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ESTIMATING THE IMPACTS OF SORNA IN PENNSYLVANIA: THE POTENTIAL
CONSEQUENCES OF INCLUDING JUVENILES

A Dissertation Submitted to the
Temple University Graduate Board

In Partial Requirement for the
Degree of Doctor of Philosophy

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May 2015

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ABSTRACT

The federal Sex Offender Registration and Notification Act (SORNA; 2006) established a uniform, offense-based registration system for sex offenders age 14 and older. The legislation created a hierarchical, three-tier classification scheme in which convictions of the most severe sex offenses result in Tier III assignment and convictions of the least severe offenses yield Tier I delegation. Juveniles are treated the same as adults when adjudicated of serious, Tier III offenses such as rape and aggravated indecent assault. Tier III assignment requires lifetime registration and notification for offenders in jurisdictions in which they live, work, and go to school.

On December 20th, 2011, Governor Corbett signed Pennsylvania's version of SORNA and it was implemented exactly one year later on December 20th, 2012. The project, which focuses on Pennsylvania's version of SORNA, comes at a time when the impact of this new law has yet to be assessed. This study explores the system resources necessary for implementing this legislation, including personnel, costs, and enhancements to technologies necessary for creating and disseminating information on sex offenders.

Although it has garnered much attention because it places unfunded mandates on states, opposition on behalf of jurisdictions is largely due to the inclusion of juveniles. Many researchers and legal advocates have argued against the policy due to the amenability of juveniles to treatment, low recidivism rates among sex offenders, and the negative consequences lifetime registration may have on youthful offenders. In fact, no previous research supports registration and notification as effective tools for

detering sex offending. While the aforementioned concerns brought to the attention of the government are credible, they have been unsuccessful in producing change at the federal level. These concerns were influential in drafting Pennsylvania's legislation that limited the number of offenses that triggered registration and withheld juvenile information from the public website.

This dissertation employed a mixed-methods design to investigate SORNA's potential effects based upon the inclusion of juveniles. Research questions focused on the workload of agencies who work with sex offenders, the potential costs associated with SORNA requirements, the number of juvenile offenders now and in the future who may be implicated by the legislation, and the opinions and experiences of practitioners who work with juvenile sex offenders. Data collected by the Pennsylvania Juvenile Court Judges' Commission were analyzed to investigate the research questions. Descriptive and bivariate inferential statistical analyses were conducted, in addition to data-validated dynamic systems modeling to provide a prospective analysis into how many youth may face lifetime registration across the Commonwealth. Costs incurred as a result of SORNA's requirements were explored as well. Following the quantitative analyses, interviews with practitioners were conducted to obtain opinions and insight on the projected volume of juvenile offenders affected by SORNA and fiscal information relevant to juvenile sex offender supervision, management, and registration.

DEDICATION

This project is dedicated to the individuals who campaign and advocate tirelessly on behalf of justice-involved youth, and to those whose vigilant efforts promote public safety. I would especially like to dedicate this work to the research participants without whom this would be possible. You were enlightening and inspiring. Thank you.

ACKNOWLEDGMENTS

'If it were easy, everybody would be doing it.' Those words uttered by Kate Auerhahn in the kitchen of the Criminal Justice Department circa 2008 resonate to this day. Graduate school is not only about the acquisition of knowledge and skill, it is a very poignant and challenging period of growth. At the pinnacle of my graduate career, I reflect upon my time in graduate school with much fondness and profound gratitude.

I think one would be hard pressed to find a faculty and staff more dedicated to adequately preparing and training adept professionals. It takes a village to properly rear a graduate student and when I think of all that I have acquired during my (lengthy!) tenure at Temple, there are many village members deserving mention. I applied to Temple's graduate program due to the emphasis on policy analysis, the multidisciplinary backgrounds of the faculty, and Phil Harris' work in juvenile justice. As such, Phil was my advisor for many years. Phil provided thought-provoking feedback, perceptive guidance, emotional support, and motivation for navigating graduate school waters. His thoughtfulness and insight were invaluable to my education.

Upon being accepted to Temple's doctoral program, I visited campus to meet with graduate students and faculty. During said visit, Dr. Taylor and I discussed our favorite statistics and immediately I knew that I would learn a great deal from him. And learn I did from Dr. Taylor, while a student, a TA, and an RA under his supervision. Indelible images of 'data ARE!' gamma nought noughts, HLM poster presentations, and illustrations of Donald Black's theory on the Behavior of Law remain salient with me to

this day. Dr. Taylor consistently put forth extra effort to prepare graduate students for conferences and the job market. These efforts do not go unnoticed.

I must profusely thank my Chair, Kate Auerhahn, for always being in my corner. She is keen on knowing when to push, and when not to push. She is a tenacious advocate for all graduate students and commendably doles out words of advice and reality when necessary. She has not only served as my mentor on this project, she has been a friend. Kate goes above and beyond the call of duty. It is glaringly apparent that she cares and has a vested interest in the success and wellbeing of graduate students. She is a worthy mentor, and I am so very thankful for all of her kindness, thoughtfulness, constructive criticism, and methodological insight. Thanks, Kate, you're one of a kind and I truly don't have the words to properly articulate my gratitude.

It was a blustery Thursday in Phil's office (2011) and Caterina and I met with Phil to discuss my dissertation. I distinctly recall experiencing a minor coronary event when, immediately after agreeing to conditionally serve on my committee, Caterina said that I must interview juvenile justice practitioners because policy analysis is incomplete without the insight and experiences of those whose jobs are affected by policy changes. I hesitantly and quietly shook my head in agreement and shuffled off nervously to my office to contemplate the mountain of work this project had become. At the time, I had no idea it was such an important and on-point statement. The interviews I conducted were enjoyable and yielded invaluable information. Caterina, you were right! Thank you for taking the time to be a very meaningful member of my dissertation committee. Your contributions had a positive impact on the quality of the research.

Even though Dr. Goldkamp is no longer with us, I feel compelled to acknowledge his extensive work on bail and pretrial release conditions. As a student, the bail articles served as lessons in methodological rigor since pretrial matters did not pique my interest. Fast forward six years from the first time I read a Goldkamp bail article; I found myself tasked by Court Administration with redoing Dr. Goldkamp's bail guidelines. Dr. Goldkamp's research and wisdom took on a whole new life and because I have been living pretrial reform for three years, I can confidently assert that what he accomplished in Philadelphia was absolutely incredible as I am still learning from his efforts today. Thank you, sir.

There are multiple others for whom I feel gratitude in our (sometimes fleeting) moments together. In no particular order: Dr. Harland's wit, support, and clever way of interpreting Supreme Court decisions; Dr. Welsh's diplomacy during heated classroom discussions and excellent course reading selections; in-depth and happenstance research conversations with Liz on the 23 bus; Jerry's high standards of professionalism and appropriate PowerPoint aesthetics; Stephanie Hardy's unwavering support on all matters, her ability to deliver uplifting blows of reality, and knowing when to offer a downtrodden graduate student a ride home; LaSaundra's immediate attention to all paperwork disasters, kindness, and sense of humor; Tara Tripp's contagious smile and complimentary nature that blossomed into a friendship in which she offered guidance on being a student, teacher, and FJD employee; and Dr. Hiller's random office visits to ensure that 'science was happening!' and that everything was going ok, in addition

many introspective research discussions. All of you have provided purposeful and accidental lessons in perseverance, professionalism, and science.

The ‘cooperate to graduate’ atmosphere amongst graduate students yielded many long-lasting friendships for which I am thankful. Throughout my time at Temple University, I have had the distinct pleasure of the friendship and camaraderie of several exemplary peers: Travis Taniguchi, Wang Ke, Chris Salvatore, Wendy Thompson, Chris Kelly, Brian Wyant, Caitlin Taylor, Lallen Johnson-Hart, Evan Sorg, Lauren Mayes, and Cory Haberman to name a few (this list is not exhaustive). The discussions in and out of the classroom were equally educational and motivational.

I am very fortunate to have a wonderful and extensive support system outside of the Temple community. Shauna, Jill, Kara, Andrea, Brenda, the A-team, the Aspen Street Girls, and my volleyball teammates are my extended family and bring me immense joy while keeping me focused and grounded throughout life’s adventures.

This project would not have been possible without the practitioners who took time out of their very busy schedules to speak with me. The interviews were informative and each and every one of the participants was impressive in their knowledge and passion for juveniles and the justice system. Additionally, my external reader, Robert G. Schwartz, is prolific in the juvenile advocacy realm and I am humbled and grateful he made time to contribute to this process. Robert Hanneman kindly reviewed endless pages of simulation code and provided feedback on model architecture. Without his time and knowledge, it would have taken a good bit longer to properly construct the simulation models in this study.

Lastly, and most importantly, I want to acknowledge my family and their role in helping me attain life goals. As a young girl growing up in a town of 400 people surrounded by the cornfields of Nebraska (just a small town girl), I aspired to be a Solid Gold dancer. Dreams of high-kicking in gold lame tights, braided hair, and being friends with Marilyn Macoo consumed my formative years. Upon learning of such a lofty aspiration, my parents (Randy and Doris) immediately enlisted me in dance lessons to enable the pursuit of my dreams. As is apparent now, those dreams of glitter and glamour turned to city grit and crime. Regardless, my parents were on-board and excited about my education (When *are* you going to graduate?!). My 'little' brother Jesse and I are different in many ways, yet we are very close. He is a sound moral compass on which I have relied frequently over the years. There is absolutely no way I could have gotten this far without their enduring support and assistance. Their sacrifices have been great on this long road, and are deeply appreciated.

TABLE OF CONTENTS

STATEMENT OF FUNDING.....	ii
ABSTRACT.....	iii
DEDICATION.....	v
ACKNOWLEDGMENTS.....	vi
TABLES.....	xv
FIGURES.....	xvii
CHAPTER 1 INTRODUCTION.....	1
CHAPTER 2 LITERATURE REVIEW EVOLUTION OF LEGISLATION.....	7
Sex Offender Registration and Notification Act.....	13
Pennsylvania.....	18
Sex Offender Assessment Board.....	24
SMART Evaluation of Pennsylvania’s SORNA.....	25
Objections to SORNA.....	29
Juvenile Registration.....	30
Prevalence and Recidivism.....	31
Recidivism Research.....	34
Offending Patterns.....	36
Tier-Based Classification vs. Risk Assessment.....	37
Retroactivity.....	38
Cost.....	39
Policy Parallels Representative of Punitive Drift.....	40

Three Strikes Law	40
Juvenile Waiver	42
Effects of Waivers on the Criminal & Juvenile Justice System	44
Current Research.....	47
CHAPTER 3 METHODS.....	50
Research Questions	50
Tier Description & Simulation Modeling.....	53
Data	53
Missing Data	53
Analytic Procedure	54
CHAPTER 4 DESCRIPTION OF PENNSYLVANIA’S SEX OFFENDERS.....	56
Tiers of Sexual Offending	56
Distribution of Cases for Each Tier	58
Demographic and Disposition Composition of Each Tier.....	61
CHAPTER 5 SIMULATING ESTIMATES OF SORNA-INVOLVED YOUTH	68
Simulation Models.....	71
Calculating Recidivism Parameters	72
Model Components.....	81
Results	83
Low Levels of Recidivism.....	85
Moderate Levels of Recidivism	87
High Levels of Recidivism	90

Comparison of Estimates by Varying Recidivism Level	92
Comparison of Estimates to the Validation Sample	93
CHAPTER 6 INTERVIEWS WITH JUSTICE PRACTITIONERS	95
Sample	95
Procedure	96
Questionnaire	96
Data Analysis	97
Q ₃ If offending patterns were to remain similar to those from 1985-2005, how would the workload of agencies dealing with juvenile sex offenders be affected?...	101
Q ₄ How do practitioners view SORNA guidelines as they pertain to juveniles?	108
Q ₅ What would be the cumulative financial impact of including juveniles in SORNA?	116
CHAPTER 7 DISCUSSION AND CONCLUSION	119
Agency Workload	119
Registration Requirements	120
Barriers to Implementation.....	121
Offense-Based Classification	122
Costs Related to SORNA	123
Much Ado About Nothing?.....	124
Evidence-Based Practices	125
Strengths of the Current Study	126
Limitations	127

Future Research	131
Conclusion	131
CHAPTER 8 AFTERWORD.....	134
REFERENCES CITED.....	139
APPENDIX A INFORMED CONSENT	153
APPENDIX B IRB APPROVAL FOR INTERVIEWS.....	156
APPENDIX C JUVENILE COURT STATISTICAL CARD, 1985-1990	157
APPENDIX D JUVENILE COURT STATISTICAL CARD, 1991-1996	158
APPENDIX E JUVENILE COURT STATISTICAL CARD, 1997-2005.....	159
APPENDIX F INSTITUTIONAL REVIEW BOARD EXEMPTION	160
APPENDIX G EXCERPT OF SIMULATION MODELING CODE	161
APPENDIX H INTERVIEW PROTOCOL.....	174
APPENDIX I RECRUITMENT EMAIL FOR PARTICIPANTS	177
APPENDIX J SUMMARY OF RESULTS GIVEN TO RESPONDENTS	178
APPENDIX K SORNA COLLOQUY FOR JUVENILE SEX OFFENDERS IN PENNSYLVANIA..	179

TABLES

Table 1 Sex Offender Registration & Notification Implementation for States and the District of Columbia	9
Table 2 States with Juvenile Sex Offender Registries	12
Table 3 Registration Requirements and Qualifying Offenses for Tiers.....	16
Table 4 Annual Totals for Sex Offense Cases Handled by SOAB, Across the Commonwealth and for Philadelphia	25
Table 5 Dates of SORNA Compliance for States.....	30
Table 6 Frequencies and Descriptives for the Three Tiers and Overall Sex Offense Cases, 1985-2005	57
Table 7 Frequencies of Juvenile Sex Offenses by Year and Tier, the Percentages out of all Juvenile Cases.....	59
Table 8 Demographics for Juvenile Sex Offense Cases by Tier, 1985-2005.....	65
Table 9 Juvenile Sex Offending Recidivism Studies Listed by Low, Moderate, & High Levels of Recidivism	74
Table 10 Summary Table of the Juvenile Sexual Offending Recidivism Studies.....	79
Table 11 Baseline Data Values for Tier 3 SORNA Offenses Resulting in Registration, 1985-2005	84
Table 12 Simulated SORNA Offenses Using Low-Level Recidivism Estimates, 2013-2052 in Pennsylvania	86
Table 13 Simulated SORNA Offenses Using Moderate-Level Recidivism Estimates, 2013-2052	88
Table 14 Simulated SORNA Offenses Using High -Level Recidivism Estimates, 2013-2052	90
Table 15 Code Titles, Operational Definitions, and Frequencies for Interview Data	98
Table 16 Annual Number of Estimated Sex Offender Registry Transactions	103

Table 17 | States That Have Juvenile Registries, and/or Are Substantially Compliant with SORNA, and/or Have Found SORNA to be Unconstitutional as Applied to Juveniles 135

FIGURES

Figure 1 Diagram of SORNA Agencies and Responsibilities in Pennsylvania	21
Figure 2 Timeline of SORNA in Pennsylvania	28
Figure 3 Frequencies of Intake and Adjudicated Sex Offenses and All Other Juvenile Sex Offenses in Pennsylvania, 1985-2005.....	34
Figure 4 Frequencies for All Juvenile Sex Offenses by Tier, 1985-2005	61
Figure 5 Depiction of the Agencies and Responsibilities Involved with Juvenile Sex Offenders	71
Figure 6 STELLA Simulation Model Architecture and Equations Using Low Recidivism Levels.....	81
Figure 7 Number of Registered Juvenile Sex Offenders by Level of Recidivism	93
Figure 8 The Difference Between Validation Data and Estimated Values of Juvenile Sex Offenders Registered Each Year	94
Figure 9 Diagram of SORNA Agencies and Responsibilities in Pennsylvania	95

CHAPTER 1 | INTRODUCTION

Various forces drive the creation of legislation. New laws may be developed in response to tragic events receiving media attention or as a result of a perceived need to regulate certain behavior. The former impetus for legislative action tends to involve specific cases that elicit strong emotions from the public. Central to this project is the dichotomy of emotionally-reactive legislation versus evidence-based legislation. Fear, anger, and retributive notions lend support to emotionally-reactive legislation, while evidence-based legislation is informed by research, empirical results, and data.

Sex offender legislation is a prime example of emotionally-reactive legislation. Sex offenses are often highly sensationalized resulting in heightened public response. Sex crimes elicit strong reactions, both legally and emotionally, and offenders are subject to considerable media attention. Politicians create laws to ensure public safety, and citizens want to have protection from those perceived to be dangerous.

Over the last 30 years, several high-profile cases involving adult sex offenders catapulted juvenile sex offenders into the limelight as well. Highly publicized cases influenced laws concerning sex offenders and recent legal developments extended the jurisdiction of notification and registration policies to juveniles. Sanctions involve lengthy registration and community notification for youthful sex offenders who might otherwise benefit from community programs and treatment approaches. Moreover, recently enacted policies place new demands on already-limited human and financial system resources.

The Sex Offender Registration and Notification Act (SORNA; 42 USC § 16911, 2006) targets adults and youth age 14 and older adjudicated of the most severe sex offenses. In Pennsylvania, youth adjudicated of rape (all variations and inchoate offenses), involuntary deviate sexual intercourse (IDSI; all variations and inchoate offenses), and aggravated indecent assault (AIA; all variations and inchoate offenses) are automatically classified as Tier III and subjected to lifetime registration. SORNA youth must check in with the Pennsylvania State Police a minimum of four times per year to verify information. If there are any changes to information in-between the quarterly verifications (e.g., new car, new address, etc.), updates must be completed immediately. Failure to register, verify, or update information are felony offenses resulting in a mandatory prison sentence ranging from 2 years (first offense) to 5 years (subsequent offenses).

Those implicated by SORNA face lifetime registration, which contradicts the rehabilitative aims of the juvenile justice system. SORNA is a federal, unfunded mandate that has been met with opposition for various reasons as increased sanctions are inextricably tied to a need for more resources—personnel, time, and cost. In 2011, the Director of the Sex Offender Monitoring and Tracking Office (SMART) testified to the legislature and identified juvenile registration as the sole barrier to substantial compliance with federal guidelines for Pennsylvania (Baldwin, 2011). In addition to juvenile registration, three other common themes of concern were voiced by jurisdictions: retroactivity, cost, and the tiering of sexual offenders (classification and requirements).

Statutes that seem to reasonably promote public safety may appease constituencies and empower the community with a false sense of security, while simultaneously presenting challenges to the juvenile and criminal justice systems. Politicians and the general public endorse policies that appear to possess face validity in that they conform to conventional wisdom. Although empirically unfounded, it is a common belief that juveniles who have sexual behavior problems will continue to offend into adulthood. Yet, the effectiveness of current sex offender laws has not been demonstrated (Beck & Travis, 2006; Caldwell & Dickinson, 2006; Freeman, Sandler, & Socia, 2009; Letourneau, Bandyopadhyay, Sinha, & Armstrong, 2009; Letourneau & Miner, 2005; Meloy, 2005; Terry, 2007; Tewksbury, 2002; Zimring, 2004). Despite the lack of empirical evidence to support legislation requiring sex offender registration and notification, the movement towards increasingly stringent policy continues with the most recent federal sex offender legislation.

As of November, 2014, 17 states, 71 tribes, and 3 territories have implemented SORNA. Pennsylvania's version was signed on December 20, 2011 (NCSL, 2011; Ganim, 2011; Sarfert, 2011) and became effective one year later on December 20, 2012. While Pennsylvania justice agencies continue to strive toward meeting the requirements of SORNA, a demonstration of the potential number of youth implicated by SORNA in the Commonwealth may increase awareness of and preparation for impacts that may lie ahead.

The primary goal of this study was to investigate the potential effects of including juveniles in SORNA in Pennsylvania. While other states such as New York and

Texas have conducted studies to assess the potential effects of SORNA, Pennsylvania has yet to do so. This project employed a multifaceted, mixed-methods design to investigate how aspects of the legislation affected the system. Policymakers and practitioners can use the results of this research to make informed decisions regarding resource appropriation and to better assess how this legislation may impact agencies in the future. While juvenile justice practitioners may acknowledge the consequences of harsh sanctions at the individual level, there may not be as much awareness of consequences regarding workload and related expenses at the system level.

In order to describe the Commonwealth's juvenile sex offender population and generate estimates of the number of youth who may be affected by SORNA, Pennsylvania juvenile court records from 1985-2005 served as a data source. Classification under SORNA's guidelines was determined based on the age of the offender (14 and older) and the adjudication offense. The archival data were used to generate simulation models to depict the number of SORNA juveniles over 40 years (2013-2052) following SORNA implementation. Data-Validated Dynamic Systems Modeling (DSM; STELLA, 2012) allowed the researcher to model volume and flow of juvenile sex offenders and using model parameters based on SORNA's guidelines. This technique was used for a prospective analysis to estimate how many juveniles may be required to register on Pennsylvania's (PA) Sex Offender Registry, thereby highlighting the number of youth who may come into contact with agencies who manage juvenile sex offenders. The financial consideration was crucial, as states lose 10% of Edward Byrne Memorial Justice Assistant Grants given out by the Office of Justice Programs

dispensed each year that they are noncompliant. Justice practitioners were interviewed regarding the results to offer interpretation and elucidation of the study's findings. Using the DSM results, cumulative costs can be linked to resources related to SORNA's guidelines using fiscal details obtained from participants.

This research aims to provide practitioners and policymakers in Pennsylvania three very important pieces of information: a) estimates of the number of juveniles who may be affected by SORNA in the future; b) the potential effects of SORNA on system resources, such as workload; and c) prospective financial impact estimation using information provided by justice practitioners. SORNA's requirements implicate offenders for very long periods of time, and in some cases, indefinitely. Based upon these resource-consuming tenets of the legislation, more personnel will be required to offer services and manage the registration and notification of the sex offenders. Additionally, the project also makes a contribution to policy research: DSM has been under-utilized as a tool for investigating system impacts of proposed or new policies. Further, interviews with juvenile justice actors add to the picture by detecting sources of resistance to and support for SORNA.

On December 29th, 2014, the Pennsylvania Supreme Court ruled that SORNA as applied to juveniles was a violation of due process rights based upon irrebuttable presumption. The decision was rendered after the study was concluded. However, because other states are still registering juveniles, the research remains relevant. The methodology employed to simulate the number of juveniles who may be potentially impacted by SORNA in the coming years serves as a useful example for other

jurisdictions who may want to plan for the influx of offenders who may be involved with the system indefinitely due to SORNA. Further, simulation models can be used to explore the effects of policies not yet implemented. A more detailed discussion of the Pennsylvania Supreme Court Decision and the implications of that decision for this research are addressed further in Chapter 8, Afterword.

CHAPTER 2 | LITERATURE REVIEW

Evolution of Legislation

At its inception, the juvenile justice system was premised on the English common law belief that a lower standard of criminal responsibility was appropriate for children (Butts & Mitchell, 2000; Feld, 1999). The overarching goal of the juvenile justice system (JJS) was rehabilitation with the state acting as *parens patriae* whereby the court assumed a parental role. Juvenile courts ensured decisions were intended to be in the best interests of the individual child (Butts & Mitchell, 2000; Feld, 1990, 1999; Kupchik, 2004; Witt, 2003). Over the last century, several policy changes moved the JJS away from rehabilitative approaches toward more punitive policies and practices regarding youthful offenders. For example, juveniles may now be transferred to criminal court and subjected to adult penalties and incarceration in adult facilities (Butts & Mitchell, 2000; Feld, 1990, 1999; Kupchik, 2004; Witt, 2003).

Numerous factors cultivated this punitive shift, not only in the juvenile system, but the adult criminal justice system as well. The relationship between the public and politicians is key as the political atmosphere fuels public perception and public sentiment influences the actions of policymakers. (LaFree, 2002; Zimring, Hawkins, & Kamin, 2001). The political atmosphere was a compelling force behind the systemic drift from the rehabilitative foundations of the juvenile justice system. Publicized tragedies resonate with people, eliciting emotions of fear and anger, resulting in public endorsement of tough-on-crime approaches. Elected officials are cognizant that appearing soft on crime may result in a loss of support, thereby jeopardizing reelection.

The result is often case-driven, or emotionally reactive legislation, which can be poor policy unfounded by empirical research. Constituents assume harsher penalties translate to increased public safety, and thus, there is a bi-directional relationship in which both sides are contributing to policies that may have detrimental consequences (LaFree, 2002; Zimring, Hawkins, & Kamin, 2001).

The evolution of sex offender legislation is a prime example of punitive policy drift. Laws specific to sex offenders first emerged in the 1930s, focused on civil commitment, and targeted only adult offenders. There was an explicit focus on rehabilitation as the assumption of these laws was that individuals perpetrating sex crimes were mentally ill, but amenable to treatment (Fitch, 1998). By the 1950s, half of the states had sexual psychopath laws that civilly committed individuals after criminal sentences were served. Those impacted by the law were perceived to be in need of more treatment for complete rehabilitation.

Within the next 20 years, the tide turned as several key historical events cumulatively lead to a preference for retribution over rehabilitation. During the Civil Rights Movement in the 1960s, there were heightened tensions and strained relationships between the public and the country's administration. This era saw crime rates spike nationwide (LaFree, 2002; Zimring, Hawkins, & Kamin, 2001). Society was too impatient for substantial reform and felt stricter penalties were warranted. People were frustrated that the crime rates had not decreased in the 1970s. At this time, the victim's rights movement began, placing even more emphasis on victim needs and retribution (LaFree, 2002; Zimring, Hawkins, & Kamin, 2001). Further, Martinson's

(1974) article implying ‘nothing works’ with regard to correctional rehabilitation was published and received a great deal of attention.

Sex offender policy was not immune from the increasingly punitive approach to criminal policy. Fitch (1998) noted that by the mid-1980s, most states had refined statutes in accordance with recommendations by the President's Commission and the American Bar Association which stated that lengthy incarceration periods were better, and sex offenders were not amenable to treatment. The next decade proved to be productive for a different type of legislation regarding those convicted of sex offenses, specifically registration and notification laws. Washington was the first state to enact any form of sex offender registration and notification law in 1990 (see Table 1). Personal tragedies and high profile cases spawned additional laws at the federal level.

Table 1

Sex Offender Registration and Notification Year of Implementation for States and the District of Columbia

State	Year	State	Year
Alabama	1998	Montana	1995
Alaska	1994	Nebraska	1997
Arizona	1996	Nevada	1998
Arkansas	1997	New Hampshire	1996
California	1996	New Jersey	1993
Colorado	1998	New Mexico	1995
Connecticut	1998	New York	1995
Delaware	1994	North Carolina	1996
Washington, D.C.	1999	North Dakota	1995
Florida	1997	Ohio	1997

Table 1, continued

Georgia	1996	Oklahoma	1998
Hawaii	1998	Oregon	1993
Idaho	1993	Pennsylvania	1996
Illinois	1996	Rhode Island	1996
Indiana	1998	South Carolina	1999
Iowa	1995	South Dakota	1995
Kansas	1994	Tennessee	1997
Kentucky	1994	Texas	1999
Louisiana	1992	Utah	1996
Maine	1995	Vermont	1996
Maryland	1995	Virginia	1997
Massachusetts	1999	Washington	1990
Michigan	1995	West Virginia	1993
Minnesota	1998	Wisconsin	1997
Mississippi	1995	Wyoming	1999
Missouri	1995		

Note. Table taken from Walker, Maddan, Vasquez, VanHouten, & Ervin-McLarty (2002).

Registration and notification for sex offenders were the result of two separate acts. At the forefront of groundbreaking legislation was the Jacob Wetterling Crimes against Children and Sexually Violent Offender Registration Act of 1994, which created sex offender registries nationwide. Jacob Wetterling was abducted at gunpoint in 1989, and never seen again. The individual responsible for Jacob's abduction has not been found and there is no evidence of sexual victimization. This act encouraged all states to create a sex offender registry including the names and addresses of individuals convicted of sexual or kidnapping offenses and released from prison (Tewksbury, 2002).

The Wetterling Act (1994) required persons convicted of a sexual or kidnapping offense to maintain contact with authorities for 10 years providing information regarding their whereabouts upon release from prison. The Act also clearly articulated a definition of a sexually violent predator as "a person who has been convicted of a sexually violent offense and who suffers from a mental abnormality or personality disorder that renders the person likely to engage in predatory sexually violent offenses" (Jacob Wetterling Act, 1994). The registries were created in hopes of being able to quickly identify and apprehend suspects in cases similar to Jacob's.

In 1996, Congress amended the Wetterling Act with Megan's Law. Seven-year old Megan Kanka was raped and murdered by a convicted sex offender living in her New Jersey neighborhood. Her offender had been convicted twice before of sexual offenses. Many argued that had Megan's family known a repeat sex offender was living nearby, this travesty could have been avoided. Megan's Law (1996) mandated states to determine standards regarding offender dangerousness and based on that risk assessment, officials were required to share information with the community about those perceived to be dangerous upon release from prison (Presser & Gunnison, 1999).

In addition to risk assessment of sex offenders, Megan's Law (1996) stipulated that citizens be notified of convicted sex offenders moving into their communities. Each state had a designated law enforcement entity that assessed the offender and assigned a risk level of I, II, or III, listed in increasing severity. The three-tier system was based on risk assessment; those perceived as high risk to re-offend were classified as Tier III, and those thought least likely to recidivate were designated Tier I. At any time, the level

assigned to the individual could increase or decrease in severity. Federal guidelines at this time did not mandate states to have a juvenile sex offender registry or to participate in community notification (Matson, 2001). However, states did have the option, and as of 2001, 28 states required juveniles adjudicated or convicted of a sex offense to register; that number grew to 37 states in 2003 (see Table 2; National Conference of State Legislatures [NCSL], 2011).

Table 2

States with Juvenile Sex Offender Registries

Alabama	Louisiana	Oklahoma
Arizona	Maryland	Oregon
Arkansas	Massachusetts	Rhode Island
California	Michigan	South Carolina
Colorado	Minnesota	South Dakota
Delaware	Mississippi	Texas
Florida	Missouri	Utah
Idaho	Montana	Virginia
Illinois	Nevada	Washington
Indiana	New Hampshire	Wisconsin
Iowa	New Jersey	Wyoming
Kansas	North Dakota	
Kentucky	Ohio	

Note. Created with information obtained from the NCSL website (2011).

That same year (1996) the Pam Lychner Sexual Offender Tracking and Identification Act was enacted. Pam Lychner was assaulted by a twice-convicted

offender, prompting additional legislation which required the FBI to create a nationwide database for sex offenders. The act refined registration and notification requirements making them much stricter. Offenders deemed very dangerous were required to register for life, not just 10 years. The registration and notification legislation of the 1990s gave states discretion to create registries and notification laws as they saw appropriate. Numerous variations of the laws existed, as every state had its unique version of the sex offender registry, but all shared the same foundation established by federal law.

Sex Offender Registration & Notification Act

The most recent federal sex offender legislation is the Adam Walsh Child Protection and Safety Act (42 USC § 16911, 2006). Title I of that act established the Sex Offender Registration and Notification Act (SORNA). The act created a standardized, more inclusive approach to sex offenders. The list of qualifying offenses was expanded as was the duration of registration for each Tier of offenders. The intent was to increase the amount and quality of information available to law enforcement officers and the public. Further, standardizing the registration and notification requirements created parity across all jurisdictions.

SORNA also introduced enhanced sanctions for sex offenders. Adult sex offenders are classified to tiers (I, II, & III – with higher tiers indicating increased severity; Table 3) based solely on the adjudication or conviction offense. Inchoate crimes are also qualifying offenses as attempts, solicitations and conspiracies to commit a sex offense are treated the same as completed offenses. For example, conspiracy to

commit rape results in the same classification as completed rape. The tiers carry varying periods of registration, but the most serious offenses result in Tier III designation and lifetime registration and notification (see Table 3). Tier I is where individuals convicted of the least serious offenses are classified. Offenses for this tier include video voyeurism and institutional sexual assault. Tier I offenders are required to register for 15 years, and must check in annually to ensure the information is accurate.

Tier II offenders are required to register for 25 years, and must report bi-annually to verify personal information. Examples of Tier II offenses are prostitution and related offenses, and selling or buying of children. Tier III offenders are subjected to lifetime registration and notification, with full disclosure of personal information on the website. Sex offenders must register in the jurisdiction(s) in which they live, work, and/or go to school. If the offense location does not fall within one of those jurisdictions, they must maintain registry in the offense jurisdiction as well.

SORNA, as enacted by the federal government, includes only juvenile offenders age 14 and older convicted of the most serious Tier III sexual offenses. Juvenile offenders adjudicated of Tier I and Tier II offenses are not required to registered. SORNA implicated youth are treated in a manner identical to their adult counterparts with registration and duration. However, the federal government did allow for jurisdictions to determine whether or not juvenile sex offender information would be displayed on public websites.

Interestingly, the federal version of SORNA implicated *all* sex offenders, even those whose offenses predated the legislation (42 USC § 16911, 2006). States were

given the jurisdiction to extend the registration practices established by SORNA to individuals who committed sex offenses in the past. The government has consistently held that these measures are 'regulatory, not punitive,' and thus, do not violate the ex post facto clause. This requires states to reclassify all sex offenders currently in the system using only the adjudication offense. Further, adults who were previously adjudicated or convicted of a sex offense and re-enter the system with a subsequent conviction must also be classified based upon the previous sex offense, regardless of whether or not the current offense is sexual.

The list of mandatory registration information is extensive and includes, but is not limited to, the following: a) names and aliases, including nicknames; b) e-mail addresses; c) telephone numbers; d) residential addresses; e) travel and immigration documents; f) employer name and address; g) vehicle information; h) DNA; i) fingerprints and palm prints, and j) driver's license or I.D. card. Tier III offenders are required to update and verify this information quarterly with each jurisdiction in which registration is mandated. Many of these items are posted on public registries. Failure to provide information to sex offender registries constitutes a felony, strict liability sexual offense as articulated by SORNA (2006). Jurisdictions are not required to adopt every aspect of the federal legislation, it is regarded as the floor, or baseline, from which jurisdictions build their own.

SORNA is an unfunded federal mandate. As such, jurisdictions were initially given three years to reach substantial compliance before losing 10% of Byrne funds each year of noncompliance. If jurisdictions are viewed as having met most of the requirements,

the Sex Offender Management and Tracking (SMART) Office makes a determination about whether substantial compliance has been achieved. If substantial compliance is denied, states may revise legislation and resubmit for consideration.

Table 3

Registration Requirements and Qualifying Offenses for Each Tier

Registration Requirements	Qualifying Offenses
Tier I	Unlawful restraint
15 years	False imprisonment
Annual check-in	Interference with custody of children
	Luring child into a motor vehicle or structure
	Institutional sexual assault
	Indecent assault
	Corruption of minors
	Sexual abuse of children
	Invasion of privacy
	Video voyeurism
	Material involving sexual exploitation of minors
	Material constituting or containing child pornography
	Misleading domain names on the internet
	Misleading words or digital images on internet
	Coercion & enticement
	Transportation of minors
	Filing factual statement about alien individual
	Interstate facilities to transmit information about minor
Tier II	Statutory sexual assault
25 years	Institutional sexual assault

Table 3, continued

Semi-annual check-in	Prostitution and related offenses Obscene and other sexual materials & performances Sexual abuse of children Unlawful contact with minor Sexual exploitation of children Sex trafficking of children by force, fraud, or coercion Sexual abuse of minor or ward Abusive sexual contact Selling or buying of children Production of sexually explicit depictions of a minor for importation into the US Transportation generally
Tier III	Kidnapping
Lifetime	*Rape
Quarterly check-in	Statutory sexual assault *Involuntary deviant sexual intercourse (IDSI) Sexual assault Spousal sexual assault *Aggravated indecent assault Indecent assault Incest Sexual abuse Aggravated sexual abuse **Tier 2 offenders with subsequent felony conviction **Two or more convictions of Tier I or Tier II offenses

Table 3, continued

Note. * Juvenile qualifying offenses. Solicitations, attempts, and conspiracies for all of the above offenses are included.

Pennsylvania

Legislative developments in Pennsylvania reflect the federal evolution of sex offender laws. The 1990s were a pivotal decade for juvenile justice in the Commonwealth. Aside from legislation at the federal level, several states were enacting policies endorsing increasingly punitive sanctions. For example, Pennsylvania amended The Juvenile Act during a special session in 1995, which introduced harsher sanctions and facilitated the transfer of juveniles to criminal court. In 1995, Governor Tom Ridge enacted Megan's Law. Under this law, only juveniles convicted as adults were subjected to registration and notification. Individuals convicted of sex offenses were required to register for 10 years, unless an assessment by a member of the Sex Offender Assessment Board (SOAB; see description below) suggested they were a sexually violent predator (SVP). SVPs are mandated to monthly treatment sessions and lifetime registration.

In 2003, the Commonwealth passed Act 21 allowing civil commitment for juvenile sex offenders and which made Pennsylvania the only jurisdiction to have civil commitment for juveniles and not for adults. Act 21 (2003) stipulates that juveniles adjudicated of particular sexual offenses (Rape, IDSI, AIA, Sexual Assault, Indecent Assault, & Incest) must be assessed by a SOAB member if they are still in a placement facility at age 20. The assessment and the SOAB's recommendation are considered

during a judicial hearing to determine whether the juvenile should be civilly committed on an involuntary basis for further treatment once they reach the age of 20 and face aging out of delinquent supervision. If the court hearing results in involuntary civil commitment for the juvenile, they are ascribed the title of Sexually Violent Delinquent Child (SVDC) and are required to register for life. If an individual is civilly committed, their case is revisited annually to review whether or not involuntary commitment should continue.

Prior to SORNA, Pennsylvania only registered juvenile sex offenders who were convicted as adults and those who were assessed by SOAB and determined to be a SVDC as a result of Act 21. Thus, risk assessment was the driving force for the classification of sex offenders in Pennsylvania. SORNA created a shift to a purely offense-based classification resulting in automatic registration.

The road to enactment and implementation SORNA for Pennsylvania has been long. SORNA was passed 8 years ago at the federal level, and four years later, Pennsylvania was the 16th state to enact the law. Pennsylvania applied for several compliance deadline extensions, the most recent having a deadline of July 27, 2012. The initial extensions were given unilaterally across the nation due to the massive overhaul some states faced by implementing SORNA. The restructuring necessary for tier placement, alterations to risk procedures currently in place, and implementation and development of new software required by SORNA were recognized as being time consuming. However, because of resistance to SORNA, one last blanket deadline extension (July 27, 2012) was granted for jurisdictions. Once this time limit expired,

jurisdictions that did not achieve substantial compliance with the federal guidelines lost 10% of Byrne funds.

In Pennsylvania, the draft legislation (HB 1138) of SORNA existed since November of 2007, but lawmakers were wary of instituting the law. After numerous revisions, Pennsylvania's version of SORNA (42, Pa.C.S.A. Sec. 9799), passed the Senate Judiciary Committee on October 25, 2011, the House Judiciary Committee on December 5, 2011 (Ganim, 2011; Sarfert, 2011), Governor Corbett signed the law on December 20, 2011, and it became effective one year later on December 20, 2012. For a detailed timeline for SORNA in Pennsylvania please refer to Figure 2. An amendment excluding juveniles from the public registry and lowering registration from lifetime to 25 years for juveniles with a clean record and treatment completion enabled the bill to move beyond the Judiciary Committees. Juveniles are required to submit the same information as adults, but unlike their adult counterparts, juvenile information is not accessible on the public website as it is maintained privately in the PSP sex offender registration database.

Juveniles adjudicated of Rape, Involuntary Deviate Sexual Intercourse (IDSI), Aggravated Indecent Assault (AIA), and all variations and inchoate versions of those crimes must initially register for life and may only qualify for removal after 25 years without any subsequent offenses, successful completion of parole, probation, or any form of supervised release, and sex offender treatment.

Pennsylvania requires juveniles to register immediately upon disposition. Juvenile probation departments are required to complete initial registrations with offenders. Subsequent verifications (quarterly check-ins and updates in between) and

registrations from out-of-state offenders are completed by the Pennsylvania State Police at various registration sites located at barracks throughout the Commonwealth. Additionally, youth who were under delinquent supervision at the time of SORNA implementation and were previously adjudicated of a triggering offense were required to register.

In Pennsylvania, juveniles age 14 and older adjudicated of a qualifying offense are required to abide by all of SORNA’s requirements, though judges may exercise discretion as to whether or not the registration information is made public. Quarterly visits to verify registry information are mandated. Failure to complete a check-in results in a felony conviction for juveniles and carries a mandatory sentence of 2 (first offense) to 5 (subsequent offenses) years, depending on whether or not it is the first violation.

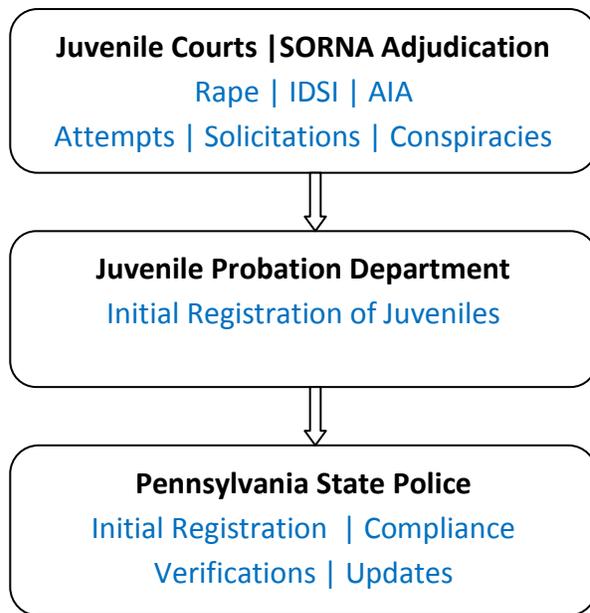


Figure 1

Diagram of SORNA Agencies and Responsibilities in Pennsylvania

SORNA as applied to juveniles in the Commonwealth has resulted in three legal challenges. Cases from York (In the interest of J.B., et al, 2013), Monroe (In the Interest of B. B., et al, 2014), and Lancaster (In the Interest of W. E., et al, 2014) counties have found SORNA provisions relating to juveniles unconstitutional. In all three cases, the petitioners argued that SORNA is 'retroactive and has a punitive effect (Ex Post Facto Clause), the statute created an irrebuttable presumption (Due Process), the statute imposes cruel and unusual punishment (8th amendment), that the statute impaired a fundamental right to reputation, and that the statute is in direct conflict with provisions of the Juvenile Act' (In the interest of B. B. et al., 2014, p. 2).

The first case declaring SORNA provisions unconstitutional stemmed from York County in November of 2013. Several challenges were addressed in this groundbreaking case. Judge John Uhler held that SORNA violated juvenile constitutional rights both 'retrospectively and prospectively' (In the interest of J.B., et al, 2013, p. 41). All petitioners were adjudicated of a SORNA offense prior to the implementation date, but were still under delinquent supervision on December 20th, 2012, which triggered lifetime registration. Petitioners argued that the retroactive clause was a violation of *ex post facto* and Judge Uhler agreed. In addition to finding SORNA's requirements to be cruel and unusual punishment(8th amendment), the ruling judge cited SORNA's mandates as being in direct conflict with the Juvenile Act guidelines concerning the rehabilitative nature and individualized approach of the juvenile court. SORNA was also found to be in violation of juvenile offenders' due process rights. Under SORNA, there are no hearings to determine whether the adjudication of a particular offense is truly

indicative of the risk presented by the defendant. The decision was stayed while the appellate court decision was pending.

Subsequent cases from Monroe and Lancaster County resulted in similar decisions. The end result in all cases was that the youth were removed from the registry. In each case, judges explicitly considered research that differentiates juveniles from adults developmentally (In the interest of J.B., et al, 2013; In the Interest of B. B., et al, 2014; In the Interest of W. E., et al, 2014). Further, the judiciary acknowledged the research concerning juvenile sex offenders and low recidivism rates, in addition to amenability to treatment.

In May of 2014, the Pennsylvania Supreme Court heard arguments concerning the appeal filed over the rulings in York, Lancaster, and Monroe Counties (cases were consolidated). Central to this hearing, and those at the three lower courts was *Alabama v. Miller* (2012; In the interest of J.B., et al, 2013; In the Interest of B. B., et al, 2014; In the Interest of W. E., et al, 2014). The Miller decision held that mandatory life sentences without the possibility of parole for juveniles was a violation of the 8th amendment's proportionality of punishment clause.

At the time of the most recent version of this project (December, 2014) a decision from the Supreme Court regarding the constitutionality of SORNA for juveniles was forthcoming. Should the Pennsylvania Supreme Court find SORNA unconstitutional as it applies to juveniles, the Commonwealth will not lose Byrne funds, juveniles on the registry be removed, and SORNA will no longer be applicable to juveniles in the Commonwealth. A detailed timeline for SORNA is presented in Figure 2.

Sex Offender Assessment Board (SOAB)

The Sex Offender Assessment Board (SOAB) was created by Pennsylvania's Megan's Law in 1995, and the agency is unique to the Commonwealth. Board members ($N = 76$) are appointed by the Governor and serve four-year terms. The SOAB responds to requests from the courts and the Pennsylvania Board of Probation and Parole (PBPP) to perform services for cases. Duties of the SOAB members generally include conducting assessments and evaluations of offenders, assisting with sexually violent predator (SVP) and SVDC determinations in some cases, serving as expert witnesses, and administering treatment to offenders. Before SORNA, only those offenders labeled as SVPs and SVDCs were subjected to lifetime registration and required to complete monthly treatment sessions with a SOAB treatment provider. Further, the SOAB had no involvement in juvenile cases until Act 21 was implemented in 2004 and mandated juvenile courts to refer certain juvenile sex offenders to SOAB for assessment to discern whether or not involuntary civil commitment was appropriate.

The SOAB processes hundreds of cases across the commonwealth every year (see Table 4). Records indicate that 67 counties ordered 7,782 assessments from July 8, 2000 through January 31, 2009 (SOAB, 2011). Within the last 12 months of that specified time frame, SOAB experts testified in 451 SVP hearings, received 981 assessment requests from PBPP, and 1,096 court-ordered assessments. Since the implementation of Act 21 in February of 2004, the SOAB conducted investigations and assessments on 142 juveniles, which translates to about 28 cases annually based upon the period of consideration. As of November 2014, 43 SVDCs were currently on the

registry statewide (SOAB, 2014). Due to the large volume of cases in Philadelphia, a separate column was created to reflect that county compared to the rest of the commonwealth.

Table 4

Annual Totals for Sex Offender Cases Handled by SOAB, Across the Commonwealth and for Philadelphia

Year	Commonwealth	Philadelphia <i>n</i> (%)
2000	185	39 (21%)
2001	717	151 (21%)
2002	652	84 (13%)
2003	695	99 (14%)
2004	976	168 (17%)
2005	1063	207 (20%)
2006	1147	233 (20%)
2007	1081	236 (22%)
2008	1182	187 (16%)
2009	1138	180 (16%)
2010	1256	205 (16%)
2011	1256	202 (16%)
2012	1121	184 (16%)
*2013	679	100 (15%)

Note. *2013 numbers are for January-June only.

SMART Evaluation of Pennsylvania’s SORNA

The federal Office of Sex Offender Sentencing, Monitoring, Apprehending, Registering, and Tracking (SMART) office evaluates 14 components to decide whether or not each jurisdiction's version of sex offender registration and notification policies are substantially compliant with the Adam Walsh Act. The 14 sections that comprise the Substantial Implementation Checklist-Revised are: I) immediate transfer of information; II) offenses that must be included in the registry; III) tiering of offenses; IV) required registration information; V) where registration is required; VI) initial registration: generally; VII) initial registration: retroactive classes of offenders; VIII) keeping the registration current; IX) verification/appearance requirements; X) public registry website requirements; XI) community notification; XII) failure to register as a sex offender: state penalty; XIII) when a sex offender fails to appear for registration; and XIV) when a jurisdiction has information that a sex offender may have absconded (SMART Office, 2014).

Pennsylvania's SORNA was deemed substantially compliant as 10 out of the 14 sections conformed entirely to the federal legislation. The deviations from the federal statute were not severe enough to result in a denial of substantial compliance. The first divergence involved section II (offenses that must be included in the registry) and the lack of direct equivalents of PA's sex offenses for non-forcible sexual acts (e.g., statutory sexual assault) with a minor of 16 or 17 years of age, and sexual offenses resulting in death. Juvenile registration also falls under section II and because PA limits the registration of juveniles to only 3 offenses (rape - all variations and inchoates; IDSI - all

variations and inchoates; AIA - all variations and inchoates); it is not entirely compliant as the federal statute mandates registering all Tier III juveniles.

PA classifies statutory sexual assault and institutional sexual assault as Tier II offenses, which diverges from the federal statute under which juveniles adjudicated of sexual acts with minors less than 16 years of age are considered Tier III. This alternate tiering is a departure from section III, tiering of offenses. Information on temporary or transient employment is not required per PA's law which is also a divergence from the federal SORNA (section IV).

The last area of departure from federal legislation for PA's version of SORNA concerns the retroactivity clause (section VII). In Pennsylvania, only those juveniles convicted of a qualifying offense on or after the effective date of SORNA on December 20th, 2012, or those who were adjudicated of a qualifying offense prior to that date and were still under the supervision of the court for that sex offense when the statute became effective are required to register. The retroactivity clause is different for juveniles than for adults in PA. Despite these departures from the federal legislation parameters, PA is still considered to be substantially compliant with SORNA and is not subject to losing Byrne funds.

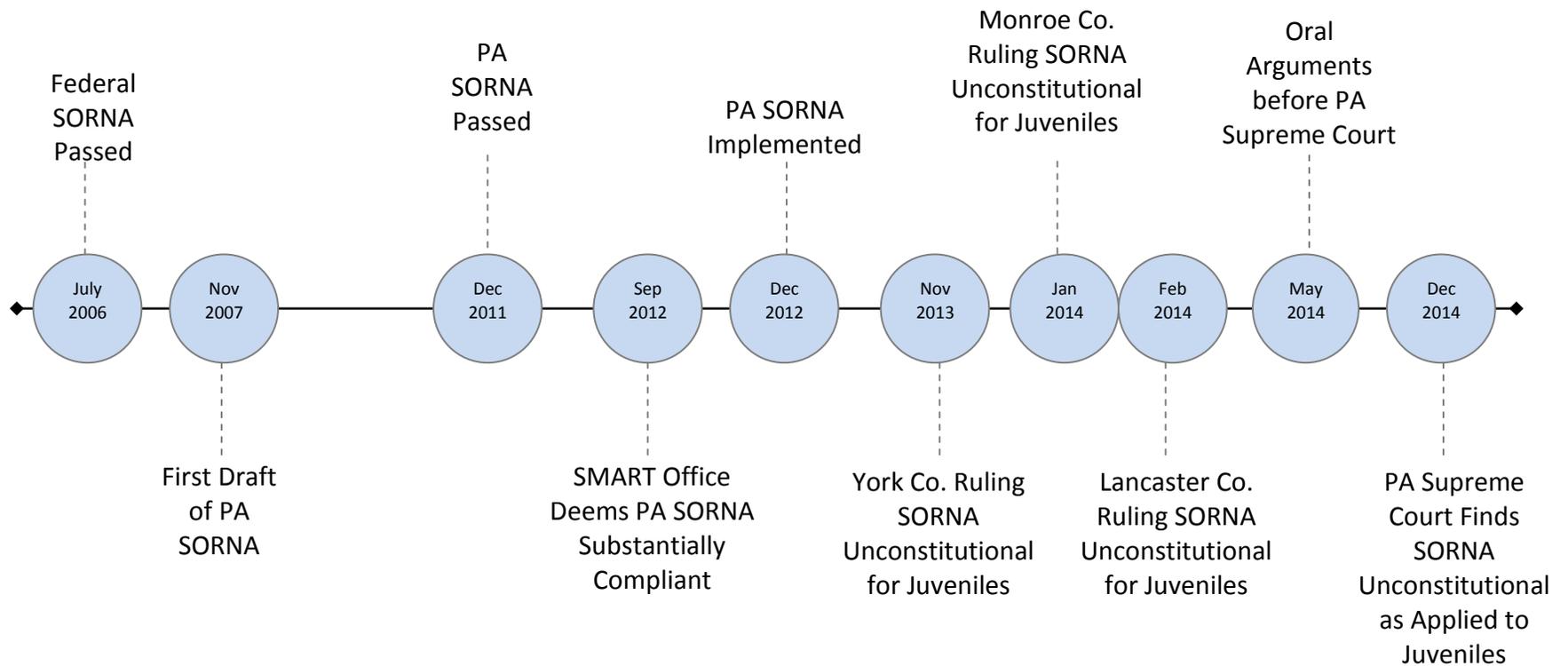


Figure 2

Timeline of SORNA in Pennsylvania

Objections to SORNA

Four common themes consistently arose in jurisdictions resisting the implementation of SORNA: juvenile registration, retroactivity, the tiers (classification and consequences) and cost (Baldwin, 2011; NCJIS, 2009). In 2009, SEARCH of the National Consortium for Justice Information and Statistics (NCJIS) conducted a survey of states regarding the status of SORNA legislation. Of the 47 states that responded, the most common barriers to reaching substantial compliance and implementation were juvenile registration ($n = 21, 45\%$), retroactivity ($n = 21, 45\%$), tiers (classification and requirements; $n = 10, 21.3\%$), and cost ($n = 8, 17\%$).

In January 2011, the U.S. Congress held a hearing to explore why so few jurisdictions had implemented SORNA. At the time of this hearing, only 4 states (DE, FL, OH, SD) were substantially compliant. The SMART office released an implementation status report on January 31st, 2011 delineating the barriers to substantial compliance for jurisdictions (Baldwin, 2011). The results largely mirrored those from the SEARCH survey (2009). The most common barrier reported was juvenile registration/requirements ($n = 23, 50\%$). Pennsylvania, along with 11 other states ($n = 12, 26\%$), cited including juveniles as the *sole* barrier to implementation. Retroactivity ($n = 7, 15.2\%$), tiers ($n = 12, 26\%$), and cost ($n = 3, 6.5\%$) were again identified as problematic provisions of the legislation. The most recent numbers from the SMART Office (November, 2014) indicate that 83 jurisdictions (17 states, 63 tribes, and 3 territories) have substantially implemented SORNA.

Table 5

Dates of SORNA Compliance for States

State (<i>N</i> = 17)	Date of Compliance
Alabama	June, 2011
Colorado*	July, 2013
Delaware	March, 2010
Florida	December, 2009
Kansas	July, 2011
Louisiana	April, 2011
Maryland*	July, 2011
Michigan	April, 2011
Mississippi	July, 2011
Missouri*	July, 2011
Nevada	February, 2009
Ohio	June, 2008
Pennsylvania	September, 2012
South Carolina	April, 2011
South Dakota	July, 2010
Tennessee	July, 2011
Wyoming	July, 2009

Note. *States required revisions to reach compliance.

Juvenile Registration

A prevalent objection to the implementation of SORNA was juvenile registration.

There are misconceptions about juvenile sex offenders, recidivism rates, and offending patterns. Letourneau and Miner (2005) identified three misconceptions commonly

associated with juvenile sex offenders: a) juvenile offending, including sex offenses, plagues our society; b) juvenile sex offenders share more commonalities with adult sex offenders than with their juvenile counterparts; and c) without sex offender treatment, juvenile sex offenders are very likely to recidivate. Pennsylvania's SORNA legislation explicitly states, 'sex offenders pose a high risk of committing additional sexual offenses...' (SORNA, Section 9799.12, 2011). Research has demonstrated that contrary to popular belief, juvenile sex offenses are not increasing, very few youth who sexually offend continue sexually offending into adulthood, and juveniles are amenable to treatment. The following section reviews the prevalence and recidivism of juvenile sex offending to paint a more accurate picture of offending – both nationally, and in Pennsylvania.

Prevalence and Recidivism

A multitude of factors surrounding juvenile sex offenders such as media reports and public opinion may misconstrue the actual prevalence of such offenses. Thus, careful consideration of official statistics to obtain a more accurate picture of the prevalence of youthful sex offending is warranted. At the time SORNA was passed at the federal level, official statistics suggest that juvenile crime and juvenile sexual offending rates were at the lowest rates the nation had seen in over two decades; a trend that has continued.

The 10-year period leading up to the passage of the federal SORNA in 2006 (1997-2006) revealed there were significant decreases nationwide in juvenile crimes known to police (FBI, 2007). There was a 31% decrease in juvenile offenders reported to

police for forcible rape from 1997 ($n = 3,047$) to 2006 ($n = 2,104$). Arrests for sexual offenses indicated a decline from 11,065 (1997) to 9,293 (2006), or a 16% decrease for juvenile arrests. As a note for comparison, during this same 10-year period, there was a 24% decrease for juvenile crimes known to police and arrests in all Part I and Part II categories of crime as recorded by the UCR, mirroring the general decline in juvenile offending (FBI, 2009).

Not only were juvenile sexual offenses going down during the period proceeding the federal enactment of SORNA, there is evidence that juvenile sexual offending and delinquency in general continued to decline in the years following enactment. According to the UCR, over the 10-year period from 1999-2008, there was a 27.2% decrease in juvenile offenders reported to police for forcible rape from 1999 ($n = 2,539$) to 2008 ($n = 1,848$; FBI, 2008). Arrests for sexual offenses declined from 9,616 in 1999 to 7,849 in 2008, resulting in an 18.4% decrease in juvenile sex offense arrests. As a note for comparison, during this same 10-year period, juvenile crimes known to police and arrests decreased 15.7%, reflecting a general trend for juvenile delinquency (FBI, 2008). Snyder (2011) analyzed UCR data from 1980-2009 and juvenile arrests nationwide for forcible rape had decreased 56% from 1980. Essentially, the SORNA legislation was enacted at a time when nationwide trend data reveal that juvenile sex offenses and juvenile delinquency were at their lowest rates in nearly 20 years.

More specifically, in 2008, 736 juveniles aged 13-14 were reported for forcible rape, while 858 juveniles age 18 were reported for forcible rape (FBI, 2009). These two age categories were the largest with regard to forcible rapes known to police for youth

under age 18. Part II Sexual Offenses include all other crimes sexual in nature, but this section only reports arrest statistics. For Part II sexual offenses, the age categories of 13-14 ($n = 3,502$) and age 18 ($n = 2,470$) were also largest. Juveniles ages 13-14 were responsible for a large number of the sexual offenses for both Part I forcible rape and Part II sexual offenses.

In a report released by the OJJDP (2011) juvenile arrests in 2009 for violent crime were at their lowest since 1980. According to the Federal Bureau of Investigation's (FBI; 2009) Uniform Crime Report (UCR), persons under the age of 18 account for 14.8% of forcible rapes and 18.1% of sexual offenses. In 2009 (FBI, 2009), persons aged 18 and under accounted for 18.4% of forcible rapes in Pennsylvania.

Data from Pennsylvania suggest a similar trend for juvenile sex offenses. Figure 3 illustrates the frequencies for cases brought into the system as sex offenses (intake) and cases that are adjudicated sex offenses compared to all other juvenile offenses from 1985-2005. All offenses, not just sex offenses, peaked in 2001, but non-sexual offenses tended to increase towards the end of the time period covered, while sex offenses generally declined. Comparing the Commonwealth numbers over time to the nationwide data reveals similar trends. Thus, both nationwide and Pennsylvania trend data suggest overall declines in general and sexual juvenile offending before and after the federal legislation was enacted in 2006.

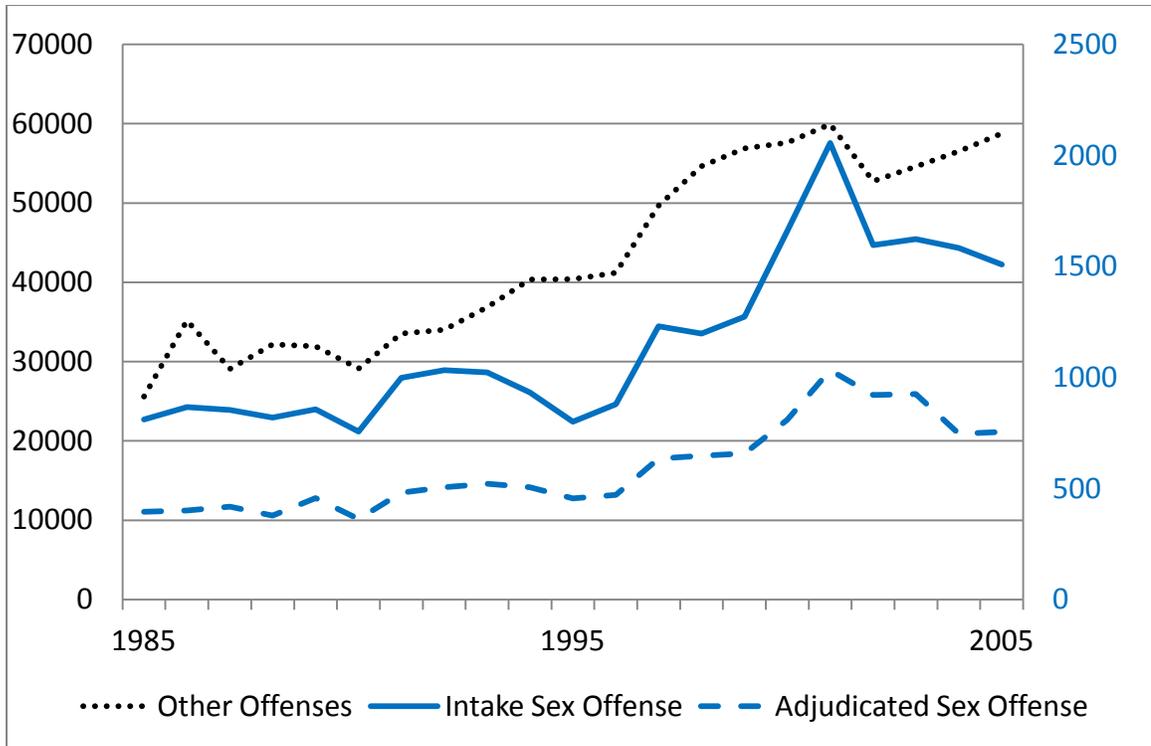


Figure 3

Frequencies of Intake and Adjudicated Sex Offenses and All Other Juvenile Offenses in Pennsylvania from 1985-2005

Recidivism Research

Much like its legislative predecessors of the mid 1990s, the Jacob Wetterling Act (42 U.S.C. § 1406, 1994) and Megan’s Law (42 U.S.C. § 13701, 1996), SORNA is not founded on empiricism. The legislation is predicated on notions associated with the most egregious, sensationalized cases in which the offender was unknown to the victim. The explicit assumptions of this legislation are that sex offenders have high rates of recidivism, the victim and offender do not know one another, and that offenders specialize in sex offenses. Registration with law enforcement agencies, coupled with community notification are seen as tools to facilitate offender apprehension, reduce

sexual recidivism and enhance public safety – or rather, produce a deterrent effect. Empirical research directly contradicts these premises, even for juvenile sex offenders (Lieb, Quinsey, & Berliner, 1998; Meloy, 2005; Mulder et al., 2012; Parks & Bard, 2006; Pittman, 2013; Reitzel & Carbonell, 2006; Sample & Bray, 2003; Worling, Litteljohn, & Bookalam, 2010; Zimring, 2004; Zimring, Piquero, & Jennings, 2007).

Empirical research suggests juvenile sex offenders are arrested only once for a sexual offense in more than 90% of cases and some studies indicate that sexual recidivism rates range from 3-4% (Zimring, 2004). Further, the National Center on Sexual Behavior of Youth (NCSBY) asserts the re-offense rate for sex offenses is markedly lower (5%-14%) than recidivism rates for other delinquent behaviors (8%-58%; NCSBY, 2003). In 2006, Vandiver discovered that 4% of the sample of male juvenile sex offenders sexually recidivated during a 3-6 year follow-up period, and over half (52.6%) of the sample was re-arrested for a non-sexual offense. A similar study involving data from 17 different states revealed comparable results, as only 4.5% of the sample committed another sexual offense (Meloy, 2005). In a meta-analysis of nine studies on juvenile sex offenders, researchers found that recidivism rates were lowest for sex offenses (12.53%) compared to non-sexual violent (24.73%), non-sexual non-violent (28.51%) and unspecified non-sexual offenses (20.40%; Reitzel & Carbonell, 2006). These results are representative of sexual recidivism, suggesting that overall, sex offenders do not commit future offenses – sexual or non-sexual - at higher rates than other offenders (Lieb, Quinsey, & Berliner, 1998; Meloy, 2005; Parks & Bard, 2006; Reitzel & Carbonell, 2006; Sample & Bray, 2003; Zimring, 2004; Zimring, Piquero, & Jennings, 2007).

Offending Patterns

In a study comparing juvenile sex offenders to juvenile non-sex offenders in the Netherlands, researchers discovered 3 sub-groups of juvenile sexual offenders (Bullens, van Wijk, & Mali, 2006). Results revealed a subgroup for juvenile child molesters, rapists/indecent assaulters, and exhibitionists. As time went on, the child molesters and rapists tended to “cross over” into property offenses. These juvenile sex offenders began their criminal careers earlier than their non-sexual counterparts and most often, the first offense was sexual in nature. It was also discovered that 10% of individuals in the exhibitionist and child molester group went on to offend sexually into adulthood, and 5% of juveniles in the rapists/indecent assaulters category sexually recidivated. Overall, the study indicated varied patterns of juvenile sex offenders and a lack of specialization in sex offenses. These results are consistent with other research (Lussier, 2005; Lussier, LeBlanc, & Proulx, 2005; Meloy, 2005; Miethe, Olson, & Mitchell, 2006; Sample & Bray, 2003; Vandiver, 2006; van Wijk, Mali, Bullens, & Vermeiren, 2007; Waite et al., 2005).

A comparison of violent juvenile sex offenders to violent juvenile non-sex offenders revealed the two groups had some distinguishing background characteristics (van Wijk et al., 2007). Youth who committed nonsexual violent crimes rarely perpetrated sexual offenses, there were a small number of females in this group, and the age at first arrest was higher in this group than for the violent sexual offenders. The study also demonstrated most members of both groups had been involved in initial serious offenses and the second offense tended to be nonviolent property crimes.

A longitudinal study of three birth cohorts in Racine, Wisconsin followed participants from birth into their 20s and 30s (Zimring et al., 2007) and found that a very small percentage of participants sexually recidivated as adults. Juvenile males who committed sex offenses comprised 4% of the sample, and most often did not commit sex offenses as adults. Results revealed that the most robust predictor of adult sexual offending was the regularity of police contacts during adolescence rather than any particular type of offense. Further, findings suggested that focusing on youth who sexually offended resulted in missing those individuals who became adult sex offenders (Zimring et al., 2007). This evidence also contradicts the premise that sex offenders specialize as most recidivism was non-sexual.

Prior research has investigated registration's potential effects on youth sexual recidivism (Letourneau, Bandyopadhyay, Sinha, & Armstrong, 2009). Using a sample with characteristics very similar to the sample used in the current study, researchers explored whether South Carolina's sex offender registry laws impacted the risk of juvenile sexual recidivism. Findings revealed a "surveillance effect" (p. 148), but not a "deterrent effect" (p. 147). Some analyses suggested that being a registered offender actually increased the likelihood of risk, or new charges. The authors surmised this may have been due to increased police attention towards registered juveniles. More importantly, there was no evidence of a deterrent effect, meaning that the policies were not meeting the goal of reducing sex offenses.

Tier-Based Classification vs. Risk Assessment

The SORNA Tiers are structured by offense severity, rather than the level of risk presented by offenders. Texas and New York cited the inclusion of juveniles as an obstacle (NCSL, 2001) to implementation. New York officials questioned paying for a policy that is unlikely to increase public safety as they felt risk assessment and classification procedures currently in practice were far more effective at protecting the community from sexual predators than the 'one size fits all' approach of offense-based classification (NCSL, 2011). While only Tier III juveniles are subjected to lifetime registration and community notification, research conducted on NY sex offenders revealed that the lower level Tiers contained some of the offenders most likely to recidivate (Freeman & Sandler, 2010).

Like New York, many states have developed risk assessment procedures with which they are comfortable using to classify sex offenders to tiers, and identify those who may be the most dangerous. Risk assessment instruments such as the STATIC-99 (Hanson & Thornton, 2008) are commonly used in states to guide classification. The offense-based approach ascribed by SORNA does not allow for any mitigating or aggravating factors to be considered in tier assignment. The classification process is automatic, based solely on the adjudication offense. Changing the classification procedures requires states to completely abandon the current risk assessment procedures. While this concern is echoed by several jurisdictions, the most prominent objection is juvenile registration.

Retroactivity

The retroactivity clause is a point of contention for many jurisdictions abstaining from implementing SORNA. The federal legislation mandated jurisdictions to reclassify offenders who are currently registered, currently involved with the system, and those who committed a sex offense prior to the legislation's enactment that were previously registered but served out their registration period. Jurisdictions were given leeway to determine how far reaching this provision would be to reclassify sex offenders. Initially, Nevada determined they would reclassify offenders dating back to 1956, and Pennsylvania's retroactivity clause implicating adult offenders dates back to November of 1996. The retroactivity clause in Pennsylvania's legislation was a point of divergence from the federal law. Though juveniles were excluded from the provision dating back to 1996, any juvenile sex offenders adjudicated of triggering offenses that were still under delinquent supervision at the time the law was implemented on December 20th, 2012 were required to register.

Cost

While there has been an increase in the number of jurisdictions reaching substantial compliance, Texas, New York, Virginia, and California have formally declined to implement SORNA (JPI, 2008; NCSL, 2011; Sex Offender Management Board, 2009) as SORNA carries a sizable price tag. Texas estimated that SORNA would cost 30 times the Byrne JAG funds they would lose for noncompliance (NCSL, 2011).

In 2008, the Justice Policy Institute (JPI) compared the implementation costs to the 10% loss of Byrne funds. According to this report, if Pennsylvania were to have implemented SORNA in 2009, it would have cost \$20,165,479. The commonwealth

received \$7,640,322 in Byrne funds in 2006, which would translate to a loss of \$764,032 for one year. The cost of implementing SORNA was projected to exceed the loss of Byrne funds by \$19,401,477, which does not include the annual software updates thought to exceed \$100,000. Ohio estimated the cost of software installation and implementation would cost \$475,000 in the first year (Ohio Legislative Service Commission, 2007). In 2012, PA received \$7,088,289 in Byrne funds, of which \$389,117 was designated to the implementation of SORNA. This alone is a substantial difference, but it is likely that due to a cumulative effect of lifetime registrants, there will be additional workloads within the juvenile and criminal justice systems translating into additional expenses.

Policy Parallels Representative of Punitive Drift

Punitive drift is the endorsement and enactment of harsher policies with an emphasis on enhanced sanctions (Baldwin, 2004; Frost, 2006). The propensity (number) and intensity (length of sanctions) of policies are factors in punitive drift. SORNA augments both the propensity (number of individuals impacted by the law) and the intensity (length of involvement with the system) of pre-existing sex offender registration and notification practices. There are analogous policy situations in the adult and juvenile justice systems that illustrate the unexpected outcomes of more punitive policies. The Three Strikes legislation and juvenile waivers to criminal court, for example, have attracted attention and undergone empirical investigations to determine the impacts of these laws.

Three Strikes

Similar to sex offender notification laws, the Three Strikes legislation originated in Washington State. While Three Strikes is an offender-based, or selective incapacitation policy, SORNA is an offense-based, or collective incapacitation policy (Auerhahn, 2003). Both pieces of legislation are linked to tragic cases receiving a great deal of media attention, thereby serving as the impetus for policy change. Adam Walsh was kidnapped and his partial remains were found not far from his home. The individual responsible for killing Adam has not been found, but his father, John Walsh, has become increasingly involved in the criminal justice community – from hosting the popular television program, *FBI's Most Wanted*, to participating in drafting legislation.

In October of 1993, Polly Klaas was murdered and sexually assaulted by a twice-convicted offender who was out on parole. This high-profile case, together with the political atmosphere in California, facilitated the passage of the unique Three-Strikes legislation (Auerhahn, 2003; Zimring, Hawkins, & Kamin, 2001). Then Governor, Pete Wilson, used this as a campaign bolsterer to demonstrate commitment to public safety, and just 5 months later, Three Strikes was passed in March of 1994 (Zimring et al, 2001).

Zimring, et al. (2001) analyzed data from three large metropolitan cities in California and concluded that Three Strikes was not responsible for a decrease in felony crime. Using a sample that identified offenders eligible for Three Strikes sanctions (experimental group) and those that did not (comparison group), crime data were compared before and after the implementation in 1994. Data were aggregated by month and a random sample was generated. Researchers separated the two and three strike groups for analysis and determined that the two-strike group was twice as large as

the three-strike group. Due to the small percentage of crime committed in California by the three-strike group (3%), the decline in crime was not attributable to the Three Strikes legislation (Zimring et al., 2001).

Another extensive policy analysis of California's Three Strikes legislation was conducted using data validated dynamic systems modeling (DSM; Auerhahn, 2003). By considering offender characteristics, the models simulated movement of offenders through the California criminal justice system that was dictated by provisions in the Three Strikes legislation. DSM acknowledges that stages of the system are independent, yet they exert influence over one another (Auerhahn, 2003, Hanneman, 1988). For example, the offender's age, race, and the size of the correctional population were considered when the movement of cases through the system was modeled. Auerhahn (2003, p. 99) carried out "predictive evaluation" by using policy parameters on the data to model the future. The results revealed a considerable increase in California's incarcerated population. Further, the proportion of elderly offenders grew substantially, as did the representation of drug offenders (Auerhahn, 2003). The models suggested the Three Strikes law was over-targeting drug offenders, rather than violent offenders. The DSM models provided evidence that the policy was having unintended consequences in that it was not incarcerating the most dangerous offenders.

Juvenile Waiver

The juvenile justice system has experienced its own controversy over laws representing a shift in system goals. SORNA is not the first policy to remove discretion in juvenile cases or to lack an empirical basis. Juvenile waivers to criminal court were the

first mechanism through which children were treated as adults. Much like with SORNA, the American Bar Association and various child advocacy groups strongly opposed waivers because they eroded the boundary between the juvenile and criminal court systems (Smith, Craig, Brodus, & Kimmelman, 2004). Serious juvenile offenders are often prosecuted as adults by those who wish to de-emphasize rehabilitation goals of the juvenile justice system and endorse retributive and punitive aims. This perceived increase in crime by chronic and violent juvenile offenders led to an increase in utilization of waivers and legislation that facilitated the process for judges and prosecutors in some cases, and mandated automatic transfer in others.

Juvenile waivers to criminal court were not an overnight phenomenon, as some states had statutes allowing transfers before the 1920s, and other states enacted the same legislation well before the 1940s (Sickmund, 2003). The juvenile justice atmosphere began to evolve in the 1960s as the line between juvenile and criminal courts started to blur. The rehabilitative assumptions of juvenile justice fell victim to inquiry and doubt, as the system moved away from positivism and rehabilitation towards a more punitive and retributive philosophy.

In the past, judicial waivers were the most common and traditional method of transfers (Butts & Mitchell, 2000; Feld, 1999; Rainville & Smith, 2003; Sickmund, 2003). Legislative and prosecutorial waivers are now the dominant forms of waivers, as judicial waivers have become more obsolete (Bartol & Bartol, 2004; Bishop, 2000). The most common method of transferring juveniles in 1998 was legislative exclusion (42%), with prosecutorial waiver accounting for 35% of transfers, and judicial waivers served as the

vehicle for transfer in 24% of cases (Rainville & Smith, 2003). The increase in legislative waivers is an indication of state expansion over control of the juvenile court by eliminating judicial discretion. Much like SORNA, legislative waivers result in an automatic outcome based solely on certain offenses.

Snyder et al. (2000) reported that in 1994 in Pennsylvania, a youth was far more likely to receive a judicial waiver to criminal court than in 1986. The increase of juvenile waivers between 1986-1994 (84%) exceeded the rise in juvenile arrest rates for violent crimes (32%). The increase in juvenile waivers in Pennsylvania is purportedly related to the following three factors: the court's harsh reaction to an influx of juvenile drug offenders, the belief that a larger proportion of delinquents were not good candidates for treatment within the juvenile justice system, and the juvenile justice system's overall response to an increase in juvenile violence was insufficient (Snyder et al., 2000). The increase in legislative waivers is evidence of punitive drift as more juvenile offenders were placed under the criminal court's jurisdiction.

Effects of Waivers on the Criminal and Juvenile Justice Systems

Prior research has demonstrated that youth who are subjected to more stringent penalties may have increased involvement with the criminal justice system. Youth transferred to adult court are more likely to recidivate than those whose cases were heard in juvenile courts (Bishop, 2000; Snyder et al., 2000). Additionally, juveniles who are tried in criminal courts and sent to prison are more likely to require protection, they are more disruptive, and are less likely to be awarded good time or qualify for rehabilitative programs in correctional facilities (McShane & Williams, 1989). Research

conducted by Rainville and Smith (2003) revealed over half (52%) of the juvenile defendants ($N = 7,135$) were detained prior to trial, 63% were convicted of the felony with which they were originally charged, and 43% of those convicted received prison sentences.

Torbet, Griffin, Hurst Jr., and MacKenzie (2000) completed a telling report on three states, Wisconsin, New Mexico, and Minnesota illustrating the impact of treating juvenile offenders as adults has on correctional resources and policy in probation, jails, and prisons. Wisconsin lowered the upper age limit by excluding all 17 year-olds from juvenile court jurisdiction, which decreased the overall workload of juvenile courts, detention facilities, and juvenile correctional institutions. However, the criminal justice system's workload increased dramatically (70% over 3 years) with the introduction of 17 year-olds into jails and prisons. With regard to policy, respondents reported the criminal justice system was ill-equipped to meet the needs of 17 year-olds automatically being placed in criminal court. Waiver petitions for 16 year-olds increased by 90% during the first year. Finally, adult probation agents expressed frustration in the challenges they encountered dealing with a population reported to be immature and dependent upon family.

New Mexico expanded juvenile court judges' sentencing authority by repealing the judicial waiver law and creating a blended sentencing approach. This allowed judges the option of imposing criminal or juvenile sanctions on certain offenders when the prosecutor provided a notice of intent to seek criminal charges (Torbet et al., 2000). New Mexico is the only state to empower juvenile court judges with so much discretion

to choose from a wide array of sanctions. Judges in New Mexico reported a lack of confidence in the juvenile justice system to rehabilitate or protect the public, and these notions affected sentencing practices (Torbet et al., 2000). Again, adult probation departments experienced additional burdens such as increased workloads, different types of clients (e.g., those who could not be employed, could not drive, etc.), and increased violations due to lack of understanding of probationary conditions.

Minnesota also expanded the authority of juvenile court judges by creating extended jurisdiction juvenile categories (EJJ; Torbet et al., 2000). EJJ meant that juveniles who committed serious offenses could receive juvenile sanctions, but if they reoffended they could potentially be subjected to criminal sanctions. The research report revealed juveniles with EJJ designations were not those the practice had intended to affect and were disproportionately African American. Individuals receiving the EJJ designation were not the most likely to reoffend. This is a crucial point, as many researchers and juvenile justice practitioners posit that the SORNA legislation is imposing attention and resources on those who present the least risk to public safety.

All three states (WI, NM, & MN) experienced implementation issues, and disjuncture was apparent between intent and actual implementation of new laws (Torbet et al., 2000). Both Minnesota and New Mexico observed an increase in plea negotiations where criminal sanctions were used in a threatening nature. Expanded sentencing laws also required new resources and interventions, and it was evident in all three states that adult correctional resources were lacking in their ability to deal with the arrival of more juvenile offenders. Perhaps most importantly, age exclusions have

unanticipated consequences as evidenced in Wisconsin. Once the age limit was lowered to 17, there was a dramatic increase of 16 year-olds receiving waivers. The results of this research illustrate the potential impacts, intended or not, of policies that affect juvenile offenders.

Current Research

The constitutionality of Pennsylvania's SORNA as applied to juveniles is currently under consideration by the Pennsylvania Supreme Court. Departures from the federal guidelines on public access to juvenile information and the retroactivity clause allowed the Commonwealth's version to be enacted as it addressed primary concerns of those who greatly opposed the inclusion of juveniles. Many other jurisdictions implemented retroactive cutoff dates for inclusion in SORNA. Pennsylvania determined that November of 1996 would be the date after which all convicted adult sex offenders would be required to register or re-register. However, this provision was not applied to juveniles. Only youth still under court supervision at the time of implementation were required to register if their offense predated the law. Another important departure aimed at offering more lenient sanctions to juvenile offenders was the privacy maintenance of juvenile information. Juvenile sex offenders are not included on the public website, but their data is maintained privately by the PSP.

The existing body of literature on juveniles and juvenile sex offending does not support the underlying premises of SORNA's provisions when focusing on individual-level impacts. Research has consistently demonstrated the following about juvenile sex offenders: a) there is no deterrent effect of sex offender registration and notification

policies; b) a large proportion are one-time sexual offenders who do not sexually offend in adulthood; c) overall, juvenile sex offenders have very low recidivism rates; d) there exist marked developmental differences between juveniles and adults; e) juveniles are amenable to treatment; and f) there are collateral consequences associated with being on the registry (i.e., stigma, difficulty finding employment).

Objections to SORNA voiced by legal advocates, researchers, and juvenile justice practitioners focus on individual-level effects with regard to how the harsh sanctions will impact young offenders. These arguments, though supported by research, are often not well-received by the public and politicians because they appear to favor offenders and be soft on crime. A policy such as SORNA can also have adverse effects on the system. To date, research has neglected to explore the potential cumulative effects of SORNA on the agencies responsible for exacting SORNA's guidelines. Thus, an alternative approach is necessary to provide a different perspective on how SORNA may impact the agencies involved with youthful sex offenders as a whole.

The current project is a mixed-method, system-level policy analysis focusing on the potential cumulative effects of SORNA on Pennsylvania's juvenile justice system. As Tier III (see Table 5) offenders are brought into the system, they will be in the system for at least 25 years, providing they do not reoffend during that period. Given the potential of recidivism, some offenders face lifetime involvement with the system. Lifetime involvement translates to a lifetime consumption of finite system resources. This research attempts to estimate the number of juveniles who may be implicated by SORNA and relate that value to potential impacts on the system.

This study serves to fill an important gap in knowledge surrounding SORNA – a system level analysis to investigate potential effects on workload and budgets. The law has been implemented and history has demonstrated a need for anticipating system consequences of punitive policies.

CHAPTER 3 | METHODS

Research Questions

The overarching aim of this project is to discover the potential impact on agencies of the Juvenile Justice System (JJS) and Criminal Justice System (CJS) responsible for abiding by and enforcing SORNA guidelines due to the inclusion of juveniles in Pennsylvania's SORNA. In order to estimate this impact, several research questions are posited.

Q₁: Who comprises the body of juvenile sex offenders in Pennsylvania?

The first research question aims to describe juvenile sexual offenders in the Commonwealth. Identifying those who are adjudicated of SORNA-qualifying sex offenses provides a more clear idea of those impacted by SORNA. Given that offender age is a key component of the legislation, demographic details of this population are important. Further, descriptive analyses are necessary to generate parameters for the simulation models (e.g., number of Tier III SORNA offenders per year).

Q₂: How many juvenile offenders might be affected by SORNA?

According to Pennsylvania's SORNA guidelines, juvenile offenders age 14 and older who are adjudicated of a Rape, Involuntary Deviate Sexual Intercourse (IDSI), Aggravated Indecent Assault (AIA), all variations of those offenses, and attempts, conspiracies, and solicitations of the three crimes are implicated by the law and subjected to potential lifetime registration and notification practices. Only those who successfully complete all court-mandated sanctions and treatment while maintaining a clean record after 25 years on the registry are allowed to petition for removal.

As such, there is potential for a sizable accumulation of juvenile offenders over the coming years. Of note, this study does not include adult offenders who are also on the registry. The figures presented herein are only representative of juvenile sex offenders.

Q₃: If offending patterns were to remain similar to those from 1985-2005, how would the workload of agencies dealing with sex offenders be affected?

Another goal of the study is to investigate how SORNA will affect the workload of agencies who handle juvenile sex offenders. Given the resources and personal stakes involved with SORNA offense adjudication, it is of interest as to whether or not attorneys and judges will alter their practices in these cases. All SORNA juveniles are required to register with the PA State Police (PSP). The volume of offenders involved with the registry is a proxy for Juvenile Probation Departments, the SOAB, and the PSP. Juvenile Probation Departments handle the initial registration for most offenders, while the PSP is responsible for verification and update transactions, and, less frequently, initial registrations. It is expected that there will be a notable increase in temporal, human, and fiscal resources to adequately manage juvenile sex offenders as delineated by SORNA. The juvenile justice system involvement may be only a matter of a few years based on the offender's age, however, the PSP will have contact with these offenders for a much longer duration at a minimum of four times per year. Based on Tier III requirements, quarterly check-ins at registration sites are necessary, as are updates for any changes (e.g., new car, new job) occurring during the quarterly dates. It is expected

that SORNA's requirements will increase the workload of the agencies and that this impact will increase as more offenders are implicated by the law each year.

Q₄: How do practitioners view SORNA's guidelines as they pertain to juveniles?

- ***Q_{4B}: How do practitioners view the registration requirements?***
- ***Q_{4B}: How do practitioners view the offense-based classification system?***

Reactions of juvenile justice system professionals to the results of the quantitative analysis that are specific to Pennsylvania and their reactions to the version of SORNA passed by the Pennsylvania legislature are likely to affect implementation of the law. Since the sole barrier to SORNA enactment and implementation for Pennsylvania was juvenile registration (Baldwin, 2011), it is likely that juvenile justice professionals are quite aware of the serious consequences accompanying SORNA. However, while juvenile justice professionals may have expectations about the consequences, their response to empirical evidence demonstrating what actually may occur is of interest.

Q₅: What would be the cumulative financial impact of including juveniles in SORNA?

While previous efforts have compared implementation costs to the loss of Byrne funds, a cumulative financial impact has not yet been considered. It has been demonstrated that the expenses associated with implementation alone far exceed that which Pennsylvania would lose for noncompliance (JPI, 2008).. While many implementation costs are incurred only once, there will be a cumulative effect given the lifetime registration and notification requirements and net widening of not only offenses for which this is required, but offenders as the years progress. As a result,

maintenance costs associated with this legislation are likely to grow continuously over the years.

Tier Description and Simulation Modeling

Data

The data analyzed in this project are administrative records collected by the Pennsylvania Juvenile Court Judges' Commission from 1985-2005¹. The data were purchased from the National Juvenile Court Data Archive, which is maintained by the National Center for Juvenile Justice in Pittsburgh, Pennsylvania. The Center is supported by a grant from the Office of Juvenile Justice and Delinquency Prevention, U.S. Department of Justice. The analyses and interpretations presented herein are solely of the author and are not representative of the Pennsylvania Juvenile Court Judges' Commission or the National Center for Juvenile Justice.

The data were collected and reported by the Pennsylvania Juvenile Court Judges Commission, 1985-2005, and housed in the National Juvenile Data Court Archive (NJDCA). Data were collected using the Juvenile Court Statistical Cards (see Appendices C, D, & E), reporting demographic and case-relevant variables. The data used for analysis stem from cases in all 67 counties in Pennsylvania. Temple University's Institutional Review Board approved the research protocol for the project (see Appendix F).

Missing Data

¹ The data were purchased from the National Juvenile Court Data Archive, which is maintained by the National Center for Juvenile Justice in Pittsburgh, Pennsylvania. The Center is supported by a grant from the Office of Juvenile Justice and Delinquency Prevention, U.S. Department of Justice. The analyses and interpretations presented herein are solely of the author and are not representative of the Pennsylvania Juvenile Court Judges' Commission or the National Center for Juvenile Justice.

Less than 1% of cases were missing data for variables central to the analysis within the 20-year time frame. Fortunately, for juvenile sex offenders there were no missing data for the adjudication offense variable. However, the age variable was missing in 6.4% of all cases. This was largely due to the fact that Philadelphia County did not report age from 1985-1990, and thus, most of the missing data were not random.

The mean age for juvenile sex offenders was 14.76 without any data replacement techniques; it was 14.85 using mean replacement and linear interpolation. While age is an important variable to the analyses presented here, the overall percentage of missing cases is small. The two data replacement techniques produced identical results. Due to the small percentage of missing values for age (6.4%), and the very small difference in mean age when using data replacement techniques, mean replacement will be used.

Analytic Procedure

Data collection practices of the Juvenile Court Judges Commission (JCJC) varied over time with respect to variables collected and the definition of race/ethnicity (see Appendices C, D, & E). Due to these changes, data were merged into three databases based upon the presence of similar variables. For example, from 1985-1990, all of the same variables were present. These 5 years were merged into one database by choosing the adding cases method in SPSS. In 1991, the operationalization of variables changed and these new practices continued through 1996. The differences are illustrated in the Juvenile Court Statistical Cards in Appendices C, D, and E. As a result, the years 1991-1996 were merged via adding cases in SPSS. The same procedure was done for the years

1997-2005. These combinations of annual data sets produced three separate databases:

a) 1985-1990; b) 1991-1996; and c) 1997-2005.

CHAPTER 4 | DESCRIPTION OF PENNSYLVANIA'S JUVENILE SEX OFFENDERS

Q₁: Who comprises the body of juvenile sex offenders in Pennsylvania?

This chapter addresses the first research question exploring the composition of Pennsylvania's juvenile sex offender population using the validation data set of all juvenile court records in the Commonwealth from 1985 to 2005. To address the first research question of the study, several descriptive analyses were conducted to generate model parameters for subsequent analyses using Dynamic Systems Modeling (DSM) and describe the juvenile sex offender population. For example, the number of offenders age 14 and older adjudicated of SORNA-qualifying offenses is a model parameter.

Tiers of Sexual Offending

The consequences of assignment to a particular registration Tier vary in three important ways: 1) the frequency of in-person meetings to update registry information, 2) the duration of registration, and 3) the level of information disclosure on the national website (42 USC § 16911, 2006; see Table 4). The current study is concerned only with Tier III juveniles adjudicated of Rape, IDSI, and AIA as those are the only SORNA-triggering offenses in the Commonwealth. However, descriptive statistics are presented on all SORNA Tiers to provide perspective on the incidence of juvenile sex offending and the frequency and severity of adjudication offenses in the Commonwealth.

To assign juvenile sex offenders to Tiers in this study, the adjudication offense outcome variable was recoded into a new variable (1 = Tier I; 2 = Tier II; 3 = Tier III) to indicate the Tier to which the adjudication offense mandates assignment. Offenses that are listed for more than one tier were assigned to the lower tier in the event the second

adjudication was not identified. For example, a secondary adjudication of an offense may be denoted as part of the charge: prostitution-4th/subsequent offense. When the subsequent conviction was noted in the charge, it was classified to the higher Tier as required by legislation. Based upon frequencies of this variable, it can be assessed how many juveniles will be affected if offending patterns remain consistent. Research suggests they have remained relatively stable over the past quarter century (Zimring, 2004).

Frequencies were conducted to discover the prevalence of juvenile sex offenses from 1985 to 2005 to determine how those offenses would be distributed between the three tiers. Over that 20-year period, there were 918,226 cases heard in Pennsylvania juvenile courts. Of that total, 12,566 (1.4%) cases were adjudicated as sex offenses and 4,234 (.005% of all cases, 37% of sex offenses) were SORNA cases. As evidenced by the figure (2) and tables (6 & 7) below, Tier III cases comprised the majority ($n = 5,929$, 51.7%) of all juvenile sex offenses, while Tier I ($n = 5,092$, 44.4%) and Tier II cases comprised the remaining half of the population ($n = 457$, 4%). Over the 21 years of data, there was an average of 242.5 ($SD = 49.4$) Tier I cases, 21.8 ($SD = 12.3$) Tier II and 282.3 ($SD = 141.5$) Tier III cases.

Table 6

Frequencies and Descriptives for the Three Tiers and Overall Sex Offense Cases, 1985-2005

All Juvenile Cases	$N = 918,226$
Sex Offense Cases	$N = 11,478$ (1.3%)

Table 6, continued

SORNA Cases	<i>N</i> = 4,234 (0.5%)			
	Tier I	Tier II	Tier III	SORNA
<i>n</i> (%)	5092(44.4%)	457(4.0%)	5929(51.7%)	4234(3.7%)
<i>M</i>	242.5	21.8	282.3	201.6
<i>SD</i>	49.4	12.3	141.5	54.4
<i>Mdn</i>	250	22	200	180

Distribution of Cases for Each Tier

A crosstabulation (*year x tier*) was created to determine the frequency of JSO cases for each year to investigate the distribution of qualifying Tier cases. Breaking the frequencies down by year for each Tier is useful in considering whether certain Tier offenses increased or decreased relative to the other Tiers. Table 7 and Figure 2 display the results of the descriptive analyses. The year with the least amount of sex offense adjudications was 1990 (*n* = 351, 3.06%). After 1995, there is a marked increase in juvenile sex offense cases that peaked in 2001 (*n* = 951, 8.29%), and generally decreased in the following years. The line graph (Figure 4) highlights the variation in the frequency of Tier III offenses, compared to Tiers I and II. As shown in Table 7, juvenile sex offense cases comprise a small percentage of all juvenile cases.

Table 7*Frequencies of Juvenile Sex Offenses by Year and Tier, the Percentage out of all Juvenile Offense Cases, 1985-2005*

Year	Tier 1	Tier 2	Tier 3	Total JSO Cases	Tier 3 SORNA Cases	% of Tier 3 that are SORNA	% of all JSOs that are SORNA	% of all Juvenile Cases that are SORNA
1985	185	19	162	366	158	97.5%	43.2%	0.6%
1986	185	28	159	528	156	98.1%	29.5%	0.4%
1987	184	30	169	546	163	96.4%	29.9%	0.6%
1988	192	25	146	506	143	97.9%	28.3%	0.4%
1989	265	15	163	600	157	96.3%	26.2%	0.5%
1990	182	13	156	351	147	94.2%	41.9%	0.5%
1991	253	10	178	607	166	93.3%	27.3%	0.5%
1992	262	9	197	648	180	91.4%	27.8%	0.5%
1993	267	6	200	657	184	92.0%	28.0%	0.5%
1994	254	6	203	643	180	88.7%	28.0%	0.4%
1995	250	0	164	414	150	91.5%	36.2%	0.4%
1996	247	9	169	587	162	95.9%	27.6%	0.4%

Table 7, continued

1997	244	27	316	824	237	75.0%	28.8%	0.5%
1998	228	21	347	831	235	67.7%	28.3%	0.4%
1999	253	22	324	805	206	63.6%	25.6%	0.4%
2000	274	35	420	729	254	60.5%	34.8%	0.4%
2001	388	40	523	1285	334	63.9%	26.0%	0.6%
2002	304	33	507	1142	298	58.8%	26.1%	0.6%
2003	273	40	529	1115	273	51.6%	24.5%	0.5%
2004	198	37	437	910	238	54.5%	26.2%	0.4%
2005	204	32	460	696	213	46.3%	30.6%	0.4%
Totals	5092	457	5929	11478	4234	71.4%	36.9%	0.5%

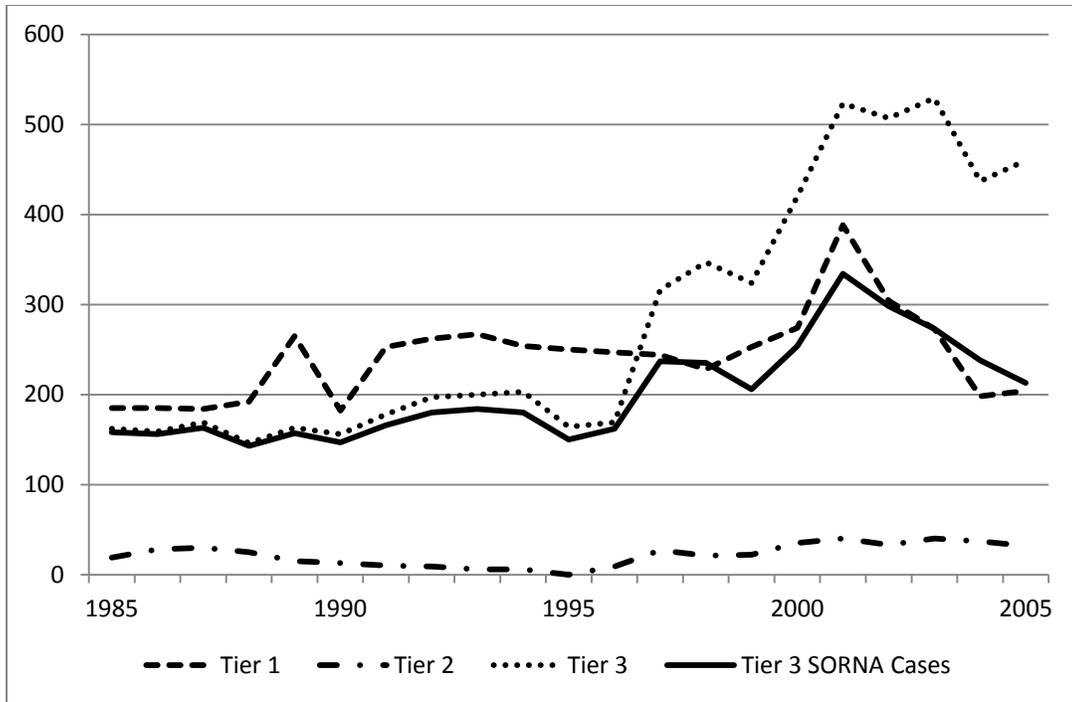


Figure 4

Frequencies for All Juvenile Sex Offense Cases by Tier, 1985-2005

Demographic and Disposition Composition of the Tiers

Sample

Over the 20-year sample period, 918,226 cases were disposed in the Pennsylvania juvenile justice system. Of those, 12,566 (1.4%) were sex offense cases in which offenders were predominantly male ($n = 12,048, 96.3\%$), with a mean age of 14.79 ($SD = 1.83$) years. It should be noted that the mode and median were 15 years of age, which is above the cutoff for inclusion according to SORNA's guidelines. The youngest sex offender was age 8, and the eldest was 21. Offenders younger than 13 were excluded from further analyses. Juvenile sex offenders were mostly White ($n = 7,565, 61.9\%$), 35% ($n = 4,270$) were Black, and the rest of the sample were Asian/Pacific

Islander ($n = 37$, .30%), Spanish-speaking ($n = 233$, 1.91%), or other (107, $n = 88\%$).

Sample characteristics are listed in Table 5.

A series of one-way chi-squares and one-way ANOVAs were conducted to determine if there were any significant differences between offenders classified to different Tiers with Tier as the Independent variable (IV), measured at the nominal level. The dependent variables (DV) were age, gender, race/ethnicity, placement (0 = no, 1 = yes), probation (0 = no, 1 = yes), pretrial detention (0 = no, 1 = yes), and delinquent history measured as whether or not the offender had prior delinquency adjudications (0 = no, 1 = yes). As previously mentioned, three datasets were created based upon data collection procedures and the availability of certain variables for a limited time period (i.e., pretrial detention only recorded from 1985-1990). Results of these analyses are presented in Table 8.

1985-1990

Tier III offenses comprised 52.4% ($n = 1,193$) of this sample, while Tier II ($n = 130$, 5.7%) and Tier I ($n = 3955$, 41.9%) offenses were less frequent. A one-way ANOVA was conducted with age as the DV, and Tier level as the factor. The model was significant, $F(2,1,163) = 23.86$, $p < .001$, and Tukey's post-hoc analysis revealed there were significant differences in the mean age of juvenile sex offenders between the Tiers. Tier I offenders ($M = 14.77$, $SD = 1.75$) were significantly younger than Tier II ($M = 16.20$, $SD = 1.17$) and Tier III ($M = 15.00$, $SD = 1.81$) juveniles. Tier II offenders were significantly older than their counterparts. Youth in all three Tiers were more likely to be male ($\chi^2[2] = 1317.19$, $p < .001$) and White ($\chi^2[8] = 27.84$, $p < .001$). The one-way chi-square with

Tier and Placement was statistically significant ($\chi^2[2] = 35.74, p < .001$), indicating sex offenders were more likely to receive placement. The analysis between Tier and Probation was significant, ($\chi^2[2] = 6.80, p = .03$), suggesting offenders in each Tier were more likely to receive probation as part of their sentence (see Table 8). Lastly, the one-way chi-square between Tier and Pretrial Detention was significant ($\chi^2[2] = 32.70, p < .001$), and revealed that Tier II and III sex offenders were more likely to be detained prior to their trial.

1991-1996

Fifty seven percent ($n = 1,533$) of all juvenile sex offense cases during this period were Tier I. Tier II ($n = 40, 1.5\%$) and Tier III ($n = 1111, 41.4\%$) cases were not as common. Much like the previous database, those who committed Tier II ($M = 15.92, SD = 1.72$) offenses were significantly older than those adjudicated of Tier I ($M = 14.62, SD = 1.82$) and Tier III ($M = 14.84, SD = 1.85$) offenses. Youth in each Tier were significantly more likely to be White ($n = 1,542, 57.5\%$). Just over half ($n = 1,376, 51.3\%$) of juvenile sex offenders were given probation as part of their disposition, and this was significantly more likely to happen for Tier I and II offenders, ($\chi^2[2] = 83.90, p < .001$). Contrary to the findings from 1985-1990, results revealed that offenders in each Tier were significantly less likely to be placed in a facility as part of their disposition ($\chi^2[2] = 127.03, p < .001$). Only one third ($n = 864, 32.2\%$) of juvenile sex offenders received placement. The chi-square analyzing Tier level and Delinquent History was significant, ($\chi^2[2] = 6.71, p = .04$), indicating that juvenile sex offenders were less likely to have any prior delinquency adjudications ($n = 399, 29.8\%$).

1997-2005

Results for this database largely mirror those for the two previous databases (see Table 8). A one-way ANOVA was conducted to determine if offender age varied significantly between the three tiers. The model was significant ($F[2,753] = 376.51, p < .001$), and Tukey's post-hoc analysis revealed that Tier II ($M = 16.23, SD = 1.59$) juveniles were again significantly younger than Tier I ($M = 14.55, SD = 1.86$) and Tier III ($M = 14.59, SD = 1.88$) offenders. Juvenile sex offenders during this period were more likely to be male ($n = 6282, 96.4\%; \chi^2[6] = 140.17, p < .001$) and White ($n = 4008, 64.4\%; \chi^2[8] = 42.04, p < .001$). With regard to case disposition, JSO cases in all three Tiers were significantly less likely to receive placement ($\chi^2[2] = 192.2, p < .001$). Lastly, offenders in Tier I ($n = 1,216, 51.4\%$) were significantly more likely to receive probation as part of their sanction than offenders in Tiers II ($n = 136, 47.4\%$) and III ($n = 1,579, 40.9\%$), ($\chi^2[2] = 66.32, p < .001$).

Table 8*Demographics for Juvenile Sex Offense Cases by Tier, 1985-2005*

1985-1990		Tier 1	Tier 2	Tier 3	SORNA
	<i>n</i> (%)	1193 (52.4%)	130 (5.7%)	955 (42%)	924 (40.6%)
Age		<i>M</i> = 14.8, <i>SD</i> = 1.8	<i>M</i> = 16.2, <i>SD</i> = 1.2	<i>M</i> = 15, <i>SD</i> = 1.8	<i>M</i> = 15, <i>SD</i> = 1.8
Gender	Male	1172 (98.2%)	24 (18.5%)	938 (98.2%)	910 (98.5%)
	Female	21 (1.8%)	106 (81.5%)	17 (1.8%)	14 (1.5%)
Race	Black	437 (36.6%)	49 (37.7%)	437 (45.8%)	432 (46.8%)
	White	698 (58.5%)	80 (61.5%)	468 (49%)	445 (48.2%)
	Spanish-speaking	40 (3.4%)	1 (0.8%)	38 (4%)	37 (4%)
	Other	18 (1.60%)	1 (3.4%)	12 (1.2%)	10 (1.1%)
Placement		354 (30%)	48 (56.3%)	467 (48.9%)	455 (49.2%)
Probation		704 (59%)	63 (48.5%)	384 (40.2%)	367 (39.7%)
Pretrial Detention*		209 (17.5%)	53 (37.9%)	225 (23.6%)	214 (23.2%)

1991-1996		Tier 1	Tier 2	Tier 3	SORNA
	<i>n</i> (%)	1533 (57.1%)	40 (1.5%)	1111 (41.4%)	1022 (38.1%)
Age		<i>M</i> = 14.6, <i>SD</i> = 1.8	<i>M</i> = 15.9, <i>SD</i> = 1.7	<i>M</i> = 14.8, <i>SD</i> = 1.9	<i>M</i> = 14.8, <i>SD</i> = 1.9
Gender	Male	1479 (96.5%)	22 (55%)	1071 (96.4%)	990 (96.9%)

Table 8, continued

	Female	43 (2.8%)	18 (45%)	29 (2.6%)	24 (2.3%)
Race	Black	512 (33.4%)	16 (40%)	400 (36%)	372 (36.4%)
	White	917 (59.8%)	20 (50%)	605 (54.5%)	557 (54.5%)
	Spanish-speaking	69 (4.5%)	4 (10%)	66 (5.9%)	60 (5.9%)
	Other	35 (2.3%)	0	40 (3.6%)	33 (3.2%)
Placement		334 (23.7%)	8 (20%)	492 (44.3%)	462 (45.2%)
Probation		899 (58.6%)	24 (60%)	453 (40.8%)	404 (39.5%)
Delinquent History**		210 (13.7%)	5 (12.5%)	184 (16.6%)	174 (17%)

1997-2005		Tier 1	Tier 2	Tier 3	SORNA
	<i>n</i> (%)	2366 (36.3%)	287 (4.4%)	3863 (59.3%)	2288 (35.1%)
Age		<i>M</i> = 14.6, <i>SD</i> = 1.9	<i>M</i> = 16.2, <i>SD</i> = 1.6	<i>M</i> = 14.6, <i>SD</i> = 1.9	<i>M</i> = 14.7, <i>SD</i> = 1.9
Gender	Male	2303 (97.3%)	244 (85%)	3735 (96.7%)	2231 (97.5%)
	Female	54 (2.3%)	43 (15%)	110 (2.8%)	45 (2%)
Race	Black	872 (36.9%)	110 (38.3%)	1176 (30.4%)	726 (31.7%)
	White	1358 (57.4%)	163 (53.8%)	2487 (64.4%)	1434 (62.7%)
	Asian/Pacific Islander	14 (0.6%)	2 (0.7%)	16 (0.4%)	8 (0.3%)
	American Indian	3 (0.1%)	0	0	0
	Other	1 (0.1%)	2 (0.7%)	9 (0.2%)	9 (0.4%)

Table 8, continued

Placement	639 (27%)	102 (35.5%)	1720 (44.5%)	1178 (51.5%)
Probation	1216 (51.4%)	136 (47.4%)	1579 (40.9%)	802 (35.1%)

Note. *Only available for this database. **Only available for those years, missing for Philadelphia. Categories for the race/ethnicity variables changed during the data collection period. American Indian was an option from 1991-2006, while Spanish-Speaking was an option from 1985-1990.

CHAPTER 5 | SIMULATING ESTIMATES OF SORNA-INVOLVED YOUTH

Q₂: How many juvenile offenders might be affected by SORNA?

Dynamic Systems Modeling (DSM) has been used previously for policy analysis (Auerhahn, 2003) and similar system models have been utilized for system planning (Blumstein & Larsen, 1969; Cassidy, Peters, & Turner, 1979; Cohen, Fields, Lettre, Stafford, & Walker, 1973). Auerhahn (2003) employed simulation to the California Criminal Justice System investigate the efficacy of California's Three Strikes Law at incarcerating the most dangerous offenders. The use of simulation here allows models to depict movement through the juvenile justice system, while assuming non-independence between the stages and agencies of the system, and acknowledging that parameters at each stage or agency may influence later outcomes (Auerhahn, 2003; Hanneman, 1988). Simulation models also permit the modeling of the complex and nonlinear nature of the process by which individuals move through the system. The movement in the juvenile justice system is not unidirectional (Auerhahn, 2003; Hanneman, 1988). This technique simulates the movement of juvenile sex offenders on and off the registry, using guidelines established by the SORNA legislation.

The juvenile sex offenders are considered elements or units of analysis in this model. The dynamic systems model represents the movement of elements from one stage to another in the system (Hanneman, 1988, p. 36). DSM permits for delays in movement from one stage to the next in the system, and also acknowledges that given certain characteristics, elements may have longer durations in the system than others (Hanneman, 1988). Further, DSM does not consider all relationships to be linear, 'one-

way', or static (Hanneman, 1988, p. 142). This is especially functional for modeling the varying registration periods of offenders who are able to petition for removal after 25 years, and those who will maintain lifetime involvement with the registry. DSM is appropriate for the analysis here as the juvenile registry population is constantly in flux. DSM has the capacity to alter the juvenile registry population by varying levels, at varying times, and in different directions.

The data from 1985-2005 allow for validation checks on the models, serving as an assessment on how well the models fit the data based upon the accuracy of reproducing past results. The analyses were completed using the STELLA[®] (isee systems, 2012) software for dynamic systems modeling. The selected time frame for forecasting is 40 years (2013-2052).

The prediction time frame begins in 2013 and ends in 2052. The data from 1985-2005 reveal the trends of juvenile sex offenses during that time frame, which assist in prescribing the parameters of the simulation models. For example, beginning in 1985, juvenile sex offenses increase generally, peak in 2001, and then decrease thereafter. This one substantial peak within the specified time frame can be used as a model parameter that considers the overall trends of offenses. It is not a year-to-year comparison, meaning that 1985 would not be used to build the simulation for 2013, but rather, an overall depiction during a time frame, from which annual totals based upon the period trends can be obtained. Stated otherwise, the data from 1985-2005 provide an overall picture of juvenile sex offender trends during a 20-year time frame. The simulation models assume the 20-year trends remain the same and this information is

used to guide parameters. For example, a juvenile offender is initially drawn from the juvenile population, and is adjudicated with a Tier III offense. This offender maintains a clean record, completes treatment, and is removed from the registry after 25 years, at which point the offender's involvement with the system is complete.

Within the construction of simulation models, lies the assumption that one defendant is tied to each case, and thus the actors or elements of interest are the offenders on the sex offender registry over the course of time. Richmond (2003) aptly described simulation in terms of nouns (stocks) and verbs (flows). The flows dictate the rate at which the unit of analysis accumulates and depreciates from the stocks. Flows can be bi-directional or unidirectional. The course of the flow is indicated by the direction of the arrow. Converters are model components that dictate the rate of flow from one stock to another. These are not represented graphically in the figures, rather, they are differential equations entered into the software. Differential equations represent physical quantities and their rate of change by defining the relationship between the two (Hannon & Ruth, 2001).

Depending on the literature, terminology for the same model components can vary. Stocks in STELLA are the same as sources and sinks in other simulation software. Sinks/Sources serve as the suppliers for the model, meaning that these populations are the pool from which the data elements are drawn and subsequently absorbed (Auerhahn, 2003, 2007; Hanneman, 1988). There are four different types of stocks one of which is included in this analysis - a reservoir. At any moment in time, the stocks provide a snapshot glance at the number of defendants at that stage in the system

(Richmond, 2003). Depending on model design, reservoirs can serve as resources for model initiation and objects that absorb and release defendants as prescribed by parameters.



Figure 5

Depiction of the Agencies and Responsibilities Involved with Juvenile Sex Offenders

Figure 5 identifies the agencies and populations of interest for the simulation models. The number of youth registered via PSP will serve as a proxy for Juvenile Probation Departments. Depending on circumstances, many juvenile probation departments are handling the initial registration of juvenile sex offenders.

Simulation Models

Simulation models were created using STELLA dynamic systems modeling software, version 9.1.4 (2012) in order to assess the potential number of juveniles that will be impacted by PA’s SORNA. The simulation models were based on PA Juvenile Court Data from the National Juvenile Court Data Archive (NJCDA) for all juvenile sex offense adjudications across the Commonwealth. The data were used to calculate Tier III SORNA offense adjudication figures on which the simulation models were based.

The juvenile court data do not contain personal identification information, which is a limitation to the current project. Data points for the social security number and

State Identification Number are removed by the NJCDA. Thus, it is not possible to discern the actual number of juveniles versus the number of cases or dispositions. The models are built on an assumption of a 1:1 ratio for juvenile to SORNA adjudications. Given the low levels of recidivism in this population, it is unlikely that juveniles will be adjudicated of more than one SORNA offense during the validation data period (1985-2005).

An excerpt of code for the models is in Appendix H. The models were built using an ARRAY structure, treating each year as a cohort with a potential expiration date for offenders who did not recidivate after being registered for 25 years. SORNA stipulates that individuals who do not recidivate for 25 years may petition to be removed from the registry. The offenders expected to recidivate remain in the model as lifetime registrants. Three different estimates of Recidivism rates (see below; Low, 4.85%; Moderate, 14%; High, 45%) were employed to dictate the proportion of offenders who transferred out of the model. The volume of offenders cycling out of the model is based on the presumption that petitions for removal at the 25-year mark will be granted.

Calculating Recidivism Parameters

According to SORNA guidelines in Pennsylvania, youth who are subjected to lifetime registration initially, but maintain a clean record and complete all treatment requirements may petition to be removed from the registry after 25 years. Stated simply, those who recidivate remain on the registry (in the model), those who do not recidivate are removed from the registry (cycle out of the model). In order to simulate the impact of this SORNA tenet, recidivism parameters were created. An extensive

review of juvenile sexual offending literature yielded a range recidivism rates for juvenile sex offenders. Table 9 displays each study, the nature of the recidivism and the rate at which the sample reoffended. Given that the distribution of the recidivism rates was positively skewed, median values were used to generate Low (4.85%), Moderate (14%), and High (45.10%) recidivism parameters for the simulation models. When using Low recidivism parameters, the model cycles out 95.15% of each cohort of offenders after 25 years. Conversely, when High recidivism parameters (45.10%) are in place, 54.9% of each annual cohort will cycle out of the model (see Table 10).

Table 9*Juvenile Sexual Offending Recidivism Studies Listed by High, Medium, and Low Levels of Recidivism*

	Authors	Year	N	Follow-up period	Recidivism Measure	Nature of Recidivism	Recidivism Rate
Low 0-10%	Becker	1990	80	2 years	Self-report	Sexual	9.60%
	Brannon & Troyer	1995	36	4 years	Adult Conviction	Sexual	3%
						Nonsexual	14%
	Hagan & Cho	1996	100	2-5 years	Conviction	Sexual	9%
						Nonsexual	46%
	Hagan, Gust-Brey, Cho, & Dow	2001	50	8 years	Conviction	Sexual	10%
	Hagan, King, & Patros	1994	50	2 years	Conviction	Sexual	10%
					Nonsexual	58%	
Lab, Shields, & Schondel	1993	46 JSO 109 NSO	1-3 years	Conviction	Sexual	2.2% JSO	
					Nonsexual	3.7% NSO 24% JSO 18% NSO	

Table 9, continued

Kahn & Chambers	1991	221	20-28 months	Conviction	Sexual	7.50%
					Nonsexual	44.80%
Meloy	2005	917	29-44 months	Rearrest	Sexual	5%
					NonSexual	11.7%
Prentky, Harris, Frizzell, & Righthand	2000	75	1 year	Court Records	Sexual	4%
Sample & Bray	2003	34,668	5 years	Rearrest	Sexual	4.50%
					Nonsexual	45.10%
Sipe, Jenson, & Everett	1998	124 JSO 142 NSO	6 years	Adult charges	Sexual	9.7% JSO
					Nonsexual	3% NSO 32.2% JSO 43.9% NSO
Vandiver	2006	300	3-6 years	Rearrest	Sexual	4.30%
					Nonsexual	52.60%
Waite, Keller,	2005	261	10 years	Rearrest	Sexual	4.70%

Table 9, continued

	McGarvey, Wieckowski, Pinkerton, & Brown					Nonsexual	16.85% (property) 33.55% (person)
	Worling & Curwen	2000	148	5 years	Conviction	Sexual	5.17% (treatment) 17.8% (comparison)
	Zimring, Piquero, & Jennings	2007	3129 boys 2998 girls	13 years	Police Contact	Sexual	1.5% boys .9% girls
Moderate	Borduin,	1990	16	3 years	Charges	Sexual	12.5% (MST) 75% (Individual Tx)
11-20%	Hengler, Blaske & Stein					Nonsexual	25% (MST) 50% (Individual Tx)
	Bremer	1992	193	6 years	Self-report Conviction	Sexual	11% (self-report) 6% (reconviction)

Table 9, continued

Caldwell & Dickinson	2009	172	49.2 months	Charges	Sexual Nonsexual	12.20% 59.30%
Gretton, McBride, Hare, Shaughnessy, & Kumba	2001	220	55 months	Charges & Convictions	Sexual Nonsexual	15% 51%
Hendriks & Bijleveld	2008	114	2-15 years	Conviction	Sexual Nonsexual	11% 27% (violent)
Langstrom, Grann & Lindblad	2000	56	39.84 months	Conviction	Sexual	20%
Langstrom & Grann	2000	46	5 years	Conviction	Sexual Nonsexual	20% 65%
Rasmussen	1999	170	5 years	Conviction	Sexual Nonsexual	14% 45.10%
*Reitzel & Carbonell	2006	2986	59 months	Rearrest/Conviction	Sexual Nonsexual violent Nonviolent	12.53% 24.73% 28.51%

Table 9, continued

						Unknown Nonsexual	20.40%
	Schram, Milloy, & Rowe	1992	197	5 years	Rearrest	Sexual	12.20%
	Worling	2001	112	2-10 years	Charges	Sexual Nonsexual	11% 46%
High 21% & up	Langstrom	2002	117	115 months	Conviction	Sexual Nonsexual	30% 42%
	Rubenstein, Yeager, Goodstein & Ottnow Lewis	1993	19 JSO 58 JVO	8 years	Conviction	Sexual Nonsexual	37% JSO 10% JVO 89% JSO 69% JVO

Note. The above table grouped recidivism rates by the sexual reoffending rate presented in the study. Several studies reported sexual and non-sexual recidivism rates. In this table, they are grouped into low, moderate, and high categories based on the sexual reoffending rates.

Table 10*Summary Table of the Juvenile Sexual Offending Recidivism Studies*

Recidivism Level	Range of Sexual Recidivism Rates	Average Sexual Recidivism Rate	Median Sexual Recidivism Rate	Range of Nonsexual Recidivism Rates	Average Nonsexual Recidivism Rate	Median Nonsexual Recidivism Rate	Overall Average Recidivism Rate	Overall Median Recidivism Rate
Low								
0-10%	0.9 - 10%	5.46%	4.70%	10.00%	10.00%	10.00%	5.69%	4.85%
Moderate								
11-20%	11 - 20%	14.10%	12.51%	11.7-20.4%	16.19%	16.85%	14.72%	14.00%
High								
21% & higher	30 - 75%	47.30%	37.00%	24 - 89%	45.54%	45.10%	45.76%	45.10%

Note. The studies included had varying follow-up periods, which were not taken into consideration when calculating the mean. Each recidivism rate was grouped according to the prescribed levels. The calculations in this table consider each rate a separate entity. Due to the positive skew of each recidivism level, the median was used to more accurately reflect recidivism rates for each group.

The total number of individuals registered accumulates for the first 25 years of simulation as the first cohort (2013) are not eligible to be removed from the registry unless a clean record is maintained for 25 years. Using recidivism levels (Low, 4.85%; Moderate, 14%; High, 45%), the simulation models hold entire cohorts for 25 years, and only release the proportion of offenders who do not recidivate. The steady accumulation of total offenders registered begins to decline in 2037 as the first cohort (2013) reaches 25 years in the model and the non-recidivists cycle out of the model. In effort to best illustrate the delayed effect of non-recidivism on the registration population, a period of 40 years (2013-2052) was simulated.

The simulation model structure (Figure 5) can be compared to that of population cohorts that are born (enter model) and subsequently die (exit model) after a specified time period. When assessing the population of a particular time and place, the rate at which people are born and perish are influential on the population value. Several parallels may be drawn between population cohorts and the current models simulating the Pennsylvania Sex Offender Registry population due to juvenile offenders. The juvenile sex offender registration rate can be likened to a birth rate that introduces people to the population. Time and Recidivism levels are the independent variables that impact the dependent variable, which is the total number of juveniles on the registry. Recidivists are those offenders who keep 'living' (remain in the model in the '*Total Registered*' state; see Figure 5), and the Non-Recidivists perish (leave the model through the '*Non-Recidivists*' flow). The varying recidivism levels for each round of simulation dictate how many offenders exit the registry after 25 years. An 'ARRAY' function was

used to separately identify each annual cohort as they aged on the registry. This was imperative so that once each cohort reached age 25 (model hit 25 iterations), the appropriate amount of offenders could be removed from the system.

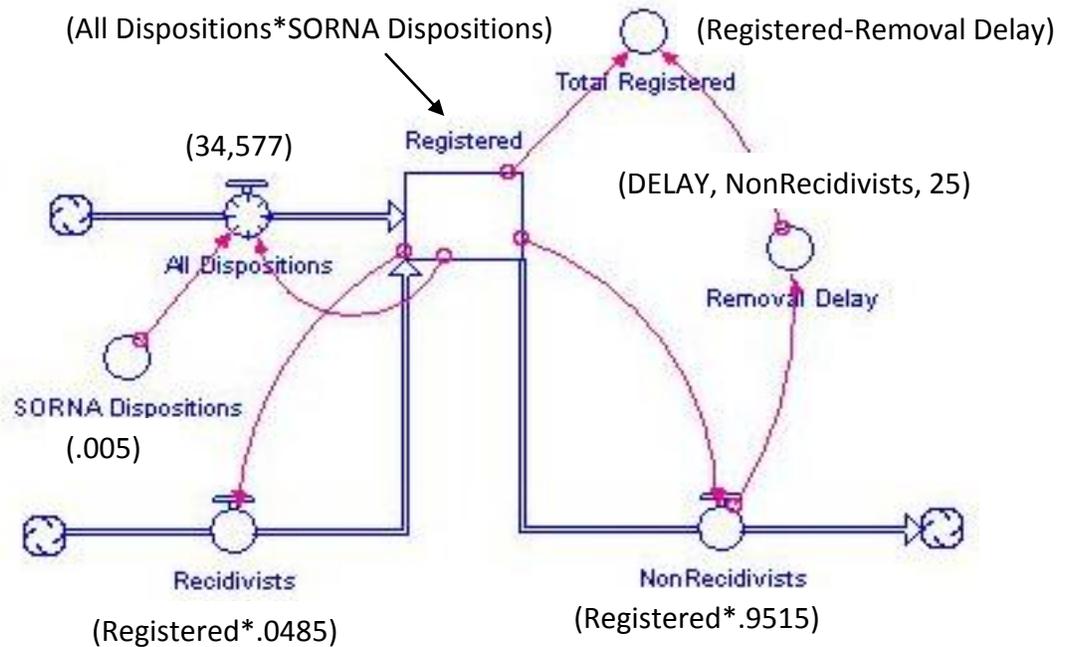


Figure 6

STELLA Simulation Model Architecture and Equations using Low Recidivism Levels

Model Components

Detailed code for the model is presented in Appendix H. The model is comprised of seven different components that factor into the total amount of juvenile sex offenders registered in Pennsylvania (see Figure 4). Stella allows the user to dictate the modeling time frame of choice. The time unit in this analysis was 'year' and the unit of analysis for model components was 'people.'

SORNA Dispositions: 'SORNA Dispositions' serves as a converter that controls how many the volume of flow into the 'Registered' state. As previously addressed, the number of SORNA dispositions is a proxy for the number of juveniles adjudicated of a SORNA offense. Based upon the historical data, 0.5% of all dispositions are for a SORNA offense. The rate is therefore set to .005.

All Dispositions: This inflow reflects the number of adjudications in each annual cohort. The number of dispositions is used as a proxy for the number of juveniles whose cases were disposed. The rate at which juveniles enter the 'Registered' state is dictated by the SORNA Dispositions converter. The initializing value for this flow is 34,577 based upon the most recent Pennsylvania Juvenile Court disposition report available (JCJC, 2014).

Registered: The stock entitled 'Registered' reflects the amount of youth who are placed on Pennsylvania's sex offender registry in each annual cohort. A value for the size of each annual cohort is generated based on the rate at which SORNA youth are adjudicated (SORNA Dispositions*All Dispositions). 'Registered' serves as a reservoir from which Recidivists will re-enter upon committing another offense and Non-Recidivists will exit upon maintaining a clean record for 25 years.

Recidivists: This flow or converter feeds the reservoir/state entitled 'Registered' based upon varying recidivism levels: Low (4.85%; Moderate, 14%; High, 45%). The rate at

which juvenile sex offenders reoffend dictates how many offenders flow back into the 'Registered' state.

NonRecidivists: This flow removes offenders who incurred no additional criminal infractions while being on the registry for 25 years. The rate at which offenders leave the registry is dictated by recidivism level (Low, 95%; Moderate, 86%; High, 55%).

Removal Delay: To create the delay in non-recidivists leaving the registry, a lag is programmed into the model using a DELAY built-in function (for full model code see Appendix H): The DELAY command keeps each cohort in the model for at least 25 years, after which only the Recidivists remain registered and the NonRecidivists exit the model.

Total Registered: Total Registered compiles all flows and conversion rates for the 'Registered' stock, including the 'Removal Delay.' The values resulting from this state are indicative of the total number of juvenile sex offenders registered in Pennsylvania each year after considering recidivism and new incoming cohorts of youthful offenders.

Results

The historical data for juvenile sex offenses are presented in Table 11. There were a total of 4,234 SORNA offenses committed across the commonwealth from 1985-2005. The number of SORNA offenses peaked in 2011 ($n = 334$) and were the lowest ($n =$

143) in 1988. The average annual number of SORNA-qualifying offense adjudications was 201.6 for the 20-year period.

Table 11

Baseline Data Values for Tier III SORNA Offenses Resulting in Registration, 1985-2005

Year	Registered Per Year
1985	158
1986	156
1987	163
1988	143
1989	157
1990	147
1991	166
1992	180
1993	184
1994	180
1995	150
1996	162
1997	237
1998	235
1999	206
2000	254
2001	334
2002	298
2003	273
2004	238
2005	213

Low Levels of Recidivism

Low levels of recidivism are the most conservative estimates and present the best possible outcome in the sense that an overwhelming majority (95.15%) of each annual cohort will not reoffend and may petition to be removed from the registry. Table 13 displays the 40-year simulation values for the number of juveniles who will be subjected to registration, the number of offenders who will not recidivate and will potentially be removed from the registry, the number of juveniles who will recidivate and remain on the registry for their entire life, and the total number of individuals in the commonwealth who will be on the registry due to offenses committed as a juvenile.

As noted above, the role of recidivism does not impact the 'Total Registered' values until the first cohort is on the registry for 25 years. Using 4.85% as a low recidivism rate, 95.15% of each cohort will be removed from the registry every year after 25 years, beginning in 2037. The conservative recidivism estimates reveal that less than 20 offenders from every cohort will subsequently reoffend, thereby remaining on the registry for their entire life. An average of 230 offenders will be adjudicated each year, 219 of whom will not recidivate. For the entire simulated period, it is expected that an annual average of 11 offenders will recidivate and remain on the registry for their lifetime. Once the 25-year threshold for registration has passed, an average of 183 individuals may be removed from the registry each year.

Table 12*Simulated SORNA Offenses using Low-Level Recidivism Estimates, 2013-2052*

Year	Registered Per Year	Non- Recidivists	Recidivists	Removed from Registry	Total Registered
2013	173	165	8	0	173
2014	171	163	8	0	344
2015	179	170	9	0	523
2016	157	149	8	0	680
2017	172	164	8	0	852
2018	161	153	8	0	1013
2019	182	173	9	0	1195
2020	197	187	10	0	1392
2021	202	192	10	0	1594
2022	197	187	10	0	1791
2023	165	157	8	0	1956
2024	178	169	9	0	2134
2025	260	247	13	0	2394
2026	258	245	13	0	2652
2027	226	215	11	0	2878
2028	279	265	14	0	3157
2029	366	348	18	0	3523
2030	327	311	16	0	3850
2031	300	285	15	0	4150
2032	261	248	13	0	4411
2033	234	223	11	0	4645
2034	190	181	9	0	4835
2035	188	179	9	0	5023
2036	196	186	10	0	5219

Table 12, continued

2037	172	164	8	0	5391
2038	188	179	9	165	5226
2039	177	168	9	163	5064
2040	200	190	10	170	4893
2041	217	206	11	149	4744
2042	221	210	11	164	4580
2043	217	206	11	153	4427
2044	181	172	9	173	4254
2045	195	186	9	187	4067
2046	285	271	14	192	3874
2047	283	269	14	187	3687
2048	248	236	12	157	3530
2049	306	291	15	169	3360
2050	402	383	19	247	3113
2051	359	342	17	245	2868
2052	329	313	16	215	2653

Moderate Levels of Recidivism

Simulation models for 2013-2052 were also conducted using moderate levels of recidivism that translated into 14% of each cohort reoffending and remaining on the registry and 86% of juvenile registrants being removed after 25 years without recidivating. After 40 years, it is estimated that 2,916 youth will be on the Pennsylvania Sex Offender Registry as a result of an adjudication of Rape, IDSI, or AIA. Levels of sex offense adjudication are expected to be the highest in 2049, with 402 juveniles adjudicated of a SORNA qualifying offense, 56 of whom are predicted to be lifetime

registrants as a result of recidivism. Results for simulation models using moderate levels of recidivism are presented in Table 14.

During the 40-year simulation period, an average of 32 offenders per year will recidivate and be subjected to lifetime registration. After 25 years, an average of 62 offenders per year will be removed from the registry. The average number of sex offender registrants per year as a result of a juvenile sex offense is 3,202.

Table 13

Simulated SORNA Offenses using Moderate-Level Recidivism Estimates, 2013-2052

Year	Registered Per Year	Non-Recidivists	Recidivists	Removed from Registry	Total Registered
2013	173	149	24	0	173
2014	171	147	24	0	344
2015	179	154	25	0	523
2016	157	135	22	0	680
2017	172	148	24	0	852
2018	161	138	23	0	1013
2019	182	157	25	0	1195
2020	197	169	28	0	1392
2021	202	174	28	0	1594
2022	197	169	28	0	1791
2023	165	142	23	0	1956
2024	178	153	25	0	2134
2025	260	224	36	0	2394
2026	258	222	36	0	2652
2027	226	194	32	0	2878

Table 13, continued

2028	279	240	39	0	3157
2029	366	315	51	0	3523
2030	327	281	46	0	3850
2031	300	258	42	0	4150
2032	261	224	37	0	4411
2033	234	201	33	0	4645
2034	190	163	27	0	4835
2035	188	162	26	0	5023
2036	196	169	27	0	5219
2037	172	148	24	0	5391
2038	188	162	26	149	5242
2039	177	152	25	147	5095
2040	200	172	28	154	4941
2041	217	187	30	135	4806
2042	221	190	31	148	4658
2043	217	187	30	138	4520
2044	181	156	25	157	4363
2045	195	168	27	169	4194
2046	285	245	40	174	4020
2047	283	243	40	169	3851
2048	248	213	35	142	3709
2049	306	263	43	153	3556
2050	402	346	56	224	3332
2051	359	309	50	222	3110
2052	329	283	46	194	2916

High Levels of Recidivism

High levels of recidivism present the worst-case scenario. The results of the simulation models are presented in Table 15. Estimates of high levels of recidivism suggest that 45% of all juveniles adjudicated of a sex offense will reoffend, thereby becoming a lifetime registrant. Still, over half of all JSOs are not expected to recidivate and may be removed from the registry following successful maintenance of a clean record for 25 years.

In 2052, it is estimated that 3,808 juveniles in Pennsylvania will be on the sex offender registry. The registration population peaks in 2037 with 5,391 offenders, but decreases thereafter as the annual cohorts of non-recidivists exit the model. Once the 25-year mandatory threshold is surpassed, an average of 106 offenders per year will be removed from the registry. The average amount of juvenile registrants per year using high recidivism estimates is 3,396.

Table 14

Simulated SORNA Offenses using High-Level Recidivism Estimates, 2013-2052

Year	Registered Per Year	Non-Recidivists	Recidivists	Removed from Registry	Total Registered
2013	173	95	78	0	173
2014	171	94	77	0	344
2015	179	98	81	0	523
2016	157	86	71	0	680
2017	172	95	77	0	852
2018	161	89	72	0	1013
2019	182	100	82	0	1195

Table 14, continued		108	89	0	1392
2021	202	111	91	0	1594
2022	197	108	89	0	1791
2023	165	91	74	0	1956
2024	178	98	80	0	2134
2025	260	143	117	0	2394
2026	258	142	116	0	2652
2027	226	124	102	0	2878
2028	279	153	126	0	3157
2029	366	201	165	0	3523
2030	327	180	147	0	3850
2031	300	165	135	0	4150
2032	261	144	117	0	4411
2033	234	129	105	0	4645
2034	190	105	86	0	4835
2035	188	103	85	0	5023
2036	196	108	88	0	5219
2037	172	95	77	0	5391
2038	188	103	85	95	5296
2039	177	97	80	94	5202
2040	200	110	90	98	5103
2041	217	119	98	86	5017
2042	221	122	99	95	4922
2043	217	119	98	89	4834
2044	181	100	81	100	4734
2045	195	107	88	108	4625
2046	285	157	128	111	4514
2047	283	156	127	108	4406

Table 14, continued		136	112	91	4315	
	2049	306	168	138	98	4217
	2050	402	221	181	143	4074
	2051	359	197	162	142	3932
	2052	329	181	148	124	3808

Comparison of Estimates by Varying Recidivism Levels

Low, moderate, and high levels of recidivism estimates were used as parameters in the simulation models to present a range of expected values for the number of youth who will be lifetime registrants as a result of SORNA. As demonstrated by the simulation results discussed above, the estimates generated using low levels of recidivism result in the most offenders being removed from the registry after 25 years, and the estimates generated using high recidivism rates result in the most offenders being subjected to lifetime registration.

Figure 7 depicts the relationship between assumed recidivism levels and the number of offenders on the PA Sex Offender Registry as a result of a juvenile adjudication. Values diverge at the 25-year threshold (2037) due to recidivism. Offenders who do not recidivate exit the system, and those who do recidivate remain.

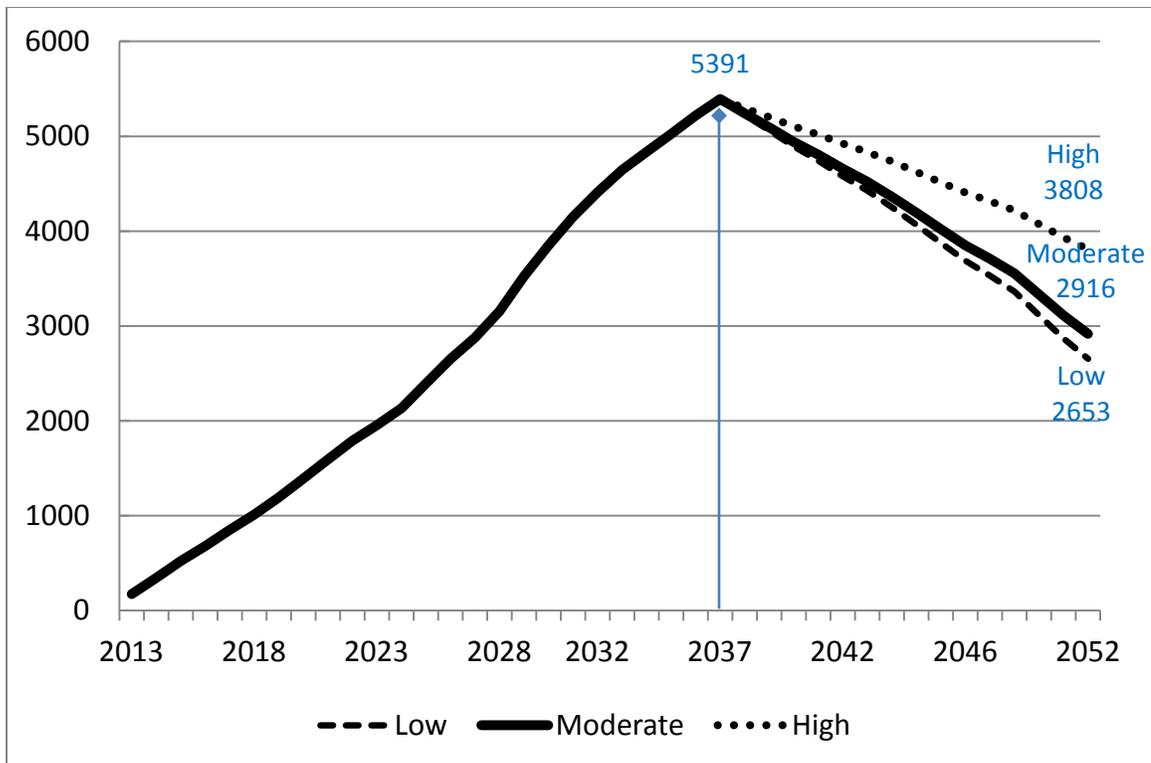


Figure 7

Number of Registered Juvenile Sex Offenders by Level of Recidivism

Comparison of Estimates to the Validation Sample

The predicted values for the number of youth registered annually produced by simulation models generate offending patterns that closely mirror those in the validation data from 1985-2005 (Figure 6). Using the entire validation sample (1985-2005) and the first 21 years of simulated data points (2013-2033).

Even though the trend lines display identical patterns, it is clear that the projected estimates of the number of juveniles registered each year exceeds the validation data points. The difference between the validation numbers and simulated estimates is displayed in Figure 8. The average distance between the validation and

simulated data points is 19 juveniles per year. The difference between actual and simulated values each year ranged from 14 to 32 individuals. This suggests the models may be over-estimating the number of youth impacted by SORNA, but does demonstrate the validity of the model. Further, sensitivity analyses were conducted using abbreviated simulation periods breaking one year into four periods (quarters). Simulating smaller time frames and restricting the number of iterations from 12 (3 years) to 24 (6 years) did not impact the values generated by the model.

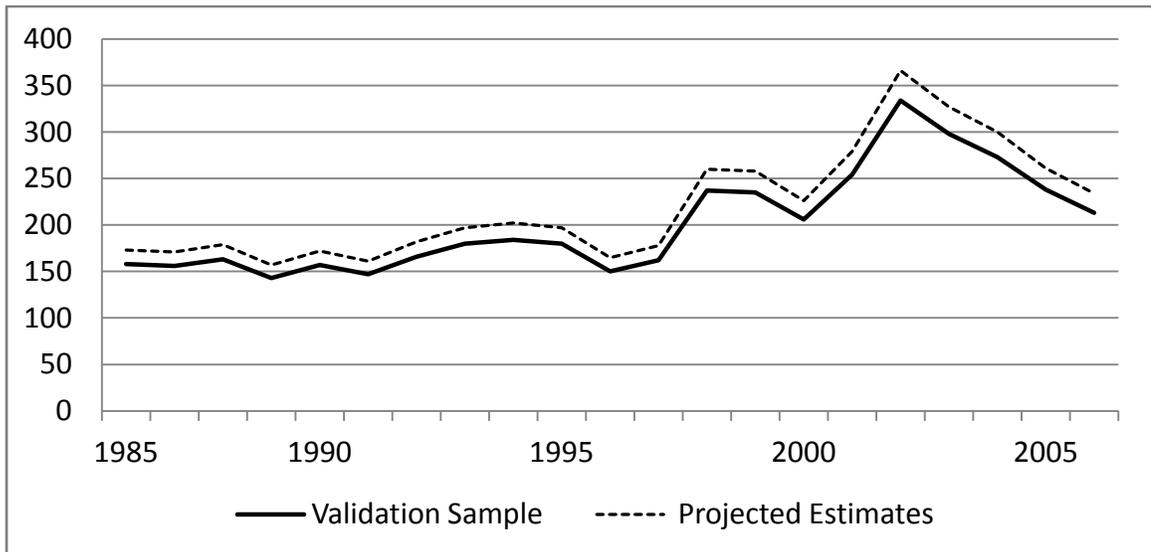


Figure 8

The Difference Between Validation Data and Estimated Values of Juvenile Sex Offenders Registered Each Year

CHAPTER 6 | INTERVIEWS WITH JUSTICE PRACTITIONERS

Sample

A purposive sample of 15 juvenile and criminal justice practitioners whose agencies deal with juvenile sex offenders and whose policy and practice were affected by SORNA's provisions was interviewed. A stratified sample of 3 attorneys, 3 judges, 3 SOAB members, 3 juvenile probation officers (JPO), and 3 Pennsylvania State Police (PSP) officers was obtained.

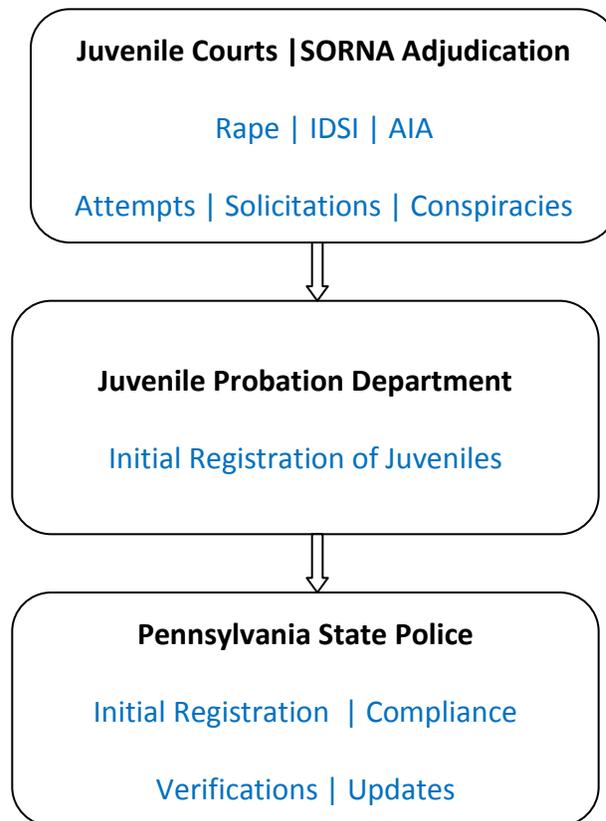


Figure 9

Diagram of SORNA Agencies and Responsibilities in Pennsylvania

The sample was comprised of 8 females (53.3%) and 7 males (46.7%) from 6 different districts (counties) in the Commonwealth. The number of years on the job

ranged from 7 to 30, for a combined total of 230 years of experience and an average of 15 years experience per respondent. Four participants (26.7%) were line staff, 4 (26.75) functioned in an administrative capacity, and 7 (46.7%) were administrative figures with active caseloads. All interviews were conducted over the phone and detailed notes were taken on the computer during discussions. Interviews ranged from 28-72 minutes in duration as respondents were given the leeway to speak as freely as they wished.

Procedure

Potential participants were identified from online juvenile justice-related directories in Pennsylvania and by referral from other respondents. Districts with a higher volume of cases were targeted to increase the likelihood of familiarity and experience with SORNA juveniles. A mix of line staff and practitioners in an administrative capacity were contacted in effort to obtain financial data and variation in responses concerning implementation and impact. A total of 57 individuals were contacted via email (Appendix J) across the Commonwealth during efforts to recruit participants resulting in a 38% (15/57) response rate. Upon receiving confirmation of participation, respondents were provided with Informed Consent (Appendix A) and the projected estimates of juveniles on the registry (Appendix K). Informed Consent documents were signed and filed prior to all interviews.

Questionnaire

A semi-structured questionnaire (Appendix I) was used to guide the interview process. Six general content areas were discussed with each participant: 1) background information on employment, 2) familiarity with sex offender legislation, 3) agency

culture concerning SORNA, 4) impacts of SORNA, 5) financial impact, and 6) response to simulated estimates of youth involvement on the registry. Detailed notes were taken in effort to capture participant responses verbatim as much as possible. Tangential questions were asked based upon respondent feedback. For example, if a participant expressed sentiments about the efficacy of treatment, inquiries about treatment involvement and recidivism rates for treatment completers were presented.

Data Analysis

Interviews were uploaded to Atlas.ti (Mac version 1.0.9 [75], 2014) for analysis. Certain codes were developed a priori based upon the questionnaire content. For example, it was expected that participants would discuss topics such as recidivism, treatment, research, and their dislike or support for SORNA. However, there were a few themes that emerged while reviewing interview content that resulted in additional codes. More than one participant mentioned concern over intellectually disabled and mentally ill youth. Also, there was widespread confusion about agency responsibility and the actual provisions of SORNA that resulted in participants being wary of the actual guidelines and registration practices. A priori (expected) and emergent codes developed after data were collected (4/25, 16%) were operationalized. Each interview's content was reviewed and analyzed based upon the established coding scheme. The complete code list, operational definitions, and frequency distribution for each are displayed in Table 15.

Table 15*Code Titles, Operational Definitions, and Frequencies for Interview Data*

Code	Operational Definition	<i>n</i>	%
Act 21*	Act 21: Involuntary civil commitment for juvenile offenders. In place prior to SORNA.	8	2.5%
Adaptations	Ways in which practice has differed formally or informally to accommodate SORNA's provisions	17	5.3%
Confusion*	Confusion about SORNA provisions, policies, or practices resulting from the legislation.	13	4.0%
Cost	Cost of equipment, resources, or man hours due to the implementation of SORNA	14	4.4%
Dislike	Expressed sentiments that did not favor the provisions of the law	29	9.0%
Experiences	First-hand experiences with the legislation and/or SORNA youth	5	1.6%
First Awareness	How practitioners first learned about the SORNA legislation	8	2.5%
ID/MH*	Intellectually disabled and/or mentally ill offenders	2	0.6%
Impact	Impact on agency, day-to-day duties, policy, practice, finances	42	13.1%
Juvenile Sex Offenders	Mentioning JSOs as a group or population with regard to behavior that is not recidivism	2	0.6%
Numbers on Registry*	Number of people on the PA registry	7	2.2%

Table 15, continued

Petitions	Opinions on whether or not petitions will be granted after 25 years	15	4.7%
Preparations	Ways in which individuals or agencies prepared for the passing and implementation of SORNA	6	1.9%
Public Safety	Views on public safety - whether or not SORNA enhances public safety or risk assessment as an approach to public safety	5	1.6%
Reaction to Estimates	Feedback concerning the projected number of youth to be implicated by SORNA	19	5.9%
Recidivism	Sex offender recidivism	14	4.4%
Registration Practices	Ways in which the registration process is conducted - how it is done in 'real life'	13	4.0%
Research	Evidence-based practices, what research on juvenile sex offenders has shown, successful treatment outcomes	6	1.9%
Resources	Resources acquired because of SORNA either before, during, or after implementation	13	4.0%
Revisions to Law	Ways in which the law should be altered	6	1.9%
Risk Assessment	Risk assessment of sex offenders in various capacities - classification, treatment, disposition hearings for judges	9	2.8%
Support	Views that favor the SORNA law	17	5.3%
Training	Training that took place as a direct result of the creation and implementation of SORNA in PA	13	4.0%
Treatment	The role of treatment for juvenile sex offenders	17	5.3%

Table 15, continued

Workload	Ways in which SORNA has impacted the workload of individuals and/or agencies	21	6.5%
		Total Number of Coded Segments	321

Note. Asterisk denotes emergent code*

Q₃: If offending patterns were to remain similar to those from 1985-2005, how would the workload of agencies dealing with sex offenders be affected?

Results of the simulation models were presented to participants to obtain feedback on how the projected volume of offenders on the registry due to juvenile adjudication of a SORNA offense may impact workload. Due to the responsibilities unique to each justice-related entity, responses varied across agencies and professions.

Attorneys

While SORNA's guidelines may not have explicit implications for policy and practice in all agencies, there still exists a potential for varied practices that affect workload. One attorney noted that more punitive policies mean 'prosecutors have to dedicate more resources to these cases. More staff will be involved, which may detract those from other cases' (Attorney A). Due to the controversial nature of SORNA cases and a higher likelihood of appeals, a greater deal of time and consideration is given to prepping and investigating cases before they go to court (Attorneys A & C).

Even before SORNA was implemented it created more work for defense attorneys filing motions to close cases so that juveniles adjudicated before SORNA who were still under delinquent supervision at the time of implementation (12/20/2012) did not have to register. Additionally, both prosecutors and defense attorneys acknowledge the stakes involved with a SORNA case which results in more in-depth preparation for SORNA cases.

It's given me a lot more work, some of these cases the DA always wants to know they want elaborative mitigating factors to offer something less than SORNA offense. Our resources are already limited and those mitigating factors are sometimes hard to uncover. Even challenges to constitutionality - we file motions to get a stay to try and keep them off.

We monitor all juvenile sex offenders in the county and often give motions to private counsel. It's just a lot more work and even just on an emotional level, sex cases are difficult enough as they are on any attorney, and just knowing that a consequence of lifetime registration of a trial takes a huge emotional toll. (Attorney C)

The colloquy required by SORNA (Appendix K) consumes a significant amount of time. Attorneys are responsible for going over the 8-page document with their clients to ensure they understand the consequences of being adjudicated of a SORNA-triggering offense. Juveniles are required to initial several statements such as, 'I understand that I will be included on a statewide registry of sexual offenders which means other people will be able to see certain information about me' and 'I understand that I am required to appear at a PSP site to provide and verify specific information and be photographed every three months for the rest of my life unless I am a transient juvenile offender as provided in paragraph.' While some participants surmised juveniles cannot even comprehend the magnitude of the statements included in the colloquy, it was universally viewed as a task that took a considerable amount of time between counsel and client.

Pennsylvania State Police

Respondents from the PSP viewed the simulation estimates differently. The numbers presented were representative of juveniles, or a body count. Due to SORNA's mandates, lifetime registrants must complete quarterly verifications, and provide any updates in between those quarterly dates. This translates to each individual on the registry coming in for a minimum of four transactions annually. Further, the figures presented only accounted for the projected volume on the registry as a result of juvenile

offenses, and did not include the adult population. The number of transactions prompted (see Table 16) notable concern amongst participants in this context:

Before SORNA, the bulk of our offenders came in once a year. We were doing about 22,000 transactions a year before SORNA, but then in 2013, it jumped up to 70,000. If we kept the old system we would have had to increase our staff by 40 people, but the application from the government is different and the person comes in and the agent enters the data. We probably get about 200 electronic transactions a day, and probably only get about 8-10 paper forms a day. Our old system was about 60% electronic and 40% paper, if you go from 22,000 to 70,000 transactions that is a huge burden. (PSP C)

Table 16

Annual Number of Estimated Sex Offender Registry Transactions, 2013-2052

Year	Registered	Low	Moderate	High
2013	173	692	692	692
2014	171	1376	1376	1376
2015	179	2092	2092	2092
2016	157	2720	2720	2720
2017	172	3408	3408	3408
2018	161	4052	4052	4052
2019	182	4780	4780	4780
2020	197	5568	5568	5568
2021	202	6376	6376	6376
2022	197	7164	7164	7164
2023	165	7824	7824	7824
2024	178	8536	8536	8536
2025	260	9576	9576	9576
2026	258	10608	10608	10608

Table 16, continued

2027	226	11512	11512	11512
2028	279	12628	12628	12628
2029	366	14092	14092	14092
2030	327	15400	15400	15400
2031	300	16600	16600	16600
2032	261	17644	17644	17644
2033	234	18580	18580	18580
2034	190	19340	19340	19340
2035	188	20092	20092	20092
2036	196	20876	20876	20876
2037	172	21564	21564	21564
2038	188	20906	20969	21183
2039	177	20255	20381	20807
2040	200	19573	19765	20413
2041	217	18976	19225	20068
2042	221	18321	18633	19690
2043	217	17709	18079	19335
2044	181	17016	17453	18935
2045	195	16266	16776	18502
2046	285	15497	16081	18057
2047	283	14747	15403	17624
2048	248	14119	14835	17261
2049	306	13442	14223	16869
2050	402	12452	13329	16297
2051	359	11470	12441	15730

Table 16, continued

2052	329	10610	11664	15232
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The PSP was expecting an influx of registrants and is confident the registry database is capable of handling a much higher volume of registrants, ‘we had about 12,000 sex offenders in the database before SORNA and we are currently approaching 17,000 and we anticipated that’ (PSP A). All participants from PSP agreed that the size of the registry would not be an issue in terms of IT infrastructure, but the volume of transactions would definitely be an issue in the future, ‘The IT mechanisms we have in place are able to handle this. I have no concerns this will be problematic for IT staff. Looking at 2036, the manpower will be an issue for sure’ (PSP B). Participants reported that initial registrations may take anywhere from 45 minutes to an hour and a half, while verification and update transactions are usually completed within 15-20 minutes.

One PSP participant surmised the amount of transactions projected to occur will take troopers off of patrol circuits, thereby compromising public safety. Due to the structure of PSP, there is a standard allotment, or ‘legislatively capped complement’ (PSP) of positions across the Commonwealth. It was unknown by respondents whether or not additional positions would be created to compensate for additional work generated by compliance with SORNA. As it stands now, acquiring more staff in the Megan’s Law Unit would be tantamount to, ‘robbing Peter to pay Paul’ (PSP A).

Sex Offender Assessment Board

The inclusion of youth in SORNA does not directly impact the workload of the SOAB, albeit a different story when considering adult offenders, as all adult SORNA

offenders undergo an assessment by the SOAB. Board members conduct psycho-sexual evaluations of juveniles facing Civil Commitment under Act 21 (2003) or in response to a court-ordered evaluation. The SOAB members interviewed acknowledged the substantial workload increase facing the PSP, 'The PSP was really out on the forefront on this because they knew they would be crunched on staffing' and that their 'resources would be stretched thin' (SOAB member A). Despite that acknowledgement of a long-term impact on personnel resources, preparations are not taking place.

At this point nobody is really looking at the future as to the impact of this down the road. For the first couple of months the workgroup got together to see how it was going and that was really about making sure everyone was registered. Everything has been very quiet. (SOAB member A)

Juvenile Probation Officers

Juvenile Probation Departments are responsible for the initial registration of SORNA youth at the time of disposition. Once a juvenile is adjudicated of a SORNA offense, most probation departments complete the registration. In addition to the added task of the initial registration, many juvenile probation officers shared that it takes a great deal of time to explain the magnitude of registration and verification requirements to juveniles and their families as juveniles age out of the juvenile justice system.

In one district from which a JPO respondent (B) was interviewed, the line JPOs do not complete the initial registration. The Chief and Deputy Chief of the Juvenile Probation Department completed all initial registrations of SORNA Youth. Thus, the line staff's duties were not altered greatly by SORNA. However, those cases always warrant

more consideration and paperwork. One JPO (B) shared, 'it's always something you have to keep in mind. You have to pre-plan...' in attempt to adequately equip and prepare the juvenile to comply with SORNA's regulations once the probation officer is no longer supervising the juvenile.

Juvenile Court Judges

Members of the judiciary agreed that SORNA will not impact the volume of their caseload, but noted SORNA cases do take a bit more time to dispose than other cases. 'Yes, these cases take more time than other serious juvenile offenses. The colloquy does take more time in general' (Judge B). Due to the significant consequences of registration on juveniles, judges and attorneys are diligent about adequately covering all tenets of the colloquy (Appendix K). One juvenile court judge shared that 'initially we were a bit hysterical about paperwork and making sure that everyone was properly identified' (Judge A). Judicial responsibilities remain largely unaltered by SORNA, as one respondent said that SORNA had 'not really' impacted any work-related responsibilities and that it was business-per-usual with SORNA cases:

It has not affected the decisions I make. I can speak for most judges in PA, almost all the cases the DA has entered into a plea agreement and I've accepted it. I haven't really had to make that decision. I don't think if there wasn't a plea agreement and we have a trial and the facts are there I would never not convict someone just so that they avoid SORNA. But, I have not been faced with that issue. (Judge A)

The volume of juvenile SORNA cases was not considered to be a factor affecting workload for members of the judiciary. It was clear from the interviews that attorneys may have more preparations and time involved with SORNA cases, but that the PSP

would undoubtedly face substantial workload issues in the future due to the influx of lifetime registrants in Pennsylvania.

Q₄: How do practitioners view SORNA guidelines as they pertain to juveniles?

- ***Q_{4A}: How do practitioners view the registration requirements?***
- ***Q_{4B}: How do practitioners view the offense-based classification system?***

Respondents were asked to provide personal opinions on the SORNA legislation as it pertains to juveniles. While there were varied reasons for respondents expressing disfavor for the law, the resounding reason of support for the SORNA legislation was enhanced public safety. Opinions of the legislation varied by profession and place of employment. Two separate questions concerning the inclusion of juveniles in SORNA were investigated.

Q_{4A}: How do practitioners view the registration requirements?

Increased Volume of Offenders, Information, and Contact with the PSP

Several respondents expressed an appreciation for the amount of information provided by the sex offender registry. There was a sense of comfort in ‘knowing’ where sex offenders lived, worked, and attended school. The increased amount of data collected on each individual also yielded better information for law enforcement agencies. The PSP now has the ability to enter certain offender characteristics to query the database and generate a list of potential persons of interest. In this capacity, the new and improved sex offender registry was viewed as an important law enforcement investigation tool that increased communication between agencies.

SORNA has gravely increased the safety with which these individuals are required to come in and verify their registration information. It has greatly increased the amount of information, and the number of offenses

that make you register. I am a firm believer in SORNA and that more requirements and more individuals registered would lead to a safer society. You have them coming in more often providing more information and if they fall out of compliance we can initiate prosecution. We can keep the public more aware of where they are going and what they are doing..... (PSP B)

Support for SORNA as a public safety tool operates on the assumption that the public is aware of and actively engaging the registry website. The frequency with which the public engages in obtaining information on sex offenders in their proximity is unknown.

Conversely, the increased amount of information on the public website and greater number of offenders implicated by SORNA was viewed as problematic by some participants. One judge stated, 'I think SORNA is and can be a very, very useful tool to protect victims in our communities so long as we apply it with precision to the right offenders' (Judge C). Concerned respondents wondered how the public would be able to sort through the vast amount of offenders and determine who presented a viable risk to their safety. Also, due to the sheer number of individuals on the registry, members of the community in more densely populated areas may be too overwhelmed by all the offenders to actually recognize a sex offender in the community. Participants cautioned against being lulled into a false sense of security.

Is SORNA creating this false impression so that we lower the sense of vigilance because SORNA is identifying all the sex offenders? Are we creating a naive community that 'at least we're gonna know?' (Judge B)

Respondents expressed concern about the volume of offenders on the registry, in addition to the strict liability offenses that result from failure to register or failure to verify information. The PSP touts a very high compliance rate for sex offenders on the

registry (97.8%). It is reported to be one of the highest compliance rates in the nation (PSP). Yet, participants expressed concern over the ability to effectively and accurately monitor such a volume of sex offenders.

How many mistakes will the PSP make? Miss work? School? Attorney to defend yourself? I hope mistakes aren't made when people comply and the PSP don't accurately capture that. People could face prison. (JPO B)

SORNA created strict liability offenses for people who fail to register or fail to verify information as required. These offenses are felonies that carry mandatory prison sentences ranging from 2 (first offense) to 5 (second or subsequent offense) years. Forgetting to register, or misunderstanding the law are not considered mitigating circumstances. The ability of the PSP to accurately maintain information as the registry continues to grow was mentioned as a viable concern across agencies. Further, as the registry grows the likelihood for non-compliance increases as well. Will the PSP and related justice agencies have the capacity to manage and deal with non-compliant individuals? Respondents were skeptical about this matter, and felt strongly additional personnel would be necessary to manage the registry.

Constitutional Rights of the Juvenile

As previously mentioned, Pennsylvania's version of SORNA has been found to be unconstitutional as it violates a juvenile's right to due process. Adjudication of a SORNA offense results in automatic registration and lacks any procedural safeguard or mechanisms through which that registration may be challenged. There is no review to determine whether lifetime registration and community notification is warranted, no automatic assessment of risk to determine whether or not the child is dangerous to be

used as a mitigating circumstance, and finally no hearing at which the juvenile can petition the propriety of placement on the registry.

I was appalled when I heard about it and I was incensed, especially with respect to the juvenile component of the law....We didn't really need SORNA for juveniles in PA due to Act 21 civil commitment at age 21. I thought this was really extremely harsh, but at least [in Act 21] the court is making the determination and the SOAB is doing an evaluation and there is a petition filed and a hearing process [Act 21 provisions]. Lots of protections in place with Act 21, but there was no such thing in SORNA. (Judge A)

Prior to SORNA, Act 21 stipulated juveniles still under delinquent custody while approaching their 21st birthday are required to undergo psycho-sexual evaluation and risk assessment by a SOAB member. This evaluation is extensive and involves interviews with family, friends, and educators. Further, the youth are given numerous psychological measures of intelligence and personality assessments. The SOAB member who conducts the evaluation, the JPO, the juvenile, the prosecutor, and defense attorney all come before a judge in a hearing to determine whether civil commitment is necessary. If such a determination is made, there are annual hearings that occur to constantly re-evaluate the commitment. SORNA, which supersedes Act 21, offers no such procedural protections which was found to be a constitutional violation by three county courts in Pennsylvania.

Confusion about Requirements

SORNA legislation was first drafted in November of 2007 in Pennsylvania. There were several revisions of the legislation considered before the 6th and final draft was approved (December 2011) and implemented (December, 2012). The provisions of SORNA were altered in each of the versions of the legislation. It is a lengthy bill and

employs sophisticated and confusing terminology. The language of the law has made it difficult for practitioners to discern who is to register and who is responsible for registering the juveniles.

We discussed it from the standpoint of there was so much confusion and a general lack of understanding about what was going to happen. We read through the legislation and tried to figure out what our roles would be and we talked to SOAB about what it would look like and what our responsibilities would be....we thought it was going to be our responsibility for registration but there was nothing procedural in the legislation. Each agency that has a responsibility has interpreted it their own way and how we read it may not match up with the PSP and vice versa. We are confused about who needs to register. We have taken kids to register and they were told they didn't need to register and to come back when released. (JPO A)

As evidenced by the quote above, important procedural information was omitted from the legislation. In addition to confusion about agency roles and triggering offenses, a juvenile probation officer shared frustration over the lack of clarity about the registry, 'I have yet to hear who maintains it [the registry], who has access to it for juveniles. How does it protect the public if nobody knows about it? Who is monitoring them' (JPO A)?

If justice professionals are struggling to comprehend the law then it is very likely the youth implicated by this legislation find it confusing as well. Several interview participants expressed concern over this matter as illustrated here by one judge:

How well do they [juveniles] understand? We have an excellent juvenile defender who reviews the colloquy with the juveniles meticulously question by question and tries to explain it to them in their words. Then they come to the court room and we go through each item/question one by one and they say they understand. I can't imagine that they fully understand or contemplate the consequences, when they walk out that door do they fully grasp their obligations on that day and going forward? I don't know. I haven't had it come back to me for a challenge. I don't

know. It's so weighty and there is just so much.....They're thinking about what is happening tomorrow, when they're going to get their first home pass. I don't know if they [juveniles] can possibly think that far ahead. (Judge C)

To assist with the difficult terminology in the legislation, the JCJC created a SORNA colloquy (Appendix K). This is a formal document detailing all of the provisions relating to juveniles. One judge shared the story of how the JCJC sought a language expert to alter the legislation text to a 5th or 6th grade reading level in hopes of improving comprehension. There were areas in which it was impossible to simplify the tenets of SORNA due to the vague, convoluted, and confusing terminology.

Q_{4B}: How do practitioners view the offense-based classification system?

Evidence-Based Practice

A large percentage of the sample (87%, $n = 13$) cited research during the interview when discussing reasons why they did not endorse SORNA. It was very clear that the JCJC has had a prominent role in training and education about SORNA. Prior to SORNA, the JCJC worked with justice-related practitioners to implement policy and practices that were empirically supported. Many respondents viewed SORNA as an affront to the work that JCJC and other PA juvenile justice agencies had done in the past.

Think about the JCJC and all of their work over the past years to create evidence-based programs and procedures in order to deal with juvenile offenders the very best way we can. When we are trying to work with juveniles in the ways that are proven to work, and the research supports our practice, when the legislature enacts laws not supported by evidence it is really frustrating. (Judge C)

The lack of risk assessment for Tier assignment was also a common complaint amongst practitioners. The adjudication offense was not viewed as indicative of risk,

and was not always representative of the events that occurred in the case. 'I don't get it - if you have a really good attorney and plead down to a lesser offense - he's off. He still did what he did and you're not changing that' (JPO B). The one-size-fits-all approach to offender classification also didn't always pair up with Act 21 assessments. As previously mentioned, Act 21-eligible youth undergo extensive evaluation by a SOAB member to determine the level of risk that individual presents to reoffend. Not all SORNA youth would be implicated by Act 21, and a juvenile may qualify for civil commitment without being adjudicated of a SORNA offense. Act 21 is widely viewed as employing evidence-based practices to rehabilitate the individual and protect the public, while SORNA's tier system is not.

The whole tier structure is, I believe, certainly scientifically misleading. No one says, Oh, Tier 3, these are your highest risk offenders, but everyone assumes that they are the worst. It was disheartening to spend years to be ahead of the game scientifically on this stuff and not to assess and treat from the gut, only to find we were just going to plop everybody on totally unscientific tiers, and then throw juveniles in! That was really just the icing on the cake as to how misleading this is. Of course we've been following all the research about the effectiveness of the registry. We're very much part of doing the assessments, but when it's not scientifically [the registry] having the effects that they hoped for, it's troubling that we persist with something that is not working and so incredibly expensive. (SOAB member B)

One participant likened SORNA's classification system to the Ford Pinto controversy in the 1970s, '....people stopped buying Pintos and Ford stopped making them. Well, we have this registry information that it doesn't work, so we are persisting in buying the Pinto even though we know it's blowing up on us' (SOAB member B).

Respondents also felt strongly about the efficacy of juvenile sex offender treatment. Judges, JPOS, and SOAB members consistently cited inpatient, outpatient,

and community-based treatment programs that were successfully rehabilitating and preparing juvenile sex offenders for life after the system. Participants noted that many juveniles are one-time offenders, and rarely engage in recidivism of any kind. SORNA's requirements were seen as excessive, inappropriately applied, and damaging for juvenile rehabilitation. Further, juveniles were recognized by the sample as being distinctly different from their adult counterparts.

Juveniles are far more likely to offend against a peer, a family member, or family friend rather than a stranger. With that commonly accepted knowledge that is also empirically supported, it was difficult for participants to reconcile how community notification benefited those who were already known to the offender. Within the sample of participants, there was a resounding belief in the importance and efficacy of treatment for juvenile sex offenders.

If 8 out of 10 or 9 out of 10 kids successfully completed both inpatient outpatient, passed maintenance polys [polygraphs], kept up with journaling and homework and do all probations requirements they are good....I think for the most part the law has good intentions. I think the difference between an adult sex offender and a juvenile sex offender is night and day. More often than not, it [victim] is a family member. They are usually not predatory in the sense that they go and begin to groom and put themselves in positions of authority to work with kids. They're not doing it. I'm not saying what they are doing is right, but rarely do you see a juvenile who turns into an adult predator. (JPO B)

Numerous aspects of support and disfavor of the SORNA legislation were shared by respondents. Not surprisingly, the support of SORNA varied by agency as PSP participants were the only group who universally stated a support for and belief in SORNA's requirements. Other participants saw the value in registration and community notification of sex offenders, but believed juveniles should not be included and that

Pennsylvania's pre-established risk assessment classification system was far superior to SORNA's offense-based classification system.

Q₅: What would be the cumulative financial impact of including juveniles in SORNA?

In 2008, the Justice Policy Institute (JPI) compared the implementation costs to the 10% loss of Byrne funds. According to this report, if Pennsylvania were to have implemented SORNA in 2009, it would have cost \$20,165,479. The commonwealth received \$7,640,322 in Byrne funds in 2006, which translates to a loss of \$764,032 for one year. The cost of implementing SORNA exceeds the loss of Byrne funds by \$19,401,477. This alone is a substantial difference, but it is argued here that due to a cumulative effect of lifetime registrants, SORNA implementation will result in additional workloads within agencies, which translates into additional expenses. Factors considered in JPI's analysis included new personnel, software (installation and maintenance), enhanced correctional space, court and administrative costs, law enforcement costs, and legislative costs related to efforts of enacting a law.

Questions were posed to all participants to obtain financial information on the areas identified above. It was uncommon for respondents, even those in an administrative capacity who oversaw budgets, to volunteer information or be informed about any financial figures or estimates concerning SORNA. Participants were asked about the cost of services (e.g., treatment, supervision, representation; see Appendix I). Further, interviewees were asked about additional costs as a result of having to comply with SORNA's provisions. The agency most profoundly affected by SORNA guidelines is the Pennsylvania State Police.

The expenses PSP incurred as a result of SORNA were offset by grant monies. The Pennsylvania Commission on Crime and Delinquency (PCCD) dispensed a grant with funds stemming from the American Reinvestment and Recovery Act for \$1.9 million dollars to assist in building an enhanced IT environment to house the Sex Offender Registration and Tracking Tool (SORT; PSP Respondent A, personal communication, 2014). The PA PSP revised the sort tool and it is aptly named PA SORT. The PSP also received two grants from the SMART Office for \$400,000 and \$300,000 to assist with implementation expenses. Another financial reimbursement was obtained from the Institute for Intergovernmental Research (IIR) for \$200,000. Additionally, the IIR developed the SORT application and gave it to jurisdictions free of cost to revise as needed. Following SORNA implementation, the PSP was able to acquire two more grants from the PCCD office to develop a compliance program ensuring all offenders were appropriately registered and completed timely verifications.

Other juvenile justice-related agencies reported little to no impact on workload because of SORNA. Juvenile court judges, attorneys, and JPOs reported SORNA cases took a bit more time than others and involved more paperwork, but were unable to provide any cost per case or cost per defendant. Justice agencies function on fixed annual budgets. Regardless of the number of individuals being processed by the agency each year, the budget does not vary aside from changes made at each new fiscal year. Thus, assigning a cost per defendant or cost per case can be misleading as the amount of offenders involved with an agency fluctuates on a daily basis.

I don't see where there is any significant change in cost. We're not placing more kids out of home, we have pretty good treatment programs,

we have an excellent outpatient program here in [county] so kids can be treated and work very closely with our juvenile probation sex offender unit. Those programs were in existence before SORNA. The residential programs we used are still operating and doing a good job. We are not detaining more kids and we are not sending any more to treatment. Most are not detained because most are kids that have charged with sexually offending against family circle, and many have happened a while ago. So are things that would jack up the cost of things. While the kids are in placement, the providers make sure they are compliant with SORNA (as do probation officers), though I don't know if there is additional cost to that. Maybe some agencies and providers have had to acquire additional staff. (Judge A)

While there was an acknowledgement by SOAB members and Attorneys that hiring additional staff to due to the time-intensive SORNA cases would be beneficial, there were no projections shared as to how much that would cost. Further, participants were skeptical that any new positions would be approved in the current budgetary climate of Pennsylvania.

CHAPTER 7 | DISCUSSION AND CONCLUSION

When initially conceived, the juvenile justice system (JJS) placed priority upon rehabilitation and treatment. Over time, the JJS has experienced a punitive drift in policies that require more system resources. SORNA introduced harsher sanctions for youthful offenders adjudicated of sex offenses. Simulation models reveal a substantial number of juvenile offenders may be implicated by SORNA over the coming decades with estimates surpassing 5,000 in the year 2036. This number is only representative of juveniles and excludes the number of adults on the registry which will accumulate continually. Each juvenile on the registry will consume system resources for a minimum of 25 years and some, indefinitely.

Agency Workload

Interviews with justice practitioners revealed that the Pennsylvania State Police (PSP) were responsible for maintaining the registry and public website for sex offenders in the Commonwealth. Due to quarterly check-ins and updates for any changes to personal information that occur between those verifications, each individual on the registry represents a minimum of four transactions each year. It was agreed by the PSP participants that at some point, there would need to be additional personnel to manage the volume of offenders on the registry. Even though the new PA SORT tool allows most registry transactions to be completed electronically, offenders must appear in person at a registration site, and this requires time on behalf of the PSP.

Attorneys conveyed that SORNA cases required additional time to thoroughly review the case to determine if a plea could be offered for a lesser offense to avoid

registration (Attorney B). Both judges and attorneys articulated a need to pay very close attention to detail on SORNA cases that may move on to appellate courts (Judge C, Attorneys A & C). No other agency aside from the PSP is facing an influx of offenders. Juvenile probation officers, judges, and attorneys encounter additional paperwork and expend more attention to detail on plea bargains and explaining colloquies to youthful offenders, but the volume of offenders has not changed for those entities.

Registration Requirements

The only respondents who wholeheartedly supported the inclusion of juveniles on the registry were the PSP. This provision of SORNA was viewed as increasing public safety and providing an enhanced tool for the public to use proactively. However, only certain juvenile offenders charged as adults are included on the public website. Most juvenile offenders are on the registry, but their information is not accessible to the public.

Only certain juveniles are publicly accessible, so there is the registry and the public website. We manage the registry with the computer application called PA SORT, which is an in-house tool. The information on the public website is uploaded from PA SORT. Within the database we annotate juveniles, but we don't upload juveniles to the public website (PSP A).

Therefore, the notion that the inclusion of juveniles on the registry is a useful tool for public safety is attenuated by the fact that their information is not made available to the public. Other law enforcement agencies can query the database and access data on all juvenile sex offenders.

A majority of respondents did not support having juveniles on the registry and were concerned that once juveniles aged out of supervision, they may forget to register

in new jurisdictions and verify quarterly, thereby facing imprisonment due to the strict liability offenses for these failures. Information such as address, new vehicle, new phone number, and hair color must be appropriately updated in the database.

The responsibility is on the offender. Once released from our office [juvenile probation] it falls on them. My guys change their cell phone numbers like I change my socks. They're gonna forget. I can't even advocate for them if I wanted to (JPO B).

Participants were concerned that if practitioners were unable to understand the requirements, it may be even more cumbersome for juveniles and their families to fully grasp all of the necessary steps to maintain compliance with the registry.

Barriers to Implementation

Disparate responses about SORNA's guidelines were common during the interviews with respondents. The registration requirements were not clear to all participants, many of whom attended trainings conducted by JCJC and the SOAB, and/or spent several hours reading over the legislation attempting to decipher the guidelines. One JPO in a large district was unsure of who needed to register, where the registry was located, and who maintained the registry. Yet, the PSP stated very clearly that the juvenile probation officers were responsible for the initial registration. The confusion can potentially result in catastrophic consequences for the offender if they are not properly registered or following the quarterly verifications. It would be beneficial for additional training and/or clarification so that all practitioners are aware of the provisions and act accordingly.

In the jurisdiction where the JPO expressed confusion about requirements of SORNA, the Chief Juvenile Probation Officer was reported to have a less hands-on

approach to the implementation of SORNA. In contrast, in another jurisdiction's juvenile probation office, the Chief Juvenile Probation Officer conducted all of the initial juvenile sex offender registrations.

Despite extensive training and information provided by the JCJC and the SOAB, the differences in practice between jurisdictions and the confusion surrounding the legislation are evidence of barriers to implementation. In the future, it may be helpful for an implementation team of experts to visit jurisdictions to ensure that the policy is being followed and all employees with responsibilities that are impacted by SORNA are provided with training. Further, a statewide-issued manual delineating the appropriate procedures for all SORNA-eligible youth may be a useful tool to ensure that each county is following the guidelines.

Offense-Based Classification

Participants interviewed as part of this research have extensive histories of working with juvenile sex offenders in various justice and treatment-related capacities. Aside from the PSP, not one respondent was supportive of the penalties or offense-based classification system imposed by SORNA. Respondents were also well aware that politicians were wary of voting in a manner that could be construed as soft on crime.

I've been told by people that if I don't vote for this, it appears that I am soft on sex offenders. I've talked to a lot of people who are trying to do the right thing and weighing the cost benefits of coming in on the right side of something that angers my constituency then I'm not around for the wealth of good things that I am doing. (SOAB Member B)

As time passes, the number of sex offenders on the registry will continue to grow, resulting in registry saturation. The over inclusiveness of sex offenders could

prevent community members from properly identifying offenders who are the most dangerous and pose legitimate safety threats. Using only the conviction offense eliminates the role of risk assessment. The conviction offense may not be an adequate indicator of dangerousness, but rather more reflective of the actual case factors such as evidence, witness cooperation and other legal factors. From a procedural perspective, SORNA may potentially persuade individuals to plead guilty to non-sexual offenses, and further backlog the system by increasing the number of trials. As a result, individuals who are not adjudicated may not receive the proper punishment or treatment opportunities.

Costs Related To SORNA

A previous cost-benefit analysis (JPI, 2008) suggested that implementation costs for the Commonwealth would far exceed the amount of Byrne funds lost due to failure to substantially comply with federal legislation. All SORNA implementation costs incurred by the PSP were offset by grant money. The PSP came in under budget and the leftover money was distributed to municipalities to assist with equipment acquisition and installation. Further, the IIR created a sex offender registry tool (SORT) application provided to jurisdictions at no cost. Thus, the software that served as a basis for PA SORT was free.

The way it worked is that the SORT tool is actually something provided to the states by the federal government. The SORT program isn't a plug and play, we had to do a lot of IT development and changes so the federal version ultimately became our specific application called PA SORT. We were building the application but because probation and parole was going to be responsible to do the registrations and we wanted to facilitate that and there were grant monies from PCCD – about 3 different grants that totaled about \$2 million dollars....What had to be done was we had to build PA SORT and then beyond

that the county probation offices could apply to PCCD grants out of that \$2 million dollars that allowed them to buy the PA SORT and the equipment package – signature pad, LiveScan, webcam, and laptop to access PA SORT and enter the information directly (PSP A).

No other agencies reported receiving additional resources as a result of SORNA's requirements. Also, no participants were aware of any costs related specifically to the services provided. Due to the aforementioned buzz created by SORNA, one might expect that agencies created detailed cost-benefit analyses to adequately explore the potential need for additional resources and staff. The SOAB did conduct such an analysis but the information was not available.

Much Ado About Nothing?

After SORNA passed at the federal level and was being considered by Pennsylvania and other jurisdictions, justice practitioners were very concerned about the legislation and its potential consequences. Aside from the initial buzz about the law, things have been quiet beyond implementation. Speaking specifically in terms of the juvenile justice system, Judges and JPOs report that it has not really affected workload with regard to volume, but there is an increased amount of time given to SORNA cases. Attorneys report that SORNA cases involve more time, and resulting motions over these cases do require more staff. The SOAB members are over-extended as SORNA mandates the evaluation of all adult offenders implicated by SORNA. Yet, the agency that faced the largest implementation expenses, and impact on workload was the PSP. All implementation costs were covered by grant money. While the individual consequences

and impact of the inclusion of juveniles in SORNA may tell a very different story, the agency-level impacts do not appear to be substantial.

Such a big deal was made of it when being passed, the outcome is disappointing. We've had so little to with it. A big deal was made about something we don't have to deal with very often. (JPO A)

At the time of this project, Pennsylvania is currently awaiting a state Supreme Court decision on the constitutionality of SORNA as it is applied to juveniles. If the Supreme Court decides that SORNA is unconstitutional for juveniles, the Commonwealth will not have to forfeit any Byrne funds. There is a very real chance that SORNA in Pennsylvania may not exist much longer which will result in the immediate cessation of juvenile registration and the removal of those juveniles currently on the registry. The impending decision in *In re J. B.* (2013) does not affect SORNA as it pertains to adult offenders.

Evidence-Based Practices

If lifetime registration and notification do not result in decreased recidivism, what alternative approaches could be used for juvenile sex offender? Evidenced-based programs are growing in popularity and acceptance among practitioners and criminal justice professionals. Community-based approaches have been shown to produce positive results with adult sex offenders in Canada (Wilson, Picheca, & Prinzo, 2007a, 2007b). An evaluation of the Circles of Support and Accountability (COSA) pilot project in Ontario revealed that volunteers and community members reported an enhanced feeling of perceived community safety, in addition to increased levels of offender responsibility and accountability for those who participated in the program. A second

study involving the COSA program assessed recidivism rates of participants compared to individuals who did not participate in the program (Wilson et al., 2007b). Sex offenders who participated in the COSA program had significantly lower rates of recidivism for all types of offenses, and evidenced a 70% reduction in sexual recidivism. For those individuals who did sexually recidivate while participating in COSA, the severity of the offense was much less than the initial offense for which they were convicted.

Strengths of Current Study

Quantitative Analyses. There are several strengths of the current study as it involves a multi-faceted approach to policy analysis. The simulation models analyzed data from the entire Commonwealth over a 20-year period. As such, the models were constructed with actual data from the Pennsylvania juvenile justice system. This provided an ample time frame for insight into the prevalence of juvenile sex offense cases, as well as SORNA adjudication rates. Further, these data allowed for validation of the simulation models to ensure the models are resulting in an acceptable fit to the data. The project focused on a system-level analysis and employed a simulation technique rarely applied to the juvenile justice system to investigate the potential consequences of a policy. This quantitative method, coupled with the qualitative data obtained from interviews with juvenile justice practitioners, yielded invaluable data on the topic from a different perspective.

Interviews with Juvenile Justice Practitioners. Previous policy analysis endeavors concerning the juvenile justice system have largely neglected the perspectives of those directly involved with carrying out the legislation. This project provided PA juvenile

justice-related practitioners a chance to respond to the projected volume of youth that may be impacted by SORNA and discuss their position on the law. This was an opportunity for practitioners to voice their thoughts on a policy that was created to impact their jobs and case outcomes without consent or considerations offered by them. While juvenile justice actors may be aware of the individual level impacts of harsh sanctions imposed by SORNA, results from this study might offer additional consequences and insight for them to consider.

Limitations

Data Source. The source of quantitative data in this research is administrative. Record-keeping practices and measurement approaches were inconsistent over the years. For example, the 'spanish-speaking' category for the race variable was removed in 1991 and the categories for American Indian and Asian/Pacific Islander were added. The variables for prior delinquency adjudications and pretrial detention were also collected for limited periods of time. Perhaps most importantly, the offense categories grew exponentially over the 20-year period. In 1985, there were a total of 12 possible sex offenses for all Tiers. That number grew to 147 in 1997. For example, while the offense titles may be the same, there may be several different statute codes for the same offense. Rape by Forcible Compulsion is listed four times, with four different numerical state codes (0118, 0119, 0120, & 0121) in 1997-2005. In 1985-1990, Rape was only listed once, and Rape by Forcible Compulsion did not exist.

There were also missing data for some variables of interest, such as age. The missing data were not random. Due to the number of cases in the sample and the 21

years of data, it is unlikely the missing data will have a significant impact on the analyses as evidenced by the small difference in mean age before (14.76 years) and after (14.85 years) mean replacement and linear interpolation were used to generate replacement values. Previous research analyzing these data, and using the same variables revealed that removing variables with missing data (> 30%) did not alter the results. Lastly, given that the data are only from Pennsylvania, and the model architecture represents the Pennsylvania's juvenile justice system and the commonwealth's version of SORNA. Other jurisdictions would need to alter the model architecture to reflect their version of SORNA.

The juvenile court data are constructed using case as the unit of analysis. Personal identification information was absent from the data which inhibited conducting a unique offender count. Thus, a 1:1 defendant-to-case ratio is assumed for simulation purposes. While this approach is not precise, it is unlikely that a substantial amount of offenders were adjudicated of a SORNA offense more than once during the time period. A majority of offenders age out of the juvenile system without reoffending (JPO B).

Tiers. Only juveniles adjudicated of specific Tier III offenses are implicated by SORNA. However, analyses were conducted to explore how many youth would be assigned to all of the Tiers to examine the frequency and distribution of sex offending across the Tiers. The construction of Tiers was created using the SORNA legislation and the Pennsylvania Code to identify qualifying offenses for each Tier. Depending on circumstances and prior convictions, some Tier I offenses could end up as Tier II. For

example, if an offender is adjudicated of possession of child pornography, this alone results in a Tier I classification, but the second adjudication of this offense results in Tier II classification. The data do not allow for a distinction between a first or second adjudication of particular offenses. The only data recorded are prior delinquency adjudications, but the nature of those offenses is not recorded. Therefore the Tier classification method used in this research may be an oversimplification of the qualifying offense scheme. Even so, as demonstrated by the marked disparity in frequencies of Tier III offenses, compared to Tiers I and II, the impact of this may be minimal. Offenses that are listed for more than one tier were assigned to the lower tier, assuming it was a first-time and lower class offense to ensure a more conservative estimate. As previously stated, only SORNA Tier III offenses were used for simulation models, and the lower tiers were generated to provide context for offending patterns.

Retroactivity. The data lack any measure of sentence length for juveniles, so it is impossible to determine if they were still in the system from offenses included in the datasets from 1985-2005. Additionally, some districts proactively sought to have juvenile cases closed prior to SORNA implementation to avoid registration of these juveniles. Per correspondence with participants, these efforts were largely successful as only a few juveniles were denied motions for case closure.

Financial Impact Estimation. The current project was unable to provide any cost-benefit analysis due to the inclusion of juveniles in Pennsylvania's SORNA. A few interview respondents had budgetary information but were wary of sharing that information. More importantly, respondents were largely unaware of their

departmental or agency budgets and most certainly did not have any figures available for the cost per juvenile case, cost per juvenile supervision (not treatment or placement), or the cost per individual on the registry. The implementation costs were offset by grant monies obtained by the Pennsylvania State Police from the ARRA and SMART Office. Further, the Sex Offender Registry Tool (SORT) application was provided to PA free of cost from the SMART office. The technology revisions to the SORT tool to tailor it to the Commonwealth's needs were also covered by grant money. The PSP came in under budget on grants and was able to return roughly \$500,000 to PCCD so that municipalities could receive financial assistance for expenses incurred by SORNA implementation.

Interviews with Juvenile Justice Practitioners. The interviews generated qualitative, self-report data which are susceptible to bias and error. It would be remiss in failing to acknowledge the personal or political agendas that may exist and influence participant responses. The political nature of policy-making might also result in respondents being reticent to share their true feelings and thoughts on the matter. The nature of qualitative data renders them more vulnerable to researcher interpretation bias. And lastly, self-report data often suffer from inaccuracy, misinterpretation on behalf of the respondent, incorrect recall and fallacious responses. In addition, given the sophisticated quantitative analyses to be conducted in this study, participants may have misconstrued or misunderstood the results despite the researcher's efforts to properly communicate the findings.

Future Research

Given that some respondents felt the sex offender registry was an useful tool for public safety, future research gauging the awareness of and exploring the frequency with which and reasons why community members access the public website may be useful in altering future policy. Additionally, it would be telling to assess whether or not the public is aware of the public website and available features. Research comparing the risk classification based on psychological assessments conducted by SOAB members versus the Tier assignment might also highlight the ability or inability of high-risk folks to be classified accurately. Additionally, a prospective analysis investigating recidivism rates for SORNA offenders stratified by Tier would reveal whether or not the most dangerous offenders are being appropriately classified merely by the conviction offense.

Conclusion

Managing a volume of offenders that exceeds the amount of finite resources is an ever-present challenge for the juvenile and criminal justice systems. Policies that increase sanctions for offenders invariably require more system resources. An empirically based approach to the allocation of resources involves letting the level of risk presented by offenders dictate the amount of system resources consumed. Individuals presenting higher levels of risk therefore consume more resources than those assessed to be low risk. By adhering to the empirically supported risk principle (Dowden & Andrews, 1999, 2000; Lowenkamp & Latessa, 2002; Wilson, 2002, 2003), system resources may be allocated more efficiently and the likelihood of recidivism may decrease.

According to the provisions of SORNA, only juveniles adjudicated of the most severe sexual offenses are required to register. Some respondents felt this was a positive aspect with regard to ensuring public safety (PSP, A, B, & C). Knowing the location of sex offenders' residences, place of employment and schools, coupled with having their information in the national sex offender database system facilitates law enforcement investigations. On the surface this may seem to be intuitive approach; however, it warrants further consideration. Public safety is of the utmost concern, but the selection of offenders for registration and notification based solely on the conviction offense may actually be producing gratuitous harm. Previous research has shown that conviction charges are not indicative of risk and that too much intervention is harmful to low risk offenders (Bonta, Wallace-Capretta, & Rooney; Lowenkamp & Latessa, 2002). Low risk offenders who receive harsh sanctions are more likely to recidivate. Due to the increase in propensity and intensity caused by SORNA's guidelines, it becomes imperative to accurately identify those who present the most risk. Only high-risk offenders/sexually violent predators (SVP) should be consuming limited system resources, and sometimes the most high-risk individuals may be in a lower Tier (Sandler & Freeman, 2010).

The SOAB has viable assessment practices currently in place for making SVP and SVDC designations and identifying those most dangerous to community safety. Prior to SORNA, only offenders deemed to be SVPs by the SOAB were required to register for lifetime. Thus, the lifetime registry was populated with people formally assessed to present the most risk to public safety. The blanketing provisions of SORNA have changed

the risk composition of the registry as not all offenders present the same amount of risk. As the registry becomes saturated with offenders due to SORNA's offense-based classification system, how will the community be able to discern who presents the most risk?

I had the chance to hear Jacob Wetterling's mother speak. There is a mother whose son was abducted and the essence, she's one of the most moving speakers I've ever heard, in the process of looking for her son, she found the police weren't communicating with one another, communication wasn't happening. Wouldn't this be wonderful if there was a registry for information sharing - if I had known this would happen [current policy], this was not the intent. She is a pretty forthright speaker and comes out against a lot of this stuff....(SOAB member B)

An evidence-based approach to SORNA would result in the removal of the offense-based classification and the exclusion of juveniles. The positive aspect of SORNA is parity in the documentation of offenders across all jurisdictions. This allows more information to be shared between law enforcement agencies and for members of the public, which was the intent of SORNA's predecessors. The Jacob Wetterling Act established nationwide sex offender registration to facilitate and improve communication between law enforcement entities to better track, manage, and apprehend sexual offenders. Megan's Law created community notification so that the public would alter behaviors based upon information about sex offenders living in their neighborhood. While there is utility and arguably merit in sex offender registration and community notification practices, punitive policy drift has resulted in policies that are not considered best practice.

CHAPTER 8 | AFTERWORD

On December 29th, 2014, the Pennsylvania (PA) Supreme Court rendered a decision concerning the constitutionality of SORNA as applied to juveniles in the *In re J. B.* (2013) case from York County. The PA Supreme Court held that the Commonwealth's SORNA legislation was unconstitutional as applied to juveniles due to the violation of due process rights as a result of an irrebuttable presumption.

Due to the automatic offense-based classification stipulated by SORNA, there is no legal mechanism through which the propriety of lifetime registration for juveniles is considered. The juvenile does not have an opportunity to request a formal hearing at which evidence could be presented to refute the necessity of the registration requirements. Thus, the presumption of the essentiality of registration is presumed by the adjudication without a subsequent evidentiary hearing allowing the juvenile to dispute such a presumption.

Consider, for example, Act 21, which allows the civil commitment of juveniles sex offenders. Upon nearing their 20th birthday, juveniles who remain under the delinquent supervision and have been adjudicated of specific sexual offenses (see Appendix K, SORNA Colloquy) undergo an extensive assessment conducted by a SOAB member who does an psycho-sexual evaluation, a thorough review of educational records, and has discussions with teachers, friends, and family. There is a formal evidentiary hearing at which a SOAB member presents the results of their assessment with the court and a determination is made regarding the civil commitment after all information has been presented and taken under advisement by the juvenile court. If a juvenile is civilly

committed, the court holds a hearing annually to revisit the need for civil commitment. Comparably, SORNA lacks the evidentiary hearing and it is because of this that the legislation was found to be unconstitutional as applied to juveniles.

This important decision was delivered after the data collection and analysis for the study were complete. Despite the fact that SORNA no longer applies to juveniles in Pennsylvania, this study sustains merit and remains relevant for other states that maintain juveniles sex offense registration and for those who have determined that SORNA is constitutional as applied to juveniles (*State v. Eight Judicial District of Nevada*, 2013). Currently, there are 15 states in substantial compliance with SORNA that continue to register juvenile sex offenders and 21 states that have not yet implemented SORNA, but had pre-existing juvenile sex offender registration practices prior to SORNA (Table 17).

Table 17

States That Have Juvenile Registries, and/or Are Substantially Compliant with SORNA, and/or Have Found SORNA to be Unconstitutional as Applied to Juveniles

Alabama ¹	Louisiana ¹	Oklahoma
Arizona	Maryland ¹	Oregon
Arkansas	Massachusetts	Pennsylvania ^{2,3}
California	Michigan ¹	Rhode Island
Colorado ¹	Minnesota	South Carolina ¹
Delaware ¹	Mississippi ¹	South Dakota ¹
Florida ¹	Missouri ¹	Tennessee ³
Idaho	Montana	Texas

Table 17, continued

Illinois	Nevada ¹	Utah
Indiana	New Hampshire	Virginia
Iowa	New Jersey	Wisconsin
Kansas ¹	North Dakota	Wyoming ¹
Kentucky	Ohio ^{2,3}	

Note. ¹ State registered juveniles prior to SORNA, but is now substantially compliant.

²State Supreme Court found SORNA unconstitutional as applied to Juveniles. ³Juvenile registries added due to SORNA implementation. No demarcation indicates the state has a juvenile registry, but has not implemented SORNA.

The methodology applied to policy analysis in this research is arguably underutilized in criminal justice research. One of the main questions to be address revolved around volume: how many PA youth might be implicated by SORNA in the coming years? The volume of SORNA juveniles directly relates to system resources and potential consequences as a result of an influx of offenders involved in the system for indefinite periods, thereby consuming system resources. Dynamic Systems Modeling (DSM) allowed estimates for the number of youth who may be implicated by SORNA in the future. Further, the volume of offenders varied by the rate of change due to the application of different recidivism levels (low, moderate, high).

No statistical technique allows for estimates to be generated in this fashion. DSM models are not statistical techniques, but are computer simulations built representing various stages of the system. The researcher can simultaneously control the rate of change from one stage in the system to the next in addition to the rate at which

offenders enter and exit the system. In this study, DSM was used to model the future impact of legislation that was already implemented. In addition to modeling policies that already exist, DSM models can be used to demonstrate hypothetical situations or policies that are not yet passed. Further, the movement through stages in DSM models does not have to be linear. This makes for an incredibly useful tool to investigate offenders moving through the system.

Other jurisdictions can employ DSM to model their registration practices to anticipate the volume of offenders, whether juvenile and/or adult, to assess whether or not additional resources such as computers or personnel may be required. In this fashion, DSM serves as a planning tool that transcends the research community. Simulation modeling is a viable option for the research or statistically averse individuals.

Though the models are driven by differential equations, the sophistication and design of the software do not require the user to generate differential equations. While creating models from code (drafting differential equations) is a possibility, models can also be generated graphically by linking various stages of the system and merely dictating how the flow changes (arrest rate, etc.). The output appears in table format with values for each model component and can be easily exported to excel. Thus, it would not be difficult for individuals without research or statistical training to use DSM.

Lastly, this study was the first to look at juvenile sex offender policy's potential consequences on system resources, rather than individual consequences of registration for juveniles. The latter has been thoroughly documented in prior research. The current study employed secondary data analysis to generate estimates as actual historical data

informed estimates provided to practitioners for discussion and consideration during interviews. In sum, despite the invalidation of SORNA for juveniles in Pennsylvania, the methodology and the responses from participants can be informative for other jurisdictions still registering juvenile sex offenders.

REFERENCES CITED

- Act 21: Juvenile Sex Offender Involuntary Civil Commitment. (2004). 42 Pa.C.S. § 6358.
- The Adam Walsh Child Protection and Safety Act of 2006, H. R. 42 USC § 16911.
- Alabama v. Miller*, 132 S.Ct. 2455 (2012).
- Auerhahn, K. (2003). Selective incapacitation and public policy: Evaluating California's imprisonment crisis. State University of New York Press: Albany.
- Auerhahn, K. (2007). Do you know who your probationers are? Using simulation to estimate the composition of California's felony probation population, 1980-2000. *Justice Quarterly*, 24, 28-47.
- Auerhahn, K. (2008). Dynamic systems simulation analysis: A planning tool for the new century. *Journal of Criminal Justice*, 36, 293-300.
- Bandyopadhyay, D., Sinha, D., Lipsitz, S., & Letourneau, E. (2009). Changing approaches of prosecutors towards juvenile repeated sex-offenders: A Bayesian evaluation. *Annals of Applied Statistics, Supplement*, 1-73.
- Batastini, A. B., Hunt, E., Present-Koller, J., & DeMatteo, D. (2011). Federal standards for community registration of juvenile sex offenders: An evaluation of risk prediction and future implications. *Psychology, Public Policy, and Law*, 17(3), 451-474.
- Beck, V. S., & Travis, L. F. (2006). Sex offender notification: A cross-state comparison. *Police Practice and Research*, 7, 293-307.
- Becker, J. V. (1990). Treating adolescent sex offenders. *Professional Psychology, Research and Practice*, 21 (5), 319-362.

- Blumstein, A., & Beck, A. J. (2005). Reentry as a transient state between liberty and recommitment in Jeremy Travis and Christy Visser (Eds.). *Prisoner reentry and crime in America*, 50-79. New York: Cambridge University Press.
- Bonta, J., Wallace-Capretta, S., & Rooney, J. (2000). A quasi-experimental evaluation of an intensive rehabilitation supervision program. *Criminal Justice and Behavior*, 27, 312-329.
- Borduin, C. M., Henggeler, S. W., Blaske, D. M., & Stein, R. J. (1990). *Multi-systemic treatment of adolescent sexual offenders. International Journal of Offender Therapy and Comparative Criminology*, 34, 105-113.
- Brannon, J., & Troyer, R. (1991). Peer group counseling: A normalized residential alternative to the specialized treatment of adolescent sex offenders. *International Journal of Offender Therapy and Comparative Criminology*, 35(3), 225-234.
- Bremer, J. F. (1992). Serious juvenile offenders: Treatment and long-term follow-up. *Psychiatric Annals*, 22, 326-332.
- Brown, K., Spencer, J., & Deakin, J. (2007). The reintegration of sex offenders: Barriers and opportunities for employment. *The Howard Journal*, 46, 32-42.
- Bullens, R., van Wijk, A., & Mali, B. (2006). Similarities and differences between the criminal careers of Dutch juvenile sex offenders and non-sex offenders. *Journal of Sexual Aggression*, 12, 155-164.
- Butts, J. A., & Mitchell O. (2000). *Brick by brick: Dismantling the border between juvenile and adult justice*. Washington D.C: National Institute of Justice.

- Caldwell, M. F., & Dickinson, C. (2009). Sex offender registration and recidivism risk in juvenile sexual offenders. *Behavioral Sciences and the Law*, 27, 941-956.
- Caldwell, M. F., Ziemke, M. H., & Vitacco, M. J. (2008). An examination of the Sex Offender Registration and Notification Act as applied to juveniles. *Psychology, Public Policy, and Law*, 14(2), 89-114.
- Calley, N. G. (2007). Integrating theory and research: The development of a research-based treatment program for juvenile male sex offenders. *Journal of Counseling & Development*, 85, 131-142.
- Carr v. United States*, 130 U.S. 2229 (2010).
- Dowden, C., & Andrews, D. A. (1999). What works for female offenders: A meta-analytic review. *Crime and Delinquency*, 45, 438-452.
- Dowden, C., & Andrews, D. A. (2000). Effective correctional treatment and violent reoffending: A meta-analysis. *Canadian Journal of Criminology*, 449-467.
- Durling, C. (2006). Never going home: Does it make us safer? Does it make sense? Sex offenders, residency restrictions, and reforming risk management law. *The Journal of Criminal Law & Criminology*, 97, 317-363.
- Federal Bureau of Investigation (FBI). (2007). *Uniform crime reports - 2006*. Washington, D.C: U.S. Department of Justice.
- Fitch, W. L. (1998). Sex offender commitment in the United States. *The Journal of Forensic Psychiatry*, 9, 237-240.

- The Florida Senate, Committee on Criminal Justice. (October, 2008). *Fiscal, policy, and legal considerations regarding state compliance with the Adam Walsh Act* (Issue Brief No. 2009-312). Florida Legislature, State of Florida. Tallahassee, FL.
- Freeman, N. J., & Sandler, J. C. (2010). The Adam Walsh Act: A false sense of security or an effective public policy initiative? *Criminal Justice Policy Review*, 21, 31-49.
- Freeman, N. J., Sandler, J. C., & Socia, K. M. (2009). A time-series analysis on the impact of sex offender registration and community notification laws on plea bargaining rates. *Criminal Justice Studies*, 22, 153-165.
- Frost, N. (2008). The mismeasure of punishment: Alternative measures of punitiveness and their (substantial) consequences. *Punishment & Society*, 10(3), 277-300.
- Ganim, S. (October 27, 2011). *PA's version of Adam Walsh would list teens as sex offenders*. Obtained from http://www.pennlive.com/midstate/index.ssf/2011/10/pas_version_of_adam_walsh_act.html:
- Gerhold, C. K., Browne, K. D., & Beckett, R. (2007). Predicting recidivism in adolescent sexual offenders. *Aggression and Violent Behavior*, 12, 427-438.
- Gretten, H. M., McBride, M., Hare, R. D., O'Shaughnessy, R., & Kumka, G. (2001). Psychopathy and recidivism in adolescent sex offenders. *Criminal Justice and Behavior*, 28(4), 427-499.
- Hagan, M. & Cho, M. (1996). A comparison of treatment outcomes between adolescent rapists and child sexual offenders. *International Journal of Offender Therapy and Comparative Criminology*, 40, 113-122.

Hagan, M., Cho, M., Gust-Brey, K., & Dow, E. (2001). Eight-year comparative analyses of adolescent rapists, adolescent child molesters, other adolescent delinquents, and the general population. *International Journal of Offender Therapy and Comparative Criminology, 45*, 314-324.

Hagan, M., King, R., & Patros, R. (1994). The efficacy of a serious sex offenders treatment program for adolescent rapists. *International Journal of Offender Therapy and Comparative Criminology, 39*, 141-150.

Hanneman, R. A. (1988). Computer-assisted theory building: Modeling dynamic social systems. Sage Publications: Newbury Park, CA.

Hunter, J. A., Figueredo, A. J., Becker, J. V., & Malamuth, N. (2007). Non-sexual delinquency in juvenile sex offenders: The mediating and moderating influences of emotional empathy. *Journal of Family Violence, 22*, 43-54.

In the Interest of J.B., et al., No. 726-2010, York Co., PA (2013).

In the Interest of B. B., et al., No. 248-2012, Monroe Co., PA (2014).

In the Interest of W. E., et al., No. J1085-2008, Lancaster Co., PA (2014).

isee systems (formerly High Performance Systems, Inc.). (2012) *STELLA software*.

Downloaded from: <http://www.iseesystems.com/>

Jacob Wetterling Crimes Against Children and Sexually Violent Offender Registration Act. 42 U.S.C. § 1406 (1994).

Juvenile Court Judges Commission (2014). *Pennsylvania Juvenile Court Dispositions, 2012*. Juvenile Court Judges Commission, Center for Juvenile Justice Training and Research, Shippensburg, PA.

- Kahn, T., & Chambers, H. (1991). Assessing re-offense risk with juvenile sexual offenders. *Child Welfare, 70*(3), 333-346.
- Kristensen Whittaker, M., Brown, J., Beckett, R., & Gerhold, C. (2006). Sexual knowledge and empathy: A comparison of adolescent child molesters and non-offending adolescents. *Journal of Sexual Aggression, 12*, 143-154.
- Lab, S. P., Shields, G., & Schondel, C. (1993). Research note: An evaluation of juvenile sex offender treatment. *Crime and Delinquency, 39*(4), 543-554.
- LaFree, G. (2002). Too much democracy or too much crime? Lessons from California's Three-Strikes Law. *Law & Social Inquiry, 27*(4), 875-902.
- Langstrom, N. (2002). Long-term follow-up of criminal recidivism in young sex offenders. Temporal patterns and risk factors. *Psychology, Crime and Law, 8*, 41-58.
- Langstrom, N., & Grann, M. (2000). Risk of criminal recidivism among young sex offenders. *Journal of Interpersonal Violence, 15*(8), 855-871.
- Langstrom, N., & Grann, M., & Lindblad, F. (2000). A preliminary typology of young sex offenders. *Journal of Adolescence, 23*, 319-329.
- Letourneau, E. J. (2007, November) *Displaced discretion: Unintended consequences of registration and notification policies on judicial decision-making*. Paper presented at the annual conference of the American Society of Criminology, Atlanta, GA.
- Letourneau, E. J., Bandyopadhyay, D., Sinha, D., & Armstrong, K. S. (2009). The influence of sex offender registration on juvenile sexual recidivism. *Criminal Justice Policy Review, 20*, 136-153.

- Letourneau, E. J., & Miner, M. H. (2005). Juvenile sex offenders: A case against the legal and clinical status quo. *Sexual Abuse: A Journal of Research and Treatment, 17*, 293-312.
- Levenson, J. S., Sandler, J. C., & Freeman, N. J. (2012). Failure-to-register laws and public safety: An examination of risk factors and sex offense recidivism. *Law and Human Behavior, 36*(6), 555-656.
- Lieb, R., Quinsey, V., & Berliner, L. (1998). Sexual predators and social policy. *Crime and Justice, 23*, 43-114.
- Logan, W. A. (2006). Crime, criminals, and competitive crime control. *Michigan Law Review, 104*, 1733-1748.
- Lowenkamp, C. T., & Latessa, E. J. (2002). *Evaluation of Ohio's Halfway House and Community Based Correctional Facilities*. Cincinnati, Ohio: University of Cincinnati.
- Lussier, P. (2005). The criminal activity of sexual offenders in adulthood: Revisiting the specialization debate. *Sexual Abuse: A Journal of Research and Treatment, 17*, 269-292.
- McGinnis, R., & Prescott, D. (2007). *Comments on proposed guidelines to interpret and implement the Sex Offender and Notification Act (SORNA)*. Association for the Treatment of Sexual Abusers.
- Mancini, C., & Mears, D. P. (2013). U.S. Supreme Court decisions and sex offender legislation: Evidence of evidence-based policy? *The Journal of Criminal Law and Criminology, 103*(4), 1115-1153.

Martinson, R. (1974). What works? Questions and answers about prison reform. *Public Interest*, 35, 22-54.

Megan's Law. 42 U.S.C. § 13701 (1996).

McShane, M. D., & Williams, F. P. (1989). The prison adjustment of juvenile offenders. *Crime and Delinquency*, 35, 254-269.

Meloy, M. L. (2005). The sex offender next door: An analysis of recidivism, risk factors, and deterrence of sex offenders on probation. *Criminal Justice Policy Review*, 16, 211-236.

Miethe, T. D., Olson, J., & Mitchell, O. (2006). Specialization and persistence in the arrest histories of sex offenders: A comparative analysis of alternative measures and offense types. *Journal of Research in Crime and Delinquency*, 43, 204-229.

Miner, M. H. (2007). The fallacy of juvenile sex offender risk. *Criminology & Public Policy*, 6, 565-572.

Mulder, E., Vermunt, J., Brand, E., Bullens, R., & Van Marle, H. (2011). Recidivism in subgroups of serious juvenile offenders: Different profiles, different risks? *Criminal Behaviour and Mental Health*, 22, 122-135.

National Center on Sexual Behavior of Youth. (2003). *NCSBY fact sheet: What research shows about adolescent offenders*. Retrieved on 11.08.07
from:<http://www.ncsby.org/pages/publications/What%20Research%20Shows%20About%20Adolescent%20Sex%20Offenders%20060404.pdf>

Ohio Legislative Service Commission. (2007). *Fiscal note & local impact statement*. Ohio Legislative Service Commission, Columbus, OH. Obtained from <http://www.lsc.state.oh.us>

OJJDP Statistical Briefing Book. Online. Available:

http://www.ojjdp.gov/ojstatbb/crime/JAR_Display.asp?ID=qa05201. October 16, 2011.

Pam Lychner Sexual Offender Tracking and Identification Act of 1996. 42 U.S.C. § 14071 (1996).

Parks, G. A., & Bard, D. E. (2006). Risk factors for adolescent sex offender recidivism: Evaluation of predictive factors and comparison of three groups based upon victim type. *Sex Abuse, 18*, 319-342.

Pittman, N. Personal communication via email. February 24, 2011.

Pittman, N. (May, 2013). *Raised on the registry: The irreparable harm of placing children on sex offender registries in the U.S.* Human Rights Watch. ISBN 978-1-62313-0084.

Prentky, R., Harris, B., Frizzell, K., & Righthand, S. (2000). An actuarial procedure for assessing risk with juvenile sex offenders. *Sexual Abuse: A Journal of Research and Treatment, 12*(2), 71-93.

Presser, L., & Gunnison, E. (1999). Strange bedfellows: Is sex offender notification a form of community justice? *Crime & Delinquency, 45*(3), 299-316.

- Proeve, M. J., & Howells, K. (2006). Effects of remorse and shame and criminal justice experience on judgments about a sex offender. *Psychology, Crime & Law, 12*, 145-161.
- Rasmussen, L. (1999). Factors related to recidivism among juvenile sexual offenders. *Sexual Abuse: A Journal of Research and Treatment, 11*(1), 69-85.
- Richmond, B. (2003). *An introduction to systems thinking: STELLA software*. High Performing Systems, Inc. Lebanon, NH.
- Reitzel, L. R., & Carbonell, J. L. (2006). The effectiveness of sexual offender treatment for juveniles as measured by recidivism: A meta-analysis. *Sex Abuse, 18*, 401-421.
- Roper v. Simmons, 543 U.S. 551 (2005).
- Rubenstein, M., Yeager, C. A., Goodstein, C., & Lewis, D. O. (1993). Sexually assaultive male juveniles: A follow-up. *American Journal of Psychiatry, 150*, 262-265.
- Salerno, J. M., et al. (2010). Psychological mechanisms underlying support for juvenile sex offender registry laws: Prototypes, moral outrage, and perceived threat. *Behavioral Sciences and the Law, 28*, 58-83.
- Sample, L. L., & Bray, T. M. (2003). Are sex offenders dangerous? *Criminology & Public Policy, 3*, 59-82.
- Sarfert, M. (December 14, 2011). *Adam Walsh legislation passes Senate, goes to Governor for signature*. Obtained from:
<http://www.pasenategop.com/news/2011/1211/orie-121411.htm>

- Schram, D. D., Milloy, C. D., & Rowe, W. E. (1991). Juvenile sex offenders: A follow-up study of re-offense behavior. Olympia: Washington State Institute for Public Policy.
- SEARCH. (April, 2009). SEARCH survey on state compliance with the Sex Offender Registration and Notification Act (SORNA). Office of Justice Programs, The National Consortium for Justice Information and Statistics. Washington, DC.
- Selvog, H. G. (2001). Social state to penal state, moral panic and sex offenders, Megan's law as a result of moral panic. *Justice Policy Journal*, 1, 72-93.
- Sex Offender Registration and Notification Act. 18 U.S.C. § 2241.
- Sex Offender Management Board. (2009). *Adam Walsh Act: Statement of position*. Sex Offender Management Board, State of California. Sacramento, CA. Obtained from:
http://www.opd.ohio.gov/AWA_Information/AWA_CA_SOMB_SORNA_Position_Paper.pdf
- Sipe, R., Jensen, E., & Everett, R. (1998). Adolescent sexual offenders grown up. *Criminal Justice and Behavior*, 25(1), 109-125.
- Snyder, H.N. (2011). Arrest in the United States, 1980-2009. No. 234319. US Department of Justice, Bureau of Justice Statistics. Washington, DC.
- Terry, K. J. (2007). Sex offender and victimization legislation: Use, misuse, and efficacy. *Criminology & Public Policy*, 6, 503-506.
- Tewksbury, R. (2002). Validity and utility of the Kentucky sex offender registry. *Federal Probation*, 66, 21-27.

- Tewksbury, R., & Lees, M. B. (2007). Perceptions of punishment: How registered sex offenders view registries. *Crime & Delinquency*, 53, 380-407.
- Tewksbury, R., & Mustaine, E. E. (2013). Law enforcement officials' views of sex offender registration and community notification. *International Journal of Police Science and Management*, 15(2), 95-113.
- United States Government Accountability Office (2013). *Sex Offender Registration and Notification Act: Jurisdictions face challenges to implementing the act, and stakeholders report positive and negative effects* (GAO Report No. 13-211). Washington DC, US. Government Printing Office.
- van Wijk, A. Ph., Mali, B. R. F., Bullens, R. A. R., & Vermeiren, R. R. (2007). Criminal profiles of violent juvenile sex and violent juvenile non-sex offenders: An explorative longitudinal study. *Journal of Interpersonal Violence*, 22, 1340-1355.
- van Wijk, A., Vermeiren, R., Loeber, R., 'T Hart-Kerkhoffs, L., Doreleijers, T., & Bullens, R. (2006). Juvenile sex offenders compared to non-sex offenders: A review of the literature 1995-2005. *Trauma, Violence, & Abuse*, 7, 227-243.
- Vandiver, D. M. (2006). A prospective analysis of juvenile male sex offenders: Characteristics and recidivism rates as adults. *Journal of Interpersonal Violence*, 21, 673-688.
- Virginia State Sentencing Commission. (January, 2008). *Fiscal impact statement for proposed legislation* (Report No. 08-244806). Virginia State Sentencing Commission. Richmond, VA.

- Wagner, C. (2011). Good left undone: Sex offender law reform. *American Journal of Criminal Law, 38*(2), 263-288.
- Waite, D., Keller, A., McGarvey, E. L., Wieckowski, E., Pinkerton, R., & Brown, G. L., (2005). Juvenile sex offender re-arrest rates for sexual, violent nonsexual and property crimes: A 10-year follow-up. *Sexual Abuse: A Journal of Research and Treatment, 17*, 313-331.
- Walker, J. T., Madden, S., Vasquez, B. E., VanHouten, A. C., & Ervin-McLarty, G. (2002). *The influence of sex offender registration and notification laws in the United States*. NCJ 214626. Arkansas Crime Information Center.
- Wilson, D. B., Gottfredson, D. C., & Najaka, S. S. (2002). School-based prevention of problem behaviors: A meta-analysis. *Journal of Quantitative Criminology, 17*, 247-272.
- Wilson, S. J., Lipsey, M. W., & Derzon, J. H. (2003). The effects of school-based intervention programs on aggressive and disruptive behavior: A meta-analysis. *Journal of Consulting and Clinical Psychology, 71*, 136-149.
- Wilson, R. J., McWhinnie, A., Picheca, J. E., Prinzo, M., & Cortoni, F. (2007). Circles of support and accountability: Engaging community volunteers in the management of high-risk sexual offenders. *The Howard Journal, 46*, 1-15.
- Worling, J. (2001). Personality-based typology of adolescent sexual offenders: Differences in recidivism rates, victim-selection characteristics, and personal victimization histories. *Sexual Abuse: A Journal of Research and Treatment, 13*(3), 149-166.

- Worling, J., & Cruwen, T. (2000). Adolescent sex offender recidivism: Success of specialized treatment and implications for risk prediction. *Child Abuse and Neglect, 24*(7), 965-982.
- Worling, J. R., Litteljohn, A., & Bookalam, D. (2010). 20-year prospective follow-up study of specialized treatment for adolescents who offended sexually. *Behavioral Sciences and the Law, 28*, 46-57.
- Zimring, F. E. (2004). *An American travesty: Legal responses to adolescent sexual offending*. University of Chicago Press: Illinois.
- Zimring, F. E., Hawkins, G., & Kamin, S. (2001). *Three strikes and you're out in California: Punishment and Democracy*. Oxford University Press: New York.
- Zimring, F. E., Piquero, A. R., & Jennings, W. G. (2007). Sexual delinquency in Racine: Does early sex offending predict later sex offending in youth and young adulthood? *Criminology & Public Policy, 6*(3), 507-534.

APPENDIX A | INFORMED CONSENT

Title

Estimating the Impacts of SORNA in Pennsylvania: The Potential Cost of Including Juveniles

Name and Department of investigator:

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Department of Criminal Justice
Temple University
jaime@temple.edu

Purpose of the Research

The purpose of the current research is to investigate the potential impact of including juveniles in Pennsylvania's SORNA. It is important to understand how including youthful offenders for their entire life will affect system resources and the agencies that deal with juvenile sex offenders. Further, the legislation is an unfunded federal mandate that may impose substantial financial burdens due to implementation, maintenance, and resource-related costs.

What you should know about a research study:

- Someone will explain this research study to you.
- You volunteer to be in a research study.
- Whether you take part is up to you.
- You can choose not to take part in the research study.
- You can agree to take part now and later change your mind.
- Whatever you decide, it will not be held against you.
- Feel free to ask all the questions you want before and after you decide.
- ***By signing this consent form, you are not waiving any of the legal rights that you otherwise would have as a participant in a research study.***

Duration | The estimated duration of your study participation is **one hour or less**.

Procedures

The study procedures consist of a brief description of the research project and the results of the research that are relevant to the interview and your job and/or agency. The researcher will explain the results of the research thus far that provide an idea of the volume of juvenile offenders that will be implicated by Pennsylvania's Sex Offender and Registration Notification Act. Once the introduction is complete, there will be a series of questions that will be asked that pertain to your work experiences and responsibilities. The researcher will take notes on the answers you provide.

Foreseeable Risk or Discomfort

The reasonably foreseeable risk or discomfort is that some questions may be difficult to answer depending on how long you have been in your position and whether or not you are familiar with the legislation that is central to the research project.

Benefits

The benefits you will obtain from the research are knowing that you have contributed to the understanding of this topic and learning about how SORNA may directly impact your agency and daily responsibilities. Further, you may become more familiar with SORNA's guidelines.

Alternatives to Participation

The alternative to participating is **not to participate**.

Contact for Questions and Concerns

Please contact the research team with questions, concerns, or complaints about the research and any research-related injuries by calling 802-558-2545 or e-mailing jaime@temple.edu.

This research has been reviewed and approved by the Temple University Institutional Review Board. Please contact them at (215) 707-3390 or e-mail them at: irb@temple.edu for any of the following: questions, concerns, or complaints about the research; questions about your rights; to obtain information; or to offer input.

Confidentiality

Efforts will be made to limit the disclosure of your personal information, including research study records, to people who have a need to review this information. However, the study team cannot promise complete secrecy. For example, although the study team has put in safeguards to protect your information, there is always a potential risk of loss of confidentiality. There are several organizations that may inspect and copy your information to make sure that the study team is following the rules and regulations regarding research and the protection of human subjects. These organizations include the IRB, Temple University, its affiliates and agents, Temple University Health System, Inc., its affiliates and agents, the study sponsor (National Institute of Justice) and its agents, and the Office for Human Research Protections. A copy of the data will be kept on file at the National Institute of Justice, but no personal identifiers such as name of participant or agency will be included in the electronic file.

Your signature documents your permission to take part in this research.

_____ Signature of subject	_____ Date
_____ Printed name of subject	
_____ Signature of person obtaining consent	_____ Date
_____ Printed name of person obtaining consent	_____

APPENDIX B | INSTITUTIONAL REVIEW BOARD APPROVAL FOR INTERVIEWS



Office for Human Subjects Protections
Institutional Review Board
Medical Intervention Committees A1 & A2
Social and Behavioral Committee B
Unanticipated Problems Committee

Student Faculty Conference Center
3340 N Broad Street - Suite 304
Philadelphia, Pennsylvania 19140
Phone: (215) 707-3390
Fax: (215) 707-9100
e-mail: irb@temple.edu

Protocol Number: 22323

PI: AUERHAHN, KATHLEEN

Approved on: 14-Jul-2014

Approved From:

Approved To:

Committee: B BEHAVIORAL AND SOCIAL SCIENCES

School/College: LIBERAL ARTS (1800)

Department: CLA/CRIMINAL JUSTICE

Sponsor: National Institute of Justice

Project Title: Estimating the Impacts of SORNA in Pennsylvania: The Potential Cost of Including Juveniles --

The IRB approved the protocol 22323.

If the study was approved under expedited or full board review, the approval period can be found above. Otherwise, the study was deemed exempt and does not have an IRB approval period.

Before an approval period ends, you must submit the Continuing Review form via the eRA module. Please note that though an item is submitted in eRA, it is not received in the IRB office until the principal investigator approves it. Consequently, please submit the Continuing Review form via the eRA module at least 60 days, and preferably 90 days, before the study's expiration date.

Note that all applicable Institutional approvals must also be secured before study implementation. These approvals include, but are not limited to, Medical Radiation Committee ("MRC"); Radiation Safety Committee ("RSC"); Institutional Biosafety Committee ("IBC"); and Temple University Survey Coordinating Committee ("TUSCC"). Please visit these Committees' websites for further information.

Finally, in conducting this research, you are obligated to submit modification requests for all changes to any study; reportable new information using the Reportable New Information form; and renewal and closure forms. For the complete list of investigator responsibilities, please see the Policies and Procedures, the Investigator Manual, and other requirements found on the Temple University IRB website: <http://www.temple.edu/research/regaffairs/irb/index.html>

Please contact the IRB at (215) 707-3390 if you have any questions

APPENDIX C | JUVENILE COURT STATISTICAL CARD, 1985-1990

FORM OCJS-100
REV. 12-81

JUVENILE COURT STATISTICAL CARD

A. REPORTING COUNTY				B. CHILD'S NAME														
C. CHILD'S RESIDENCE (CITY/BORO/TWP)				OFFICIAL USE			8 (LAST)			(FIRST)			(MI.) 27			SS NO.		
							28			36								
COUNTY (IF OTHER THAN ABOVE, ENTER REPORTING COUNTY)				D. DATE OF BIRTH AND AGE			E. SEX			F. RACE								
G. HIGHEST GRADE COMPLETED AND				SCHOOL STATUS			H. FAMILY STATUS											
45 1-UNDER GRADE 9 2-GRADE 9 3-GRADE 10 4-GRADE 11 5-GRADE 12				46 1-IN SCHOOL 2-OUT OF SCHOOL			47 1-MARRIED 2-DIVORCED 3-SEPARATED 4-ONE PARENT DECEASED 5-BOTH PARENTS DECEASED			44 1-WHITE 2-BLACK 3-SPANISH SPKG. 4-OTHER								
I. LIVING ARRANGEMENT OF CHILD				J. NO. IN HOUSEHOLD			K. FAMILY EARNED INCOME											
48 1-LIVING WITH BOTH PARENTS 3-LIVING WITH FATHER 2-LIVING WITH MOTHER 4-OTHER				49 50			51 1-LESS THAN \$8,000 2-\$8,000 TO \$16,000 3-\$18,001 TO \$24,000 4-\$24,001 AND ABOVE											
L. DATE OF REFERRAL				M. REFERRED BY														
52 MONTH DAY YEAR 57				58 1-POLICE 2-SCHOOL 3-PROBATION 4-SOCIAL AGENCY 5-DISTRICT JUSTICE 6-RELATIVE 7-OTHER JUVENILE COURT 8-OTHER														
N. CURRENT REASONS REFERRED (UP TO 4 MOST SERIOUS)												USE PA. CRIMES CODE SECTION NUMBERS OR, IF APPLICABLE, CODES SHOWN BELOW FOR REASON'S REFERRED						
59 CHARGE		COUNT 63		64 CHARGE		COUNT 68		69 CHARGE		COUNT 73		74 CHARGE		COUNT 78				
OTHER DELINQUENCY OFFENSES				0043-HIT AND RUN (PROPERTY DAMAGE ONLY)				0046-OTHER TRAFFIC (MISDEMEANOR)										
0033-NON-PAYMENT OF FINES & COSTS				0044-HIT AND RUN (BOTH BODILY INJURY AND PROPERTY DAMAGE)				0062-PROBATION VIOLATION										
0041-DRIVING WHILE INTOXICATED				0045-DRIVING WITHOUT A LICENSE (2ND OFFENSE)				0063-OTHER (FOR DRUG CODING SEE INSTRUCTION MANUAL)										
0042-HIT AND RUN (BODILY INJURY)																		
O. VICTIM INFORMATION																		
1. OFFENSES AGAINST PERSONS				30 1-NO MEDICAL ATTENTION REQUIRED 2-MEDICAL ATTENTION REQUIRED 3-HOSPITALIZATION REQUIRED				WEAPON USED				31 1-FIREARM 2-OTHER						
2. OFFENSES AGAINST PROPERTY				32 UNDER														
				1. \$100 2. \$100-\$500 3. \$501-\$1000 4. \$1001-\$5000 5. \$5001 AND OVER														
P. CARE—PRIOR TO ADJUDICATION				CARE—FROM ADJUDICATION TO DISPOSITION				CARE—FROM DISPOSITION TO PLACEMENT										
33 (DAYS) 34 35 (DAYS) 36 (PLEASE SPECIFY)				37 (DAYS) 38 39 (DAYS) 40 (PLEASE SPECIFY)				41 (DAYS) 42 43 (DAYS) 44 (PLEASE SPECIFY)										
IN SECURE DETENTION OTHER				IN SECURE DETENTION OTHER				IN SECURE DETENTION OTHER										
Q. DATE OF ADJUDICATORY HEARING				R. ADJUDICATORY HEARING CONDUCTED BY			S. ATTORNEY REPRESENTATION											
45 MONTH DAY YEAR 50				51 1-JUDGE 2-MASTER 3-BOTH			52 1-COURT APPOINTED 2-PRIVATE 3-PUBLIC DEFENDER 4-WAIVED											
T. OFFENSES SUBSTANTIATED AT ADJUDICATORY HEARING												U. DATE OF DISPOSITION						
53 CHARGE		COUNT 57		58 CHARGE		COUNT 62		63 CHARGE		COUNT 67		68 CHARGE		COUNT 72		73 MONTH DAY YEAR 7		
V. DISPOSITION																		
79		80																
1. TRANSFER TO OTHER JUVENILE COURT				10. CONTINUANCE OF PREVIOUS DISPOSITION														
2. COMPLAINT WITHDRAWN				11. CERTIFIED TO CRIMINAL COURT														
3. DISMISSED, WARNED, COUNSELED				12. OTHER (SPECIFY)														
4. INFORMAL ADJUSTMENT																		
5. FINES AND COSTS ORDERED				13. PLACEMENT														
6. DISMISSED, NOT SUBSTANTIATED				NAME:														
7. REFERRED TO ANOTHER AGENCY/INDIVIDUAL				TYPE OF														
8. CONSENT DECREE				SERVICE:														
9. PROBATION				(E.G.—GROUP HOME, FOSTER HOME, SECURE INSTITUTION, OTHER)														
ADDITIONAL COMMENTS:												30 (FOR OFFICIAL USE ONLY)						
NAME OF PERSON COMPLETING THIS FORM																		

FOR INSTRUCTIONS ON COMPLETION—SEE MANUAL WHITE COPY—PROBATION OFFICE
YELLOW COPY—SEND TO JUVENILE COURT JUDGES COMMISSION, P.O. BOX 1234, FEDERAL SQUARE STATION, HARRISBURG, PA 17108

APPENDIX D | JUVENILE COURT STATISTICAL CARD, 1991-1996

FORM OCJS-100
REV. 1/91

JUVENILE COURT STATISTICAL CARD

A. REPORTING COUNTY		B. JUVENILE'S NAME			SS NO.	
C. JUVENILE'S RESIDENCE (CITY/BORO/TWP)		(LAST)	(FIRST)	(MI)		
C-1. IS JUVENILE RESIDENT OF REPORTING COUNTY? Y/N		D. DATE OF BIRTH		AGE	E. GENDER	F. RACE
		MONTH	DAY	YEAR	1-MALE 2-FEMALE	1-WHITE 2-BLACK 3-HISPANIC 4-OTHER
G. HIGHEST GRADE COMPLETED AND		SCHOOL STATUS		H. NATURAL FAMILY STATUS		
13-POST HIGH SCHOOL 14-ALTERNATIVE EDUCATION 15-SPECIAL EDUCATION 16-OTHER		1-IN SCHOOL 2-OUT OF SCHOOL		1-MARRIED 2-DIVORCED 3-SEPARATED 4-ONE PARENT DECEASED 5-BOTH PARENTS DECEASED 6-PARENTS NEVER MARRIED 7-OTHER		
I. LIVING ARRANGEMENT OF JUVENILE			J. PRIOR DELINQUENCY HISTORY			
1- BOTH PARENTS 2- MOTHER 3- FATHER 4- RELATIVE 5- FATHER & STEP MOTHER 6- MOTHER & STEP FATHER 7- FOSTER PARENT(S) 8- OTHER			NO. ADJUDICATIONS OF DELINQUENCY			
			NO. DISPOSITIONS			
			NO. PLACEMENTS			
K. DATE OF REFERRAL		L. REFERRED BY				
MONTH DAY YEAR		1-POLICE 2-SCHOOL 3-PROBATION 4-SOCIAL AGENCY 5-DISTRICT JUSTICE 6-RELATIVE 7-OTHER JUVENILE COURT 8-OTHER				
M. CURRENT REASON(S) REFERRED (UP TO 4 MOST SERIOUS)						
CHARGE	COUNT	M/F	CHARGE	COUNT	M/F	CHARGE
M-1. CRIMINAL ATTEMPT 901 1-CRIMINAL HOMICIDE 2-RAPE 3-INVOL. DEV. SEXUAL INTERCOURSE						
CRIMINAL SOLICITATION 902 4-KIDNAPPING 5-ROBBERY 6-BURGLARY						
CRIMINAL CONSPIRACY 903 7-AGGRAVATED ASSAULT 8-ARSON 9-THEFT						
0-OTHER						
M-2. OTHER DELINQUENCY OFFENSES						
0033 NON-PAYMENT OF FINES 0041 DRIVING UNDER INFLUENCE		0042 HIT & RUN (PERSONAL INJURY OR DEATH) 0046 OTHER TRAFFIC		0047 HOMICIDE BY VEHICLE 0048 HOMICIDE BY VEHICLE (DU)		0062 PROBATION VIOLATION 0063 OTHER DELINQUENCY
M-3. OTHER NON-DELINQUENCY						
0064 SUMMARY OFFENSE		0065 DEPENDENCY REFERRAL				
N. DATE OF HEARING		O. HEARING CONDUCTED BY			P. ATTORNEY REPRESENTATION	
MONTH DAY YEAR		1-JUDGE 2-MASTER 3-BOTH			1-COURT APPOINTED 2-PUBLIC DEFENDER 3-PRIVATE 4-WAIVED	
Q. TYPE OF HEARING		FOR REVIEWS ONLY:				Q-1. DATE OF LAST DISPOSITION
1- CONSENT DECREE 2- TRANSFER TO CRIMINAL COURT 3- ADJUDICATION		4-DISPOSITIONAL REVIEW: DELINQUENT (JUVENILE NOT IN PLACEMENT AT TIME OF REVIEW) 5-PLACEMENT REVIEW: DELINQUENT 6-DISPOSITIONAL REVIEW: DEPENDENT (CHILD NOT IN PLACEMENT AT TIME OF REVIEW) 7-PLACEMENT REVIEW: DEPENDENT				MONTH DAY YEAR
						Q-2 LAST DISPOSITION
						(SEE SECTION V CODES 1 - 17)
R. OFFENSE(S) SUBSTANTIATED AT HEARING (UP TO 4 MOST SERIOUS)						
CHARGE	COUNT	M/F	CHARGE	COUNT	M/F	CHARGE
S. WAS JUVENILE ADJUDICATED DELINQUENT? Y/N						
DEPENDENT? Y/N						
WAS THE JUVENILE DETERMINED TO BE A DANGEROUS JUVENILE OFFENDER? Y/N						
T. DATE OF DISPOSITION		U. SPECIAL CONDITIONS (CHECK ALL THAT APPLY)				
MONTH DAY YEAR		<input type="checkbox"/> INTENSIVE PROBATION <input type="checkbox"/> INTENSIVE D&A <input type="checkbox"/> COMMUNITY SERVICE <input type="checkbox"/> OTHER <input type="checkbox"/> RESTITUTION <input type="checkbox"/> FINES & COSTS <input type="checkbox"/> FAMILY THERAPY <input type="checkbox"/> AFTERCARE <input type="checkbox"/> AFTERCARE D&A <input type="checkbox"/> DAY TREATMENT				
V. DISPOSITION						
1-TRANSFER TO OTHER JUVENILE COURT		10-CONTINUANCE OF PREVIOUS DISPOSITION		FOR PLACEMENT REVIEW ONLY:		
2-COMPLAINT WITHDRAWN		11-TRANSFERRED TO CRIMINAL COURT		15-CONTINUATION OF PLACEMENT		
3-WARNED, COUNSELED, CASE CLOSED		12-OTHER		16-RELEASED FROM PLACEMENT		
4-INFORMAL ADJUSTMENT		13-PLACEMENT		17-CHANGE OF PLACEMENT TO:		
5-FINES AND/OR COSTS ORDERED		NAME		NAME		
6-DISMISSED NOT SUBSTANTIATED		TYPE OF SERVICE		TYPE OF SERVICE		
7-REFERRED TO ANOTHER AGENCY/INDIVIDUAL		(EG. FOSTER CARE, GROUP HOME, INSTITUTION, SECURE, D&A, MHMR, OUTWARD BOUND, SIL, ETC.)		(EG. FOSTER CARE, GROUP HOME, INSTITUTION, SECURE, D&A, MHMR, OUTWARD BOUND, SIL, ETC.)		
8-CONSENT DECREE		14-PROTECTIVE SUPERVISION (DEPENDENT CHILD)				
9-PROBATION						
W. WHAT TEMPORARY SERVICES WERE PROVIDED IN CONJUNCTION WITH THIS DISPOSITION? (CHECK ALL THAT APPLY)						
<input type="checkbox"/> SECURE DETENTION		<input type="checkbox"/> SHELTER CARE		<input type="checkbox"/> IN-HOME DETENTION		<input type="checkbox"/> RESIDENTIAL DIAGNOSTIC
ADDITIONAL COMMENTS:						
						NAME OF PERSON COMPLETING THIS CARD

FOR INSTRUCTIONS ON COMPLETION - SEE MANUAL YELLOW COPY - PROBATION OFFICE
WHITE COPY - SEND TO JUVENILE COURT JUDGES' COMMISSION, P.O. BOX 3222, HARRISBURG, PA 17105-3222

APPENDIX E | JUVENILE COURT STATISTICAL CARD, 1997-2005

FORM OCJS-100

REV 12/96

JUVENILE COURT STATISTICAL CARD

A. REPORTING COUNTY				B. JUVENILE'S NAME (LAST) (FIRST) (MI)			
C. JUVENILE'S RESIDENCE (CITY/BORO/TWP)				D. DATE OF BIRTH MONTH DAY YEAR		E. G. AGE 1-MALE	
C-1. IS JUVENILE RESIDENT OF REPORTING COUNTY? Y/N				G. JOTN		H. HIGHEST GRADE COMPLETED AND	
I. NATURAL FAMILY STATUS 1-MARRIED 2-DIVORCED 3-SEPARATED 4-ONE PARENT DECEASED				5-BOTH PARENTS DECEASED 6-PARENTS NEVER MARRIED 7-OTHER		J. LIVING ARRANGEMENT 1-BOTH PARENTS 2-MOTHER 3-FATHER 4-RELATIVE	
K. DATE OF ARREST MONTH DAY YEAR		L. DATE OF REFERRAL MONTH DAY YEAR		M. REFERRED BY 1-POLICE 2-SCHOOL 3-PROBATION			
N. ARRESTING AGENCY ORI				O. TYPE OF HEARING 1-CONSENT DECREE 4-DISPOSITIONAL REVIEW, DELQ. 7-PLACEMENT REVIEW, DEP.			
P. DATE OF HEARING MONTH DAY YEAR		Q. HEARING CONDUCTED BY 1-JUDGE 2-MASTER 3-BOTH		R. ATTORNEY REPRESENTATION 1-COURT APPOINTED 2-PUBLIC DEFENDER 3-PRIVATE			
T. CHARGE INFORMATION MONTH DAY YEAR			COURT DOCKET NUMBER		ALLEGED		COUNTS GRADE
U. DATE OF DISPOSITION MONTH DAY YEAR			V. SPECIAL CONDITIONS (CHECK ALL THAT APPLY)				
			<input type="checkbox"/> INTENSIVE PROBATION		<input type="checkbox"/> INTENSIVE D&A		<input type="checkbox"/> COMMUNITY SERVICE
			<input type="checkbox"/> RESTITUTION		<input type="checkbox"/> FINES & COSTS		<input type="checkbox"/> FAMILY THERAPY
			<input type="checkbox"/> AFTERCARE		<input type="checkbox"/> AFTERCARE D&A		<input type="checkbox"/> DAY TREATMENT
W. DISPOSITION				10-CONTINUANCE OF PREVIOUS DISPOSITION			
1-TRANSFER TO OTHER JUVENILE COURTS				11-TRANSFERRED TO CRIMINAL COURT			
2-COMPLAINT WITHDRAWN				12-OTHER			
3-WARNED, COUNSELED, CASE CLOSED				13-PLACEMENT			
4-INFORMAL ADJUSTMENT				NAME			
5-FINES AND/OR COSTS ORDERED				TYPE OF SERVICE			
6-DISMISSED NOT SUBSTANTIATED				(EG. FOSTER CARE, GROUP HOME, INSTITUTION, SECURE D&A, MINOR, OUTWARD)			
7-REFERRED TO ANOTHER AGENCY/INDIVIDUAL				14-PROTECTIVE SUPERVISION (DEPENDENT CHILD)			
8-CONSENT DECREE							
9-PROBATION							
X. WHAT TEMPORARY SERVICES WERE PROVIDED IN CONJUNCTION WITH THIS DISPOSITION? (CHECK ALL THAT APPLY)							
<input type="checkbox"/> SECURE DETENTION		<input type="checkbox"/> SHELTER CARE		<input type="checkbox"/> IN-HOME DETENTION		<input type="checkbox"/> RESIDENCE	
ADDITIONAL COMMENTS:							

45 CFR 46 Protection of Human Subjects

FOR INSTRUCTIONS ON COMPLETION-SEE MANUAL YELLOW COPY-PROBATION OFFICE

WHITE COPY-MAIL TO CJJT&R SAC UNIT, SHIPPENSBURG

APPENDIX F | INSTITUTIONAL REVIEW BOARD EXEMPTION



Office for Human Subjects 3400
North Broad Street Protections
Philadelphia, Pennsylvania 19140
Institutional Review Board
Phone:215.707.3390

To: HARRIS, PHILIP LIB ARTS-CRIM
JUSTICE (1835)

From: Richard C. Throm Director, Office for Human
Subjects Protection Institutional Review Board
Coordinator

Medical Intervention Committees
Fax:215.707.8387

richard.throm@temple.edu

Social and Behavioral Committee B

Date: 07-Aug-2008

Re: Exempt Request Status for IRB Protocol: 11908: Juvenile Sex
Offender Processing in the Pennsylvania Juvenile Courts, 1985-2005

It has been determined by Expedited Review that this study qualifies for exemption status as follows:

Section 101 (b): Unless otherwise required by department or agency heads, research activities in which the only involvement of human subjects will be in one or more of the following categories are exempt from this policy:

Exemption 4: Collection or Study of Existing Data. Research involving the collection or study of existing data, documents, records, pathological specimens, or diagnostic specimens, if these sources are publicly available or if the information is recorded by the investigator in such a manner that subjects cannot be identified, directly or through identifiers linked to the subject.

Nothing further is required from you at this time; however, if anything in your research design should change, you must notify the Institutional Review Board immediately.

If you should have any questions, please feel free to contact me at 215-707-8757.

Thank you for keeping the IRB informed of your clinical research.

APPENDIX G | EXCERPT OF SIMULATION MODELING CODE

```
{ ARRAY DIMENSIONS }
: s Dispositions
: s Registered[Sex_Offender_Cohorts]
: f SORNA_Juveniles[Sex_Offender_Cohorts]
: f Removed_from_Registry[Sex_Offender_Cohorts]
: f NonRecidivists[Sex_Offender_Cohorts]
: f Recidivists[Sex_Offender_Cohorts]

{ VERSION 9.1.4 }

{ VERSION 9.1.4 }

{ INITIALIZATION EQUATIONS }
: s Registered = 158
: c SORNA_Juveniles = .005
UNITS: people (person)
: f All_Juveniles = SORNA_Juveniles*Registered
      TIMESTAMPED
: f Recidivists = Registered*.0485
: f NonRecidivists = Registered*.9515
: c Removal_Delay = DELAY (NonRecidivists,25,(NonRecidivists))
UNITS: years (yr)
: c Total_Registered = Registered-Removal_Delay

{ RUNTIME EQUATIONS }
: s Registered(t) = Registered(t - dt) + (All_Juveniles + Recidivists - NonRecidivists) * dt
: f All_Juveniles = SORNA_Juveniles*Registered
      TIMESTAMPED
: f Recidivists = Registered*.0485
: f NonRecidivists = Registered*.9515
: c Removal_Delay = DELAY (NonRecidivists,25,(NonRecidivists))
UNITS: years (yr)
: c Total_Registered = Registered-Removal_Delay

{ TIME SPECS }
STARTTIME=0
STOPTIME=41
DT=1.00
INTEGRATION=EULER
RUNMODE=CYCLETIME
PAUSEINTERVAL=INF{ INITIALIZATION EQUATIONS }
: s Registered[1] = 158
```

UNITS: people (person)
: s Registered[2] = 156
UNITS: people (person)
: s Registered[3] = 163
UNITS: people (person)
: s Registered[4] = 143
UNITS: people (person)
: s Registered[5] = 157
UNITS: people (person)
: s Registered[6] = 147
UNITS: people (person)
: s Registered[7] = 166
UNITS: people (person)
: s Registered[8] = 180
UNITS: people (person)
: s Registered[9] = 184
UNITS: people (person)
: s Registered[10] = 180
UNITS: people (person)
: s Registered[11] = 150
UNITS: people (person)
: s Registered[12] = 162
UNITS: people (person)
: s Registered[13] = 237
UNITS: people (person)
: s Registered[14] = 235
UNITS: people (person)
: s Registered[15] = 206
UNITS: people (person)
: s Registered[16] = 254
UNITS: people (person)
: s Registered[17] = 334
UNITS: people (person)
: s Registered[18] = 298
UNITS: people (person)
: s Registered[19] = 273
UNITS: people (person)
: s Registered[20] = 238
UNITS: people (person)
: s Registered[213] = 213
UNITS: people (person)
: c Registration_Rate = 1.0
UNITS: people (person)
: f Tier_3_Adjudications[1] = Registration_Rate*Registered[1]

UNITS: person/yr
 TIMESTAMPED
 : f NonRecidivists[1] = Registered[1]*.9515
 UNITS: person/yr
 : f Recidivists[1] = NonRecidivists[1]*.0485
 UNITS: person/yr
 : f Removed_from_Registry[1] = (person)[1]*.9515
 UNITS: person/yr
 : f Tier_3_Adjudications[2] = Registration_Rate*Registered[2]
 UNITS: person/yr
 TIMESTAMPED
 : f NonRecidivists[2] = Registered[2]*.9515
 UNITS: person/yr
 : f Recidivists[2] = NonRecidivists[2]*.0485
 UNITS: person/yr
 : f Removed_from_Registry[2] = (person)[2]*.9515
 UNITS: person/yr
 : f Tier_3_Adjudications[3] = Registration_Rate*Registered[3]
 UNITS: person/yr
 TIMESTAMPED
 : f NonRecidivists[3] = Registered[3]*.9515
 UNITS: person/yr
 : f Recidivists[3] = NonRecidivists[3]*.0485
 UNITS: person/yr
 : f Removed_from_Registry[3] = (person)[3]*.9515
 UNITS: person/yr
 : f Tier_3_Adjudications[4] = Registration_Rate*Registered[4]
 UNITS: person/yr
 TIMESTAMPED
 : f NonRecidivists[4] = Registered[4]*.9515
 UNITS: person/yr
 : f Recidivists[4] = NonRecidivists[4]*.0485
 UNITS: person/yr
 : f Removed_from_Registry[4] = (person)[4]*.9515
 UNITS: person/yr
 : f Tier_3_Adjudications[5] = Registration_Rate*Registered[5]
 UNITS: person/yr
 TIMESTAMPED
 : f NonRecidivists[5] = Registered[5]*.9515
 UNITS: person/yr
 : f Recidivists[5] = NonRecidivists[5]*.0485
 UNITS: person/yr
 : f Removed_from_Registry[5] = (person)[5]*.9515
 UNITS: person/yr

: f Tier_3_Adjudications[6] = Registration_Rate*Registered[6]
 UNITS: person/yr
 TIMESTAMPED
 : f NonRecidivists[6] = Registered[6]*.9515
 UNITS: person/yr
 : f Recidivists[6] = NonRecidivists[6]*.0485
 UNITS: person/yr
 : f Removed_from_Registry[6] = (person)[6]*.9515
 UNITS: person/yr
 : f Tier_3_Adjudications[7] = Registration_Rate*Registered[7]
 UNITS: person/yr
 TIMESTAMPED
 : f NonRecidivists[7] = Registered[7]*.9515
 UNITS: person/yr
 : f Recidivists[7] = NonRecidivists[7]*.0485
 UNITS: person/yr
 : f Removed_from_Registry[7] = (person)[7]*.9515
 UNITS: person/yr
 : f Tier_3_Adjudications[8] = Registration_Rate*Registered[8]
 UNITS: person/yr
 TIMESTAMPED
 : f NonRecidivists[8] = Registered[8]*.9515
 UNITS: person/yr
 : f Recidivists[8] = NonRecidivists[8]*.0485
 UNITS: person/yr
 : f Removed_from_Registry[8] = (person)[8]*.9515
 UNITS: person/yr
 : f Tier_3_Adjudications[9] = Registration_Rate*Registered[9]
 UNITS: person/yr
 TIMESTAMPED
 : f NonRecidivists[9] = Registered[9]*.9515
 UNITS: person/yr
 : f Recidivists[9] = NonRecidivists[9]*.0485
 UNITS: person/yr
 : f Removed_from_Registry[9] = (person)[9]*.9515
 UNITS: person/yr
 : f Tier_3_Adjudications[10] = Registration_Rate*Registered[10]
 UNITS: person/yr
 TIMESTAMPED
 : f NonRecidivists[10] = Registered[10]*.9515
 UNITS: person/yr
 : f Recidivists[10] = NonRecidivists[10]*.0485
 UNITS: person/yr
 : f Removed_from_Registry[10] = (person)[10]*.9515

UNITS: person/yr
 : f Tier_3_Adjudications[11] = Registration_Rate*Registered[11]
 UNITS: person/yr
 TIMESTAMPED
 : f NonRecidivists[11] = Registered[11]*.9515
 UNITS: person/yr
 : f Recidivists[11] = NonRecidivists[11]*.0485
 UNITS: person/yr
 : f Removed_from_Registry[11] = (person)[11]*.9515
 UNITS: person/yr
 : f Tier_3_Adjudications[12] = Registration_Rate*Registered[12]
 UNITS: person/yr
 TIMESTAMPED
 : f NonRecidivists[12] = Registered[12]*.9515
 UNITS: person/yr
 : f Recidivists[12] = NonRecidivists[12]*.0485
 UNITS: person/yr
 : f Removed_from_Registry[12] = (person)[12]*.9515
 UNITS: person/yr
 : f Tier_3_Adjudications[13] = Registration_Rate*Registered[13]
 UNITS: person/yr
 TIMESTAMPED
 : f NonRecidivists[13] = Registered[13]*.9515
 UNITS: person/yr
 : f Recidivists[13] = NonRecidivists[13]*.0485
 UNITS: person/yr
 : f Removed_from_Registry[13] = (person)[13]*.9515
 UNITS: person/yr
 : f Tier_3_Adjudications[14] = Registration_Rate*Registered[14]
 UNITS: person/yr
 TIMESTAMPED
 : f NonRecidivists[14] = Registered[14]*.9515
 UNITS: person/yr
 : f Recidivists[14] = NonRecidivists[14]*.0485
 UNITS: person/yr
 : f Removed_from_Registry[14] = (person)[14]*.9515
 UNITS: person/yr
 : f Tier_3_Adjudications[15] = Registration_Rate*Registered[15]
 UNITS: person/yr
 TIMESTAMPED
 : f NonRecidivists[15] = Registered[15]*.9515
 UNITS: person/yr
 : f Recidivists[15] = NonRecidivists[15]*.0485
 UNITS: person/yr

: f Removed_from_Registry[15] = (person)[15]*.9515
 UNITS: person/yr
 : f Tier_3_Adjudications[16] = Registration_Rate*Registered[16]
 UNITS: person/yr
 TIMESTAMPED
 : f NonRecidivists[16] = Registered[16]*.9515
 UNITS: person/yr
 : f Recidivists[16] = NonRecidivists[16]*.0485
 UNITS: person/yr
 : f Removed_from_Registry[16] = (person)[16]*.9515
 UNITS: person/yr
 : f Tier_3_Adjudications[17] = Registration_Rate*Registered[17]
 UNITS: person/yr
 TIMESTAMPED
 : f NonRecidivists[17] = Registered[17]*.9515
 UNITS: person/yr
 : f Recidivists[17] = NonRecidivists[17]*.0485
 UNITS: person/yr
 : f Removed_from_Registry[17] = (person)[17]*.9515
 UNITS: person/yr
 : f Tier_3_Adjudications[18] = Registration_Rate*Registered[18]
 UNITS: person/yr
 TIMESTAMPED
 : f NonRecidivists[18] = Registered[18]*.9515
 UNITS: person/yr
 : f Recidivists[18] = NonRecidivists[18]*.0485
 UNITS: person/yr
 : f Removed_from_Registry[18] = (person)[18]*.9515
 UNITS: person/yr
 : f Tier_3_Adjudications[19] = Registration_Rate*Registered[19]
 UNITS: person/yr
 TIMESTAMPED
 : f NonRecidivists[19] = Registered[19]*.9515
 UNITS: person/yr
 : f Recidivists[19] = NonRecidivists[19]*.0485
 UNITS: person/yr
 : f Removed_from_Registry[19] = (person)[19]*.9515
 UNITS: person/yr
 : f Tier_3_Adjudications[20] = Registration_Rate*Registered[20]
 UNITS: person/yr
 TIMESTAMPED
 : f NonRecidivists[20] = Registered[20]*.9515
 UNITS: person/yr
 : f Recidivists[20] = NonRecidivists[20]*.0485

UNITS: person/yr
 : f Removed_from_Registry[20] = (person)[20]*.9515
 UNITS: person/yr
 : f Tier_3_Adjudications[213] = Registration_Rate*Registered[213]
 UNITS: person/yr
 TIMESTAMPED
 : f NonRecidivists[213] = Registered[213]*.9515
 UNITS: person/yr
 : f Recidivists[213] = NonRecidivists[213]*.0485
 UNITS: person/yr
 : f Removed_from_Registry[213] = (person)[213]*.9515
 UNITS: person/yr
 : c Total_Registered = ARRAYSUM(Registered[*])

{ RUNTIME EQUATIONS }

: s Registered[1](t) = Registered[1](t - dt) + (Tier_3_Adjudications[1] + Recidivists[1] - NonRecidivists[1] - Removed_from_Registry[1]) * dt

UNITS: people (person)

: s Registered[2](t) = Registered[2](t - dt) + (Tier_3_Adjudications[2] + Recidivists[2] - NonRecidivists[2] - Removed_from_Registry[2]) * dt

UNITS: people (person)

: s Registered[3](t) = Registered[3](t - dt) + (Tier_3_Adjudications[3] + Recidivists[3] - NonRecidivists[3] - Removed_from_Registry[3]) * dt

UNITS: people (person)

: s Registered[4](t) = Registered[4](t - dt) + (Tier_3_Adjudications[4] + Recidivists[4] - NonRecidivists[4] - Removed_from_Registry[4]) * dt

UNITS: people (person)

: s Registered[5](t) = Registered[5](t - dt) + (Tier_3_Adjudications[5] + Recidivists[5] - NonRecidivists[5] - Removed_from_Registry[5]) * dt

UNITS: people (person)

: s Registered[6](t) = Registered[6](t - dt) + (Tier_3_Adjudications[6] + Recidivists[6] - NonRecidivists[6] - Removed_from_Registry[6]) * dt

UNITS: people (person)

: s Registered[7](t) = Registered[7](t - dt) + (Tier_3_Adjudications[7] + Recidivists[7] - NonRecidivists[7] - Removed_from_Registry[7]) * dt

UNITS: people (person)

: s Registered[8](t) = Registered[8](t - dt) + (Tier_3_Adjudications[8] + Recidivists[8] - NonRecidivists[8] - Removed_from_Registry[8]) * dt

UNITS: people (person)

: s Registered[9](t) = Registered[9](t - dt) + (Tier_3_Adjudications[9] + Recidivists[9] - NonRecidivists[9] - Removed_from_Registry[9]) * dt

UNITS: people (person)

: s Registered[10](t) = Registered[10](t - dt) + (Tier_3_Adjudications[10] + Recidivists[10] - NonRecidivists[10] - Removed_from_Registry[10]) * dt

UNITS: people (person)
: s Registered[11](t) = Registered[11](t - dt) + (Tier_3_Adjudications[11] + Recidivists[11] - NonRecidivists[11] - Removed_from_Registry[11]) * dt
UNITS: people (person)
: s Registered[12](t) = Registered[12](t - dt) + (Tier_3_Adjudications[12] + Recidivists[12] - NonRecidivists[12] - Removed_from_Registry[12]) * dt
UNITS: people (person)
: s Registered[13](t) = Registered[13](t - dt) + (Tier_3_Adjudications[13] + Recidivists[13] - NonRecidivists[13] - Removed_from_Registry[13]) * dt
UNITS: people (person)
: s Registered[14](t) = Registered[14](t - dt) + (Tier_3_Adjudications[14] + Recidivists[14] - NonRecidivists[14] - Removed_from_Registry[14]) * dt
UNITS: people (person)
: s Registered[15](t) = Registered[15](t - dt) + (Tier_3_Adjudications[15] + Recidivists[15] - NonRecidivists[15] - Removed_from_Registry[15]) * dt
UNITS: people (person)
: s Registered[16](t) = Registered[16](t - dt) + (Tier_3_Adjudications[16] + Recidivists[16] - NonRecidivists[16] - Removed_from_Registry[16]) * dt
UNITS: people (person)
: s Registered[17](t) = Registered[17](t - dt) + (Tier_3_Adjudications[17] + Recidivists[17] - NonRecidivists[17] - Removed_from_Registry[17]) * dt
UNITS: people (person)
: s Registered[18](t) = Registered[18](t - dt) + (Tier_3_Adjudications[18] + Recidivists[18] - NonRecidivists[18] - Removed_from_Registry[18]) * dt
UNITS: people (person)
: s Registered[19](t) = Registered[19](t - dt) + (Tier_3_Adjudications[19] + Recidivists[19] - NonRecidivists[19] - Removed_from_Registry[19]) * dt
UNITS: people (person)
: s Registered[20](t) = Registered[20](t - dt) + (Tier_3_Adjudications[20] + Recidivists[20] - NonRecidivists[20] - Removed_from_Registry[20]) * dt
UNITS: people (person)
: s Registered[213](t) = Registered[213](t - dt) + (Tier_3_Adjudications[213] + Recidivists[213] - NonRecidivists[213] - Removed_from_Registry[213]) * dt
UNITS: people (person)
: f Tier_3_Adjudications[1] = Registration_Rate*Registered[1]
UNITS: person/yr
TIMESTAMPED
: f NonRecidivists[1] = Registered[1]*.9515
UNITS: person/yr
: f Recidivists[1] = NonRecidivists[1]*.0485
UNITS: person/yr
: f Removed_from_Registry[1] = (person)[1]*.9515
UNITS: person/yr
: f Tier_3_Adjudications[2] = Registration_Rate*Registered[2]

UNITS: person/yr
 TIMESTAMPED
 : f NonRecidivists[2] = Registered[2]*.9515
 UNITS: person/yr
 : f Recidivists[2] = NonRecidivists[2]*.0485
 UNITS: person/yr
 : f Removed_from_Registry[2] = (person)[2]*.9515
 UNITS: person/yr
 : f Tier_3_Adjudications[3] = Registration_Rate*Registered[3]
 UNITS: person/yr
 TIMESTAMPED
 : f NonRecidivists[3] = Registered[3]*.9515
 UNITS: person/yr
 : f Recidivists[3] = NonRecidivists[3]*.0485
 UNITS: person/yr
 : f Removed_from_Registry[3] = (person)[3]*.9515
 UNITS: person/yr
 : f Tier_3_Adjudications[4] = Registration_Rate*Registered[4]
 UNITS: person/yr
 TIMESTAMPED
 : f NonRecidivists[4] = Registered[4]*.9515
 UNITS: person/yr
 : f Recidivists[4] = NonRecidivists[4]*.0485
 UNITS: person/yr
 : f Removed_from_Registry[4] = (person)[4]*.9515
 UNITS: person/yr
 : f Tier_3_Adjudications[5] = Registration_Rate*Registered[5]
 UNITS: person/yr
 TIMESTAMPED
 : f NonRecidivists[5] = Registered[5]*.9515
 UNITS: person/yr
 : f Recidivists[5] = NonRecidivists[5]*.0485
 UNITS: person/yr
 : f Removed_from_Registry[5] = (person)[5]*.9515
 UNITS: person/yr
 : f Tier_3_Adjudications[6] = Registration_Rate*Registered[6]
 UNITS: person/yr
 TIMESTAMPED
 : f NonRecidivists[6] = Registered[6]*.9515
 UNITS: person/yr
 : f Recidivists[6] = NonRecidivists[6]*.0485
 UNITS: person/yr
 : f Removed_from_Registry[6] = (person)[6]*.9515
 UNITS: person/yr

: f Tier_3_Adjudications[7] = Registration_Rate*Registered[7]
 UNITS: person/yr
 TIMESTAMPED
 : f NonRecidivists[7] = Registered[7]*.9515
 UNITS: person/yr
 : f Recidivists[7] = NonRecidivists[7]*.0485
 UNITS: person/yr
 : f Removed_from_Registry[7] = (person)[7]*.9515
 UNITS: person/yr
 : f Tier_3_Adjudications[8] = Registration_Rate*Registered[8]
 UNITS: person/yr
 TIMESTAMPED
 : f NonRecidivists[8] = Registered[8]*.9515
 UNITS: person/yr
 : f Recidivists[8] = NonRecidivists[8]*.0485
 UNITS: person/yr
 : f Removed_from_Registry[8] = (person)[8]*.9515
 UNITS: person/yr
 : f Tier_3_Adjudications[9] = Registration_Rate*Registered[9]
 UNITS: person/yr
 TIMESTAMPED
 : f NonRecidivists[9] = Registered[9]*.9515
 UNITS: person/yr
 : f Recidivists[9] = NonRecidivists[9]*.0485
 UNITS: person/yr
 : f Removed_from_Registry[9] = (person)[9]*.9515
 UNITS: person/yr
 : f Tier_3_Adjudications[10] = Registration_Rate*Registered[10]
 UNITS: person/yr
 TIMESTAMPED
 : f NonRecidivists[10] = Registered[10]*.9515
 UNITS: person/yr
 : f Recidivists[10] = NonRecidivists[10]*.0485
 UNITS: person/yr
 : f Removed_from_Registry[10] = (person)[10]*.9515
 UNITS: person/yr
 : f Tier_3_Adjudications[11] = Registration_Rate*Registered[11]
 UNITS: person/yr
 TIMESTAMPED
 : f NonRecidivists[11] = Registered[11]*.9515
 UNITS: person/yr
 : f Recidivists[11] = NonRecidivists[11]*.0485
 UNITS: person/yr
 : f Removed_from_Registry[11] = (person)[11]*.9515

UNITS: person/yr
 : f Tier_3_Adjudications[12] = Registration_Rate*Registered[12]
 UNITS: person/yr
 TIMESTAMPED
 : f NonRecidivists[12] = Registered[12]*.9515
 UNITS: person/yr
 : f Recidivists[12] = NonRecidivists[12]*.0485
 UNITS: person/yr
 : f Removed_from_Registry[12] = (person)[12]*.9515
 UNITS: person/yr
 : f Tier_3_Adjudications[13] = Registration_Rate*Registered[13]
 UNITS: person/yr
 TIMESTAMPED
 : f NonRecidivists[13] = Registered[13]*.9515
 UNITS: person/yr
 : f Recidivists[13] = NonRecidivists[13]*.0485
 UNITS: person/yr
 : f Removed_from_Registry[13] = (person)[13]*.9515
 UNITS: person/yr
 : f Tier_3_Adjudications[14] = Registration_Rate*Registered[14]
 UNITS: person/yr
 TIMESTAMPED
 : f NonRecidivists[14] = Registered[14]*.9515
 UNITS: person/yr
 : f Recidivists[14] = NonRecidivists[14]*.0485
 UNITS: person/yr
 : f Removed_from_Registry[14] = (person)[14]*.9515
 UNITS: person/yr
 : f Tier_3_Adjudications[15] = Registration_Rate*Registered[15]
 UNITS: person/yr
 TIMESTAMPED
 : f NonRecidivists[15] = Registered[15]*.9515
 UNITS: person/yr
 : f Recidivists[15] = NonRecidivists[15]*.0485
 UNITS: person/yr
 : f Removed_from_Registry[15] = (person)[15]*.9515
 UNITS: person/yr
 : f Tier_3_Adjudications[16] = Registration_Rate*Registered[16]
 UNITS: person/yr
 TIMESTAMPED
 : f NonRecidivists[16] = Registered[16]*.9515
 UNITS: person/yr
 : f Recidivists[16] = NonRecidivists[16]*.0485
 UNITS: person/yr

: f Removed_from_Registry[16] = (person)[16]*.9515
 UNITS: person/yr
 : f Tier_3_Adjudications[17] = Registration_Rate*Registered[17]
 UNITS: person/yr
 TIMESTAMPED
 : f NonRecidivists[17] = Registered[17]*.9515
 UNITS: person/yr
 : f Recidivists[17] = NonRecidivists[17]*.0485
 UNITS: person/yr
 : f Removed_from_Registry[17] = (person)[17]*.9515
 UNITS: person/yr
 : f Tier_3_Adjudications[18] = Registration_Rate*Registered[18]
 UNITS: person/yr
 TIMESTAMPED
 : f NonRecidivists[18] = Registered[18]*.9515
 UNITS: person/yr
 : f Recidivists[18] = NonRecidivists[18]*.0485
 UNITS: person/yr
 : f Removed_from_Registry[18] = (person)[18]*.9515
 UNITS: person/yr
 : f Tier_3_Adjudications[19] = Registration_Rate*Registered[19]
 UNITS: person/yr
 TIMESTAMPED
 : f NonRecidivists[19] = Registered[19]*.9515
 UNITS: person/yr
 : f Recidivists[19] = NonRecidivists[19]*.0485
 UNITS: person/yr
 : f Removed_from_Registry[19] = (person)[19]*.9515
 UNITS: person/yr
 : f Tier_3_Adjudications[20] = Registration_Rate*Registered[20]
 UNITS: person/yr
 TIMESTAMPED
 : f NonRecidivists[20] = Registered[20]*.9515
 UNITS: person/yr
 : f Recidivists[20] = NonRecidivists[20]*.0485
 UNITS: person/yr
 : f Removed_from_Registry[20] = (person)[20]*.9515
 UNITS: person/yr
 : f Tier_3_Adjudications[213] = Registration_Rate*Registered[213]
 UNITS: person/yr
 TIMESTAMPED
 : f NonRecidivists[213] = Registered[213]*.9515
 UNITS: person/yr
 : f Recidivists[213] = NonRecidivists[213]*.0485

UNITS: person/yr
: f Removed_from_Registry[213] = (person)[213]*.9515
UNITS: person/yr
: c Total_Registered = ARRAYSUM(Registered[*])

{ TIME SPECS }
STARTTIME=0
STOPTIME=40
DT=1.00
INTEGRATION=EULER
RUNMODE=CYCLETIME
PAUSEINTERVAL=INF

APPENDIX H | INTERVIEW PROTOCOL

Background

1. How long have you been employed at _____(name of organization)?
2. Have you held any other prior positions within this organization?
3. How long have you had this position?
4. What is your title?

Familiarity with Sex Offender Legislation

5. Have you had any experience with juvenile sex offenders? Adult sex offenders?
6. What is the frequency with which you had or have contact with juvenile sex offenders?
7. Have you had any training with regard to the Sex Offender Assessment Board or sex offenders?
8. Are you familiar with SORNA?
 - 8A. If no to #8: Are you familiar with any sex offender legislation?
9. If so, how did you become aware of this legislation?

Agency Culture Concerning SORNA

10. Was there any discussion in your workplace about SORNA?
11. Did you receive training on SORNA?
12. What are your expectations on how this legislation may affect decisions you make?
13. What are your personal views about the requirements imposed by SORNA?
14. Do you think coworkers hold views similar to yours?

Impacts of SORNA, Individual and Organization

15. Has SORNA impacted your work-related responsibilities? If so, please explain.
16. Has your agency had to adapt to accommodate SORNA requirements? If so, please explain.
17. Juvenile registrants who maintain a clean record for 25 years are able to petition to be removed from the registry - do you think it is likely that the petitions will be granted?

Financial Impact

18. Have additional resources (computers, etc) been acquired as a result of SORNA?
19. Have additional staff been hired as a result of SORNA?
20. Has your agency received any financial assistance due to SORNA? If so, are you aware of the source of that funding?
21. Do you have any idea as to the cost of the additional resources that your agency acquired due to SORNA?
22. What is the cost of _____(services rendered by agency)?
23. What is the cost per defendant?
24. What is the annual budget?
25. Has SORNA had a financial impact on your agency? Please explain.

Response to Quantitative Results of Research

26. The results of simulation models suggest over the next 40 years, there will be _____(# from simulation models; see handout) individuals under the jurisdiction of your agency due to adjudication of a SORNA-qualifying offense as a juvenile.

- 26A. Are you surprised by this number?

- 26B. Is your agency prepared for the volume of offenders that will be implicated by SORNA?
- 26C. Will this amount of offenders require additional resources?
- 26D. Is your agency taking steps to prepare for this volume of offenders?
- 26E. If yes, please explain the preparations.

Additional Comments:

APPENDIX I | RECRUITMENT EMAIL FOR PARTICIPANTS

Dear (Name of Potential Respondent),

My name is Jaime Henderson and I am a doctoral student in the Department of Criminal Justice at Temple University. I was referred to you by (person making referral) from (agency) due to your expertise in working with juvenile sex offenders. I am reaching out in hopes of having a discussion with you about Pennsylvania's Sex Offender Registration and Notification Act (SORNA) as part of my dissertation research that focuses on juvenile sex offender policy.

Participation involves answering general questions about SORNA's implementation in your workplace, any impacts this law may have had, and how you and your agency feel about the law. Additionally, I have preliminary results from my research that reveal how many Pennsylvania youth are projected to be implicated by SORNA over the next 40 years that I will share with you to discuss. The duration of this discussion may last anywhere from 30 minutes to one hour. No personal identification information will be collected during the interview.

In addition to being a graduate student at Temple University, I am currently employed by the First Judicial District of Pennsylvania. The research I am conducting on juvenile sex offender policy is only for my doctoral dissertation and is completely unrelated to work endeavors.

If you have any questions or concerns about participation in this research or if you are certain you would like to participate, we can arrange time to speak at your convenience.

Thank you for your time and consideration. I look forward to hearing from you.

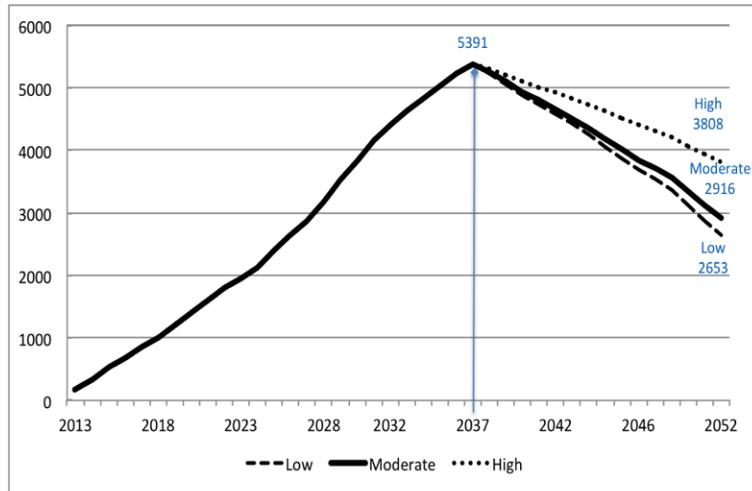
Respectfully,
Jaime S. Henderson

APPENDIX J | SUMMARY OF RESULTS GIVEN TO RESPONDENTS

Year	Registered	Low (4.85%)	Moderate (14%)	High (45%)
2013	173	173	173	173
2014	171	344	344	344
2015	179	523	523	523
2016	157	680	680	680
2017	172	852	852	852
2018	161	1013	1013	1013
2019	182	1195	1195	1195
2020	197	1392	1392	1392
2021	202	1594	1594	1594
2022	197	1791	1791	1791
2023	165	1956	1956	1956
2024	178	2134	2134	2134
2025	260	2394	2394	2394
2026	258	2652	2652	2652
2027	226	2878	2878	2878
2028	279	3157	3157	3157
2029	366	3523	3523	3523
2030	327	3850	3850	3850
2031	300	4150	4150	4150
2032	261	4411	4411	4411
2033	234	4645	4645	4645
2034	190	4835	4835	4835
2035	188	5023	5023	5023
2036	196	5219	5219	5219
2037	172	5391	5391	5391
2038	188	5226	5242	5296
2039	177	5064	5095	5202
2040	200	4893	4941	5103
2041	217	4744	4806	5017
2042	221	4580	4658	4922
2043	217	4427	4520	4834
2044	181	4254	4363	4734
2045	195	4067	4194	4625
2046	285	3874	4020	4514
2047	283	3687	3851	4406
2048	248	3530	3709	4315
2049	306	3360	3556	4217
2050	402	3113	3332	4074
2051	359	2868	3110	3932
2052	329	2653	2916	3808

Different levels of recidivism are used to generate a range of estimates as recidivism dictates whether or not juvenile sex offenders may petition to be removed from the registry after 25 years.

Estimated Cumulative Number of Juvenile Sex Offenders on Registry



25-year registration period ends and those who do not recidivate are eligible to be removed from registry via petition

ADDENDUM TO ADMISSIONS FORM

SEXUAL OFFENDER REGISTRATION AND/OR ACT 21 COLLOQUY

In re _____ : Docket # _____
 (Juvenile) :
 : Delinquent Act(s): _____
 : _____
 : _____
 : _____
 : _____

INTRODUCTION

This supplemental colloquy* should be used in conjunction and submitted with the written admission colloquy form as mandated by Pa.R.J.C.P. 407.

*It is recommended that this colloquy be placed on the record in open court.

**If Part A of this colloquy is applicable, both Parts A and B must be completed.
 If Part A does not apply, complete Part B only.**

PART A

Sexual Offender Registration - 14 yrs. or older*

*Age at time of commission of delinquent act

SORNA CASES

I committed at least one of the following delinquent act(s) on or after my fourteenth birthday; AND

If I am adjudicated delinquent by the court for any of these acts,

I understand that I must register as a “juvenile offender” for the rest of my life.

See 42 Pa.C.S. §§ 9799.12 and 9799.17.

Check all that apply:

<input type="checkbox"/> Rape, 18 Pa.C.S. §3121	<input type="checkbox"/> Attempt	<input type="checkbox"/> Solicitation	<input type="checkbox"/> Conspiracy
<input type="checkbox"/> Involuntary Deviate Sexual Intercourse, 18 Pa.C.S. §3123	<input type="checkbox"/> Attempt	<input type="checkbox"/> Solicitation	<input type="checkbox"/> Conspiracy
<input type="checkbox"/> Aggravated Indecent Assault, 18	<input type="checkbox"/> Attempt	<input type="checkbox"/> Solicitation	<input type="checkbox"/> Conspiracy

_____Attorney’s Initials

General Information:

- 1) My birthday is_____. (MM/DD/YYYY)
- 2) The delinquent act(s) was committed on_____.(MM/DD/YYYY).
- 3) I was at least fourteen (14) years old at the time of the commission of the delinquent act(s) designated as an offense of a “juvenile offender” enumerated above.
] Yes No

See 42 Pa.C.S. § 9799.12 (Definition of “juvenile offender”)

- 4) My home state is_____.

If I am not a resident of Pennsylvania, I understand the provisions of this colloquy are applicable at the time of the adjudication of delinquency and my home state may have additional requirements not presented in this colloquy._____initials

Understanding of Registration Requirements

- 5) I understand that I must give the juvenile probation office specific information and have my photograph taken before I am released from a placement facility or when I am placed on probation._____initials

See 42 Pa.C.S. §§ 6352(A)(2)-(3), 9799.15 (Period of registration), 9799.16 (Registry), and 9799.19 (Initial Registration).

- 6) I understand “registration” means that I will be required to appear at a location approved by the Pennsylvania State Police (PSP) periodically to give my name and certain information about me which can be seen by other people. _____initials

- 7) I understand that I am required to appear at a PSP site to provide and verify specific information and be photographed every three months for the rest of my life unless I am a transient juvenile offender as provided in paragraph (9)._____initials

See 42 Pa. C.S. §§ 9799.15, 9799.16(B), and 9799.25.

_____Attorney’s Initials

- 8) I understand that if I change my name, telephone number, email address, move my residence, change employment or student status, have transportation changes, or any other changes in my personal status as required by 42 Pa.C.S. § 9799.15(G), I am required to appear at a PSP site within three business days of the change to provide current information. _____initials

See 42 Pa. C.S. § 9799.15(G).

- 9) I understand that I am a transient juvenile offender if I do not have a permanent home but live in a temporary place in Pennsylvania and that I must appear in person every month at a PSP site to provide or verify specific information and to be photographed until I establish a residence. _____initials

See 42 Pa.C.S. §§ 9799.15(h) (Relating to transient juvenile offenders) and 9799.16(B) (Registry information).

- 10) I understand that I will be included on a statewide registry of sexual offenders which means other people will be able to see certain information about me. _____initials

See 42 Pa.C.S. § 9799.16 (Registry).

- 11) I understand that after 25 years of compliance, I am eligible to petition the court to have my registration terminated if I have not been convicted of any new crimes. _____initials

See 42 Pa.C.S. § 9799.17 (Termination of period of registration for juvenile offenders)

- 12) I understand that the failure of the court to provide notice to me of all the registration requirements does not relieve me from registering. _____initials

See 42 Pa. C.S. § 9799.23(B).

Failure to Register is a new crime

- 13) I understand that I may be charged with a new offense which is a felony if I knowingly fail to:

- a) register with the PSP as required (felony of the second degree); _____initials

_____Attorney's Initials

- b) verify my address or be photographed as required (felony of the second degree); or _____ initials
- c) provide accurate information when registering (felony of the first degree). _____ initials

See 18 Pa.C.S. § 4915.1, 42 Pa.C.S. §§ 9799.15 (relating to period of registration), 9799.19 (relating to initial registration), or 9799.25 (relating to verification by sexual offenders and Pennsylvania State Police).

Consequences of Failure to Register

- 14) I understand that I may be arrested for failure to meet any of the registration requirements. _____ initials

See 18 Pa.C.S. § 4915.1.

- 15) If prosecuted as an adult, I understand that if I am found to have failed to meet the registration requirements and convicted, the court is required to send me to jail for at least three years if I violate 18 Pa.C.S. § 4915.1(A)(1)&(2) and five years if I violate 18 Pa.C.S. § 4915.1(A)(3). _____ initials

See 42 Pa.C.S. § 9718.4.

I understand that if I am under eighteen years old, petitioned with a felony delinquent act, and prosecuted in juvenile court for failing to meet the registration requirements, I would be subject to the provisions of the Juvenile Act which could include transfer to adult court or placement in a juvenile placement facility.
_____ initials

See 42 Pa.C.S. §§ 6352 and 6355

Part B

Juvenile who may be Subject to Civil Commitment for Involuntary Treatment

CIVIL COMMITMENT CASES

I committed at least one of the following delinquent act(s);

AND If I am adjudicated delinquent by the court; AND

If I am in a placement facility upon attaining the age of twenty,

I understand that I may be civilly committed for involuntary inpatient treatment at a facility as a “sexually violent delinquent child.”

_____ Attorney's Initials

See 42 Pa.C.S. § 6401 *et seq.*

Check all that apply:

<input type="checkbox"/> Rape, 18 Pa.C.S. §3121	<input type="checkbox"/> Sexual Assault, 18 Pa.C.S. §3124.1
<input type="checkbox"/> Involuntary Deviate Sexual Intercourse, 18 Pa.C.S. §3123	<input type="checkbox"/> Indecent Assault, 18 Pa.C.S. §3126
<input type="checkbox"/> Aggravated Indecent Assault, 18 Pa.C.S. §3125	<input type="checkbox"/> Incest, 18 Pa.C.S. §4302

- 1) I understand that if I am in a placement facility upon attaining the age of twenty (20), the State Sexual Offenders Assessment Board (SOAB) will conduct an assessment to determine if I have a mental abnormality or personality disorder which results in serious difficulty controlling my sexually violent behavior that makes me likely to engage in an act of sexual violence. _____ initials

See 42 Pa.C.S. § 6358.

- 2) I understand that if the SOAB concludes that I am in need of involuntary inpatient treatment, the court will conduct a dispositional review hearing. _____ initials

See 42 Pa.C.S. § 6358.

- 3) I understand that if the court, at the dispositional review hearing, finds there is a *prima facie* case that I am in need of involuntary commitment pursuant to 42 Pa.C.S. § 6401 *et seq.*, the court will direct the county solicitor or a designee to file a petition to commence involuntary commitment proceedings. _____ initials

See 42 Pa.C.S. § 6358.

- 4) I understand that if a petition has been filed to commence involuntary commitment proceedings, the court will conduct a hearing to determine if I have serious difficulty controlling my sexually violent behavior that makes me likely to engage in an act of sexual violence. _____ initials

See 42 Pa.C.S. § 6403.

_____ Attorney's Initials

- 5) I understand that if, at a hearing pursuant to 42 Pa.C.S. § 6401 *et seq.*, the court determines that I have serious difficulty controlling my sexually violent behavior that makes me likely to engage in an act of sexual violence, I will be committed to an involuntary inpatient facility. _____initials

See 42 Pa.C.S. § 6403.

- 6) I understand that I must give the juvenile probation office specific information and have my photograph taken at the time of commitment to an involuntary inpatient center. _____initials

See 42 Pa.C.S. §§ 9799.15 (Period of registration), 9799.16 (Registry), and 9799.19 (Initial Registration).

- 7) I understand that once committed to an involuntary inpatient facility, my case will be reviewed every year and I will not be released until it is determined that I no longer have serious difficulty controlling my sexually violent behavior that makes me likely to engage in an act of sexual violence. _____initials

See 42 Pa.C.S. § 6404.

- 8) I understand that if I am released from the inpatient facility, I will be transferred for involuntary outpatient treatment and subject to registration requirements listed in Part B, paragraphs (12) - (22). _____initials

See 42 Pa.C.S. § 6404.1.

- 9) I understand that my involuntary outpatient treatment will be reviewed by the court each year. _____initials

See 42 Pa.C.S. § 6404.2.

- 10) I understand that if I am released from outpatient treatment, I must attend at least monthly counseling sessions and follow other requirements for the rest of my life, including the registration requirements listed in Part B, paragraphs (12) - (22), as conditions of my release. _____initials

See 42 Pa.C.S. §§ 6404.1 & 6404.2.

_____Attorney's Initials

- 11) I understand that if I fail to meet any of the required conditions of my treatment plan, including registration, or the court determines I am having serious difficulty controlling sexually violent behavior, I will be sent back to an involuntary inpatient facility. _____ initials

See 18 Pa.C.S. § 4915.1 & 42 Pa.C.S. § 6404.2.

- 12) I understand “registration” means that I will be required to appear at a location approved by the Pennsylvania State Police (PSP) periodically to give my name and certain information about me that can be seen by other people. _____ initials

- 13) I understand that I am required to appear at a PSP site to provide and verify specific information and be photographed every three months for the rest of my life unless I am a transient as provided in paragraph (15). _____ initials

See 42 Pa. C.S. §§ 9799.15, 9799.16(B), and 9799.25.

- 14) I understand that if I change my name, telephone number, email address, move my residence, change employment or student status, have transportation changes, or any other changes in my personal status that are required by 42 Pa.C.S. § 9799.15(G), I am required to appear at a PSP site within three business days of the change to provide current information. _____ initials

See 42 Pa. C.S. § 9799.15(G).

- 15) I understand that I am a transient if I do not have a permanent home but live in a temporary place in Pennsylvania and that I must appear in person every month at a PSP site to provide or verify specific information and to be photographed until I establish a residence. _____ initials

See 42 Pa.C.S. §§ 9799.15(H) (Relating to transient juvenile offenders) and 9799.16(B) (Registry information).

- 16) I understand that information about me will be included on a statewide registry of sexual offenders which means other people will be able to see certain information about me on a public internet web-site maintained by the PSP. _____ initials

See 42 Pa.C.S. § 9799.16 (Registry).

_____ Attorney’s Initials

- 17) I understand that the failure of the court to provide notice to me of all the registration requirements does not relieve me from registering. _____ initials

See 42 Pa. C.S. § 9799.23(B).

Failure to Register or attend outpatient counseling is a new crime

- 18) I understand that I may be charged with a new offense which is a felony if I knowingly fail to:

- a) register with the Pennsylvania State Police as required (felony of the second degree); _____ initials
- b) verify my address or be photographed as required (felony of the second degree); or _____ initials
- c) provide accurate information when registering (felony of the first degree). _____ initials

See 18 Pa.C.S. § 4915.1, 42 Pa.C.S. §§ 9799.15 (relating to period of registration), 9799.19 (relating to initial registration), or 9799.25 (relating to verification by sexual offenders and Pennsylvania State Police).

- 19) I understand that I may be charged with a new offense which is a misdemeanor of the first degree if I fail to attend outpatient counseling. _____ initials

See 18 Pa. C.S. § 4915.1.

Consequences of Failure to Register

- 20) I understand that I may be arrested for failure to meet any of the registration or counseling requirements. _____ initials

See 18 Pa.C.S. § 4915.1.

- 21) I understand that if I am found to have failed to meet the registration requirements and convicted, the court is required to send me to jail for at least three years if I violate 18 Pa.C.S. § 4915.1(A)(1)&(2) and five years if I violate 18 Pa.C.S. § 4915.1(A)(3). _____ initials

See 42 Pa.C.S. § 9718.4.

_____ Attorney's Initials

- 22) I understand that if I am found to have failed to attend counseling sessions, I may also be recommitted to an involuntary inpatient facility or prosecuted for a new offense. __initials

See 18 Pa.C.S. § 4915.1 & 42 Pa.C.S. § 9799.36.

Lawyer's Representation and Opportunity to Speak with Guardian

- 23) Are you okay with what your lawyer did for you and how he or she explained everything? Yes No
- 24) Did you talk with your parent or guardian about the lifetime implications of being adjudicated for the enumerated delinquent act(s)? Yes No

I have read this form or someone has read this form to me.

- Parts A and B have been completed.**
 Part B only has been completed.

I understand the form and which sections apply to me. The signature below and initials on each page of this form are mine.

JUVENILE

DATE

I, _____, lawyer for the juvenile, have reviewed this form with my client. My client has told me and I believe that he or she understands this form. I have completed the following sections with my client and explained the applicability of these sections to him or her.

- Parts A and B have been completed.**
 Part B only has been completed.

LAWYER FOR JUVENILE

DATE

_____Attorney's Initials