



Document Title: Sex Offender Registration and Notification Act: Implementation Challenges for States — Summary and Assessment of Research

Author(s): Marieke Brock; Wm. Noël Noël

Document Number: 255960

Date Published: 10/2020

This report was prepared by the Federal Research Division, Library of Congress under an interagency agreement with the Office of Sex Offender Sentencing, Monitoring, Apprehending, Registering, and Tracking, U.S. Department of Justice.

The opinions, findings and conclusions or recommendations expressed in this publication are those of the authors and do not necessarily reflect the official position or policies of the Department of Justice.



**Sex Offender Registration and Notification Act:
Implementation Challenges for States — Summary and
Assessment of Research**

A Report Prepared by the
Federal Research Division, Library of Congress

October 2020

Researchers: Marieke Brock
Wm. Noël Noël

**72 Years of Research Services to the Federal Government
1948 – 2020**

PREFACE

This report contains Federal Research Division's (FRD's) assessment of research published in current periodicals and scholarly journals related to the issues states encounter implementing the Sex Offender Registration and Notification Act (Title I of the Adam Walsh Child Protection and Safety Act). Sources include government reports published by the Congressional Research Service, U.S. Government Accountability Office, and state implementation reviews conducted by the Office of Sex Offender Sentencing, Monitoring, Apprehending, Registering, and Tracking (SMART). SMART Office.

FRD's Commitment to Unbiased Research. FRD provides customized research and analytical services on domestic and international topics to agencies of the U.S. government, the District of Columbia, and authorized federal contractors on a cost-recovery basis. This report represents an independent analysis by FRD and the authors, who sought to adhere to accepted standards of scholarly objectivity. It should not be considered an expression of an official U.S. government position, policy, or decision.

Helene Zakia
Project Manager

Information Cutoff Date for Research: June 2019

HOW TO READ THIS REPORT

This report analyzes the efforts of all 50 states to implement the standards and requirements detailed in the Sex Offender Registration and Notification Act (SORNA). It also provides an analysis of 10 publications — seven peer-reviewed research studies and three essays — on the legislative, fiscal, and operational challenges states reportedly experience in these efforts to implement the act. Analysis includes an examination of the methodological rigor of all 10 publications.

A high-level summary of findings is found in Section 1, while Section 2 gives a brief background on SORNA and states' implementation challenges. Section 3 provides the research and evaluative methodology used in this report. Section 4 provides summaries and analyses of publications that address, at least in-part, states' implementation challenges — discussions are organized by challenge type, and studies are scored and evaluated. Section 5 concludes the report with a recap.

Two appendices appear at the end of this report. The first, found in Section 6, is an analysis of implementation review data, shedding light on possible barriers behind states' non-implemented status. The second appendix, found in Section 7, provides a more in-depth look at FRD's approach to evaluating statistical integrity. Internal validity (measured using the Maryland Scientific Scale), construct validity, external validity, and statistical conclusion validity are explained, defined, and determined for each assessed study.

EVALUATING PUBLISHED RESEARCH

As published research often contains a combination of qualitative and quantitative information, in addition to looking at what the seven relevant research studies say about states' challenges implementing SORNA, FRD evaluated their methodological approach. One question asked is whether researchers employed randomized experimental research methods. Widely recognized by statisticians as the strongest and most reliable ways of establishing valid causal relationships between variables, an array of research methods underlie randomized experiments. There are four distinct practices, all of which can impact a study's statistical validity:

- Randomly selecting experimental units (e.g., people of different genders, ages, ethnicities, and weights);
- Collecting data from those units on all factors that could affect an outcome (e.g., gender and age);
- Randomly assigning those units to experimental and control groups (e.g., one group receives an experimental headache medication, while the other group receives a placebo); and
- Collecting data on an outcome before and after the experimental treatment is given (e.g., the frequency and severity of headaches before and after receiving the experimental headache medication).

FRD evaluated qualitative and quantitative research on the basis of the above four criteria. While studies at times differed in research technique, they shared a number of important similarities. Studies employed deductive research (i.e., testing theories or ideas with specific observations) and inductive research (i.e., exploring specific observations and subsequently developing hypotheses and theories to explain them). Some studies showcase the hallmarks of both: making observations, inductively creating hypotheses about those observations, using data to test deductions based on those hypotheses, and using the findings to refine or reject those hypotheses.

Other publications are more exploratory in nature, examining the data to find what, if any, connections exist between the variables. However, such research is limited to hypothetical connections between variables and cannot validly establish statistical associations such as causation or correlation.*

* Causation is a type of association where a change in one variable produces a change in another, while correlation is a type of association that measures the strength of the relationship between two variables. Correlations can be positive, meaning that as one variable changes, the other changes in the same direction (i.e., either increase or decrease), or negative, meaning that the variables change in different directions (e.g., as one increases, the other decreases).

Within the body of literature reviewed for this report, two methodological limitations that appear to affect a study's statistical integrity most frequently were the lack of a control group and overgeneralizations based on small, specific sample sizes. Studies that lack a control group cannot say with any certainty that an observed change is caused by the independent variable (in this case, the impacts of registration experienced by adult and juvenile RSOs) or some other confounding factor.* Overgeneralizations occur when the results from a single study are applied to other populations — for example, using the experiences of RSOs navigating one state's residency restriction policies to predict the experiences of RSOs in other states with different laws.

In many cases, authors acknowledged the limitations of their research. FRD's goal is not to impugn either survey research as a whole or the work of the researchers who study this field, but to raise readers' awareness of the limitations of the research and caution against extrapolating conclusions that cannot be supported by the current literature.

* A confounding factor (also referred to as a confounding variable) is something that influences the outcome under study (job, housing, psychological wellness, etc.) and is correlated with the factor of interests (being on the registry and public notification), but is not included in the statistical analysis. This leads to observed correlations between the outcome and the factor of interests that are truly caused by the confounding factors. Not controlling for confounding variables reduces the validity of an experiment.

TABLE OF CONTENTS

PREFACE.....	i
HOW TO READ THIS REPORT	ii
EVALUATING PUBLISHED RESEARCH	iii
1. KEY FINDINGS.....	1
2. BACKGROUND	3
3. RESEARCH METHODOLOGY.....	5
3.1. Literature Selection Process.....	5
3.1.1. Databases Used.....	6
3.1.2. Keywords and Other Search Parameters.....	6
3.2. Literature Selection Criteria.....	6
3.2.1. Relevance Score	6
3.3. Literature Evaluation Methods.....	7
3.3.1. Objectivity Score.....	7
3.3.2. Statistical Integrity Score	8
4. RESEARCH ON SORNA IMPLEMENTATION CHALLENGES FOR STATES	9
4.1. SORNA Implementation Obligations	9
4.2. SORNA Implementation Challenges.....	10
4.2.1. Legislative Challenges.....	11
4.2.2. Fiscal Challenges.....	14
4.2.3. Operational Challenges.....	20
5. CONCLUSION	25
6. APPENDIX I: Detailed Review of Obstacles for Non-Implemented States.....	26
6.1. Major Obstacles for Non-Implemented States.....	27
6.2. Significant Obstacles for Non-Implemented States	27
6.3. Moderate Obstacles for Non-Implemented States.....	27
6.4. Minor Obstacles for Non-Implemented States	27
7. APPENDIX II: Analysis of Statistical Integrity.....	28
8. REFERENCES.....	31
9. SELECTED BIBLIOGRAPHY	33

TABLE OF FIGURES

Figure 1. State Implementation Cost and Tier Concerns 19
Figure 2. SORNA Standards Implemented by State..... 26

TABLE OF TABLES

Table 1. Primary SORNA Standards..... 10
Table 2. Research Summaries: Legislative Challenges 12
Table 3. Research Summaries: Fiscal Challenges..... 16
Table 4. Research Summaries: Operational Challenges..... 21
Table 5. Statistical Validity Scores..... 30

1. KEY FINDINGS

Implementation packets states submit for review to the U.S. Department of Justice's Office of Sex Offender Sentencing, Monitoring, Apprehending, Registering, and Tracking (SMART)* document the challenges they face in implementing SORNA. Research exploring states' challenges in implementing SORNA is scant and problematic, and does not appear to align with the challenges highlighted in the states' implementation reviews.

- **Pre-2009 Challenges:** Prior to the initial implementation deadline set by Congress, the challenges most commonly experienced by states related to juvenile registration and reporting, followed by retroactive registration.
- **Post-2009 Challenges:** Since 2009, most states have met the requirements for retroactive registration, although the SMART Office has typically passed these states with a "Does Not Substantially Disserve" rating, rather than classifying them as having met this standard.
- **Level of State Compliance:** As of July 2018, the SMART Office has classified 18 states as substantially implemented, while 32 states are considered to be non-implemented. This report focuses on these 32 non-implemented states.
- **SMART Office Reviews:** The SMART Office has reviewed all 50 states at least once. Based on the Federal Research Division's (FRD's) analysis of these implementation reviews, four SORNA standards continue to be especially difficult for states to implement:
 - Offenses That Must Be Included in the Registry,
 - Keeping the Registration Current,
 - Verification/Appearance Requirements, and
 - Public Registry Website Requirements.
- **Status of Relevant Research:** FRD found relatively little research addressing challenges faced by states in implementing SORNA.

* SMART administers SORNA's standards, manages related grant programs, and provides technical assistance to states, helping them meet the act's provisions.

- **Research Concerns:** Existing research appears disconnected from issues identified in the SMART Office’s reviews. Additionally, research papers often contain statistically problematic methodologies.
 - For example, the essays written on states’ implementation challenges typically contain unsubstantiated statements, misleading assertions, and biased points of view. Likewise, the literature often fails to distinguish between state laws and local policies that are not a part of SORNA (e.g., residency restrictions) — muddying the debate over the actual challenges states face in implementing the act’s standards.
 - FRD’s evaluation of the relevant research reveals that nearly all of the studies struggle with various types of statistical validity due to their use of nonrandom sampling methods (which introduces statistical bias), incorrectly applied statistical tests, and predetermined conclusions that are not supported by their analyses.

2. BACKGROUND

In 2006, Congress passed the Sex Offender Registration and Notification Act (SORNA), Title I of the Adam Walsh Child Protection and Safety Act.* The original deadline for states to implement SORNA's standards and requirements was July 2009, but no state was able to meet that deadline. Despite receiving two one-year extensions, as of July 2018, 32 states are considered to be not substantially implemented.

The purpose of SORNA is to protect the public from sex offenders via the creation and provision of registration and notification tools that build public awareness, as well as to address the gaps that existed due to the variations across states' laws, policies, information-sharing practices, and technology systems.¹ SORNA repealed the registration standards set in 1994 by the Jacob Wetterling Crimes Against Children and Sexually Violent Offender Registration Act (the first federal law governing sex offender registration in the United States) and established a new, comprehensive set of standards for states to follow as they update their existing registration and notification laws.^{2,†} Each state had a sex offender registration system and public website in place before the enactment of SORNA, and many were tailored to the Wetterling Act and the federal laws that followed.³

SORNA applies to all 50 states, the District of Columbia, the five principal U.S. territories (American Samoa, Guam, the Northern Mariana Islands, Puerto Rico, and the U.S. Virgin Islands), and American Indian tribes that choose to pursue implementation.[‡] This report by FRD focuses solely on state efforts and does not take into account the SORNA standard associated with American Indian tribes, nor any implementation efforts by U.S. territories.

All states are encouraged to substantially implement SORNA's standards, though they are free to enhance their existing laws as they see fit.^{4,§} For example, the Adam Walsh Act authorizes each

* The act was named for Adam Walsh, a 6-year-old boy kidnapped from a department store in Hollywood, Florida, in 1981. His disappearance and murder captivated the nation, and his father, John Walsh, became a prominent advocate for victims of violent crimes.

† This act was named for Jacob Wetterling, an 11-year-old boy kidnapped from his hometown of St. Joseph, Minnesota, in 1989. The case remained a mystery until 2016, when a long-time suspect finally confessed to his murder.

‡ SORNA does not apply to tribes in Alaska, Arizona, California, Florida, Idaho, Iowa, Minnesota (except the Red Lake Nation), Montana, Nebraska, Nevada, North Dakota, Oregon (except the Warm Springs Reservation), South Dakota, Utah, Washington, and Wisconsin (except the Menominee Indian Reservation), which—in accordance with Pub. L. No. 83–280—are under state jurisdiction (Carole Goldberg and Duane Champagne, "Law Enforcement and Criminal Justice under Public Law 280," November 1, 2007, 3, 551, http://www.tribal-institute.org/download/pl280_study.pdf).

§ While states are encouraged to implement SORNA, they are not required to. However, any state that does not implement the act may lose 10 percent of their Edward Byrne Memorial Justice Assistance Grant funding, public safety money that is awarded annually to states by the U.S. Department of Justice.

state government to select the crimes that trigger the registration requirement, as long as they include the minimum offenses listed under the federal statute.⁵

The creation of these new national standards led to a number of changes for states. For example,

- SORNA expanded the list of offenses, periodic appearance requirements, and required registration information.
- It also revised the classification requirements for sex offenders and for maintaining public registry websites. In practice, these changes meant adopting a conviction-based tier system, which lengthened the registration timeframe and increased the frequency of information verification for certain types of offenders.
- Additionally, SORNA required offenders to appear in person to verify/update their information, a requirement not specified under the Wetterling Act.⁶
- The registration of juvenile offenders also changed under SORNA. Prior to the act's passage, the decision to require juveniles to register was left to states. Some states did require them to register, while others did not. SORNA, however, required all states to include certain juveniles aged 14 and older who are adjudicated delinquent for particularly serious sex offenses on their public registry websites.⁷ This mandate changed again in 2011 with the publication of some supplemental guidelines, which re-established discretionary public posting.⁸

SORNA Tier System

SORNA requires states to classify sex offenders into one of three tiers based on their conviction(s):

- Tier I offenders must register for a minimum of 15 years and verify their registration information annually,
- Tier II offenders must register for a minimum of 25 years and verify their registration information twice-annually, and
- Tier III offenders must register for life and verify their registration information quarterly.

At the time of SORNA's passage, states were expected to implement the act by July 2009. However, no state met that initial deadline. As allowed by statute, the deadline was extended twice, first to July 2010 and then to July 2011. Yet even with the additional time, the SMART Office found only 14 states that had substantially implemented the act's requirements.

In the nearly decade since, a few more states have both come into and fallen out of compliance. For example, the SMART Office considered Delaware to be substantially implemented in 2010, but five years later, the state passed an amendment allowing a broad group of registered sex offenders to petition for removal from the state's registry, changing its implementation status. Delaware subsequently repealed the amendment and is now considered to be re-implemented.^{9*}

* Similarly, Pennsylvania amended its laws in 2018, and as a result, is no longer in compliance.

3. RESEARCH METHODOLOGY

FRD conducted analyses for this report in two phases. First, states' implementation statuses were analyzed to determine which SORNA standards pose challenges for non-implemented states;* these were compared to the challenges cited within publications located. Second, the related research gathered was evaluated for relevance, objectivity, and statistical integrity.

States ready to have their implementation status reviewed by the SMART Office must submit a variety of documentation materials, including statutes, codes, policy manuals, and forms related to sex offender registration.† The Office reviews these files and produces a report of its findings, which it then shares with the submitting state and on its website.‡ FRD reviewed these reports, tallying which states were deemed substantially implemented and which were not. It then examined the SORNA standards causing the most problems for the non-implemented states (see sec. 6, appendix I for an overall breakdown of these obstacles) and compared these to challenges cited within the research and other types of publications gathered. As a whole, findings reveal the relevant literature is inadequate; it does not align well with the actual difficulties states are experiencing as revealed within their respective implementation reviews. Instead, publications tend to focus on issues related to SORNA standards that either no longer seem challenging to implement (e.g., Failure to Register as a Sex Offender) or fail to accurately portray underlying factors (e.g., those related to implementing the tier system).

Additionally, FRD reviewed and analyzed the articles and research studies gathered; these were published in scholarly journals and as government reports. FRD found that almost all research analyzed relies on problematic methodological approaches, resulting in findings that are not always indicative of actual trends. Likewise, essays on this topic are typically biased against SORNA and rely on unsubstantiated statements or misleading assertions that do not adequately address the questions concerning state implementation.

3.1. Literature Selection Process

To identify existing research on states' efforts to implement SORNA, FRD conducted keyword searches in a variety of databases and search engines. An initial query captured 898 articles that appeared relevant to sexual offending. Of those 898 articles, 274 appeared relevant to the overall

* The SMART Office categorizes states as non-implemented when they are unable to meet all of the requirements within any SORNA standard. While some standards have numerous requirements, others have as few as one or two. Because of this, states' compliance with SORNA is more complex than being simply implemented or non-implemented.

† For more information on these materials, see "Submitting Substantial Implementation Materials to the SMART Office," accessed June 19, 2019, https://www.smart.gov/sorna_tools_materials.htm.

‡ To access the implementation reviews for all 50 states, see "SORNA Implementation Status," <https://www.ojp.gov/smart/sorna-map.htm> (accessed June 19, 2019).

body of SORNA-related research. Of those 274 articles, 33 appeared relevant to the challenges of state implementation. After a close review of those 33 articles, 10 were evaluated for this report.

3.1.1. Databases Used

FRD conducted its search using the following databases: Academic Search Complete, Google Scholar, Hein Online, the National Criminal Justice Reference Service, ProQuest, and Scopus.

3.1.2. Keywords and Other Search Parameters

Keyword searches consisted of Boolean search strings that included the use of wild cards and modifiers such as quotation marks for specific phrases. FRD combined the following terms with “Sex Offender Registration and Notification Act” or SORNA: “state implementation,” cost, tier*, verif*, “verify appearance,” legislat*, policy, “law enforce*,” and challenges.

Depending on the database being used, FRD added additional search parameters, including date range (2006–19), full text, peer-reviewed or refereed, English-language, and from the United States. Subject limitations were also applied to exclude irrelevant fields of study.

3.2. Literature Selection Criteria

As this report focuses on states’ implementation challenges, articles were discarded for:

- Containing subject matter pre-dating SORNA;
- Emphasizing state policies not required by SORNA, such as residency restrictions; and
- Focusing on topics outside state implementation efforts — for example, recidivism, constitutional issues unrelated to implementation, and federal or tribal implementation issues.

Additionally, some publications addressed sex offender registration and notification issues but not in any clear context of SORNA. Those were excluded as well.

3.2.1. Relevance Score

Articles were retained for examination based on how well they informed a reader’s understanding of SORNA implementation or the extent to which they contributed to the discussion surrounding the legislative, fiscal, or operational challenges states face in implementing the act’s requirements. A relevance score based on a starting value of four was used. One point was subtracted for each inclusion of an element outside the parameters of this topic, such as state policies not required by SORNA (e.g., residency restrictions).

Of the 33 articles that appeared relevant to the challenges of state implementation, FRD was left with 10 that met the threshold for evaluation. These 10 articles consisted of seven research studies, which gathered and analyzed data through formal sampling or survey methods, and three essays, which reflected an authorial interpretation of the subject matter.

3.3. Literature Evaluation Methods

FRD evaluated the objectivity of the final 10 articles and assessed the statistical integrity of the seven research studies by examining their research designs and methodologies; the three essays were not assessed this way. To rank the studies' statistical integrity, FRD used the Maryland Scientific Methods Scale, a five-point scale initially developed for evaluations of criminological research.

3.3.1. Objectivity Score

To rate an article's stance toward SORNA, FRD developed an objectivity score with a starting value of five — signifying the highest level of objectivity. Two FRD analysts reviewed each study that met the division's selection criteria and independently assigned it a score. When analysts' scores differed, a consensus-building process was employed to arrive at a unified score for each study. FRD did not disqualify studies for analysis on the basis of the objectivity score. Points were subtracted as follows:

- 0 points were subtracted for:
 - Having a neutral point of view (e.g., no language either expressly for or against SORNA).
 - Having an unbiased funding source (e.g., government grant money).
- 1 point was subtracted for:
 - Having a critical point of view (e.g., language questioning SORNA's purpose or usefulness).
 - Having an unknown funding source (i.e., no information provided in the text).
 - Being built on a predetermined conclusion (e.g., a study design that appeared to focus on an existing point of view).
- 2 points were subtracted for:
 - Having a biased point of view (e.g., containing language either expressly for or against SORNA).
 - Having a biased funding source (e.g., grant money from a nonprofit research organization with a stated policy perspective).

3.3.2. Statistical Integrity Score

To assess the internal validity of the research studies, FRD used a modified Maryland SMS to evaluate each study's application of research methods. Considerations also were given to each study's construct validity, external validity, and statistical conclusion validity. The studies' methods were rated on a scale of one to five, with higher numbers indicating a use of research methodologies most likely to yield valid findings. More information about these evaluations can be found in section 7, appendix II.

4. RESEARCH ON STATES' SORNA IMPLEMENTATION CHALLENGES

Since SORNA's passage in 2006, states have faced a number of challenges implementing the act's requirements. Given variations in states' laws, policies, information-sharing practices, and technology systems, the overall history of implementing SORNA is a complicated one. No states were considered to be substantially implemented by the SMART Office* in July 2009, when the original deadline for the act's implementation passed. Two years later, after two consecutive one-year extensions, the office judged only 14 states as having substantially implemented SORNA. Since then, four more states have been classified as substantially implemented. Thus, as of July 2018, there are a total of 18 implemented states and 32 non-implemented states.

Although the current research does examine states' implementation challenges, the literature's findings do not adequately reflect the obstacles highlighted in the SMART Office's implementation reviews. Moreover, the studies suffer from problematic research practices and inappropriate applications of statistical methodologies, while the essays are often biased against SORNA and its provisions.

4.1. SORNA Implementation Obligations

Under SORNA, states are required to collect 22 pieces of personal information from registered sex offenders — including biometric identifiers, such as fingerprints, palm prints, and DNA — and to immediately submit this information to the appropriate FBI databases. The act further mandates that certain pieces of information be displayed on public registry websites. It also requires states to connect their public registry websites to the Dru Sjodin National Sex Offender Public Website, a nationwide search portal linking state, territorial, and tribal registries, and the only government source providing such information in one place.†

Along with these registry requirements, SORNA stipulates that jurisdictions have a thorough information-sharing system in place, enabling law enforcement to investigate, apprehend, and prosecute sex offenders who fail to appear for or who abscond from their registration responsibilities.¹⁰ The act also requires states to make "failure to register" a felony offense.

Table 1 lists the primary SORNA standards, which were compiled from the SMART Office's state implementation reviews. Another standard, "Tribal Considerations," also appears in many of the reviews as dozens of American Indian tribes are included as SORNA jurisdictions. As such, they

* In fall 2018, the SMART Office partnered with the Federal Research Division (FRD) within the Library of Congress for support researching and analyzing the current literature on the claimed impacts of federal, state, and local sex offender registration and notification policies to registered adult and juvenile sex offenders.

† The website is named for Dru Sjodin, a 22-year-old college student from Grand Forks, North Dakota, who was kidnapped and murdered in 2003 by a sex offender registered in Minnesota.

must work with counties and states to meet the act’s requirements, especially those related to submitting information to federal databases. However, that standard is not included in this report.

Table 1. Primary SORNA Standards

Standard Title
Immediate Transfer of Information
Offenses That Must Be Included in the Registry
Tiering of Offenses
Required Registration Information
Where Registration Is Required
Initial Registration: Generally
Initial Registration: Retroactive Classes of Offenders
Keeping the Registration Current
Verification/Appearance Requirements
Public Registry Website Requirements
Community Notification
Failure to Register as a Sex Offender: State Penalty
When a Sex Offender Fails to Appear for Registration
When a Jurisdiction Has Information That a Sex Offender May Have Absconded

Note: The order of these standards is based on their appearance in the SMART Office’s implementation reviews, whose general structure has changed over time.

4.2. SORNA Implementation Challenges

In February and March 2009, a few months before SORNA’s initial implementation deadline, the nonprofit criminal justice support organization SEARCH conducted a survey regarding states’ efforts to comply with the law. The 47 states that responded indicated that they were all unable to meet the July 2009 deadline. The survey results also showed that the most commonly cited challenges were the juvenile registration and reporting requirements, followed by retroactive registration. Other frequently cited issues concerned the need to make certain legislative changes and to implement a tier system for classifying offenders.^{11,*}

Ten years after that survey was conducted, some SORNA standards and requirements remain challenging for states, while others — based on the state implementation reviews — are no longer seen as barriers to substantially implementing the act. The difficulties non-implemented states continue to face are legislative, fiscal, and operational in nature. Legislative challenges cited by

* Although SEARCH did publish a summary of its findings, FRD performed an independent analysis of the survey responses.

states include the need to significantly revise current laws or pass new legislation altogether. Fiscal challenges include the costs states incur trying to implement and maintain the act's requirements, while operational challenges include logistical issues related to SORNA's enforcement.

4.2.1. Legislative Challenges

The legislative challenges states face in implementing SORNA involve the requirements for registering juvenile offenders, retroactively registering offenders who were convicted prior to the act's creation, and posting additional information on the states' public registry websites. For many jurisdictions, these requirements have necessitated significant legislative changes to existing laws that, in some cases, have been met with resistance.^{12,*} In particular, the inclusion of juvenile offenders on public registry websites has been one of the toughest challenges for states as they seek to substantially implement SORNA, largely because existing laws may not meet the act's standards for juveniles.

Similarly, when SORNA was initially enacted, states cited retroactive registration as particularly difficult to implement.^{13,†} Since 2009, however, most states have found a way to address this requirement. For example, the SMART Office classified Virginia — a state that is considered to be substantially implemented — as "Does Not Substantially Disserve" for its retroactivity laws and policies.‡ In 2015, Virginia established a registration supplement containing "limited registration information for individuals convicted of certain sex offenses between July 1, 1980, and June 30, 1994." These registrants are not required to verify their registration information, but their names and other data do appear on the state police's public registry website.¹⁴

4.2.1.1. Claimed Issues/Impacts

The research addressing the legislative aspects of implementing SORNA is scant. FRD identified just three articles that focus on these issues, each addressing a distinct aspect of states' implementation efforts.

- Stephanie Buntin, a lawyer practicing in Nevada, suggests that the need to make legislative changes at the state level interferes with implementation in "The High Price of Misguided Legislation: Nevada's Need for Practical Sex Offender Laws."

* For example, see the 2015 article by Professor Erin Comartin titled "Advocacy Tactics and Policy Outcomes of Sex Offender Rights Organizations," which highlights the efforts of advocacy groups throughout the United States that work on behalf of sex offenders and against the implementation of certain registration and notification laws and policies.

† It is important to note that the requirement to retroactively register sex offenders who were convicted pre-SORNA comes not from the act itself, but from a rule issued by the U.S. attorney general.

‡ "Does Not Substantially Disserve" is an internal determination granted by the SMART Office to jurisdictions whose proposed deviations sufficiently address each requirement within a particular SORNA standard, and whose overall implementation efforts promote the act's main objectives.

- Sociology and criminal justice professor Emily Horowitz argues in her article, “Growing Media and Legal Attention to Sex Offenders: More Safety or More Injustice?” that sex offender legislation is politically motivated, rather than data-driven.
- Criminal justice professor Richard G. Wright asserts in his article, “From Wetterling to Walsh: The Growth of Federalization in Sex Offender Policy,” that the failure-to-register requirement is an example of certain problematic elements in SORNA.

4.2.1.2. Literature Assessment and Research Method Evaluation

Of the three articles, only one (Horowitz) is a research study; the other two are essays. FRD assessed these sources for their relevance, objectivity, and statistical integrity. These findings are summarized in table 2.

Table 2. Research Summaries: Legislative Challenges

Author (Pub. Date)	Type	Relevance Score (1–4)	Objectivity Score (1–5)	Stat. Integrity Score (1–5)
Buntin (2011)	Essay	3	2	NA
Horowitz (2007)	Research Study	2	1	1
Wright (2008)	Essay	2	2	NA

Note: All three measurements ascend in value, with 4 or 5 being the highest score a study can get in any category. However, as essays distill an author’s reading of the subject matter, rather than gathering and analyzing data through formal sampling or survey methods, it is not possible to give them a statistical integrity rating.

Relevance: Research Focus on Non-Challenges

All three of the articles assessed in this section have mid-range relevance scores. This is due to a few factors: each of the articles discusses elements, such as civil commitment laws (i.e., state laws that require sex offenders be involuntarily hospitalized after sentencing), that are not required by SORNA, or include discussions of unrelated sections of the Adam Walsh Act. Moreover, the two essays by Buntin and Wright address situations that are not actually problematic, according to the issues highlighted by the SMART Office in the states’ implementation reviews.

Buntin, for example, focuses her article on the challenges Nevada faced implementing SORNA. However, her essay is now eight years old and obsolete; Nevada substantially implemented the act shortly after her article was published. Although Buntin does highlight the fact that Nevada needed to make some legislative changes to become substantially implemented — including posting information on the public website about Tier I sex offenders who committed specific crimes against minors and requiring offenders to appear in person to make updates to their registrations — these challenges were ultimately overcome.¹⁵

The article by Wright — which is also discussed under “Fiscal Challenges” — highlights non-SORNA aspects of the Adam Walsh Act, but in the portion of his article that is relevant for this report, he focuses primarily on SORNA’s failure-to-register requirement. He describes this requirement as “ambiguous,” and therefore problematic. According to him, one of the “most disconcerting issues” about making a felony of failing to register is the “inevitable exhaustive legal challenges” it presents, largely because of questions related to a number of legal considerations, including due process. He suggests that if failing to update one’s verification information routinely and accurately constitutes a “failure to register,” then any offender who provides a false address or updates their information after the deadline has passed may be prosecuted, which “will present a significant increase in prosecutorial and judicial caseloads.”¹⁶ However, FRD’s analysis of the states’ implementation reviews revealed that this requirement, despite its administrative burden, does not currently present an obstacle to SORNA implementation.

As for Horowitz, although her article examines the drivers of sex offender legislation, she does not directly address the challenges of implementing such laws, reducing the relevance of the study to this report. Instead, she focuses on a two-part question: “whether media coverage of sex offenses is excessive relative to their incidence, and whether newly enacted sex offender legislation is politically motivated rather than data-driven.”¹⁷ Additionally, her analysis focuses much more on a 2007 New York state law concerning the civil commitment of sex offenders, which is not a requirement under SORNA, again reducing its relevance.

Objectivity: Biased Points of View and Unsubstantiated Conclusions

In terms of objectivity, each article received a low rating on FRD’s scale. Both Buntin and Wright, for example, lost points for using language that indicates a bias against SORNA. Buntin refers to the act as “misguided legislation” in the title of her essay, and Wright focuses on the “unintended consequences of [the Adam Walsh Act]” while also questioning its soundness as public policy.¹⁸

Although Horowitz’s article likewise uses language that is critical of SORNA, FRD subtracted additional points because she appeared to draw unsubstantiated conclusions from conflating SORNA requirements with local laws not required by the act. Moreover, it appears that she designed her media analysis experiment to support the conclusion she had already drawn, that “extreme policies like the Adam Walsh Act and civil commitment, which are very costly, discourage the exploration or implementation of interventions aimed at detecting and preventing sexual abuse.” Horowitz’s analysis, which is heavily focused on civil commitment laws in New York, does not provide clear evidence to support her idea that the Adam Walsh Act, and thereby SORNA, is itself “ineffective, costly, an affront to civil liberties,” and an impediment to potential alternative measures, or will lead to “future miscarriages of justice.”¹⁹

Statistical Integrity: Unsupported Conclusions

Due to the subjective nature of essays, only Horowitz's research study was assigned an integrity rating. Given that her research design precludes extrapolation and does not use recommended statistical methods, the study scored a 1 on FRD's scale — the lowest possible rating for statistical integrity.

Horowitz hypothesizes that there has been an increase in the media coverage of sex offenses over the past decade, and that the coverage does not correspond to an increase in assaults. Yet she only analyzes newspaper coverage, while also limiting herself to a single database (LexisNexis). Additionally, Horowitz bases her results on a qualitative assessment of the data rather than on a statistical test of association; however, when FRD performed this test, it confirmed the accuracy of her assessment. Although Horowitz's results do provide some support for her first hypothesis — that media coverage of sex offenses increased (at least, such coverage increased in the newspapers included in LexisNexis) — the data also show that, in the same period, the number of reported offenses actually decreased.

Horowitz tested the first half of her research question by comparing the frequency of news coverage with reported rates of sex offenses using data from the U.S. Department of Justice's Bureau of Justice Statistics and the University of New Hampshire's Crimes against Children Research Center. To test the second half of her question — whether newly enacted sex offender legislation is politically motivated rather than data-driven — she analyzed policies and the political context of legal remedies for sex offenses. Here her analysis is based on a distillation of the reading rather than on a methodological model. Ultimately, no clear link exists to tie Horowitz's findings together. Her allegations that new sex offender legislation is politically motivated may be true, but cannot be proven with her media analysis.

4.2.2. Fiscal Challenges

The fiscal challenges associated with states' implementation of SORNA relate to a variety of issues. Nearly every aspect of the act has a cost associated with it, from the complexity of amending state laws to the potential financial consequences of not implementing it quickly enough.²⁰ Additionally, the technical and practical aspects of implementing SORNA bear both direct and indirect costs for states.²¹ For example, on her list of such aspects, attorney Jennifer N. Wang includes additional personnel; new software installation and maintenance; additional jail and prison space; increased court and administrative needs; additional law enforcement requirements, including information verification at more frequent intervals; and legislative costs associated with crafting and adopting new laws.²²

These costs are legitimate considerations, and 12 of the 47 states (26 percent) that responded to the 2009 SEARCH survey cited cost as an issue.* However, none of the existing research provides a rigorous analysis of the actual costs of implementation to any state. A widely cited and undated position paper on the Adam Walsh Act published by the California Sex Offender Management Board, for instance, provides figures for the cost of implementation in California, but other than referring to a report by the nonprofit Justice Policy Institute (JPI), no sources are provided nor any explanation given of how the board arrived at its numbers.^{23,†}

4.2.2.1. Claimed Issues/Impacts

All of the identified research that deals with the fiscal challenges of implementing SORNA suggests that it is prohibitively costly for states to implement. However, none of the articles or studies investigate the actual costs incurred by states that have substantially implemented the act's requirements, relying instead on assumptions and estimates.‡

- In his study “The Costs and Benefits of Subjecting Juveniles to Sex-Offender Registration and Notification,” research fellow Richard B. Belzer focuses on the costs of implementation to offenders, their families, and their communities rather than on the costs to states.
- Professor of criminology and justice studies Andrew J. Harris — with coauthors Christopher Lobanov-Rostovsky of the Colorado Sex Offender Management Board and professor of social work Jill S. Levenson — posits in “Widening the Net: The Effects of Transitioning to the Adam Walsh Act’s Federally Mandated Sex Offender Classification System” that the creation of a tier system under SORNA is problematic and costly for states, increasing the burdens on both law enforcement and financial resources.
- JPI claims in its article “What Will It Cost States to Comply with the Sex Offender Registration Act?” that the cost of implementation exceeds the amount of federal grant money states will lose if they do not implement SORNA.[§]
- Lawyer Jennifer N. Wang argues in “Paying the Piper: The Cost of Compliance with the Federal Sex Offender Registration and Notification Act” that SORNA is simply too costly to implement.

* These 12 states were California, Colorado, Florida, Georgia, Louisiana, Maine, Nevada, Oregon, South Dakota, Texas, Vermont, and West Virginia. Five of these states (Colorado, Florida, Louisiana, Nevada, and South Dakota), however, have since substantially implemented SORNA.

† These costs included \$21.3 million for pre-sentencing records checks, \$10 million for changes in the frequency of offenders’ verification, \$6 million for retroactive records assessments, and \$770,000 for the re-tiering of offenders.

‡ For example, for their 2015 article, “An Application of an Innovative Cost-Benefit Analysis Tool for Determining the Implementation Costs and Public Safety Benefits of SORNA with Educational Implications for Criminology and Criminal Justice,” researchers Wesley G. Jennings and Kristen M. Zgoba designed a tool to demonstrate both one-time and ongoing costs associated with implementing SORNA. However, they used hypothetical state data rather than actual state data to calculate these expenses.

§ States that do not implement SORNA may lose 10 percent of their Edward Byrne Memorial Justice Assistance Grant funding, public safety money that is awarded annually to states by the U.S. Department of Justice.

- As noted in “Legislative Challenges,” criminal justice professor Richard G. Wright focuses on an aspect of SORNA (Failure to Register as a Sex Offender) that does not appear to be an actual concern, legislatively or fiscally, for states based on the implementation reviews.

4.2.2.2. Literature Assessment and Research Method Evaluation

Much of the research concerning fiscal challenges focuses on the cost of implementing the tier system, but touches on other financial aspects of SORNA as well. However, as with the articles addressing the legislative challenges of implementation, the quality of the research is lacking. The assessed research studies have issues with both external and internal validity, while the essay authors make unsubstantiated statements or misleading assertions about the act’s requirements.

Table 3 summarizes the five articles FRD identified discussing the fiscal challenges states may face while implementing SORNA. These articles are a mix of research studies and essays.

Table 3. Research Summaries: Fiscal Challenges

Author (Pub. Date)	Type	Relevance Score (1–4)	Objectivity Score (1–5)	Stat. Integrity Score (1–5)
Belzer (2015)	Research Study	2	2	1
Harris, Lobanov-Rostovsky, and Levenson (2010)	Research Study	4	3	1
JPI (2008)	Research Study	4	1	1
Wang (2014/15)	Essay	4	3	NA
Wright (2008)	Essay	2	2	NA

Note: All three measurements ascend in value, with 4 or 5 being the highest score a study can get in any category. However, as essays distill an author’s reading of the subject matter, rather than gathering and analyzing data through formal sampling or survey methods, it is not possible to give them a statistical integrity rating.

Relevance: Research Mostly Relevant, with Some Exceptions

Three of the articles addressing the fiscal challenges associated with implementing SORNA are clearly relevant with scores of 4, the highest possible rating for this metric. Two articles — one research study and one essay — scored lower, each receiving a 2. Although Belzer’s study addresses costs associated with the act, for example, it does not look at the costs state governments incur during implementation. Instead, he focuses on the costs to sex offenders, their families, their communities, and other third parties, such as their employers, thus reducing the overall relevance of his study.* Similarly, Wright decreases the relevance of his essay, “From

* These costs are also based on assumptions of incident rates, costs, etc., reducing the statistical integrity of Belzer’s study as well.

Wetterling to Walsh: The Growth of Federalization in Sex Offender Policy,” by going beyond SORNA to question other parts of the Adam Walsh Act.

Objectivity: Underlying Assumptions and Unsubstantiated Statements

On a scale where the highest possible rating (5) indicates those articles most likely to express neutral points of view, the articles addressing cost that FRD reviewed all scored a 3 or lower. Reasons for these scores include having a biased funding source, expressing a point of view that is critical of SORNA, and containing an underlying assumption. For example, Belzer’s article was published by R Street, a nonprofit organization that promotes limited government, an indication that it would be unlikely to view SORNA favorably.²⁴ Wang’s article operates on underlying assumptions — namely that SORNA is “highly expensive to implement.”²⁵ And Wright, who is generally critical of the Adam Walsh Act, makes his own unsubstantiated assertions about the implementation challenges related to cost. For example, he writes:

The majority of the costs are borne at the city and county level, where police departments must implement the law and track offenders with little or no additional funding. State-level costs are also significant, with state legislatures often making new and increased appropriations. Although state funding may be supplemented by federal grants, it will still fall significantly short of the funds needed to implement the [Adam Walsh Act].²⁶

Although it may be true that the majority of costs occur at the local level, he provides no evidence to show that federal grants fall short of the states’ funding needs for implementing SORNA’s requirements.

Yet it was JPI, a nonprofit research organization focused on reducing the U.S. prison population and other criminal justice reforms, which received the lowest objectivity score. FRD deducted points from JPI’s cost analysis because it exhibits a point of view that is critical of SORNA, was written and published by a source with a specific agenda, and contains an underlying assumption. For instance, JPI assumes, based on some states’ reporting, which it does not appear to question, that implementing SORNA “is far more costly than the penalties for not being in compliance.” It also advises states to “think carefully before committing to comply with SORNA.”²⁷ Additionally, JPI titled the main report in which the cost analysis appears in such a way that it clearly identifies its position as being against SORNA — *Registering Harm: How Sex Offense Registries Fail Youth and Communities*.

Statistical Integrity: Data Limitations, Improper Attributions, and Unsubstantiated Concerns

All three research studies addressing the implementation costs of SORNA contain issues that detract from their statistical integrity. In fact, none scored higher than a 1, the lowest possible

score. FRD's evaluation of the research revealed problems related to the studies' chosen data points, improper attributions of costs, and unsubstantiated concerns regarding those costs.

For example, Harris, Lobanov-Rostovsky and Levenson researched how transitioning to SORNA's tier system affects states. They specifically studied the experiences of Oklahoma and Ohio as they were the first two states to attempt large-scale reclassifications of their registrant populations. The study findings highlighted three themes:

- The transition to a tier system causes a significant upward realignment of the registered populations from lower tiers to higher tiers;
- The transition reveals substantive differences between registrants previously classified as "high risk" and those newly classified in the upper tier; and
- The transition reveals a differential impact on adjudicated juveniles and those possibly subject to retroactivity provisions.²⁸

While these findings raised concerns about increased burdens on law enforcement and, consequently, fiscal appropriations, the study's statistical analysis is problematic, as are its results. First, the authors looked at two different types of data: Whereas Oklahoma provided detailed data on both registrants and offenses, Ohio supplied summaries of the numbers of registrants in various registration categories. Harris, Lobanov-Rostovsky, and Levenson then applied different analyses to that data — using statistical tests for Oklahoma and descriptive comparisons for Ohio.* Finally, they compared the findings for the two states, yet the data and the analyses are too dissimilar to support those comparisons. Moreover, it is difficult to determine how comparable these two states are to any other states, thus limiting the applicability of their findings.

Similarly, in its November 2008 report on the total costs of implementing SORNA, JPI used a preliminary estimate by the Virginia state government — which exceeded \$12 million in initial costs — to calculate the implementation expenses for all other states. In its analysis, JPI found that the amount of funding lost if states did not implement SORNA would be small in comparison to the estimated total cost of fulfilling its requirements. Thus, it recommended that "states . . . think carefully before committing to comply[ing] with [the act]."²⁹

To illustrate the dramatic difference in costs, JPI used a formula based on Virginia's initial figures to estimate that it would cost Ohio more than \$18 million to implement SORNA, when in fact, Ohio's own fiscal impact statement estimated that the state would incur a total cost of \$475,000 in one-time expenses.³⁰ Additionally, FRD found that Virginia revised its proposed legislation in March 2008 to comply with SORNA's requirements and ensure that implementation would not be so costly; the modified initial costs totaled \$59,345.³¹ To lower these costs, Virginia scaled back "the most expensive provisions," removing from the bill the requirement that probation officers

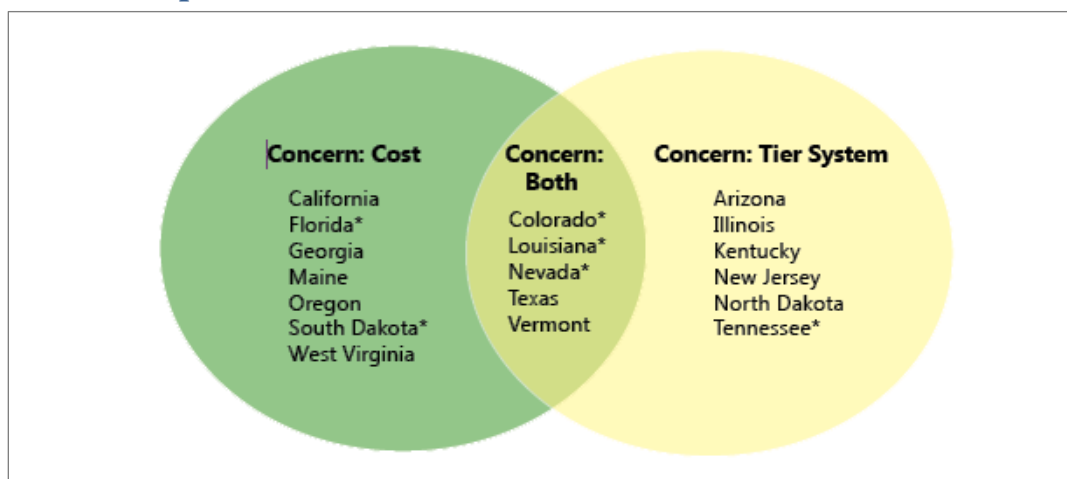
* They specifically applied ANOVA and Tukey's Honest Significant Difference tests to Oklahoma's data.

and state police verify sexually violent offenders' registration information quarterly.³² However, FRD found no evidence that JPI revised its analysis after Virginia took these steps.

Wang likewise suggests that some of SORNA's requirements — such as changing from a risk-assessment classification system to the tier-based system — are simply too expensive to implement. This reason, she argues, helps explain some states' failure to substantially implement the act. For instance, Wang states that "at least half of the fifty states use risk-based assessment systems." However, her source for this number does not provide a source of its own, so it cannot be verified. Further, the only cost figures related to changing to a tier system that she uses are from an estimate produced by the California Sex Offender Management Board, which placed the one-time cost of reclassifying currently registered offenders in California at a minimum of \$770,000; but, as previously noted, it is unclear how the board calculated this amount.³³

In addition to using questionable figures, Wang refers to the 2009 SEARCH survey to illustrate the number of states expressing apprehension over the costs of implementing SORNA. Yet not only were those survey responses five years old at the time of her article, they were never expressed as being directly tied to the cost of moving to a tier system.** In fact, while 12 states expressed concerns about cost and 11 states expressed concerns about the tier system, only five of those states were concerned with both. Of these five states, three have since implemented SORNA (see fig. 1). Moreover, each of those states cited other concerns that could also incur costs, such as making legislative changes and implementing the requirements for juveniles and retroactive registration.

Figure 1. State Implementation Cost and Tier Concerns



* Indicates a state that has implemented SORNA since 2009, when they expressed these concerns.

Source: Based on FRD's analysis of the SEARCH survey responses and information included in the SMART Office's state implementation reviews.

** Wang cites the SEARCH survey and reports seven states making this claim: California, Colorado, Florida, Georgia, Maine, Oregon, and West Virginia. However, FRD's analysis of the survey found that Louisiana, Nevada, South Dakota, Texas, and Vermont also reported concerns about the cost of implementation.

Of the five states concerned with both the general costs of implementation and the specific costs of implementing the tier system, only Colorado released a public document explaining its apprehensions regarding SORNA. It expressed concerns about the tier structure, but not because of concerns about the associated costs; instead, Colorado argued that the tier system was not an evidence-based approach.³⁴ Interestingly, Colorado had already implemented SORNA by the time Wang's article was published, which she acknowledged in a footnote.

Lastly, to bolster his assertion that the costs associated with SORNA implementation are more often borne at the city and county level, Wright focuses his article on address verification since local police departments have to maintain the information of and investigate individuals who fail to register. To him, this requirement necessitates one or more individuals to regularly staff and maintain electronic databases of each offender's last verification.³⁵ Yet this idea illustrates a misinterpretation of SORNA, which only stipulates that offenders make periodic in-person appearances to fulfill their verification requirements. It provides no formal guidance for enforcing this standard.³⁶

Additionally, Wright suggests this aspect of SORNA could be costly for communities without well-developed sex offender programs supported by technology, adequate budgets, and staffing, but he bases this statement on one source, a Congressional Budget Office (CBO) estimate for a bill that eventually became the Adam Walsh Act. He emphasizes the CBO's findings, writing that each state would need to hire two new staff members for address verification.³⁷ It should be noted, however, that the CBO's \$10 million estimate for 40 states to implement and maintain SORNA between 2006 and 2008 is based on the assumption that these states would each potentially need to hire two new staff members to perform this verification. The \$10 million total encompasses approximately \$100,000 per state for the salaries and benefits of the new hires, plus the cost of postage to contact offenders. It is unclear if Wright, in his article, means "each" of the 40 states analyzed in the CBO report or all 50 states. It is also unclear why the CBO analyzed just 40 states and how they selected which states to analyze.³⁸

4.2.3. Operational Challenges

The operational challenges of implementing SORNA, which often overlap with both the legislative and fiscal challenges, largely arise in the areas of law enforcement and the judicial system, as well as in policymaking and regulatory efforts. These challenges stem from specific requirements, such as transitioning to the tier system and enforcing the failure-to-register requirement, which some argue may lead to larger caseloads and increased burdens on resources.

4.2.3.1. Claimed Issues/Impacts

The articles in this section look at operational issues from the perspectives of various criminal justice professionals working with registered sex offenders. In particular, these research studies examine the general function and efficiency of SORNA, including barriers to its effectiveness; sex offender compliance and challenges associated with noncompliance; and issues jurisdictions face while implementing and complying with the act.

- In its study on SORNA and states' implementation challenges, the U.S. Government Accountability Office (GAO) notes an increased workload for law enforcement agencies. Respondents to GAO's survey on the subject indicated that these challenges are related to the increased frequency of registered sex offenders updating their information and the need to register offenders retroactively.
- Coauthors Andrew J. Harris, Jill S. Levenson, and Christopher Lobanov-Rostovsky, along with criminal justice professor Scott M. Walfield, assert in their article "Law Enforcement Perspectives on Sex Offender Registration and Notification: Effectiveness, Challenges, and Policy Priorities" that SORNA increases the level of resources needed to manage low-risk offenders.
- Similarly, in the report titled "Law Enforcement Views on Sex Offender Compliance with Registration Mandates," Walfield, Levenson, Harris, Lobanov-Rostovsky, and criminology professor Michelle A. Cubellis argue that current staffing and resource levels may be insufficient for addressing noncompliance among offenders.

4.2.3.2. Literature Assessment and Research Method Evaluation

The literature discussing the operational challenges associated with SORNA implementation focuses primarily on law enforcement perspectives on various activities. However, several studies include discussions of issues that are not part of SORNA, such as recidivism and residency restrictions, which reduces the relevance of the overall body of research. Moreover, the studies predominantly used methods that compromised or negated their external and internal validity, along with statistical analyses that did not support their predetermined conclusions.

Table 4 summarizes the articles FRD identified as having some relevance for this discussion, yet only the GAO report is fully relevant.

Table 4. Research Summaries: Operational Challenges

Author (Pub. Date)	Type	Relevance Score (1–4)	Objectivity Score (1–5)	Stat. Integrity Score (1–5)
GAO (2013)	Research Study	4	5	2
Harris et al. (2018)	Research Study	2	5	1
Walfield et al. (2017)	Research Study	3	5	1

Note: All three measurements ascend in value, with 4 or 5 being the highest score a study can get in any category.

Relevance: Inclusion of Non-SORNA Elements

The articles addressing the operational challenges of implementing SORNA range widely in relevance. Only the GAO study is fully relevant with a score of 4, while the other two articles lost points for containing irrelevant information. For example, the study by Harris et al. discusses SORNA as a general sex offender registration and notification policy, but their interview questions do not focus on it specifically. Moreover, the study includes questions about residency restrictions, which are not required by SORNA. For these reasons, FRD deducted two points for relevance.

The research team led by Walfield, on the other hand, purposely interviewed participants from both substantially implemented and non-implemented states. However, FRD deducted one point because they also looked at recidivism, which is outside the scope of SORNA implementation, and therefore not relevant. Also, only one of the four research questions (“What are the challenges associated with noncompliance, and how are these challenges managed?”) falls within the scope of this report.³⁹

Objectivity: Neutral Points of View

All three articles scored well on FRD’s objectivity scale. None of the articles appeared to display a non-neutral point of view, have a biased funding source, or be based on underlying assumptions. As such, no points were deducted.

Statistical Integrity: Unsupported Conclusions, Inappropriate Use of Statistics, and Lack of Statistical Soundness

While all of the reports are fairly objective, FRD’s technical assessment of the three research studies revealed issues concerning their statistical methods, including unsupported conclusions and inappropriate uses of some statistical methods.

For example, Harris et al. examined law enforcement views (including management, civilian employees, and uniformed staff) on SORNA’s general function and efficacy, as well as barriers to its effectiveness. While their survey did not focus specifically on implementation, eight issue areas of the 18 (44 percent) identified during the interview phase concerned the utility of sex offender registration and notification as a law enforcement tool. The responses related to these areas revealed that uniformed staff were more worried about having too many sex offenders to monitor, while law enforcement agency leaders and civilian employees were concerned about:

- Sex offender registration and notification systems’ efficacy, completeness, and accuracy, including their ability to distinguish between high- and low-risk offenders;
- Resources being used on low-risk offenders;

- A lack of integration with other justice information systems; and
- Outdated or unreliable address information.⁴⁰

Despite these differences, all three respondent groups expressed a comparatively high level of concern over the incompleteness of registrant information related to offenses and charges, which affects sex offender registration and notification utility as a tool for criminal investigations.⁴¹ However, like much of the research FRD reviewed for this report, this study's statistical analysis is problematic. The low response rate to the survey (1,374 usable responses, 14.5 percent) introduces statistical bias, as it is possible the respondents share some characteristic that distinguishes them from nonrespondents (e.g., being more interested in the results or more willing to discuss the topic). Moreover, the authors misuse some statistical tests, report some statistically insignificant results as if they were statistically significant, and leave out some of the results they reference in the paper. Consequently, their overall analysis does not support the conclusions they draw. Finally, the applicability of their findings to individuals not among the survey respondents is compromised by the use of a nonrandom convenience sample.

A year earlier, the team led by Walfield (which included nearly all of the same coauthors as the 2018 study by Harris et al.) used a mixed-methods approach for its research on noncompliance, conducting a series of semi-structured interviews that informed a national survey. As with the Harris et al. study, it recruited three primary respondent groups from law enforcement: agency leadership, uniformed personnel involved with registration enforcement and management, and civilian personnel with registration-related duties. More than 70 percent of the participants were uniformed personnel such as patrol officers, detectives, and command staff.⁴²

The researchers found that the most problematic areas of offender noncompliance were an initial failure to register, a failure to update information, and the provision of inaccurate information. However, they also found that the frequency of noncompliance depended on the respondents' varying ideas of the issue. For example, officers who viewed any type of missed or erroneous reporting as a failure to report cited higher levels of noncompliance than those who took a more narrow view. The research team further found that in managing noncompliance, staffing and resource levels could present significant issues. Some officers, for instance, simply sent an alert that an arrest warrant had been issued, while a smaller number "noted that managing noncompliance is a daily task as a result of extensive legislative mandates." Those with a limited ability to locate the offenders said they usually issued a warrant in the hopes that registered individuals have routine contact with law enforcement.⁴³

Uniformed officers also noted that prosecuting noncompliance can be a major challenge due to a reluctance by some prosecutors to file those types of cases, which, in turn, can make it difficult

to obtain arrest warrants. Additionally, Walfield et al. identified system and technology errors, such as data entry anomalies and lag times on the part of the registration systems, which can cause the appearance of noncompliance; however, the survey responses indicated that these issues are usually resolved quickly without consequences for the offenders.⁴⁴

As with the 2018 study by Harris et al., the statistical analysis by Walfield and his team does not actually support their findings because of an inappropriate use of statistics and the low survey response rate, which introduces bias to the estimated numbers. With regard to inappropriate statistical practices, the authors calculated means (i.e., “averages”) of ordinal data, which is data that is ordered or ranked in some way (e.g., very uncommon=1, somewhat uncommon=2, somewhat common=3, and most common=4). Means, however, cannot be calculated for such data. Moreover, the survey’s very low response rate of 6.4 percent (756 responses of a possible 11,761) strongly indicates a nonresponse bias in the findings, particularly since the researchers provide no documentation of efforts to determine if the respondents differed in some way from the nonrespondents (e.g., by age or occupational title), nor did they use statistical methods to adjust for nonresponse.⁴⁵

The GAO study has some methodological limitations as well that undermine the survey’s findings concerning states’ challenges in implementing SORNA. For one, it is based on self-reported information — state officials responded to the survey — which the GAO did not independently verify. Self-reported survey data is generally regarded as possibly inaccurate because respondents may have varying interpretations of survey questions, may not accurately recall information, or may provide responses that reflect favorably on themselves. Independently verifying survey responses may not always be feasible, but is generally regarded as helpful in determining the accuracy of the responses.

Additionally, the survey did not collect information about states’ experiences implementing sex offender laws prior to SORNA or other federal legislation, thereby making it impossible to establish either a baseline or point of comparison. Lastly, the GAO did not use any other survey methodology that could have strengthened the validity of its findings, such as randomly assigning differently worded versions of the survey to respondents to see if the responses varied.

5. CONCLUSION

All 50 states have been reviewed by the SMART Office at least once to determine their implementation status regarding SORNA, but the majority of them (32 states, 64 percent) are currently considered to be non-implemented. FRD's analysis of the states' implementation reviews identified four standards that engender most of the challenges for these 32 non-implemented states:

- Offenses That Must Be Included in the Registry;
- Keeping the Registration Current;
- Verification/Appearance Requirements; and
- Public Registry Website Requirements.

Within each of these standards, at least one requirement appears to be the primary issue, with most or none of the non-implemented states being able to meet it. For example, of the states unable to implement "Keeping the Registration Current," none of them have met the requirement regarding notifications to other jurisdictions and law enforcement agencies when the registered sex offender intends to relocate to another country. Similarly, of the states that have not yet implemented "Public Registry Website Requirements," none of them display all of the requisite information on their public registry websites.

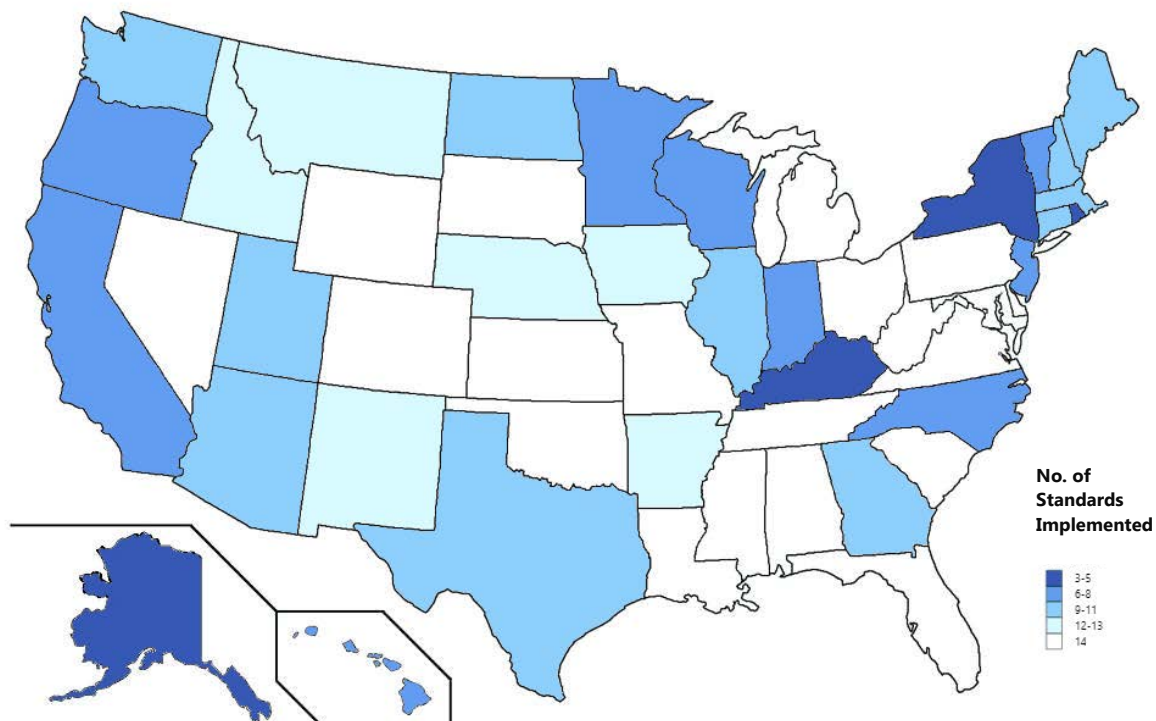
Yet while these challenges are apparent in the SMART Office's state implementation reviews, the research in this field is often inadequate and does not align with the actual challenges reported by states. There are also statistical issues with the conclusions presented by the relevant research that does exist. A trend within the literature shows that researchers often write with an assumption that SORNA is costly to implement. For example, the requirement to transition to or create a tier system is frequently cited as a major cost concern. This assumption, however, does not bear out when the research is scrutinized: The tier system is not one of the top four obstacles reported by non-implemented states, and the research provides no real evidence that cost is the basis of any difficulties implementing the tier system.

Moreover, most of the studies use problematic methodologies and statistical analyses, creating findings that are ambiguous at best. Non-scientific essays typically reveal researchers' biases against SORNA and rely on misleading assertions or unsubstantiated statements. All of these problems create uncertainty in the literature, which reveals a number of gaps that need more and better investigation. New research that is appropriately designed to explore the underlying reasons behind states' difficulties implementing SORNA would bring much needed clarity to the field. Any solutions that are discovered could also help bring the remaining non-implemented states into substantial compliance with the act's requirements.

6. APPENDIX I: Detailed Review of Obstacles for Non-Implemented States

In analyzing the state implementation reviews compiled by the SMART Office, FRD found that, as of July 2018, 32 states (64 percent) are considered to be non-implemented, and that different states have met varying numbers of standards. For example, Idaho, Iowa, and Nebraska have all implemented 13 of the 14 primary SORNA standards for which they were evaluated, while New York has only implemented three. In fact, a majority of the non-implemented states (27 states, 87 percent) have substantially implemented at least half of the standards (see fig. 2).

Figure 2. SORNA Standards Implemented by State



Source: Based on information included in the SMART Office's state implementation reviews.

Using the implementation reviews, FRD analyzed each standard to determine which are the most difficult for states to meet and grouped them based on how much of a challenge they pose to the states that are not considered substantially implemented:

- Major obstacles affect 50 percent or more of the 32 non-implemented states,
- Significant obstacles affect 25–49 percent of the 32 non-implemented states,
- Moderate obstacles affect 10–25 percent of the 32 non-implemented states, and
- Minor obstacles affect 9 percent or less of the 32 non-implemented states.

These obstacles are listed by challenge level in the following sub-sections.

6.1. Major Obstacles for Non-Implemented States

FRD's analysis of the non-implemented states' reviews reveals four standards that present major obstacles to implementation:

- Offenses That Must Be Included in the Registry,
- Keeping the Registration Current,
- Verification/Appearance Requirements, and
- Public Registry Website Requirements.

These standards affect 19–26 states (61–84 percent) of the 32 states that have not substantially implemented SORNA.

6.2. Significant Obstacles for Non-Implemented States

After analyzing the results of the implementation reviews, five standards were found to present significant obstacles to the 32 non-implemented states:

- Immediate Transfer of Information,
- Tiering of Offenses,
- Required Registration Information,
- Initial Registration: Generally, and
- Community Notification.

These standards affect 8–15 states (26–48 percent) of those that have not yet substantially implemented SORNA.

6.3. Moderate Obstacles for Non-Implemented States

The state implementation reviews highlight two standards that present moderate obstacles to non-implemented states:

- When a Sex Offender Fails to Appear for Registration, and
- When a Jurisdiction Has Information That a Sex Offender May Have Absconded.

These standards affect 4–5 states (13–16 percent) of the 32 states that have not substantially implemented SORNA.

6.4. Minor Obstacles for Non-Implemented States

Lastly, FRD's analysis of each state's implementation review found three standards that present minor obstacles to the 32 non-implemented states:

- Where Registration Is Required,
- Initial Registration: Retroactive Classes of Offenders, and
- Failure to Register as a Sex Offender: State Penalty.

These standards affect 1–2 states (3–6 percent) of those that have not fully implemented SORNA.

7. APPENDIX II: Analysis of Statistical Integrity

As noted in section 3, “Research Methodology,” FRD’s analysis included a statistical component to evaluate each of the seven research studies referenced in this report. This evaluation used the five-point Maryland Scientific Methods Scale (SMS) to assess the internal validity of the reported research methods.⁴⁶ In statistical and other research, internal validity describes the truth or falsity of any causal relationships cited by the researchers.⁴⁷ To have a study that is internally valid, the research must, at a minimum, include:

- An experimental condition to estimate what happens to research subjects when a treatment is applied to them, such as sex offense registration;
- A control condition to estimate what happens to research subjects when the treatment is not applied to them, such as not being registered as a sex offender; and
- Measurements of the hypothesized outcomes in both groups before and after the treatment is applied, such as measures of employment before and after individuals in the experimental group register as sex offenders.

In line with the Maryland SMS, FRD rated the publications’ methods on a scale of 1 to 5, with higher numbers indicating the use of research methods more likely to yield internally valid findings. The Maryland SMS levels and criteria are:

- Level 1: The research design states that one variable is associated with another at a point in time, but does not specify which variable precedes the other (e.g., “Individuals who are registered sex offenders are less likely to have full-time employment than those who are not registered sex offenders”).
- Level 2: The research design measures an outcome before and after a treatment, but does not include a control condition (e.g., “After registration, sex offenders were likely to lose full-time employment”).
- Level 3: The research design measures an outcome before and after the treatment in experiment and control groups (e.g., “After registration, sex offenders were more likely to lose full-time employment than individuals who were not registered sex offenders”). Oft-cited literature on research design describes Level 3 as the minimum for drawing valid conclusions about associations between variables.
- Level 4: The research design measures an outcome before and after the treatment in multiple experiment and control groups, controlling for other variables that influence the outcome (e.g., “After registration, sex offenders were more likely to lose full-time employment than individuals who were not registered sex offenders, controlling for age, educational attainment, and race”).

- Level 5: The research design includes randomized experiment and control groups with reports of pre-existing characteristics for both (e.g., "Individuals who were sex offenders were randomly selected to register as such (experiment group) or not (control group); the design also included randomly selected individuals who were convicted of another felony and those who had never been convicted of a felony. All possible covariates were controlled, including age, educational attainment, gender, geographic region, industry of employment, and race"). A Level 5 research design is regarded as the veritable gold standard to produce valid cause-and-effect findings. However, it is relatively uncommon in many research fields, due in no small part to the legal and ethical considerations that exclude the use of humans in many social science experiments.

In addition to internal validity, FRD rated all of the research studies on construct validity, external validity, and statistical conclusion validity.

Construct validity refers to a research design's inclusion of reliable and valid measures of the variables. For example, unemployment is a variable and the unemployment rate repeatedly measures it, making the rate a reliable and valid measure. As with the Maryland SMS, FRD deducted a single point for studies if they did not include such measures in their research designs.

External validity is the extent to which the research findings can be applied to other people, places, times, and outcomes. For example, the results from a study of juvenile drug use in Manhattan during the 1980s may depend greatly on a combination of factors not frequently found outside that time and place. Similarly, findings from research based on nonrandom samples of people may reflect some particular trait of those individuals. (Note: This is one measure FRD evaluated that the Maryland SMS does not.)

A study was deducted a single point for each of the following criteria it did not satisfy:

- Having sample, setting, and temporal characteristics that are neither unique nor so specific that they are not generalizable to other peoples, places, and times;
- Having a response rate that would not bias the sample (using 80 percent as a rule of thumb) or for having differential attrition in comparison groups; and
- Using a random sampling method to select research subjects, if the study included a survey.

Statistical conclusion validity is the measure of whether one variable and another are related and how strong that relationship is. If, for example, a study of 20 athletes' change in running speed after using a high-intensity interval training method finds no significant increase in speed, the reason may be that the study's use of a small sample limited its capacity to detect significant

changes (in statistical jargon, the study would have “low statistical power”). Other factors that can affect statistical conclusion validity are low response rates (in the case of surveys) and the misuse of statistical techniques.

A study was deducted a single point for each of the following criteria it did not satisfy:

- Using appropriate statistical analyses, and
- Using a sufficiently large sample to support those analyses.

Table 5 highlights the internal validity (IV), construct validity (CV), external validity (EV), and statistical conclusion validity (SCV) for each of the seven research studies referenced in this report. It also includes the final score for each paper. Like the Maryland SMS, if a study were to lose points based on these measures, the lowest score it could receive would be a 1.

Table 5. Statistical Validity Scores

Author (Pub. Date)	Article Title	IV	CV	EV	SCV	Final Score
Belzer (2015)	The Costs and Benefits of Subjecting Juveniles to Sex-Offender Registration and Notification	2	-1	-1	-1	1
GAO (2013)	Sex Offender Registration and Notification Act: Jurisdictions Face Challenges to Implementing the Act, and Stakeholders Report Positive and Negative Effects	2	0	0	0	2
Harris, Lobanov- Rostovsky, and Levenson (2010)	Widening the Net: The Effects of Transitioning to the Adam Walsh Act’s Federally Mandated Sex Offender Classification System	2	0	-1	-1	1
Harris et al. (2018)	Law Enforcement Perspectives on Sex Offender Registration and Notification: Effectiveness, Challenges, and Policy Priorities	2	-1	-2	-2	1
Horowitz (2007)	Growing Media and Legal Attention to Sex Offenders: More Safety or More Injustice?	2	0	-1	0	1
JPI (2008)	What Will It Cost States to Comply with the Sex Offender Registration and Notification Act?	2	-1	0	-2	1
Walfield et al. (2017)	Law Enforcement Views on Sex Offender Compliance with Registration Mandates	2	-1	-2	-1	1

8. REFERENCES

- ¹ GAO, *Sex Offender Registration and Notification Act*, 7.
- ² U.S. Government Accountability Office (GAO), *Sex Offender Registration and Notification Act: Jurisdictions Face Challenges to Implementing the Act, and Stakeholders Report Positive and Negative Effects*, GAO-13-211 (Washington, DC: GAO, 2013), 7, <https://www.gao.gov/products/GAO-13-211>; Lori McPherson, "The Sex Offender Registration and Notification Act (SORNA) at 10 Years: History, Implementation, and the Future," *Drake Law Review* 64, no. 3 (2016): 758, <https://lawreviewdrake.files.wordpress.com/2015/01/mcpherson-final.pdf>; DOJ, Office of Justice Programs, Office of Sex Offender Sentencing, Monitoring, Apprehending, Registering, and Tracking, "Legislative History."
- ³ McPherson, "The Sex Offender Registration and Notification Act," 759, 764.
- ⁴ McPherson, "The Sex Offender Registration and Notification Act," 759; Ryanne Colbert, "Discrimination Needed: The Over-Inclusive Definition of Who is a Sex Offender," *Journal of Criminal Psychology* 1, no. 1 (2011): 44, doi: 10.1108/20093829201100005.
- ⁵ Steven J. Costigliacci, "Protecting Our Children from Sex Offenders: Have We Gone Too Far?," *Family Court Review* 46, no. 1 (2008): 181, doi: 10.1111/j.1744-1617.2007.00191.x.
- ⁶ GAO, *Sex Offender Registration and Notification Act*, 8.
- ⁷ Richard G. Wright, "From Wetterling to Walsh: The Growth of Federalization in Sex Offender Policy," *Federal Sentencing Reporter* 21, no. 2 (2008): 124, 128, doi: 10.1525/fsr.2008.21.2.124.
- ⁸ Supplemental Guidelines for Sex Offender Registration and Notification, 76 Fed. Reg. 1630–40 (January 11, 2011).
- ⁹ Email communication with client, June 3–4, 2019.
- ¹⁰ McPherson, "The Sex Offender Registration and Notification Act," 761.
- ¹¹ SEARCH, "SEARCH Survey on State Compliance with the Sex Offender Registration and Notification Act (SORNA)," April 2009, 1–2, <http://www.search.org/files/pdf/SORNA-StateComplianceSurvey2009.pdf>.
- ¹² Charles Doyle, *SORNA: A Legal Analysis of 18 U.S.C. § 2250 (Failure to Register as a Sex Offender)*, CRS Report to Congress R42692 (Washington, DC: Library of Congress, Congressional Research Service, January 17, 2017), 11, <https://fas.org/sgp/crs/misc/R42692.pdf>.
- ¹³ SEARCH, "SEARCH Survey," 2.
- ¹⁴ DOJ, Office of Justice Programs, Office of Sex Offender Sentencing, Monitoring, Apprehending, Registering, and Tracking, "SORNA Substantial Implementation Review: Commonwealth of Virginia—Updated," August 2017, 7, <https://www.smart.gov/pdfs/sorna/VA-SORNA-Substantial-Implementation-Review.pdf>.
- ¹⁵ Stephanie Buntin, "The High Price of Misguided Legislation: Nevada's Need for Practical Sex Offender Laws," *Nevada Law Journal* 11, no. 3 (2011): 782, <https://scholars.law.unlv.edu/nlj/vol11/iss3/7>.
- ¹⁶ Wright, "From Wetterling to Walsh," 125, 129.
- ¹⁷ Emily Horowitz, "Growing Media and Legal Attention to Sex Offenders: More Safety or More Injustice?," *Journal of the Institute of Justice & International Studies* 7 (2007): 143.
- ¹⁸ Wright, "From Wetterling to Walsh," 143.
- ¹⁹ Horowitz, "Growing Media and Legal Attention to Sex Offenders," 155, 143.
- ²⁰ Colbert, "Discrimination Needed," 45; Council of State Governments, *Sex Offender Management Policy in the States: SORNA and Sex Offender Policy in the States* (Lexington, KY: Council of State Governments, 2010), 5, <https://www.csg.org/policy/documents/SORNABriefFINAL.pdf>.
- ²¹ Richard B. Belzer, "The Costs and Benefits of Subjecting Juveniles to Sex-Offender Registration and Notification," *R Street Policy Study* 41 (2015): 6, <https://www.rstreet.org/wp-content/uploads/2015/09/RSTREET41.pdf>.
- ²² Jennifer N. Wang, "Paying the Piper: The Cost of Compliance with the Federal Sex Offender Registration and Notification Act," *New York Law School Law Review* 59 (2014/15): 695, http://www.nylslawreview.com/wp-content/uploads/sites/16/2015/06/Volume-59-4.Wang_.pdf.
- ²³ California, Sex Offender Management Board, "Adam Walsh Act," accessed June 17, 2019, <http://www.casomb.org/docs/Adam%20Walsh%20Position%20Paper.pdf>.
- ²⁴ R Street, "About R Street," accessed March 18, 2019, <https://www.rstreet.org/about-r-street/>.
- ²⁵ Wang, "Paying the Piper," 685.
- ²⁶ Wright, "From Wetterling to Walsh," 130.
- ²⁷ Justice Policy Institute, "What Will It Cost States to Comply with the Sex Offender Registration and Notification Act?," August 2008, 1, http://www.justicepolicy.org/images/upload/08-08_fac_sornacosts_jj.pdf.
- ²⁸ Andrew J. Harris, Christopher Lobanov-Rostovsky, and Jill S. Levenson, "Widening the Net: The Effects of Transitioning to the Adam Walsh Act's Federally Mandated Sex Offender Classification System," *Criminal Justice and Behavior* 37, no. 5 (2010): 514, doi: 10.1177/0093854810363889.

-
- ²⁹ Justice Policy Institute, "What Will It Cost States to Comply," 1.
- ³⁰ Ohio, Legislative Service Commission, "Fiscal Note & Local Impact Statement: 127th General Assembly of Ohio; Revised," June 20, 2007, 1, <https://www.lsc.ohio.gov/documents/gaDocuments/127ga/sb0010sp.pdf>.
- ³¹ Virginia, Department of Planning and Budget, "2008 Fiscal Impact Statement," March 27, 2008, <https://lis.virginia.gov/cgi-bin/legp604.exe?081+oth+SB590FER122+PDF>.
- ³² Virginia, Department of Juvenile Justice, "2008 General Assembly Session: Juvenile Justice Legislative Training Manual," 34, accessed June 17, 2019, http://www.djj.virginia.gov/pdf/about-djj/Legislative_2008_Handbook.pdf.
- ³³ Wang, "Paying the Piper," 685, 701.
- ³⁴ Colorado, Sex Offender Management Board, "White Paper on the Adam Walsh Child Protection and Safety Act of 2006," September 2008, 4, <https://docs.google.com/file/d/0B67htTDuFr48eWJOTFllaHNqZUK/edit>.
- ³⁵ Wright, "From Wetterling to Walsh," 125, 129.
- ³⁶ DOJ, Office of Justice Programs, Office of Sex Offender Sentencing, Monitoring, Apprehending, Registering, and Tracking, "National Guidelines for Sex Offender Registration and Notification," 68, accessed February 20, 2019, https://www.smart.gov/pdfs/final_sornaguidelines.pdf.
- ³⁷ Wright, "From Wetterling to Walsh," 129.
- ³⁸ Congressional Budget Office, "Cost Estimate: H.R. 4472; Children's Safety and Violent Crime Reduction Act of 2005," March 8, 2006, 4, <https://www.cbo.gov/sites/default/files/109th-congress-2005-2006/costestimate/hr44720.pdf>.
- ³⁹ Scott M. Walfield et al., "Law Enforcement Views on Sex Offender Compliance with Registration Mandates," *American Journal of Criminal Justice* 42, no. 4 (2017): 811, doi: 10.1007/s12103-017-9386-6.
- ⁴⁰ Andrew J. Harris et al., "Law Enforcement Perspectives on Sex Offender Registration and Notification: Effectiveness, Challenges, and Policy Priorities," *Criminal Justice Policy Review* 29, no. 4 (2018): 404, 408, doi: 10.1177/0887403416651671.
- ⁴¹ Harris et al., "Law Enforcement Perspectives," 408.
- ⁴² Walfield et al., "Law Enforcement Views," 812.
- ⁴³ Walfield et al., "Law Enforcement Views," 815–16, 824–25.
- ⁴⁴ Walfield et al., "Law Enforcement Views," 821, 825–26.
- ⁴⁵ Walfield et al., "Law Enforcement Views," 813.
- ⁴⁶ David P. Farrington et al., "The Maryland Scientific Methods Scale," in *Evidence-Based Crime Prevention*, ed. David P. Farrington et al. (New York: Taylor and Francis, 2002), 13–21, <https://www.taylorfrancis.com/books/e/9781134489831/chapters/10.4324%2F9780203166697-7>.
- ⁴⁷ William R. Shadish, Thomas D. Cook, and Donald T. Campbell, *Experimental and Quasi-Experimental Designs for Generalized Causal Inference* (Boston: Houghton Mifflin Company, 2001), 53–63.

9. SELECTED BIBLIOGRAPHY

- Belzer, Richard B. "The Costs and Benefits of Subjecting Juveniles to Sex-Offender Registration and Notification." *R Street Policy Study* 41 (2015). <https://www.rstreet.org/wp-content/uploads/2015/09/RSTREET41.pdf>.
- Borenstein, Michael, Larry V. Hedges, Julian P.T. Higgins, and Hannah R. Rothstein. "Chapter 30: Publication Bias." In *Introduction to Meta-Analysis*, 277–94. Hoboken, NJ: Wiley & Sons, 2009. <https://www.meta-analysis.com/downloads/Publication%20bias.pdf>.
- Buntin, Stephanie. "The High Price of Misguided Legislation: Nevada's Need for Practical Sex Offender Laws." *Nevada Law Journal* 11, no. 3 (2011): 770–92. <https://scholars.law.unlv.edu/nlj/vol11/iss3/7>.
- California. Sex Offender Management Board. "Adam Walsh Act." Accessed June 17, 2019. <http://www.casomb.org/docs/Adam%20Walsh%20Position%20Paper.pdf>.
- Colbert, Ryanne. "Discrimination Needed: The Over-Inclusive Definition of Who is a Sex Offender." *Journal of Criminal Psychology* 1, no. 1 (2011): 43–50. doi: 10.1108/20093829201100005.
- Colorado. Sex Offender Management Board. "White Paper on the Adam Walsh Child Protection and Safety Act of 2006." September 2008. <https://docs.google.com/file/d/0B67htTDuFr48eWJOTFllaHNqZUK/edit>.
- Comartin, Erin. "Advocacy Tactics and Policy Outcomes of Sex Offender Rights Organizations." *Journal of Policy Practice* 14, no. 3–4 (2015): 231–55. doi: 10.1080/15588742.2015.1004397.
- Congressional Budget Office. "Cost Estimate: H.R. 4472; Children's Safety and Violent Crime Reduction Act of 2005." March 8, 2006. <https://www.cbo.gov/sites/default/files/109th-congress-2005-2006/cost-estimate/hr44720.pdf>.
- Costigliacci, Steven J. "Protecting Our Children from Sex Offenders: Have We Gone Too Far?" *Family Court Review* 46, no. 1 (2008): 180–97. doi: 10.1111/j.1744-1617.2007.00191.x.
- Council of State Governments. *Sex Offender Management Policy in the States: SORNA and Sex Offender Policy in the States*. Lexington, KY: Council of State Governments, 2010. <https://www.csg.org/policy/documents/SORNABriefFINAL.pdf>.
- Doyle, Charles. "Further Pre-Enactment Sex Offender Registration Uncertainty Resolved." *CRS Legal Sidebar*, October 19, 2015.
- . "Sex Offender Registration: Some States Balk at Retroactivity." *CRS Legal Sidebar*, August 28, 2014.
- . *SORNA: A Legal Analysis of 18 U.S.C. § 2250 (Failure to Register as a Sex Offender)*, CRS Report to Congress R42692. Washington, DC: Library of Congress, Congressional Research Service, January 17, 2017. <https://fas.org/sgp/crs/misc/R42692.pdf>.
- Farrington, David P., Denise C. Gottfredson, Lawrence W. Sherman, and Brandon C. Welsh. "The Maryland Scientific Methods Scale." In *Evidence-Based Crime Prevention*, edited by David P. Farrington, Doris Layton MacKenzie, Lawrence W. Sherman, and Brandon C. Welsh, 13–21. New York: Taylor and Francis, 2002. <https://www.taylorfrancis.com/books/e/9781134489831/chapters/10.4324%2F9780203166697-7>.

- Harris, Andrew J., Jill S. Levenson, Christopher Lobanov-Rostovsky, and Scott M. Walfield. "Law Enforcement Perspectives on Sex Offender Registration and Notification: Effectiveness, Challenges, and Policy Priorities." *Criminal Justice Policy Review* 29, no. 4 (2018): 391–420. doi: 10.1177/0887403416651671.
- Harris, Andrew J., Christopher Lobanov-Rostovsky, and Jill S. Levenson. "Widening the Net: The Effects of Transitioning to the Adam Walsh Act's Federally Mandated Sex Offender Classification System." *Criminal Justice and Behavior* 37, no. 5 (2010): 503–19. doi: 10.1177/0093854810363889.
- Horowitz, Emily. "Growing Media and Legal Attention to Sex Offenders: More Safety or More Injustice?" *Journal of the Institute of Justice & International Studies* 7 (2007): 143–58.
- Janus, Eric S., and Robert A. Prentky. "Sexual Predator Laws: A Two-Decade Perspective." *Federal Sentencing Reporter* 21, no. 2 (2008): 90–97. doi: 10.1525/fsr.2008.21.2.90.
- Jennings, Wesley G., and Kristen M. Zgoba. "An Application of an Innovative Cost-Benefit Analysis Tool for Determining the Implementation Costs and Public Safety Benefits of SORNA with Educational Implications for Criminology and Criminal Justice." *Journal of Criminal Justice Education* 26, no. 2 (2015): 147–62. doi: 10.1080/10511253.2014.940057.
- Justice Policy Institute. "What Will It Cost States to Comply with the Sex Offender Registration and Notification Act?" August 2008. http://www.justicepolicy.org/images/upload/08-08_fac_sornacosts_jj.pdf.
- Logan, Wayne A. "Populism and Punishment: Sex Offender Registration and Community Notification in the Courts." *Criminal Justice* 26, no. 1 (2011): 37–40, 44. ProQuest (874323513).
- Lohr, Sharon L. *Sampling: Design and Analysis*. 2nd ed. Boston: Brooks/Cole, 2010.
- Mancini, Christina, and Daniel P. Mears. "U.S. Supreme Court Decisions and Sex Offender Legislation: Evidence of Evidence-Based Policy?" *Journal of Criminal Law and Criminology* 103, no. 4 (2013): 1,115–53. <https://scholarlycommons.law.northwestern.edu/jclc/vol103/iss4/3>.
- McPherson, Lori. "The Sex Offender Registration and Notification Act (SORNA) at 10 Years: History, Implementation, and the Future." *Drake Law Review* 64, no. 3 (2016): 741–96. <https://lawreview.drake.files.wordpress.com/2015/01/mcpherson-final.pdf>.
- Meloy, Michelle, Jessica Boatwright, and Kristin Curtis. "Views from the Top and Bottom: Lawmakers and Practitioners Discuss Sex Offender Laws." *American Journal of Criminal Justice* 38, no. 4 (2013): 616–38. doi: 10.1007/s12103-012-9189-8.
- Mustaine, Elizabeth Ehrhardt, Richard Tewksbury, David Patrick Connor, and Brian K. Payne. "Criminal Justice Officials' View of Sex Offenders, Sex Offender Registration, Community Notification, and Residency Restrictions." *Justice System Journal* 36, no. 1 (2015): 63–85. doi: 10.1080/0098261X.2014.965859.
- Nosek, Brian A., and Timothy M. Errington. "Reproducibility in Cancer Biology: Making Sense of Replications." *eLife* 6 (2017): e23383. doi: 10.7554/eLife.23383.
- Ohio. Legislative Service Commission. "Fiscal Note & Local Impact Statement: 127th General Assembly of Ohio; Revised." June 20, 2007. <https://www.lsc.ohio.gov/documents/gaDocuments/127ga/sb0010sp.pdf>.

- Petteruti, Amanda, and Nastassia Walsh. *Registering Harm: How Sex Offense Registries Fail Youth Communities*. Washington, DC: Justice Policy Institute, 2008. <http://www.justicepolicy.org/research/1939>.
- Sacco, Lisa N. *Federal Involvement in Sex Offender Registration and Notification: Overview and Issues for Congress*, CRS Report for Congress R43954. Washington, DC: Library of Congress, Congressional Research Service, March 25, 2015. <https://fas.org/sgp/crs/misc/R43954.pdf>.
- SEARCH. "SEARCH Survey on State Compliance with the Sex Offender Registration and Notification Act (SORNA)." April 2009. <http://www.search.org/files/pdf/SORNA-StateComplianceSurvey2009.pdf>.
- Shadish, William R., Thomas D. Cook, and Donald T. Campbell. *Experimental and Quasi-Experimental Designs for Generalized Causal Inference*. Boston: Houghton Mifflin Company, 2001.
- Tewksbury, Richard, and Elizabeth Ehrhardt Mustaine. "Parole Board Members' Views of Sex Offender Registration and Community Notification." *American Journal of Criminal Justice* 37, no. 3 (2012): 413–31. doi: 10.1007/s12103-011-9119-1.
- U.S. Department of Justice. Office of Justice Programs. Office of Sex Offender Sentencing, Monitoring, Apprehending, Registering, and Tracking. "National Guidelines for Sex Offender Registration and Notification." Accessed February 20, 2019. https://www.smart.gov/pdfs/final_sornaguidelines.pdf.
- U.S. Government Accountability Office (GAO). *Sex Offender Registration and Notification Act: Jurisdictions Face Challenges to Implementing the Act, and Stakeholders Report Positive and Negative Effects*, GAO-13-211. Washington, DC: GAO, 2013. <https://www.gao.gov/assets/660/652032.pdf>.
- Virginia. Department of Juvenile Justice. "2008 General Assembly Session: Juvenile Justice Legislative Training Manual." Accessed June 17, 2019. http://www.djj.virginia.gov/pdf/about-djj/Legislative_2008_Handbook.pdf.
- . Department of Planning and Budget. "2008 Fiscal Impact Statement." March 27, 2008. <https://lis.virginia.gov/cgi-bin/legp604.exe?081+oth+SB590FER122+PDF>.
- Walfield, Scott M., Jill S. Levenson, Michelle A. Cubellis, Andrew J. Harris, and Christopher Lobanov-Rostovsky. "Law Enforcement Views on Sex Offender Compliance with Registration Mandates." *American Journal of Criminal Justice* 42, no. 4 (2017): 807–32. doi: 10.1007/s12103-017-9386-6.
- Wang, Jennifer N. "Paying the Piper: The Cost of Compliance with the Federal Sex Offender Registration and Notification Act." *New York Law School Law Review* 59 (2014/15): 681–705. http://www.nylslawreview.com/wp-content/uploads/sites/16/2015/06/Volume-59-4.Wang_.pdf.
- White House. Office of Management and Budget. "Standards and Guidelines for Statistical Surveys." September 2006. http://ir.eia.gov/ngs/wh_standards_stat_surveys.pdf.
- Wright, Richard G. "From Wetterling to Walsh: The Growth of Federalization in Sex Offender Policy." *Federal Sentencing Reporter* 21, no. 2 (2008): 124–32. doi: 10.1525/fsr.2008.21.2.124.