**California Department of Education**

**Report to the Governor and the Legislature:**

# Lockdown Drills and Multi-option Response Drills



**Prepared by the**

**Equity Branch**

**California Department of Education**

**November 2021**

*Description*: This report was prepared pursuant to Senate Bill 541, Chapter 786, Statutes of 2019. The report provides information on statewide survey findings and best practice recommendations regarding age-appropriate emergency response drills in California kindergarten through grade twelve schools, districts, and county offices of education.

*Authority*: California *Education Code*, Section 32289.5

*Recipients*: The Governor, the Senate Education Committee, the Senate Public Safety Committee, the Assembly Education Committee, and the Assembly Public Safety Committee

*Due Date*: November 1, 2021

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## Executive Summary

This report is required by Senate Bill 541, Chapter 786, Statutes of 2019.

The report provides information on findings from a statewide survey of lockdown drills and multi-option response drills conducted at school sites including charter schools, school districts, and county offices of education providing instructional services to pupils in kindergarten or in any of grades one to twelve inclusive. It provides survey data, research-based recommendations for age-appropriate emergency response drills in schools, and an annotated bibliography of research-based reports.

A survey was conducted through the California Department of Education (CDE) Equity Branch, research-based reports and resources were compiled with the support of Regional Educational Laboratory (REL) WestEd, and recommendations are based on research-based best practices considerations and survey data.

Specifically, the report provides data from a representative sample of schools for each of the five safety drill-related areas specified in SB 541: (1) portion of school sites conducting drills and the population they serve; (2) types of drills performed and their frequency; (3) information about staff training in preparation for drills; (4) information pertaining to school site evaluations, if any, of the drill impacts; and (5) information pertaining to staff and parental notifications of drills.

The report also includes information pertaining to mental health and counseling services made available to those impacted by response drills, comprehensive school safety plans (CSSPs), violent incidents and emergencies on school campuses, and lessons learned.

The data reflect campus activities in the 2019–20 school year prior to the closure of schools in 2020 due to the pandemic with a very small number reporting for 2020–21.

If you have any questions regarding this report, please contact the School Health and Safety Office by phone at 916-319-0914 or by email at [shso@cde.ca.gov](mailto:shso@cde.ca.gov).

You will find this report on the California Department of Education School Health and Safety Office web page at <https://www.cde.ca.gov/ls/ss/vp/safeschlplanning.asp>.

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## Background

California *Education Code* (*EC*) sections 32280–32289.5 require every school serving students in grades one to twelve, inclusive, to develop, annually review, and update their CSSP according to statute and in collaboration with specified entities. Each year, the CSSP must be adopted by the school site council or designated school safety committee by March 1 and approved by the school district or county office of education prior to October 15.

*EC* currently requires schools to conduct both earthquake drills and fire drills on a regular basis. However, existing law does not require drills or training for other types of threats that may occur on or near a campus. Several school districts have voluntarily taken it upon themselves to conduct additional drills, such as lockdown, shelter-in-place, and others to prepare for various threats.

In 2016, the California State Auditors (CSA) conducted a comprehensive audit of CDE and the Department of Justice (DOJ). CSA Report Number 2016-136 School Violence Prevention was published in 2017. It highlighted the dramatic increase in school shootings and other violent incidents and concluded that improvements needed to be made to CSSPs to ensure students and staff are kept safe, including during active shooter/assailant incidents. Based on audit findings, the report issued various recommendations for local educational agencies (LEAs), CDE, DOJ, and the Legislature. The CDE has fulfilled all recommendations.

In 2018, California had the highest number of violent incidents of all states, reaching 157, and it was the worst year for gun-related incidents in schools across the nation since 1970. The increase in shooter/intruder incidents in and around school sites underscores the urgency of recommending procedures for preparing for and responding to violent acts.

On October 12, 2019, SB 541, Chapter 786, Statutes of 2019, was signed into law by the Governor. The CDE became responsible for conducting, and LEAs became responsible for responding to, a survey to gather data on lockdown drills and multi-option response drills in California’s schools. The CDE became responsible for developing recommendations for age-appropriate drills based on survey results and on research-based reports. A Budget Change Proposal requesting funding for limited-term subject matter expertise or for contracting with a nonprofit organization was submitted but not approved.

During the 18-month closure of schools caused by the COVID-19 pandemic from March 2020 to August 2021, there were unprecedented disruptions, emergencies, transitions to virtual learning, and LEA staffing shortages and demands. These circumstances led to delays in a meaningful collection of survey data on emergency response drills from campuses that were no longer open and operating. The CDE felt there would be greater participation of administrators when school campuses reopened in August 2021. The survey was released in September 2021 and returned in October 2021.

## Report as Required by Senate Bill 541

### Survey Data Design

SB 541 requires the CDE to collect, and LEAs to provide, data pertaining to lockdown or multi-option response drills conducted at school sites within school districts, county offices of education, and charter schools providing instructional services to pupils in kindergarten or in any of grades one to twelve, inclusive.

The LEAs surveyed include a representative sample of large, medium, and small districts in urban and rural settings. The survey was sent to a randomized sample of 580 schools, and 145 responded.

### Survey Findings

SB 541 requires the collection of information for the following five safety drill-related areas:

1. The portion of school sites conducting drills and the population they serve
2. The types of drills performed and their frequency
3. Information about staff training in preparation for drills
4. Information pertaining to school site evaluations, if any, of the drill impacts
5. Information pertaining to staff and parental notifications of drills

A summary of each area is presented here.

**Part 1: School Type**

**Table 1: Number of schools including charter schools that completed the survey**

| **Number of schools** | **Response rate** |
| --- | --- |
| 145 | 25% |

**Table 2: Academic year the survey was completed**

| **Year** | **Percentage of respondents** |
| --- | --- |
| 2019–2020 | 93% |
| 2020–2021 | 7% |

**Table 3: Grade Level**

| **School type** | **Percentage of respondents** |
| --- | --- |
| Urban | 73% |
| Rural | 27% |

**Table 4: Grade Level**

| **School type** | **Percentage of respondents** |
| --- | --- |
| Elementary (kindergarten through grade six) | 67% |
| Middle (grade seven through grade eight or nine) | 13% |
| High school (grade nine or ten through twelve) | 20% |

**Part 2: Types and Frequency of Drills Performed during a Normal School Year**

**SUMMARY OF LOCKDOWN AND EMERGENCY RESPONSE DRILL SURVEY DATA**

**Lockdown:** Ninety-three percent of schools conduct one or more lockdown drills per school year. Sixty-three percent of these schools conduct one to two drills per year; 33 percent conduct three to four drills per year; and 5 percent conduct lockdown drills five or more times per year.

**Multi-option response:** Forty-two percent of schools conduct one or more multi-option drills per school year. Sixty-eight percent of these schools conduct one to two drills per year; 17 percent conduct three to four drills; and 15 percent conduct five or more drills per year.

**Drop-cover-hold:** Eighty-eight percent of schools conduct one or more drop-cover-hold drills per school year. Sixty-three percent of these schools conduct one to two drills per year; 31 percent conduct three to four drills per year; and 6 percent conduct five or more drills per year. These earthquake drills are required by *EC* Section32282(a)(2)(B)(i).

**Shelter-in-place:** Eighty-two percent of schools conduct one or more shelter-in-place drills per school year. Seventy-five percent of these schools conduct one to two drills per year; 19 percent conduct three to four drills per year; and 6 percent conduct five or more drills per year.

**Evacuation:** Seventy-nine percent of schools conduct evacuation drills one or more times per school year. Thirty percent of these schools conduct one to two drills per year; 21 percent conduct three to four drills per year; and 49 percent conduct five or more drills per year.

**Reverse evacuation:** Thirty-two percent of schools conduct one or more reverse evacuation drills per school year. Eighty percent of these schools conduct one to two drills per year; 9 percent conduct three to four drills per year; and 11 percent conduct five or more drills.

**Reunification:** Twenty-nine percent of schools conduct one or more reunification drills per school year. Sixty-six percent of these schools conduct one to two drills per year; 5 percent conduct three to four drills per year; and 19 percent conduct five or more drills per year. (See Appendix B: Definitions of Drills.)

**Part 3: Staff Training in Preparation for Drills**

Among schools that participated in the survey, a large majority conducted drill preparation training for school staff at least once during the school years. Leading these preparation trainings were often staff or site administrators. Activities most commonly included in these trainings were table topic discussions/role play, videos/films/webinars, and simulated emergencies/real-time responses. The majority of schools that participated in the survey provide mental health or counseling services regarding training impacts to educators. These services include access to professional mental health/trauma-informed specialists and/or written materials and warnings about sensitive content.

**Table 4: Survey responses on staff training in preparation for drills**

**Question 1: How often do drill preparation trainings for school staff take place each school year?**

| **Response** | **Response rate** |
| --- | --- |
| 0 | 4% |
| 1–2 | 75% |
| 3–4 | 14% |
| 5 or more | 7% |

**Question 2: Who trains staff in preparation for drills? (Respondents select multiple responses, as applicable.)**

| **Response** | **Response rate** |
| --- | --- |
| Site administrator or staff | 91% |
| District or county school safety/emergency planning staff | 31% |
| Local first responder agency (law enforcement, fire, local office of emergency services) | 23% |
| Virtual trainings | 20% |
| School resource officers | 17% |
| External provider | 9% |
| Other | 1% |

**Question 3: What types of activities are included in the training? (Respondents select multiple responses, as applicable.)**

| **Response** | **Response rate** |
| --- | --- |
| Table topic discussions/role play | 59% |
| Video/film/webinar | 55% |
| Simulated emergencies/real-time responses | 51% |
| Speakers/live presentations | 38% |
| Other  (e.g., review of the CSSP at staff meetings, sometimes with the community; review roles/procedures/protocols; check student emergency kits; view PowerPoint presentations; Google doc resources; advise new teachers; review evacuation map) | 16% |

**Question 4: What mental health or counseling services regarding training impacts are made available to educators?**

| **Response** | **Response rate** |
| --- | --- |
| Educators are encouraged to meet with professional mental health/trauma-informed specialists | 50% |
| Educators receive written materials and warnings about sensitive content | 38% |
| None | 27% |
| Other (e.g., access to site counselors, wellness coordinators, school psychologists, discussions on trauma-informed practices, district training, suicide prevention training, community health partnerships) | 7% |

**Part 4: School Site Evaluations, Emotional Impacts, and Modifications**

Of the full sample, 99 percent of schools said that the drills and strategies their schools use are age-appropriate for students. Sixty-two percent of schools specifically evaluate the impact of school safety drills on educators and/or students. Of these schools, 92 percent primarily evaluate drill impacts through discussions/debrief sessions; a quarter of schools use written evaluations; and a handful (6 percent) of schools evaluate drills through alternative methods, including social-emotional surveys, follow-up emails, or other means of receiving feedback on the drill’s impacts (note: multiple responses could be selected; does not sum to 100 percent).

The majority (83 percent) of schools did not report that students were emotionally impacted by the trainings and/or drills. For the 17 percent of schools that reported student emotional impacts, these primarily included students who were scared and anxious, young students crying, and students who were fearful/anxious because they believed the incidents were real due to the drills being unannounced.

Eighty-six percent of schools reported that educators exhibited or reported impacts from these activities. Not all of these impacts were negative (one educator expressed gratitude for being prepared), but other educators described feeling anxious about possible incidents as well as during simulations, that they were disturbed by required viewing of active shooter and **Federal Bureau of Investigation** videos, personal discomfort about being barricaded behind locked doors with students, and resentment and anxiety preparing/training with law enforcement.

In the majority (71 percent) of schools, training protocols and procedures have not been modified as a result of these reported incidents. Among the 29 percent of school respondents who have modified training protocols/procedures, changes have included forewarning staff and students, allowing time for mental health consultations, and making accommodations for special education students.

**Part 5: Staff and Parents/Guardians Communication**

While essentially all schools surveyed report having an annually updated CSSP, communication to staff and rates and methods differ from communication to parents/guardians across school sites. The majority of schools notify staff of school safety drills during staff meetings (89 percent) or by phone (62 percent), while other schools use a wider variety of methods to communicate to parents/guardians. Fifty-five percent of schools report that some drills are unannounced, while 33 percent of schools report that parents/guardians are not notified about drills at all. Following are the findings from the survey.

**Table 5: Survey responses on communicating drills to staff**

**Question 1: How are staff members notified of school safety drills? (Respondents selected multiple responses, as applicable.)**

| **Response** | **Response rate** |
| --- | --- |
| Staff Meetings | 89% |
| Phone call/voicemail/email | 62% |
| Some drills unannounced | 55% |
| Superintendent notice | 5% |
| Human resources notice | 3% |
| Other (e.g., school bulletin/weekly newsletter, school internal/master calendars, calendar invites, Google calendar, external provider notices, email, annual staff binders) | 20% |

**Table 6: Survey responses on communicating drills to parents/guardians**

**Question 2: How are parents/guardians notified of school safety drills? (Respondents selected multiple responses, as applicable.)**

| **Response** | **Response rate** |
| --- | --- |
| Parents/guardians not notified | 33% |
| Phone call/voicemail | 25% |
| Written notice to home | 25% |
| Notified in languages other than English | 22% |
| School website | 16% |
| Social media | 13% |
| Regular mail notice | 4% |
| Notified in English only | 2% |
| Other (e.g., listed in safety plan; parent handbook; Parent Square app subscription system; Bloomz or Blackboard apps; automated message; annual notice; weekly updates; Parent Teacher Association meetings; parents notified of drills but not dates; principal message; school newsletters; students notified in advance, parents post-drills; lockdown mass communication system) | 25%  (See Appendix C) |

### Research Brief on Impacts of Response Drill Practices

The CDE and REL West Ed conducted research on best practices for age-appropriate lockdown or multi-option response drills in schools, on the effects that drills have on student emotional well-being and emergency preparedness, and the impact on participating adults.

Current literature consistently identifies both common threads and disparate perceptions and experiences throughout our nation’s schools. There is scarce research about both positive and negative impacts of lockdown and multi-option response drills on students of all ages and adult participants.

The widespread use of lockdown drills has been a response to calls for improved safety and security in schools. The drills are aimed to help prevent future attacks or, in the event that one does occur, to minimize the loss of life. Widespread concern, however, is reported regarding how participating in lockdown and active shooter drills may be traumatic for students. For example, an active shooter drill in one high school was associated with significant increases in student fear, inflated perceptions of risk, and a decrease in perceptions of school safety. On the other hand, in another urban school district, while there was a lack of empirical data, continued participation in lockdown drills over an extended period led to students, faculty, and staff expressing greater feelings of preparedness related to lockdowns and to other emergency scenarios (lockout, evacuation, shelter, and hold-in-place). The latter study highlights the importance of drills in fostering a culture of preparedness in schools.

No studies related to the impact of lockdown and emergency drills in elementary schools were found to be published at the writing of this report.

Despite their proliferation in schools across the United States, the impact of lockdown drills on students remains largely understudied. Despite their goal of preparing students—along with teachers and school staff—for situations like the 2018 shooting in Parkland, Florida, questions have been raised in both public and academic discourses about whether such practices achieve their desired end or instead produce fear and anxiety.

Reports consistently offer arguments for and against lockdown drills and inform that a majority of schools nationwide perform lockdown drills. However, there is an alarming lack of empirical literature on the psychological and safety impact of these drills on students.

There is also little research and empirical literature on the impact of lockdown drills on adult educators and staff who participate in the drills. Reports offer inconsistent perspectives such as there is a need for increased transparency, standardization of drills, and addressing effective methods of implementing active shooter drills, while another perspective asserts that one size does not fit all.

An interesting result of the data gathered from the CDE’s survey is that educators and adults participating in the drills experience more negative and trauma-related impacts than do students.

The clear disparity in perceptions and experiences leads to pros and cons, arguments for and against these drills, and calls for both improved safety and security measures as well as the need to evaluate the appropriateness of lockdown drills. Concerns about the effects on the safety and psychological well-being of students and participating adults must be considered.

### Best Practices Considerations and Guidelines

Student learning and educator effectiveness are promoted by perceptions that schools are safe and that students and staff are prepared in the event of a violent event or emergency, whether on campus or in the community. While school shootings and violent incidents are relatively rare, when they do occur, they are high visibility and produce the perception that schools are not safe for children. Collaborative planning, repeated practice, and modification of drills based on feedback and evaluations lead to more effective responses and greater safety when a critical incident does occur.

**Planning Is Critical**

Comprehensive school planning and emergency preparedness should include plans for lockdowns and other drills that consider age and developmental levels, students with physical and intellectual disabilities, and language access for students and families who speak languages other than English.

It is critical to develop a plan with a team that includes administrators, educators, school and district crisis management and safety teams, mental health specialists, law enforcement, and school resource officers. They should work closely together to develop staff and student response protocols that follow best practice considerations, evaluate drills, and modify procedures as appropriate. Such considerations are outlined in the document developed jointly by the National Association of School Psychologists and National Association of School Resource Officers (2017), *Best Practice Considerations for Schools in Active Shooter and Other Armed Assailant Drills,* which is referenced in the annotated bibliography.

The following best practice considerations are summarized from research-based literature.

**Preparing for a Lockdown Drill**

* It is important to work with local law enforcement to develop lockdown procedures appropriate to different levels of threats that may be either immediate on school property, in the school building, or those occurring in the community and are not an immediate threat to the school.
* Include school resource officers and local or school-based or district-based mental health professionals in developing lockdown procedures. Professionals with knowledge about developmental stages of youth are particularly important when evaluating the age-appropriateness of drills.
* Conduct lockdown and multi-response drills regularly each year to ease the stress of dealing with real-life emergencies and to ensure adaptive behavior in case of an emergency. Drills that are practiced regularly can increase effectiveness, knowledge, and skills to respond appropriately and can reduce anxiety about perceived risks.
* Staff members should receive an orientation and overview of what to expect during drills. The overview and plan discussed with staff should be age-appropriate for the students involved with consideration and any accommodations for those with language barriers, physical limitations, or special needs. This will assist staff with understanding their roles and expected actions.
* Lockdown drills should always be announced using clear language such as “This is a drill” or “We are going to practice for an emergency” in an age-appropriate manner. Unannounced drills reportedly cause anxiety, fear that a violent incident or threat is real, and can lead to a greater unfavorable emotional impact on both staff and students.
* Some staff and students may have experienced trauma and be sensitive or reactive to drills and loud noises such as alarms. This must be taken into account, and special accommodations should be given as appropriate.
* Train staff members, as much as possible, in recognizing traumatic stress reactions and knowing how to support students during lockdowns and other drills.
* Ensure that a school administrator is present on campus during lockdown drills.
* Ensure that parents and guardians are informed by way of the parent handbook and other appropriate means that drills will take place during the school year, and include the rationale and procedures for these drills. It will likely not be possible to include all lockdown drill dates in parent materials as drills are often planned after the school year begins and based on local first responders’ planning and participation.
* Consider posting a social media message when conducting lockdown drills to help prevent fear, confusion, and possible community reactions that could interfere with normal school activities.

**During a Lockdown Drill**

* Provide direct, clear information and emphasize the importance of following adult direction. Use safety vocabulary and verbiage carefully considering developmental and age-appropriateness. Use words like “go” and “evacuate” instead of “escape” or “run” to help mitigate the psychological impact of the crisis and promote calmness and orderliness.
* Staff can be most effective by modeling a controlled response and inspiring calm and confidence in students. Staff should reassure stressed students and be trained in grounding techniques and stabilization.
* Everyone should remain silent; students and adults should be reminded to turn off or silence cell phones.
* Communicate clearly and appropriately for the developmental level and age of students during a lockdown if there is imminent danger to the school or not. Deliver factual information as quickly as possible to help minimize anxiety and fear.
* Clearly and expeditiously execute a pre-established communication plan to parents/guardians, including those who speak languages other than English and use social media, as appropriate. Reassure families that their children are safe as soon as possible, and inform or remind families of reunification strategies and locations, as appropriate.
* Have a designated crisis team member monitor social media, correct misinformation, and provide updates as appropriate.

**After a Lockdown Drill**

* It is important to coordinate with law enforcement to determine what the actual risk was that triggered the lockdown.
* Work with a public information officer to inform parents and families, media, and neighboring schools and businesses with as much detail as possible to avoid rumors and unnecessary fear.
* Make all efforts to connect students with their caregivers, with special attention to younger children.
* Provide families and caregivers with guidance on talking with their children about their fears and concerns about violence.
* Encourage post-event discussions with students and staff about feelings, reactions, experiences, and concerns.
* Request feedback from all groups of those impacted by the drill or actual event.
* Evaluate feedback and modify strategies as appropriate.
* Offer mental health crisis intervention and learn to recognize trauma-related behaviors and reactions.

Lockdowns are an important part of school safety and crisis preparedness that will lead to various reactions and levels of traumatization. It is imperative to understand that perceived threats can be as impactful as real incidents on students and staff. It is important to attend to the developmental and psychological welfare of students and staff during all phases of lockdown and other emergency response drills to help minimize unintended harm.

**For All Drills: Lockdown, Multi-response, and Other Threats**

This guidance is not a substitute for professional crisis team training and planning. Crisis and emergency management teams have in-depth knowledge of school crisis prevention and intervention and should be present and accessible during drills. The suggestions herein are based on guidance from reports by the National Association of School Psychologists and WestEd Justice and Prevention Research Center that are included in the annotated bibliography.

* Start with simple exercises as you prepare school staff, crisis management teams, students, first responders, and community agencies. This will help increase knowledge and the likelihood that practiced responses will take place when a real-life threat occurs.
* Select appropriate scenarios of crises that are more likely to occur in a specific school or neighborhood. Potential natural disaster hazards may be identified by local offices of emergency services, and crime data from law enforcement may assist in determining what drills are most urgent and appropriate. Multi-option drills should be practiced for multiple hazards and drills for incidents that occur between passing periods and during outdoor recess and sports activities take place.
* Practice a variety of exercises to familiarize students and school staff with school safety, building disaster, and crisis plans as well as where and what equipment, utility services, alternative systems, first aid kits, and emergency food and water resources are available at the school site or from the district or county. Awareness of agency partnership agreements, school maps, and emergency supplies are essential.
* Discussion-based exercises may include orientations such as seminars, workshops, and tabletop drills using realistic potential situations. Operations-based exercises must be carefully planned with guidance from professional first responders and agencies and can help schools prepare mentally and physically to respond to emergencies such as lockdown, fire, evacuation, reverse evacuation, and drop-cover-hold. Local and surrounding communities and parents/guardians should be informed of full-scale drills that simulate real emergencies.

Lockdown and multi-option response drills are an ever-more-vital part of school safety planning and crisis preparedness. It is also important for school leaders to recognize that drills impact the psychological well-being of students and staff. The CDE recommends that schools, districts, and county offices of education review and update their current safety plan procedures and practices as appropriate to their situations and coordinate and collaborate with law enforcement, mental health specialists, parents and guardians, and community agencies on a regular basis.

## Research References on Lockdown and Multi-option Response Drills

1. **Age-appropriate drills**

Dickson, M. J., & Vargo, K. K. (2017). Training kindergarten students lockdown drill procedures using behavioral skills training. *Journal of Applied Behavior Analysis, 50*(2), 407–412. Abstract available from <https://eric.ed.gov/?id=EJ1136747> and full text available from <https://onlinelibrary.wiley.com/doi/abs/10.1002/jaba.369>

*From the abstract:* “During situations in which a gunman is present on a school campus, lockdowns are initiated until the threat is removed. However, there are no data demonstrating an effective teaching strategy to increase students’ correct response during a lockdown. We evaluated the effectiveness of behavioral skills training (BST) to teach three groups of kindergarten students how to respond during lockdown drills. Results showed that participant groups displayed increases in correct steps and decreases in noise levels after BST was implemented; these effects maintained following training.”

1. **Effects of drills on school emergency preparedness**

Jonson, C. L. (2017). Preventing school shootings: The effectiveness of safety measures. *Victims & Offenders,* *12*(6), 956–73. Full text available at <https://www.researchgate.net/publication/320606273_Preventing_School_Shootings_The_Effectiveness_of_Safety_Measures>

*From the abstract:* “The tragedies at Columbine High School, Virginia Tech, and Sandy Hook Elementary School catapulted concern about school shootings into the national spotlight. Calls for something to be done to protect our students, faculty, and staff became a salient concern for school administrators, with many schools hiring armed security officers, restricting access to campus buildings, installing metal detectors, and training individuals how to respond when a shooter enters school grounds. However, many of these security measures were implemented with little to no consultation of the empirical literature. This failure to enact evidence-based responses has had fiscal and latent consequences that are only now being discovered. This essay seeks to fill that void by examining the empirical evidence surrounding common security measures enacted in response to well-publicized school shootings and calling for the use of an evidence-based approach to school safety.”

Jonson, C. L., Moon, M. M., & Hendry, J. A. (2018). One size does not fit all: Traditional lockdown versus multi-option responses to school shootings. *Journal of School Violence, 19*(2), 154–166. Abstract available from <https://eric.ed.gov/?id=EJ1246814> and full text available for a fee from <https://www.tandfonline.com/doi/full/10.1080/15388220.2018.1553719>

*From the abstract:* “Two paradigms inform responses to active shooting situations: a traditional lockdown approach where individuals find cover in a classroom and lock the door, and a multi-option approach where individuals evacuate the area, create barricades, and, in last resort situations, actively resist the gunman. While a majority of schools conduct active shooter drills, typically using a traditional lockdown approach, little is known about their effectiveness. Through simulations, this study sought to determine which of the two paradigms that inform active shooter drills is the most effective. Drills informed by the multi-option response paradigm were found to end more quickly and result in fewer people being shot.”

Schildkraut, J., & Nickerson, A. B. (2020). Ready to respond: Effects of lockdown drills and training on school emergency preparedness. *Victims & Offenders*. Full text available for a fee from <https://www.tandfonline.com/doi/full/10.1080/15564886.2020.1749199>

*From the abstract:* “Lockdown drills are a commonly practiced school emergency preparedness strategy, yet there is an alarming lack of empirical data to inform their use. In the current study, participants from a large, urban school district were surveyed at baseline, post-drill, and after receiving training on the newly implemented emergency response protocol and participating in a second drill, and the procedural integrity of the lockdowns was observed. Students and staff reported significantly increased perceptions of emergency preparedness following the training, although faculty reported these increases only for hazards not previously drilled. Classrooms increased by average of 27percent in the correct implementation of lockdown procedures following the training (compared to the drill without training). Mastery was achieved for locking doors (89 percent), lights off (85 percent), and not responding to door knocks (91 percent), yet there was room for improvement in staying out of sight (71 percent). Additionally, continued participation in lockdown drills over the course of the study led to students, faculty, and staff expressing greater feelings of preparedness related to lockdowns, as well as other emergency scenarios (lockout, evacuation, shelter, and hold-in-place). Collectively, the findings of the present study highlight the importance of drills in fostering a culture of preparedness in schools.”

1. **Effects of drills on student emotional wellbeing and emergency preparedness**

Huskey, M. G., & Connell, N. M. (2020). Preparation or provocation? Student perceptions of active shooter drills. *Criminal Justice Policy Review*, *32*(2). Full text available for a fee from <https://doi.org/10.1177/0887403419900316>

*From the abstract:* “Several highly publicized incidents of school violence in the past two decades have highlighted the importance of school safety and crisis preparation for students, parents, and school administrators. Although prior research has focused on the effectiveness of various security and crisis preparation measures, few studies have analyzed student perceptions of these policies. This study utilizes survey data collected from students at a public university in the southwestern United States to evaluate whether active shooter drills experienced in high school were related to negative student outcomes. Results show that experiencing an active shooter drill in high school was associated with significant increases in student fear, inflated perceptions of risk, and a decrease in perceptions of school safety. Implications for future research and policy initiatives regarding active shooter drills are discussed, specifically the need for increased transparency, standardization of drills, and addressing effective methods of implementing active shooter drills in schools.”

Nickerson, A. B., & Schildkraut, J. (2021). State anxiety prior to and after participating in lockdown drills among students in a rural high school. *School Psychology Review*. Full text available for a fee from <https://www.tandfonline.com/doi/full/10.1080/2372966X.2021.1875790>

*From the abstract:* “Widespread concern exists that participating in lockdown and active shooter drills, practices that although discussed synonymously are different, may be similarly traumatizing for students. This study examined state anxiety levels—anxiety-present (i.e., anxiety) and anxiety-absent (i.e., well-being)—among students in one rural high school, as reported on the Spielberger State-Trait Anxiety Inventory short form one week prior to (*N* = 610) and immediately following participation in a lockdown drill (*N* = 736). Students reported low anxiety and moderate well-being at both time points. Independent samples t-tests results revealed that students postdrill reported significantly lower anxiety levels as compared to students’ predrill scores. Well-being, based on anxiety-absent reports, was significantly higher postdrill as compared to one week prior to the practice. The implications of these findings, including the need for policy to provide more explicit guidance about conducting drills in accordance with best practices, are discussed.”

Schildkraut, J., Grogan, K., & Nabors, A. (2020). *Should schools be conducting lockdown drills?* WestEd. Full text available from <https://eric.ed.gov/?id=ED606074>

*From the abstract:* “Although the COVID-19 pandemic closed schools and directed attention to other matters, one issue which had raised concern prior to the pandemic—the role of lockdown drills in schools—remains to be addressed as education leaders prepare for the return of students and adults to gathering daily in large groups in schools. By one estimate, 95 percent of U.S. schools perform lockdown drills as part of their emergency response plans each year. Their widespread use has been one response to calls for improved safety and security in schools, as the drills aim to help prevent future attacks or, in the event that one occurs, to minimize the loss of life. Nonetheless, calls to end the use of lockdown drills have been raised, often based on concerns about their effects on the safety and psychological well-being of students and adults who participate. Despite the widespread use of lockdown drills, research on the impact of such practices is sparse. Nonetheless, the question of whether to end the practice of lockdown drills should be decided based on evidence. Accordingly, this research brief summarizes arguments for and against lockdown drills, as well as available research and best practices, to provide better context to address questions about the use of such drills in schools.”

Schildkraut, J., Nickerson, A. B., & Ristoff, T. (2020). Locks, lights, out of sight: Assessing students’ perceptions of emergency preparedness across multiple lockdown drills. *Journal of School Violence, 19*(1), 93–106. Abstract available from <https://eric.ed.gov/?id=EJ1239050> and full text available for a fee from <https://www.tandfonline.com/doi/full/10.1080/15388220.2019.1703720>

*From the abstract:* “Despite their proliferation in schools across the U.S., the impact of lockdown drills on students remains largely understudied. Despite their goal of preparing students—along with teachers and school staff—for situations like the 2018 shooting in Parkland, Florida, questions have been raised in both the public and academic discourses about whether such practices achieve their desired end or instead produce fear and anxiety. To date, however, there is but one study that assesses the perceptions that students have about these drills. The present study seeks to fill such a gap by exploring how students in a large New York school district feel about their safety and preparedness in the wake of receiving instructional training and undergoing several lockdown drills.”

Zhe, E. J., & Nickerson, A. B. (2007). Effects of an intruder drill on children’s knowledge, anxiety, and perceptions of school safety. *School Psychology Review, 36*(3), 501–508. Full text available at <https://www.researchgate.net/publication/289071568_Effects_of_an_Intruder_Crisis_Drill_on_Children%27s_Knowledge_Anxiety_and_Perceptions_of_School_Safety>

*From the abstract:* “In response to calls to evaluate the effectiveness of school crisis drills, this study examined the effects of children’s crisis drill participation on their knowledge, skills, state anxiety, and perceptions of school safety. Using a between-subjects, post-test only design, 74 students in the fourth, fifth, and sixth grades participated in an intervention (training session plus intruder drill) or a placebo control condition and completed measures about knowledge of drill procedures, state anxiety, and perceptions of safety. The intervention group attained a higher post-test scores of knowledge; however, there were no group differences in state anxiety or perceptions of school safety. Observations indicated the intervention group acquired the skill of safe relocation during the drill. Findings suggest that drills implemented according to best practice may have the potential to increase short-term knowledge and skill acquisition without subsequently altering anxiety or perceived safety.”

**Additional Organizations to Consult**

National Association of School Psychologists—<https://www.nasponline.org/>

*From the website:* “The National Association of School Psychologists (NASP) is a professional association representing more than 25,000 school psychologists, graduate students, and related professionals throughout the U.S. and an additional 25 countries worldwide. As the world’s largest organization of school psychologists, NASP works to advance effective practices to improve students’ learning, behavior, and mental health. Our vision is that all children and youth thrive in school, at home, and throughout life.”

NASP has three publications relevant to this request:

Cowan, K. C., Vaillancourt, K., Rossen, E., & Pollitt, K. (2013). *A framework for safe and successful schools*. National Association of School Psychologists. Available from <https://www.nasponline.org/resources-and-publications/resources-and-podcasts/school-climate-safety-and-crisis/systems-level-prevention/a-framework-for-safe-and-successful-schools>

NASP. (2017). *Best practice considerations for schools in active shooter and other armed assailant drills: Guidance from the National Association of School Psychologists and National Association of School Resource Officers*. Available at <https://www.nasponline.org/resources-and-publications/resources-and-podcasts/school-climate-safety-and-crisis/systems-level-prevention/best-practice-considerations-for-schools-in-active-shooter-and-other-armed-assailant-drills>

NASP. (2018). *Mitigating negative psychological effects of school lockdowns: Brief guidance for schools*. <https://www.nasponline.org/resources-and-publications/resources-and-podcasts/school-climate-safety-and-crisis/systems-level-prevention/mitigating-psychological-effects-of-lockdowns#:~:text=Staff%20members%20should%20reassure%20distressed,will%20minimize%20anxiety%20and%20fear>

U.S. Department of Education, Office of Elementary and Secondary Education, Office of Safe and Healthy Students. (2013). *Guide for developing high-quality school emergency operations plans*. Author. Full text available from <https://rems.ed.gov/docs/School_Guide_508C.pdf>

*From the introduction:* “The guide is organized in four sections: (1) The principles of school emergency management planning. (2) A process for developing, implementing, and continually refining a school emergency operations plans (EOPs) with community partners (e.g., first responders and emergency management personnel) at the school building level. (3) A discussion of the form, function, and content of school EOPs. (4) “A Closer Look,” which considers key topics that support school emergency planning, including addressing an active shooter, school climate, psychological first aid, and information-sharing.”

1. **Age-appropriate drills**

Dickson, M. J., & Vargo, K. K. (2017). Training kindergarten students lockdown drill procedures using behavioral skills training. *Journal of Applied Behavior Analysis, 50*(2), 407–412. Abstract available from <https://eric.ed.gov/?id=EJ1136747> and full text available from <https://onlinelibrary.wiley.com/doi/abs/10.1002/jaba.369>

1. **Effects of drills on school emergency preparedness**

Jonson, C. L. (2017). Preventing school shootings: The effectiveness of safety measures. *Victims & Offenders,* *12*(6), 956–73. Full text available at <https://www.researchgate.net/publication/320606273_Preventing_School_Shootings_The_Effectiveness_of_Safety_Measures>

Jonson, C. L., Moon, M. M., & Hendry, J. A. (2018). One size does not fit all: Traditional lockdown versus multi-option responses to school shootings. *Journal of School Violence, 19*(2), 154–166. Abstract available from <https://eric.ed.gov/?id=EJ1246814> and full text available for a fee from <https://www.tandfonline.com/doi/full/10.1080/15388220.2018.1553719>

Schildkraut, J., & Nickerson, A. B. (2020). Ready to respond: Effects of lockdown drills and training on school emergency preparedness. *Victims & Offenders*. Full text available for a fee from <https://www.tandfonline.com/doi/full/10.1080/15564886.2020.1749199>

1. **Effects of drills on student emotional wellbeing and emergency preparedness**

Huskey, M. G., & Connell, N. M. (2020). Preparation or provocation? Student perceptions of active shooter drills. *Criminal Justice Policy Review*, *32*(2). Full text available for a fee from <https://doi.org/10.1177/0887403419900316>

Nickerson, A. B., & Schildkraut, J. (2021). State anxiety prior to and after participating in lockdown drills among students in a rural high school. *School Psychology Review*. Full text available for a fee from <https://www.tandfonline.com/doi/full/10.1080/2372966X.2021.1875790>

Schildkraut, J., Grogan, K., & Nabors, A. (2020). Should schools be conducting lockdown drills? WestEd. Full text available from <https://eric.ed.gov/?id=ED606074>

Schildkraut, J., Nickerson, A. B., & Ristoff, T. (2020). Locks, lights, out of sight: Assessing students’ perceptions of emergency preparedness across multiple lockdown drills. *Journal of School Violence, 19*(1), 93–106. Abstract available from <https://eric.ed.gov/?id=EJ1239050> and full text available for a fee from <https://www.tandfonline.com/doi/full/10.1080/15388220.2019.1703720>

Zhe, E. J., & Nickerson, A. B. (2007). Effects of an intruder drill on children’s knowledge, anxiety, and perceptions of school safety. *School Psychology Review, 36*(3), 501–508. Full text available at <https://www.researchgate.net/publication/289071568_Effects_of_an_Intruder_Crisis_Drill_on_Children%27s_Knowledge_Anxiety_and_Perceptions_of_School_Safety>

## Appendix A: Senate Bill 541

SB 541, Bates. School safety: lockdown drills and multi-option response drills: report.

Existing law requires school districts and county offices of education to be responsible for the overall development of a COMPREHENSIVE SCHOOL SAFETY PLAN for each of its schools operating a kindergarten or any of grades 1 to 12, inclusive. Existing law requires, except as provided for a small school district, the school site council of a school to write and develop a COMPREHENSIVE SCHOOL SAFETY PLAN relevant to the needs and resources of that particular school. Existing law requires the COMPREHENSIVE SCHOOL SAFETY PLAN to include certain things, including the development of certain school safety policies and procedures, including procedures for conducting tactical responses to criminal incidents.

This bill would require the State Department of Education to collect, and local educational agencies to provide, data pertaining to lockdown or multi-option response drills conducted at school sites within school districts, county offices of education, and charter schools, as provided. To the extent the bill would impose additional duties on a local educational agency, the bill would impose a state-mandated local program. The bill would require the department to conduct, or contract to conduct, a study that identifies, among other things, best practices for age-appropriate drills. The bill would require the data and the study to be submitted to the Governor and relevant policy committees of the Legislature on or before November 1, 2021, as provided.

The California Constitution requires the state to reimburse local agencies and school districts for certain costs mandated by the state. Statutory provisions establish procedures for making that reimbursement.

This bill would provide that, if the Commission on State Mandates determines that the bill contains costs mandated by the state, reimbursement for those costs shall be made pursuant to the statutory provisions noted above.

DIGEST KEY

Vote: majority Appropriation: no Fiscal Committee: yes Local Program: yes

BILL TEXT

THE PEOPLE OF THE STATE OF CALIFORNIA DO ENACT AS FOLLOWS:

SECTION 1. Section 32289.5 is added to the Education Code, immediately following Section 32289, to read:

32289.5. (a) The department shall collect, and local educational agencies shall provide, data pertaining to lockdown or multi-option response drills conducted at school sites within school districts, county offices of education and charter schools providing instructional services to pupils in kindergarten or in any of grades 1 to 12, inclusive. The data may be collected from a representative sample of school sites, with a methodology to be determined by the Superintendent. Specifically, the department shall collect data including, but not limited to, all of the following information:

(1) The portion of school sites conducting drills and the population they serve.

(2) The types of drills performed and their frequency.

(3) Information about staff training in preparation for drills.

(4) Information pertaining to school site evaluations, if any, of the drill impacts.

(5) Information pertaining to staff and parental notifications of drills.

(b) The department shall either conduct, or contract with a nonprofit research entity to conduct, a study that identifies best practices for age-appropriate drills, the effectiveness of lockdown or multi-option response drills in schools, and the effects drills have on pupil emotional wellbeing and emergency preparedness.

(c) (1) The department shall submit to the Governor and relevant policy committees of the Legislature on or before November 1, 2021, a report containing data collected pursuant to subdivision (a) and findings and recommendations from the study conducted pursuant to subdivision (b).

(2) Pursuant to Section 10231.5 of the Government Code, this subdivision shall become inoperative on November 1, 2025.

SEC. 2. If the Commission on State Mandates determines that this act contains costs mandated by the state, reimbursement to local agencies and school districts for those costs shall be made pursuant to Part 7 (commencing with Section 17500) of Division 4 of Title 2 of the Government Code.

## Appendix B: Definitions of Drills

**Lockdown:** A response to a situation that presents an immediate and ongoing danger to the safety of students, faculty, staff, and visitors by a person using firearms or other types of weapons or engaging in behaviors deemed to pose a threat to the safety of the school.

**Multi-option:** A response that is a procedure that allows for multiple response options depending on the nature of the emergency; based on situational awareness, staff may determine the best option or response such as lockdown, evacuate/escape, drop-cover-hold, or other.

**Drop-cover-hold:** A standard response to earthquakes. Drop where you are onto your hands and knees. Cover your head and neck with one arm and hand. Hold on to the shelter, and to head and neck until shaking stops.

**Shelter-in-place:** An action for all students, staff, and visitors to take shelter in a safe location indoors until there is an “all clear” release or direction to evacuate due to chemical, radiological, or environmental threat, active aggressor/shooter, severe weather, or other threat.

**Evacuation:** The immediate and urgent movement of students, faculty, staff, and visitors away from a threat or actual occurrence of a hazard due to fire, explosion, violent incidents, or other threats to immediate or local surroundings.

**Reverse evacuation:** The movement of all students, faculty, and staff who are outside of buildings into a designated indoor area in a safe and efficient manner due to severe weather, chemical, or environmental threats, active assailant/shooter situations, or other hazards.

**Reunification:** A safe, orderly, and documented reunion of students and families/guardians in the event of an emergency evacuation or school closing due to active aggressor/shooter, or damage to school property.

## Appendix C: Other Survey Responses

Table 6: Other modifications to training protocols/procedures implemented by survey respondents:

* Administrators frontload and forewarn educators and students
* Allow staff time for mental health consultations
* Inform parents in advance
* Violent videos edited/training content updated
* Staff not required to view videos
* Reduced volume of alarms; provide noise-cancelling headgear
* Updated evacuation procedures
* Accommodations for special education students
* Facilities repairs made
* Staff discuss real vs. practice situations
* Prepare very young students with evacuation training
* Additional adults made available during drills