 vs. C	E2 vs. C
Antisocial tendencies that are rooted, firmly established, and constant										
Glib/superficial charm	11.3*	*—	8.6	4.56	4.12	11.0	11.2	11.0	0.98	1.51
Need for thrill or stimulation	8.9	8.0	7.5	3.00	1.71	8.0	8.3	7.5	5.78	2.43
Pathological lying	6.4	6.5	5.7	7.60	2.91	6.2	6.2	6.3	0.32	9.0
Conning/manipulative	11.5	10.8	10.5	3.16	1.09	11.4	11.3	11.4	0.00	2.15
Parasitic lifestyle	14.1	13.4***	10.9	9.05	7.32	13.4	12.2	13.8	1.79	0.83
Lacks empathy or tact	11.0	10.9	11.6	1.90	2.23	13.0	12.1	12.2	6.50	3.95
Lacks remorse/guilt	17.1	15.5	16.5	1.71	7.60	18.2	16.7	18.0	1.86	4.19
Lacks realistic long term goals	23.0**	24.6***	20.3	97.9	9.82	22.1	24.2	22.7	2.04	1.17
Irresponsibility	27.2*	26.8*	24.9	5.17	4.40	25.8†	27.3	27.0	2.28	1.70
Criminally diverse—has a diversity of types of criminal offenses and associates great pride with them	7.5	7.3	7.8	1.14	1.92	8.5	8.1	7.8	5.81	5.01
Criminal acceptance										
Does not accept responsibility for antisocial behavior	63.7**	9.09	2.09	90.9	0.33	63.4	61.4	63.8	1.29	1.72
Superficial acceptance	36.3***	35.3***	31.6	6.77	7.64	35.9	34.1	36.1	0.16	0.13
Minimizes, denies, or blames others	32.1	29.7**	32.2	0.32	5.58	32.5	31.2	32.5	0.58	2.32
Disregards societal conventions or rules of supervision	9.6	5.4	5.3	1.43	0.27	0.9	9.9	5.9	2.70	1.53
Disregards societal conventions or rules that apply to him/her	<sub>*</sub> 9.′	7.5*	6.5	4.23	3.75	6.9	7.1	7.2	1.18	09.0
Rules do not apply to him/her	3.0	3.2*	2.4	3.22	4.26	5.9	3.4	3.0	89.0	2.26
Views crime as useful	2.5	5.6	2.3	<u></u>	1.56	2.2	2.5	2.4	92.0	1.65
Proud and boastful	1.2	1.2	1.2	0.01	0.58	1.2	1.3	1.2	0.35	3.04
Attitudes toward authority				3.18	3.24				0.19	0.38
Respectful and compliant	61.7	61.2	62.8			61.5	62.1	61.7		
Indifferent toward authority	33.3	34.4	33.1			34.3	33.9	33.7		
Resentful and refuses to comply	4.9	4.4	4.1			4.1	4.0	4.6		
Respect for property of others	*	* * *		1.99	10.04		* * *		0.14	0.40
Respects property of others	49.0	47.3	53.2			49.3	49.4	49.1		
Respects personal but not public/business property	13.1	13.2	12.7			12.0	12.8	12.4		

Domain/Measure	E1 %	E2 %	%)	STD% E1 vs. C	STD% E2 vs. C	E1 %	E2 %	%)	STD% E1 vs. C	STD % E2 vs. C
Conditional respect for personal property	26.6	29.6	23.8			27.2	25.8	27.0		
No respect for personal property of others	 	9.6	10.3			9.[[	17.0	4.		
Readiness to change				0.57	0.43				0.05	4.63
Taking specific steps toward change	39.1	39.5	39.7			37.6	37.4	38.0		
Verbalizes but not taking specific steps for change	50.4	50.6	50.4			52.2	52.2	51.3		
Does not see need for change	8.5	8.0	8.1			8.6	8.2	8.8		
Hostile toward change, unwilling to change	2.0	1.9	1.8			1.7	2.2	1.9		
Belief in successfully completing supervision		-		2.03	2.04				1.17	8.79
Believes in success, has developed skills to support prosocial lifestyle	35.8	36.6	36.2			34.4	33.5	34.8		
Believes in success, but has not yet developed skills to support prosocial lifestyle	49.4	49.6	48.5			49.8	49.5	49.8		
Believes in success only if external controls are in place (DOC, family, friends, etc.)	10.1	9.4	11.2			12.2	12.5	11.2		
Does not believe in success	2.3	2.0	1.9			1.7	2.1	2.0		
Hostile to supervision	2.4	2.3	2.3			2.1	2.5	2.0		
Coping										
Demonstrated consequential thinking in most recent 6 months				2.03	0.17				0.28	1.42
Behaviors and/or verbalizations demonstrate understanding of consequences	0.09	61.0	61.0			59.8	61.3	29.7		
Behaviors and/or verbalizations demonstrate connection not yet made	37.1	36.1	36.3			37.6	35.8	37.5		
Cannot cognitively connect behavior and harm	2.9	2.8	2.7			5.6	2.8	2.7		
Demonstrated impulse control in the last 6 months	*	*		6.79	7.25	*			4.72	0.54
Uses self-control, thinks before acting	31.9	31.1	34.0			33.2	31.2	31.9		
Some self-control, sometimes thinks before acting	55.0	56.3	55.2			26.0	55.6	55.9		
Impulsive, doesn't think before acting	13.1	12.7	10.8			10.8	12.8	12.2		
Demonstrated skills dealing with others in most recent 6 months	<del></del>			2.93	0.38				9/.0	4.42
Uses social skills effectively	53.6	53.8	53.9			53.2	53.0	53.5		
Has adequate social skills, but isolates self by choice	29.5	29.7	29.8			30.0	30.0	29.6		
Avoids dealing with others due to limited or lack of social skills, shy or withdrawn	9.4	10.3	10.2			10.8	9.7	10.2		

				%QLS	% QLS				% QLS	% QLS
Domain/Measure	E1 %	<b>E2</b> %	% <b>)</b>	E1 vs. C	E2 vs. C	E1 %	E2 %	% <b>)</b>	E1 vs. C	E2 vs. C
Attempts to deal with others, but rejected by peers	2.0	1.7	1.5			1.7	1.8	1.9		
Interactions are characterized by aggression, conflict, arguments and fights	5.5	4.5	4.6			4.3	5.5	4.8		
Demonstrated problem-solving skills in most recent 6 months				0.08	1.62				2.4	7.04
Thinks through situations	43.9	44.2	43.2			41.7	40.8	42.2		
Problem-solving skills limited	45.9	45.7	46.6			47.5	48.3	47.2		
Passive response, withdraws from difficult situations	5.5	6.2	6.3			8.9	6.2	6.2		
Hostile response, strikes out verbally and/or physically	4.7	3.9	3.9			4.0	4.7	4.4		
Need for independent living services at time of assessment										
No need for services	59.1***	9.09	53.4	11.65	14.84	9.69	59.9	59.2	1.66	9/.0
Employment services	32.1	33.6**	30.8	2.70	5.94	31.9	33.0	31.5	0.75	1.19
Housing services	28.2	29.6**	26.7	3.33	6.27	28.6	27.7	28.3	1.21	1.30
Gothing services	15.3	15.4	14.5	2.10	2.48	16.0	15.4	15.5	3.15	1.74
Food services	18.4	19.5	18.7	0.70	2.12	19.7	19.1	19.1	4.43	1.27
Budget services	15.3	15.8	15.4	0.29	0.87	16.9	15.8	16.2	3.78	1.29
Transportation services	20.6	21.6	20.8	99:0	1.83	22.0	22.5	21.0	3.76	5.21
Hygiene services	5.6	2.4	2.7	0.95	1.98	2.9	2.5	2.8	1.22	0.20
Medical services	*1.8	7.3***	9.8	6.07	9.53	8.2	7.5	8.1	1.56	0.35
Mental health	10.2	10.4	10.1	0.31	1.12	10.3	10.7	8.6	5.45	5.46

Notes. The p value for dichotomous categories is next to the comparison group value, whereas it is in the empty cell of the variable title for multinomial measures. AUC = area under the curve; C = comparison group; E1 = first cohort; E2 = second cohort; STD = standardized differences.  $\mbox{\it Tp} < .10$ . \* $\mbox{\it **} p < .01$ . \*\*\*p < .001.

55

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