The National Institute of Justice is the research, development, and evaluation agency of the U.S. Department of Justice. NIJ’s mission is to advance scientific research, development, and evaluation to enhance the administration of justice and public safety.

The National Institute of Justice is a component of the Office of Justice Programs, which also includes the Bureau of Justice Assistance; the Bureau of Justice Statistics; the Office for Victims of Crime; the Office of Juvenile Justice and Delinquency Prevention; and the Office of Sex Offender Sentencing, Monitoring, Apprehending, Registering, and Tracking.

Opinions or conclusions expressed in this paper are those of the authors and do not necessarily reflect the official position or policies of the U.S. Department of Justice.
Executive Summary

This report responds to Senate Report 115-275 accompanying the Consolidated Appropriations Act, 2019 (P.L. 116-6) (“the Act”). The Senate report language states the following:

Researching School Violence—The Committee provides $1,000,000 for NIJ to continue to develop a model and best practices for comprehensive school safety including identifying the root causes of violence in schools using the four prior years of research conducted under the Comprehensive School Safety Initiative, which funded 100 projects in K–12 schools aimed at preventing school violence in fiscal years 2014 through 2017. NIJ shall provide a report to the Committee within one year of enactment of this act on the model and best practices for schools.

This report details the model and best practices requested by the Committee.

Research suggests that there is no single factor at the root of violence in schools. Rather, it suggests that there are multiple, potentially compounding factors at play. These include delinquent peer associations, antisocial attitudes, and engaging in various forms of antisocial behavior. School climate and a violent school setting are also factor, as is outsiders who enter school grounds.

The framework that the National Institute of Justice (NIJ) developed is intended to address the many manifestations of violence in schools — including, but not limited to, shootings, bullying, fights, gang violence, general misbehavior that may one day become violence at school, and behavior outside the school that may result in violence at school (e.g., cyber bullying and behavior on the school bus). Schools that employ comprehensive approaches to addressing violence are not immune from school violence. However, implementing a comprehensive approach minimizes the chances of serious violence and prepares schools to recover from the effects of incidents of violence.

The framework has three major components: physical safety, school climate, and student behavior. The framework aligns with the other school safety frameworks found in the research literature and the findings to date from research projects funded by the Comprehensive School Safety Initiative.

The three components of the framework are interconnected. The guiding principles of the framework are:

- The field needs to focus on preventing and responding to violence in schools.
- No one-size-fits-all approach to preventing school violence exists.
- The implementation of a comprehensive framework will require all stakeholders to be actively involved.
- Each of the three components of the framework (physical safety, school climate, and student behavior) is critically important to a comprehensive approach and is interrelated with the other components.
- Proactive policies and approaches are the best way to address the safety challenges that schools face.
- School safety policies must be balanced and reasonable. They must maintain appropriate vigilance and disciplinary structure and minimize risk of serious harm, yet also facilitate a fair and interpersonally supportive climate in the school.

At the broadest level, school safety is about ensuring that students are physically safe in school. A comprehensive school safety framework requires a range of strategies, interventions, and effective threat assessment policies to ensure physical safety. The goal for schools is to develop an integrated approach that spans the ranges of possible dangers, from minor misbehavior to life-threatening situations, and at the same time focuses on maintaining safety and order.
A positive school climate is important for school safety. There is evidence showing that a positive school climate helps keep students safe and promotes other desirable student and school outcomes. The environment of the school influences student behavior, may affect students’ mental health and help-seeking behavior, improves school attendance, and creates an atmosphere where students are willing to report threats of violence or other negative behavior to authority figures in school. Research shows that school climate affects a variety of issues, but questions concerning why and how remain.

Actively addressing student behavior is also central to school safety. The NIJ conceptualizes student behavior as encompassing mental health, behavioral health, trauma, and discipline. Mental health problems and adverse childhood experiences that are not addressed are linked to negative outcomes for students, such as poor academic achievement, behavior problems, dropping out of school, and delinquency. Often these negative outcomes manifest themselves in disruptions to the school climate.

In order to manage student behavior, it is important to have a clearly defined, fair, and widely known discipline policy. Schools have the right and the responsibility to respond to students’ misbehavior or violent behavior. Various approaches may help with preventing the onset of negative behavior, or responding to and resolving negative behavior once it has occurred. Schools should use a range of disciplinary practices tailored to the situation of the student and the problem behavior. The goals of these practices should be to keep students safe, correct misbehavior, and keep the problematic behavior from interrupting other students’ learning.

Encouraging positive behavior is a preventive approach that starts with creating a school climate where students know the expectations and consequences, and with teaching students how to handle emotions and how to self-regulate their behavior.
# Contents

Executive Summary .......................................................................................................................... 3

Introduction ........................................................................................................................................ 6

- The Comprehensive School Safety Initiative (CSSI) ...................................................................... 6
- Why a Comprehensive School Safety Framework, and Not a Model, Is Appropriate .................. 7
- Process for Developing the Framework .......................................................................................... 7

Components of the Comprehensive School Safety Framework ...................................................... 8

- Overview ......................................................................................................................................... 8
- Physical Safety ................................................................................................................................. 9
- School Climate .............................................................................................................................. 11
- Student Behavior ........................................................................................................................... 12

Foundations for the Comprehensive School Safety Framework .................................................... 13

- Root Causes of School Violence .................................................................................................... 13
- Security Technologies ..................................................................................................................... 14
- The Averted School Violence Database ........................................................................................ 15
- Enhancement of the School-Associated Violent Deaths (SAVD) Data Collection ....................... 16
- Enhancement of the School Survey on Crime and Safety (SSOCS) ................................................ 16
- Creating and Sustaining a Positive and Communal School Climate ............................................. 17
- Threat Assessment ......................................................................................................................... 17
- Bullying ........................................................................................................................................... 17
- The Survey of Law Enforcement Personnel in Schools (SLEPS) .................................................. 18
- SROs and School-Based Law Enforcement ...................................................................................... 18
- Mental and Behavioral Health Approaches ..................................................................................... 18
- Restorative Justice Practices ........................................................................................................... 19

Next Steps ......................................................................................................................................... 20

- Ongoing CSSI Research .................................................................................................................. 20
- Synthesis and Dissemination ............................................................................................................ 20

References ........................................................................................................................................... 22

Appendix A: Federal and Federally Funded Web Resources on School Safety ................................. 25

Appendix B: Table of Products From CSSI ....................................................................................... 26
Introduction

This report discusses the comprehensive school safety framework ("the framework") developed by the National Institute of Justice (NIJ). In large measure, findings arising out of research projects funded through the Comprehensive School Safety Initiative (CSSI) underpin the framework. The complex and multifaceted nature of school violence requires a tailored, comprehensive approach to school safety that is adaptable to the needs and challenges of various school environments. The term “framework” better depicts the flexibility schools need to develop such an approach than does the term “model.” This report discusses why and how the NIJ developed the framework; the focus areas of the framework; the research underpinning the framework; and the NIJ’s ongoing work and next steps in helping schools develop comprehensive approaches to school safety. To provide additional information on materials used to develop the framework, Appendix A offers a list of Federal resources on school safety and Appendix B provides a list of products resulting from CSSI funding.

The Comprehensive School Safety Initiative (CSSI)

The Comprehensive School Safety Initiative (CSSI) is a large-scale, integrated research effort designed to increase the safety of schools nationwide. It was initiated in 2014 at the request of Congress. The NIJ administers the CSSI as a research grant program. Through the CSSI, the NIJ funds research-focused projects that contribute to building a solid foundation of rigorously tested, objective, and independent knowledge and best practices about school safety. The CSSI is carried out through partnerships between researchers, educators, and other stakeholders (including professionals and agencies involved in law enforcement, behavioral and mental health, courts, and other parts of the justice system). Congress provided funding for this initiative from 2014 to 2017.

The CSSI is an investment in building knowledge to improve the safety of schools, students, and communities across the nation. The CSSI focuses on K-12 public schools (including public charter schools). It is concerned with all forms of violence that occur on school property during or outside of school hours, on the way to and from school or school-sponsored events, on school-sponsored modes of transport, or during school-sponsored events.

The goals of the CSSI are to:

- Identify and understand the potential root causes and consequences of school violence and its impact on school safety.
- Increase the safety of schools nationwide by developing a solid foundation of knowledge and best practices that can be sustainably implemented through individualized school safety programs, policies, and activities.
- Help identify matters internal and external to school that may result in harm to students, teachers, staff, and schools.
- Implement programs, policies, and practices that improve school safety and school climate, focus on the school environment, or enhance educational and other outcomes for students and schools.
- Identify effective strategies to respond to and resolve safety issues faced by schools and students.
- In collaboration with key partners from the fields of education, law enforcement, behavioral/mental health, and social work, develop and test a comprehensive framework for school safety.
Through the CSSI, the NIJ funded approximately 100 research projects in 36 states and over 4,000 schools nationwide totaling approximately $246 million. CSSI research projects are being executed through grant awards and partnerships with other federal agencies. These projects include citywide, countywide, statewide, and nationwide evaluations and studies. The projects, which cover a wide range of topics, examine both manifestations of school violence, such as bullying and school shootings, and interventions, such as teacher coaching, school resource officer (SRO) training, student discipline, and school-based mental health services.

Table 1 provides an overview of the CSSI grants — including funding amounts and number of awards per year — and provides links to the description of awards for each year of the initiative. For a description of additional CSSI projects, including partnerships with other federal agencies, go to https://nij.ojp.gov/topics/articles/ongoing-comprehensive-school-safety-initiative-research.

### Table 1. Number and Amount of Awards per Fiscal Year of CSSI

<table>
<thead>
<tr>
<th>Fiscal Year</th>
<th>Amount (Rounded to the Nearest Million)</th>
<th>Number of Awards</th>
<th>Award Descriptions</th>
</tr>
</thead>
<tbody>
<tr>
<td>2014</td>
<td>$68 million</td>
<td>29</td>
<td>2014 Award Descriptions</td>
</tr>
<tr>
<td>2015</td>
<td>$69 million</td>
<td>25</td>
<td>2015 Award Descriptions</td>
</tr>
<tr>
<td>2016</td>
<td>$67 million</td>
<td>25</td>
<td>2016 Award Descriptions</td>
</tr>
<tr>
<td>2017</td>
<td>$42 million</td>
<td>21</td>
<td>2017 Award Descriptions</td>
</tr>
</tbody>
</table>

Why a Comprehensive School Safety Framework, and Not a Model, Is Appropriate

Though Congress called for the NIJ to develop “a model and best practices” for comprehensive school safety, the complex and multifaceted nature of school violence requires a comprehensive framework that is adaptable to the needs and challenges of various school environments. The NIJ believes the term “framework” better depicts the flexibility schools need to develop a tailored, comprehensive approach to school safety than does the term “model.”

There is no single solution to preventing violence in the community and no single solution to preventing violence in schools. The framework that the NIJ developed is intended to address the many manifestations of violence in schools — including, but not limited to, shootings, bullying, fights, gang violence, general misbehavior that may one day become violence at school, and behavior outside the school that may result in violence at school (e.g., cyber bullying and behavior on the school bus). Schools that employ comprehensive approaches to addressing violence are not immune from school violence. However, implementing a comprehensive approach minimizes the chances of serious violence and prepares schools to recover from the effects of incidents of violence.

Process for Developing the Framework

The NIJ directed CSSI-funded studies to (1) address gaps in knowledge of the causes and consequences of school violence; (2) build on existing research about school violence; and (3) inform the elements of
the framework. This approach ensured that the framework would be evidence-based and provide useful information to the field on improving school safety.

The CSSI-funded studies have filled many of the gaps in our understanding of what works for improving school safety. Some projects are ongoing; they will continue to contribute to our knowledge in the coming years. Studies have explored a range of questions, including the root causes of school violence, effective interventions for students, and the best approaches for trainings to prevent school violence. Notably, the NIJ has made significant advancements by funding rigorous research, including 46 studies using randomized controlled trial (RCT) designs. (RCTs provide strong evidence for causality — i.e., that the program caused the desired outcome.) Some of the more noteworthy topics have included bullying prevention, student behavior management (e.g., Positive Behavioral Interventions and Support, or PBIS; restorative practices; and discipline), school-based law enforcement, mental health and trauma, school climate, and threat assessment and tip lines.

Consulting with practitioners and other school safety stakeholders has been a hallmark of the NIJ’s work under the CSSI. The NIJ sponsored a meeting with state School Safety Centers to learn about their roles, priorities, and challenges in school safety.¹ NIJ scientists visited CSSI project locations to understand how the projects operate and may be contributing to improvements in school safety. They consulted with small groups of experts in areas such as school mental health, school-based law enforcement, and school safety. In addition, NIJ scientists presented preliminary parts of the framework at meetings, both to share what they had learned regarding school safety and to present the framework for stakeholder feedback.

The framework presented in this report incorporates everything learned thus far. However, this report is not the culmination of the CSSI effort. Many CSSI-funded projects are still underway with end dates scheduled into 2021. NIJ scientists are also in the midst of a variety of activities to synthesize research findings and disseminate results to the field. As these efforts come to fruition, the NIJ anticipates updating the framework presented in this report to ensure that it represents emerging science about what works to improve school safety.

Components of the Comprehensive School Safety Framework

Overview

The framework has three major components: physical safety, school climate, and student behavior. The framework aligns with the other school safety frameworks found in the research literature and the findings to date from CSSI-funded research projects. The NIJ organized the framework into these three areas because they cover all the most important aspects of school safety in a way that allows practitioners to distinguish among them and understand how they interact with one another. Moreover, this organization is readily comprehensible and easy to communicate to key school safety stakeholders.

The three components of the framework are interconnected. Each works with the others like cogs in a well-oiled machine (see Figure 1). School climate and physical safety are central to preventing school violence. Managing student behavior contributes to a positive school climate, which can prevent threats to students’ physical safety.

¹ Carlton et al., 2017.
The guiding principles of the framework are:

- The field needs to focus on preventing and responding to violence in schools.
- No one-size-fits-all approach to preventing school violence exists.
- The implementation of a comprehensive framework will require all stakeholders to be actively involved.
- Each of the three components of the framework (physical safety, school climate, and student behavior) is critically important to a comprehensive approach and is interrelated with the other components.
- Proactive policies and approaches are the best way to address the safety challenges that schools face.
- School safety policies must be balanced and reasonable. They must maintain appropriate vigilance and disciplinary structure and minimize risk of serious harm, yet also facilitate a fair and interpersonally supportive climate in the school.

**Physical Safety**

At the broadest level, school safety is about ensuring that students are physically safe in school. Physical safety pertains to the architecture of the school building; control of who enters and exits the building;
and keeping students and staff from bodily harm once they are inside the school. A comprehensive school safety framework requires a range of strategies, interventions, and effective threat assessment policies to ensure physical safety. The goal for schools is to develop an integrated approach that spans the ranges of possible dangers, from minor misbehavior to life-threatening situations, and at the same time focuses on maintaining safety and order.

The keys to achieving physically safe schools include:

- **Schools should have an emergency operations plan (EOP).** An EOP outlines how to respond in the event of an emergency. Through this plan, schools can establish guidelines for how to respond to dangers in an effective, efficient, and timely manner. Dangers may include school attacks, weather hazards, natural disasters, and any other incidents requiring an emergency response. The EOP should be created collaboratively with members of the school community, law enforcement, and first responders.

- **All members of the school community should know the EOP and receive ongoing training on their role in an emergency.** Often, EOPs are treated as documents to be pulled out only during emergencies. This does not make full use of the EOP. Students, teachers, administrators, SROs, and school staff can all play a role in responding to emergencies, and training in those roles will empower them to do so when emergencies arise.

- **Schools should have mechanisms in place for threat assessment.** Threat assessment is a violence prevention strategy that involves reviewing threats of violent acts; determining the seriousness of the threats; and developing intervention plans that protect potential victims and address the underlying problems or conflicts that stimulated the threatening behavior. Threat assessment should be used in concert with a considered approach to collecting information on threats, which may include technology such as tip lines or other means for individuals to report information on threats to safety.

- **Schools should use technology to improve school security.** Security technologies are not the answer to all school security problems. However, many security products (e.g., cameras, communication technology, access control, and identification technology) may be useful tools if applied appropriately and used consistently.

- **When possible, schools should consider the principles of Crime Prevention Through Environmental Design (CPTED) when designing schools.** These principles include informal and formal means of access control; surveillance and the ability to be aware of one’s entire surroundings; and territoriality, which is creating a sense of shared ownership and responsibility for a space.

- **SROs and school-based law enforcement** can be instrumental in promoting safety in and around schools. If a school district chooses to have SROs on campus, their duties, roles, and responsibilities should be clearly delineated. SROs should not be involved in resolving routine disciplinary incidents in schools.

NIJ offers the following recommendations regarding physical safety:

- **Allow students to be involved in school safety planning to increase their ownership of what happens in the school.**
- **EOPs are crucial in preventing and responding to school violence.** An EOP should be developed in coordination with school officials, law enforcement, students, teachers, and first responders. The plan and everyone’s role in it should be clearly communicated to the entire school community.
- **Students are key to school safety and need to be trained on how to react during threatening situations.**
• Remember that individuals may communicate their intentions for school violence. Train students on how to safely report to adults when they hear of potential threats.
• Schools should adopt CPTED strategies where evidence of efficacy is strongest, and apply them consistently to get the most benefit from their implementation.
• When expensive renovation or construction is called for, security personnel should work with designers to ensure that CPTED strategies are appropriately integrated into building designs.
• Threat assessment should be used in concert with a considered approach to collecting information on threats, e.g., through tip lines.
• When considering steps to increase their physical safety, schools should be cautious not to increase students’ fear of crime or damage their perceptions of school safety and thereby impact school climate negatively.

School Climate

School climate refers to the school milieu, or to the feelings people have about the school setting. Though definitions vary, one that captures the principal issues is “how members of the school community experience the school, including interpersonal relationships, teacher and other staff practices, and organizational arrangements. School climate includes factors that serve as conditions for learning and that support physical and emotional safety, connection and support, and engagement.”

A positive school climate is important for school safety. There is strong evidence that a positive school climate helps keep students safe and promotes other desirable student and school outcomes. The environment of the school influences student behavior, may affect students’ mental health and help-seeking behavior, improves school attendance, and creates an atmosphere where students are willing to report threats of violence or other negative behavior to authority figures in school. Research shows that school climate affects a variety of issues, but questions concerning why and how remain.

To assess school climate:

• **Measure school climate on a regular basis.** A first step that schools can take toward a positive school climate is to assess their current climate and determine what areas are in need of improvement.
• **Promote positive teacher and staff interactions with students.** Interactions between staff and students that are supportive and respectful can promote a positive school climate, while negative interactions can be detrimental to school climate.
• **Use appropriate discipline that is strict but fair.** School discipline policies should be clearly articulated, understood by students, and applied in a fair and consistent manner.
• **Address bullying.** School climate and bullying are related. Schools with a positive school climate have lower rates of bullying.
• **Meet students’ needs.** Schools should implement intervention programs that are matched to students’ needs and contribute to a positive climate.

If the results of a school climate assessment are concerning, school administrators should consider implementing approaches that have been demonstrated to help improve school climate.

If student behavior is negatively affecting school climate, consider:

• Integration of social emotional learning programs.
• Integration of bullying prevention programs.

---

2 Yoder et al., 2017, 1.
• Targeted supports like aspects of Positive Behavioral Interventions and Supports (PBIS) or Multitiered Systems of Supports (MTSS).

If perceptions of relationships or fairness are negatively affecting school climate, consider:

• Whether staff who are involved in student services, discipline, and accountability have clearly defined responsibilities in keeping with the desired school climate. These staff may include teachers, administrators, and SROs.
• Whether discipline policies and practices are clear and consistent.

If the physical environment is negatively affecting school climate, consider what changes can be made to improve school climate while preserving the physical safety of the school.

If certain programs or practices are contributing to a negative school climate, consider discontinuing those programs or practices, even if their intentions are good.

Student Behavior

Actively addressing student behavior is also central to school safety. The NIJ conceptualizes student behavior as encompassing mental health, behavioral health, trauma, and discipline. Mental health problems and adverse childhood experiences that are not addressed are linked to negative outcomes for students, such as poor academic achievement, behavior problems, dropping out of school, and delinquency. Often these negative outcomes manifest themselves in disruptions to the school climate.

In order to manage student behavior, it is important to have a clearly defined, fair, and widely known discipline policy. Schools have the right and the responsibility to respond to students’ misbehavior or violent behavior. Various approaches may help with preventing the onset of negative behavior, or responding to and resolving negative behavior once it has occurred. Schools should use a range of disciplinary practices tailored to the situation of the student and the problem behavior. The goals of these practices should be to keep students safe, correct misbehavior, and keep the problematic behavior from interrupting other students’ learning.

Encouraging positive behavior is a preventive approach that starts with creating a school climate where students know the expectations and consequences, and with teaching students how to handle emotions and how to self-regulate their behavior.

Approaches to managing student behavior include:

• Implement social emotional learning programs. These programs work to build students’ ability to recognize and manage their own emotions, understand other students’ perspectives, establish goals, make decisions, and effectively handle interpersonal situations.

• Consider multitiered systems of support. These are focused on broad intervention programs with tailored interventions and supports for those students who present with concerns that are more serious.

• Improve teachers’ classroom management strategies. Teach, model, and practice appropriate classroom behavior, and reward positive behavior.

• Respond appropriately to negative student behavior. This may include discipline or other approaches for holding students accountable. Schools use a range of disciplinary practices,

3 Dwyer, Osher, and Hoffman, 2000.
4 Osher et al., 2010.
5 Payton et al., 2008.
including office referrals, parental contact, behavioral contracts, counseling, detention, withdrawal of privileges, suspension, and expulsion.

SROs and school-based law enforcement officers should receive training prior to being placed within schools and should receive annual training every year thereafter. Working in a school environment involves challenges that differ from working in a regular patrol setting. Research is beginning to demonstrate the value of SRO training on topics including child and adolescent development and psychology, positive behavior interventions and supports, conflict resolution, restorative practices, disabilities, crisis intervention, mental health, trauma, and cultural competency.6

SROs and school-based law enforcement should work together with school administrators to identify appropriate roles, if any, for SROs and school-based law enforcement in responding to student misbehavior. This should include written policies. There is increasing evidence that routine disciplinary incidents should be the domain of school administrators and teachers rather than SROs and school-based law enforcement.

To manage student behavior, the NIJ recommends attending to student mental health, behavioral health, trauma, and discipline. Specifically, the NIJ recommends that schools should:

- Offer a continuum of preventive approaches and responses to student behavior based on students’ needs and their behavior problems.
- Provide access to mental health supports for all students, not just those with learning or emotional disabilities or diagnosed mental health issues. This may include services provided at the school or in coordination with community providers.
- Consider a role for parents/guardians to play in working with the school to help manage student behavior.
- Review and revise disciplinary policies and practices to ensure they have been developed with consideration for all of the interventions and practices used to hold students accountable and manage student behavior. For example, ensure that discipline for student conflicts is not at odds with an intervention that addresses problem-solving between students.

Foundations for the Comprehensive School Safety Framework

The backbone of the framework is research. This includes research on the root causes of school violence, evaluations of approaches to preventing school violence, studies of how to respond to school violence or its antecedents, assessments of prior school violence incidents, and statistics pertaining to school safety and violence. Here we highlight some of the studies funded by the CSSI that help underpin the framework.

Root Causes of School Violence

There are a number of questions to consider when determining why a particular violent incident occurred or how to prevent it. Among these questions are: Are there factors that make it more likely for a person to engage in or be the victim of violence? Do particular types of violence depend on particular underlying causes? Do the root causes of violence vary based on characteristics of the offender (e.g., age, relationship of the offender to the school)? These are important questions to consider, as previous

---

6 For examples of such research, see McKenna and White, 2018; Pentek and Eisenberg, 2018; and King and Bracy, 2019.
studies examining causes of violence have found that various factors have played a role in why violence occurred.\textsuperscript{7}

A recent meta-analysis, or a study of studies, found that delinquent peer associations, antisocial attitudes, and engaging in various forms of antisocial behavior were strong predictors of violent offending by students at school.\textsuperscript{8} Negative school climate and a violent school setting were also predictors of students engaging in school violence. Notably, this meta-analysis found that the presence of an SRO or security guard, and the use of school security technologies (metal detectors and cameras), were unrelated to school violence perpetration by students. However, at the time the meta-analysis was completed, the number of published studies on SROs, school security guards, and various school security technologies was limited. There are several ongoing CSSI studies on school-based law enforcement, and NIJ anticipates that the results of these studies will help improve our understanding of the impact of school-based law enforcement on school violence and school safety.

The meta-analysis also provides useful information on school violence from the perspective of the victim. The authors reported that those at the bottom of social hierarchies are at increased risk of victimization. Researchers were unable to explore the role that several popular interventions (e.g., peer support, empathy training) may play in violent victimization because research was insufficient to support examining these interventions.

Many of the studies to date that have examined root causes of school violence have been focused on student-on-student violence. There are far fewer studies on the causes of school violence by outsiders who enter school grounds without permission (such as occurred in Newtown, Connecticut, and Parkland, Florida). It is unclear from the research if certain law enforcement approaches would work better than others at preventing outsider school violence.

Security Technologies

School districts across the country employ a wide range of technologies to prevent, respond to, and mitigate acts of violence. However, little is known about their overall use and effectiveness. More research is needed concerning how school administrators can best select security technologies.

In 2014, the NIJ funded two projects examining the use of technology in school safety applications. Results from the first study, completed by the RAND Corporation,\textsuperscript{9} include recommendations for researchers, technology developers, and school administrators. For researchers, the study emphasizes the need for more evidence about what works in the area of school safety technology. The authors note the need for rigorous research designs to assess the effectiveness of new technologies, and they recommend testing technology solutions in real-world settings.

For technology developers, the study concluded that they should turn their focus to improving communications, including:

- Devising low-cost ways to allow teachers to have direct, two-way communication with a central command and control system.
- Making anonymous tip line technology easier to monitor and permitting uploads from multiple media sources.

\textsuperscript{7} Farrington, Gaffney, and Ttofi, 2017.
\textsuperscript{8} Turanovic et al., 2019.
\textsuperscript{9} Schwartz et al., 2016.
• Creating “all-in-one” portals that provide access to changes in state and federal laws, training modules, violence alerts, prevention information, and incident response information.
• Developing sophisticated social media scanning tools.

The study recommended that schools make sure that any technology being considered will meet their needs, budget, and community values before they select a technology.

The second study, by the Johns Hopkins University (JHU),10 presents a detailed picture of existing security technologies with school safety applications. The report examines the technologies currently in use; how they are used; how those technologies were chosen; legal considerations; and how technology has been used in school safety applications in a sampling of countries from around the world.

The JHU found that integrating various technologies — including physical security, software, internal communications, monitoring, and shared information — into the school infrastructure continues to be a challenge. In its review of the literature, JHU found that some schools with few incidents of school violence were very well equipped with security technology. In contrast, schools with recurring crime and school violence were found to have made very little use of security technology.

The two reports observed that the recent increase in the use of security technologies by schools has not been accompanied by rigorous research into their effectiveness. Both reviews also concluded that no one technology can guarantee school security or eliminate the underlying causes of school violence.

The CSSI also funds research projects that examine the use of technology in school safety efforts. Thirteen projects examine the use of technologies for school safety. Of these projects, five are RCTs. Examples of implementing technology in research studies include the use of social media monitoring, Geographic Information Systems (GIS), tip lines, and an intelligence fusion center. Additionally, one project examines the use of physical school safety technologies such as special doors, locks, and bulletproof windows.

The Averted School Violence Database

Through the CSSI, the NIJ and the Office of Community Oriented Policing Services funded the Police Foundation to develop the Averted School Violence Database.11 This project sought to improve the quality and quantity of available information pertaining to averted and completed school attacks. School attacks are relatively rare events, and widening the area of focus to include averted attacks will expand the availability and utility of information on these threats. Currently, there is no national repository of information about averted and completed school attacks.

The project identified 51 averted school attacks from 1999 through 2017. Though these data offer only a preliminary look at averted school attacks, the researcher made several recommendations to avert school violence:

• **Prepare for possible school-based crises.** Law enforcement can prepare by being actively involved in emergency operations planning, developing command communication structures with first responders, and having clear roles and responsibilities in reunification protocols.
• **Develop relationships** between law enforcement, school personnel (including school staff such as custodians and cafeteria employees), and — most importantly — students.

10 Johns Hopkins University Applied Physics Laboratory, 2016.
11 Daniels, 2019.
• **Know and work to improve the school’s culture.** It is imperative that school staff are aware of the culture/climate of the school and pay attention when students are singled out for bullying. They need to respond immediately and appropriately to this behavior.

• **Know the physical facility and its important features.** Law enforcement and first responders should know the layout of the school property, ways to access technology such as cameras, and school emergency operations procedures.

• **Take all reports seriously and assume nothing.** Attacks can be planned and carried out at any type of school, school level, and location.

• **There is no profile of school shooters.** School shooters come from all demographics, male and female, and from various ethnic populations. Do not discredit threats because the student does not fit into a stereotype of a school shooter.

**Enhancement of the School-Associated Violent Deaths (SAVD) Data Collection**

The NIJ provided funding to the Centers for Disease Control and Prevention (CDC) to improve the efficiency and timeliness of the School-Associated Violent Deaths (SAVD) surveillance system, which captures data on all homicides, suicides, and legal-intervention deaths associated with U.S. elementary and secondary schools. Through the SAVD, the CDC has been collecting data on school-associated violent deaths since 1992.

There were 393 single-victim incidents that occurred between July 1994 and June 2016, and 38 multiple-victim incidents (resulting in 121 youth homicides) between July 1994 and June 2018. School-associated homicides consistently represent less than 2% of all youth homicides in the United States. Single-victim homicide rates remained stable between 1994 and 2016.\(^\text{12}\) School-associated single-victim homicides share characteristics with youth homicides in the community: They often involve racial/ethnic minorities and males 15-18 years old, and they often occur in urban areas. Firearm-related injuries were the cause of death in 247 single-victim homicides (62.8%) and 115 multiple-victim homicides (95%). Multiple-victim incidence rates increased significantly from July 2009 to June 2018.

**Enhancement of the School Survey on Crime and Safety (SSOCS)**

The NIJ provided supplemental funding for the U.S. Department of Education’s National Center for Education Statistics to conduct the School Survey on Crime and Safety (SSOCS) for the 2015-2016 and 2017-2018 school years. The funding supported improvements to the SSOCS through an enhanced data collection instrument. This instrument provides important data from a nationally representative sample of approximately 4,000 public primary and charter schools. The enhanced data collection includes in-depth information on specific aspects of school safety, most notably the roles and responsibilities of mental health professionals and law enforcement officers working in schools.

The first-look report from the SSOCS provides data on school safety.\(^\text{13}\) About 46% of traditional public schools had an SRO present at school at least once a week, compared with only 19% of charter schools. Conversely, a higher percentage of charter schools than traditional public schools had a security guard or other security personnel present at least once a week (35% at charter schools versus 21% at traditional public schools). About 79% of larger schools (those with 1,000 or more students) had at least one sworn law enforcement officer who carried a firearm on school

---

\(^{12}\) Holland et al., 2019.

\(^{13}\) Diliberti et al., 2019.
Researchers and schools use SSOCS data frequently to benchmark school activities and provide data for various research efforts. Data are used to assess crime prevention programs, practices, and policies used by schools and to examine the relationship between school characteristics and violent and serious violent crimes in elementary, middle, high, and combined schools.

**Creating and Sustaining a Positive and Communal School Climate**

In 2017, the NIJ commissioned a paper reviewing the literature on the relationship between school safety and school climate. As attention to school violence and safety has increased, research indicates that there are a variety of factors that influence school crime and disorder. School climate is one of those factors.14

Several factors help create a positive school climate. Research indicates that teachers’ ability to manage classroom behavior influences school climate. Students report that school climate improves when teachers use fewer exclusionary discipline strategies and more positive behavioral strategies, and when there is consistent enforcement of rules.15

The NIJ has funded a variety of projects examining how to improve school climate, as well as studies that explore the implications of interventions like bullying prevention programs on school climate.

**Threat Assessment**

Determining how to gather information on and respond to threats of violence is a top safety concern of school officials. In 2014, the NIJ made an award to Dewey Cornell to evaluate and improve the implementation of student threat assessment in Virginia public schools. With this study, Cornell sought to address challenges schools face in using threat assessment, such as ensuring that it is used consistently and improves student reporting of threats. Among the notable results of this study is the development of an online educational program for students that has been shown to increase their willingness to report threats. This online program (available at [https://www.youtube.com/watch?v=H7wI20-TN2w](https://www.youtube.com/watch?v=H7wI20-TN2w)) is intended to accompany the full threat assessment approach.16

**Bullying**

National statistics indicate that about 20% of students 12-18 years old reported being bullied at school during the school year.17 A variety of bullying prevention programs have been developed and tested to help schools address this problem. The CSSI has funded several studies to examine the effectiveness of various approaches. Many of these interventions target students in an attempt to modify their behavior to decrease bullying. One CSSI-funded study18 took a different approach to address a long-standing problem: how to help teachers respond to bullying when they are busy trying to teach classes and perform their duties. This study, led by Catherine Bradshaw, adapted the Classroom Check-Up coaching model using mixed-reality simulation to help teachers practice detecting, preventing, and responding to classroom bullying. Study results showed that teachers participating in this coaching were more likely to

---

15 Ibid.
16 Stohlman and Cornell, 2019.
17 Musu et al., 2019.
18 Pas, Waasdorp, and Bradshaw, 2019.
report responding to bullying perpetrators with referrals to counselors, and to intervene with bullying victims and perpetrators.

The Survey of Law Enforcement Personnel in Schools (SLEPS)

The NIJ partnered with the Bureau of Justice Statistics to improve the data on the roles, responsibilities, and actions of local law enforcement in primary and secondary schools. There have been some efforts to empirically examine law enforcement involvement in schools, focusing on SROs in particular. No current, comprehensive, national-level data exist on the extent of law enforcement involvement in the nation’s schools or their typical roles and responsibilities. The primary goals of the Survey of Law Enforcement Personnel in Schools (SLEPS) are to: (1) identify a national roster of active law enforcement agencies that have law enforcement personnel operating in some capacity in U.S. K-12 public schools, and (2) generate detailed, accurate, and reliable national statistics describing the scope, size, characteristics, and functions of law enforcement personnel who work and interact in a school environment. The SLEPS is still ongoing, but its results promise to provide better comprehensive, national-level data on law enforcement in schools.

SROs and School-Based Law Enforcement

The CSSI has funded 24 studies that examine SROs. While school-based law enforcement programs have existed in the United States for more than 65 years, there are still many challenges involved in integrating law enforcement officers into educational settings. There are mixed findings regarding the impact of officers in schools. For example, some scholars have found that school policing can contribute to increased involvement of youth in the justice system, while others suggest that school policing yields positive outcomes such as crime prevention, staff and student safety education, and improved police-student relationships. These mixed results can be attributed to the limited evidence base surrounding the impact of law enforcement in educational settings.

The CSSI projects will make a significant contribution to the evidence base surrounding SROs. Through a mix of quantitative and qualitative research activities, CSSI-funded projects are addressing many research questions. The majority of the 24 SRO-focused studies include research questions addressing the impact of SROs on school disciplinary incidents and actions taken by schools, such as suspension (in- and out-of-school), expulsion, arrests, and referrals to the juvenile justice system. Additionally, many projects seek to understand how SROs influence student and/or teacher perceptions of school climate and safety. A few studies are investigating how SROs are trained, selected, and assessed by their representative organizations. Another set of studies examines the roles and responsibilities of SROs, and how these may vary based on school contexts.

Mental and Behavioral Health Approaches

Research demonstrates that 13%-20% of U.S. children experience a mental, emotional, or behavioral disorder each year. The rates tend to be higher for at-risk children — for example, those living in poverty, foster care, or stressful home environments. Unfortunately, relatively few children with identified emotional and behavioral disorders are treated for them. Children who do not receive treatment for emotional and behavioral disorders may act out in school. Schools have responded to

---

19 Na and Gottfredson, 2013.
21 Perou et al., 2013.
22 Children’s Defense Fund, 2010; Merikangas et al., 2011.
23 Overstreet and Chafouleas, 2016.
these students in a variety of ways, including punitive measures, such as zero-tolerance policies; universal screening for mental health issues; and tiered disciplinary responses, such as PBIS practices.

There are 32 CSSI projects that incorporate mental and/or behavioral health components, nine of which focus on trauma-informed care practices. The majority of these projects involve hiring school-based mental health professionals; identifying high-risk students and connecting them with services; or expanding school-based mental health services. These projects examine various mental health outcomes of interventions that train students, staff, and SROs to recognize mental/behavioral health issues. These projects include training staff and SROs in Mental Health First Aid (MHFA) or Crisis Intervention Training for Youth (CIT-Y) as well as training students to recognize mental duress. A number of projects measure mental health outcomes in relation to implementing alternative disciplinary practices such as PBIS or restorative justice. There are five projects that examine comprehensive approaches to school safety, including investigating connections to community mental health providers and how these connections can be expanded. A number of projects incorporate mixed-methods designs in an effort to provide context for understanding why a program achieved particular outcomes, as well as for monitoring program implementation.

Restorative Justice Practices

Restorative justice practices are increasingly used by schools, but few rigorous studies examining their effectiveness have been completed. Restorative justice practices respond to misbehavior by seeking to solve problems and repair and strengthen damaged relationships, ideally through processes that include all people affected by the negative behavior — offenders, victims, and community stakeholders. Restorative practices vary and include teen courts, restorative circles, proactive circles, and victim-offender mediation.

Schools generally use one of two approaches. The first approach is a program or practice that is focused on holding students accountable and that avoids school suspension. It is used in specified circumstances. The program typically involves facilitated meetings between victims and offenders. Possible resolutions include restitution, apologies, or behavior change. The second approach is a whole-school effort with multiple components and a community orientation focused on building and restoring order.

Fourteen CSSI projects examine the use and implementation of restorative justice practices. Eleven are RCTs. The CSSI has funded studies that include both individual programs/practices and whole-school approaches. Two projects combine schoolwide PBIS with restorative justice practices (SW-PBIS-RJ) and examine the impact of the intervention compared to traditional PBIS programs. Five projects involve SROs in restorative justice training, with one project directly involving a juvenile probation officer in student restorative circles. To date, one of these studies of a whole-school approach has been completed. Results of this study showed modest improvements on some outcomes, a lack of improvement on others, and even some negative effects on academic achievement.

Many projects incorporate mixed-methods designs in an effort to contextualize the data as well as monitor program implementation.

24 Augustine et al., 2018.
Next Steps

Ongoing CSSI Research

The previous discussion highlights what has been learned to date from CSSI-funded research. Many projects funded through the CSSI are still underway and publishing findings on a regular basis. (See Appendix B for a list of the NIJ-published reports, final reports, and academic journal articles written by CSSI grantees.)

Of the studies that NIJ funded under the CSSI, 41 were completed as of 2019. An additional 53 studies are projected to be completed by the end of 2021 (see Table 2).

<table>
<thead>
<tr>
<th>Year</th>
<th>Number of Grants</th>
</tr>
</thead>
<tbody>
<tr>
<td>2017</td>
<td>3</td>
</tr>
<tr>
<td>2018</td>
<td>12</td>
</tr>
<tr>
<td>2019</td>
<td>26</td>
</tr>
<tr>
<td>2020</td>
<td>41</td>
</tr>
<tr>
<td>2021</td>
<td>12</td>
</tr>
</tbody>
</table>

The NIJ anticipates that as CSSI projects conclude, a significant amount of information will be produced. These projects will contribute to knowledge on the following topics: (1) SROs; (2) the value of RCTs in school safety research; (3) restorative practices and school discipline; (4) the importance of threat assessments and tip lines in averting school violence; (5) the causes of school violence from a longitudinal perspective; (6) the importance of a comprehensive approach to school safety; (7) the use of technology in improving school safety and preventing violence; (8) understanding the integration of multiple school safety and violence prevention programs simultaneously; and (9) mental and behavioral health training and research for school staff.

Synthesis and Dissemination

A substantial amount of information has and is being published from CSSI projects (see Appendix B). NIJ is fortunate to have multiple studies addressing similar topics (albeit different aspects of those topics), which allows us to draw stronger conclusions about what works to keep schools and students safe. Given the quantity of information that will be released on a particular topic, we need to synthesize the findings across studies and develop an approach to facilitate the dissemination of CSSI study results. NIJ has developed a dissemination plan to distill the findings from the CSSI into a number of easily accessible products for informing researchers, school administrators, and the public.

NIJ scientists will review all grantee progress reports, searching for grant-related published articles and other products reported by grantees. They will ensure that these research products are archived in the National Criminal Justice Reference Service database (www.ncjrs.gov) and are appropriately linked on NIJ’s CSSI page (https://nij.ojp.gov/topics/articles/nijs-comprehensive-school-safety-initiative) and their respective grant pages on NIJ.ojp.gov. These final reports, grantee peer-reviewed journal articles, and grant deliverables will form the basis for reports developed by NIJ scientists synthesizing CSSI findings.
for ease of consumption by specific school safety stakeholders. Additionally, recipients of a CSSI-funded research grant are expected to submit to the National Archive of Criminal Justice Data (NACJD) (https://www.icpsr.umich.edu/icpsrweb/content/NACJD/index.html) all data sets that result in whole or in part from the work funded by the grant, along with associated files and any documentation necessary for future efforts by others to reproduce the project’s findings and/or to extend the scientific value of the data set through secondary analysis.
References


Appendix A: Federal and Federally Funded Web Resources on School Safety

1. National Center on Safe Supportive Learning Environments: https://safesupportivelearning.ed.gov/scirp/about
4. StopBullying.gov
5. Substance Abuse and Mental Health Services Administration (SAMHSA), Health Resources and Services Administration (HRSA) — Trauma: https://www.integration.samhsa.gov/clinical-practice/trauma-informed
7. U.S. Department of Education, Office of Safe and Healthy Students: https://www2.ed.gov/about/offices/list/oese/osh/index.html
Appendix B: Table of Products From CSSI

Publications, Final Reports, and Grantee Articles From CSSI Projects

Publications


**CSSI Final Reports**


<table>
<thead>
<tr>
<th>Grant Number</th>
<th>Project Title</th>
<th>Publications</th>
</tr>
</thead>
</table>


<table>
<thead>
<tr>
<th>Document ID</th>
<th>Title</th>
<th>Authors</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Identifiers</td>
<td>Title</td>
<td>Authors</td>
<td>Journal</td>
</tr>
<tr>
<td>---------------</td>
<td>----------------------------------------------------------------------</td>
<td>-------------------------------------------------------------------------------------------------------------------</td>
<td>------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Publication ID</td>
<td>Title</td>
<td>Authors</td>
<td>URL/Additional Information</td>
</tr>
<tr>
<td>---------------</td>
<td>----------------------------------------------------------------------</td>
<td>----------------------------------------------------------------------</td>
<td>-------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Code</td>
<td>Description</td>
<td>Reference</td>
<td></td>
</tr>
<tr>
<td>----------------</td>
<td>-----------------------------------------------------------------------------</td>
<td>--------------------------------------------------------------------------------------------------------------------------------------------</td>
<td></td>
</tr>
</tbody>
</table>

---