Project SECURE: Keeping Kids Safe in San Francisco Unified School District

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FINAL SUMMARY OVERVIEW

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Purpose

The purpose of Project SECURE (Safety, Equity, Caring, Understanding, and Resilience) was to evaluate a trauma-informed multi-tiered system of support (MTSS) to strengthen the resilience of students who are the most vulnerable to adverse childhood experiences. Through Project SECURE, researchers from SRI International (SRI) and practitioners from San Francisco Unified School District (SFUSD) implemented and evaluated an evidence-based primary prevention program (Second Step) and targeted trauma-informed intervention (Bounce Back) in the district’s elementary schools while developing a model for replication and expansion to reverse students’ negative trajectories and boost their social and emotional and coping skills.

The project objectives of Project SECURE were to support the implementation and evaluation of (1) Second Step, a universal (Tier 1) social-emotional learning (SEL) intervention, while providing teachers with training and consultation to establish restorative, culturally responsive, and trauma-informed learning environments; (2) Bounce Back, a targeted (Tier 2) intervention for elementary students who have experienced traumatic stress, while providing school social workers (SSWs) with training and supervision to implement and sustain the intervention with fidelity; and (3) the San Francisco Student Assistance Program (City SAP), a multidisciplinary triage and referral team to provide students and their families who have intensive (Tier 3) needs with appropriate school- and community-based services.

As a Tier 1 SEL program, Second Step focuses on developing all students’ skills for learning, empathy, emotion management, friendships, and problem-solving. Teachers in more than 32,000 schools across the United States have implemented Second Step, and multiple research studies have shown that students who participate in the program have higher rates of prosocial behaviors and fewer antisocial behaviors compared to nonparticipants (Frey et al., 2005; Grossman et al., 1997; Taub, 2002). However, within an MTSS framework, Tier 1 prevention-based programs such as Second Step may not be sufficient to support students experiencing
significant traumatic stress. Therefore, targeted and intensive interventions such as *Bounce Back* may be necessary.

*Bounce Back* offers targeted (Tier 2) intervention strategies within a cognitive-behavioral therapeutic (CBT) framework. It focuses on building students’ skills in self-management, emotional regulation, relationship-building, coping, social support, and academic and life success. Trained clinicians deliver the manualized intervention within school environments, including group, parent, and individual components that engage children with traumatic stress, their peers, and caregivers in developmentally appropriate activities. Researchers have documented the efficacy of *Bounce Back* in reducing students’ symptoms of traumatic stress and anxiety in diverse elementary school populations (e.g., Langley et al., 2015; Santiago et al., 2018).

Despite the widespread adoption of these interventions, few studies have examined the separate and combined effects of *Second Step* and *Bounce Back* on students’ behavioral and academic outcomes within an MTSS framework. In Project SECURE, SRI researchers examined the impact of *Bounce Back* on the emotional, behavioral, and academic outcomes of students with traumatic stress and, further, examined the extent to which participation in *Second Step* differentially affected these outcomes. In doing so, we addressed the following research questions:

1. Did students participating in *Bounce Back* experience significantly better social and emotional outcomes compared to peers in a comparison condition?

2. Did students participating in both *Bounce Back* and *Second Step* have differential social and emotional outcomes compared to *Bounce Back* students in schools not implementing *Second Step*?

3. Did the impact of *Bounce Back* differ by student characteristics (e.g., gender, grade, race/ethnicity) and baseline scores?

4. To what degree did SFUSD teachers implement *Second Step* and SSWs implement *Bounce Back* with fidelity?
Project Participants

SFUSD is a diverse urban district serving 64 elementary schools and 27,450 students in grades K–5. The student population includes 27% multilingual learners (speaking 44 languages), 61% eligible for free or reduced-price meals, 41% Asian, 23% Latinx, 11% White, 10% African American, and 10% multiracial students. Project SECURE participants included students in 36 of SFUSD’s elementary schools. SFUSD administrators selected schools for participation based on the staff’s readiness and willingness to participate in Project SECURE and the novelty of the Second Step intervention (i.e., a majority of the teachers at a school had not previously or consistently implemented the program).

Each year of the four-year study, SRI researchers randomized a cohort of the participating schools into one of two groups: the Second Step intervention group or the wait-list comparison group. To improve the likelihood of group equivalence, we stratified participating schools on key variables (e.g., size, diversity, academic achievement) before randomization. Teachers in schools assigned to the Second Step group received training and implemented the program during the school year. Teachers in schools assigned to the comparison group received Second Step training and implemented the program the subsequent school year.

To increase the high-quality implementation and cultural relevance of Second Step in SFUSD classrooms, teachers received coaching and consultation from Teachers on Special Assignment (TSAs) to enhance their restorative, culturally responsive, and trauma-informed learning environments. TSAs provided weekly training sessions with all participating teachers and one-on-one consultation as requested, modeled, and co-taught lessons, conducted classroom observations and provided feedback, and routinely met with parent liaisons, family members, and school administrators to educate and encourage support of Second Step strategies.

**Bounce Back participants.** To identify students with elevated traumatic stress, SSWs facilitated screenings of students in the 36 participating study schools in collaboration with the schools’ Student Success Teams (SSTs). Eligible students for the Bounce Back intervention
included grade 4–5 students who had experienced one or more trauma events and presented accompanying symptoms of traumatic stress, as documented in school records or by SST members (e.g., classroom teachers, school nurse, school counselor, administrator, parent liaison) who knew the student well. The SSTs reviewed students’ cumulative files, state test scores and Individualized Education Program (IEP) status, attendance, health needs, and discipline referrals to flag any emotional, behavioral, or academic concerns. The SSTs also completed adverse childhood experience (ACE) checklists to indicate students’ known trauma experiences. After SSTs identified students with concerns based on data and trauma exposure, the teachers completed an internalizing and externalizing symptoms checklist based on the Systematic Screening for Behavior Disorders (Walker & Severson, 1992). Eligible students for the study were those who

- had at least one symptom endorsed by their teachers on the symptoms checklist;
- had at least one event on the ACE checklist (i.e., had experienced trauma);
- had at least one academic, attendance, or behavior/social-emotional concern as evidenced in school data; and
- were considered by SSWs and teachers to be able to participate fully and appropriately in a group therapy environment (e.g., based on maturity level, attention/behavior issues, language skills).

Of the total 3,535 students screened across participating schools, the SSTs identified 671 (19%) who were eligible for Bounce Back. The SSWs sought consent from parents and assent from students to participate in the intervention study; more than two thirds (69%) agreed.1

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1 Not all eligible students were invited to participate in the study due to exclusion criteria, which included students not being deemed group-ready, a group reaching maximum capacity of students, or SSWs lacking capacity to deliver Bounce Back in the preferred language of the students.
Project Design and Methods

SRI researchers conducted a multicohort, mixed-methods design to test the efficacy of Project SECURE’s trauma-informed MTSS to improve students’ skills, behaviors, and well-being. We examined the efficacy of *Second Step* (Tier 1) and *Bounce Back* (Tier 2) concurrently via two randomized controlled trials (RCTs; Figure 1). This design resulted in four distinct groups: (1) students who received *Second Step* and *Bounce Back*, (2) students who received *Second Step* but did not receive *Bounce Back*, (3) students who did not receive *Second Step* but received *Bounce Back*, and (4) students who did not receive either program. We also collected descriptive data on the referral and triage activities of the Tier 3 City SAP team.

**Second Step RCT.** SRI researchers randomized the 36 participating schools to either a *Second Step* (*n* = 18) or comparison (*n* = 18) condition. All students in *Second Step* schools participated in up to 22 lessons a year implemented by their classroom teachers. The lessons addressed empathy, impulse control, and anger management. To measure the dosage, adherence, and quality of *Second Step* implementation, participating teachers completed a teacher survey each trimester. The survey documented the teachers’ time spent implementing lessons, their adherence to the lesson plan, and their perceptions of students’ engagement and of the contribution of the lessons to enhancing students’ social-emotional skills.
SRI researchers assessed the impact of Second Step using data from SFUSD’s routinely administered the School Culture-Climate Survey (SCCS) to all parents, staff, and students in grades 4–5. Developed as a common tool across eight California school districts, the SCCS assesses school climate indicators in the four areas that have been found to predict positive student academic achievement: teaching and learning, interpersonal relationships, safety, and school–community engagement. We also used students’ state academic English language arts (ELA) and mathematics achievement test scores, absences, and school suspensions to evaluate the impact of Second Step at the school level.

**Bounce Back RCT.** In each of the 36 participating schools, SSWs screened students for trauma exposure and symptoms (as described above) and obtained consent from eligible participants. SRI researchers then collected baseline data with all participants and randomized students to either the Bounce Back or a wait-list comparison group.

Students in the Bounce Back group at each school participated in 10 weekly 1-hour CBT group sessions during a nonacademic period of the school day, beginning in the fall and concluding in the spring. Each Bounce Back group included two to eight students. In each session, the school SSW introduced a set of CBT techniques to combat the emotional and behavioral symptoms of trauma through a mix of didactic presentation, age-appropriate examples, and practice activities. Students randomized to the comparison group did not participate in Bounce Back or similar treatment groups. The SSW provided “typical” services to these students, using routine resources and processes available in their school. To measure dosage, adherence, and quality of Bounce Back, the SSW tracked student attendance in the treatment group and self-rated their fidelity to the manual after each session on an implementation checklist created by the Bounce Back developers. To increase fidelity and quality of implementation, all SSWs attended weekly group supervision meetings with their peers, mentor SSWs, and certified Bounce Back trainers to discuss challenges and best practices.
SRI researchers assessed the impact of Bounce Back on student outcomes with two measures. We used the Screen for Child Anxiety Related Emotional Disorders: Child Version (SCARED-C; Birmaher et al., 1999), a 41-item self-report of anxiety symptoms with subscales including panic disorder (13 items), generalized anxiety disorder (9 items), separation anxiety disorder (8 items), social phobic disorder (7 items), and significant school avoidance symptoms (4 items). We also used the Social Adjustment Scale – Self-Report for Youth (SAS-SR-Y; Weissman et al., 1980), a measure of school behavior (6 items), social behavior (9 items), and family behavior (6 items). We collected baseline data each fall, after obtaining consent and before randomization, and we collected posttest data approximately 15 weeks later for students in both Bounce Back and comparison groups.

**Data Analysis**

SRI researchers accessed extant school-level data to evaluate the impact of Second Step. These data included SCCS aggregate data across the four areas of school climate (teaching and learning, interpersonal relationships, safety, and school–community engagement), data from the state-administered ELA and mathematics assessments, and total excused and unexcused absences and suspensions per 100 students in the 36 participating schools.

SRI researchers examined the main impact of Bounce Back, differential effects of Bounce Back for participants in schools implementing Second Step, and differential effects of Bounce Back among subpopulations of students. The final analytic sample included 196 students ($n = 102$ in the treatment group; $n = 94$ in the comparison group) from only 23 of the participating schools due to school closures as a result of the COVID-19 pandemic.²

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² Due to the COVID-19 pandemic, schools ceased in-person instruction in March 2020, during the implementation phase of Cohort 3. The Bounce Back analytic sample includes data from students who completed the program in previous cohorts or before schools closed in 2020 (i.e., 10 schools each from Cohorts 1 and 2, and 3 schools from Cohort 3).
SRI researchers analyzed Bounce Back efficacy using two-level hierarchical linear modeling (HLM; Raudenbush & Bryk, 2002; Singer & Willett, 2003). We chose HLM because of the multilevel structure of the data (students nested in schools) and our attempt to avoid a biased estimation of regression coefficients and variance components (Kim & Frees, 2006; Murray, 1998). Treatment specification aligned with level of assignment: the Second Step treatment indicator was specified at the school level, and the Bounce Back treatment indicator was specified at the student level. We added student baseline measures and demographic characteristics (i.e., gender, grade, race/ethnicity) to Level 1 and included a cohort indicator in Level 2 to reduce residual error and increase power.

Findings

Attrition and baseline equivalence. There was no attrition at the school level. At the student level was low: the Bounce Back group had 9% attrition, and the comparison group had 13% attrition. Our descriptive baseline equivalence analyses, as determined by t-tests (p < .05), indicated that students in the Bounce Back group were not significantly different from students in the comparison group on demographics or baseline assessment scores.

Fidelity of implementation. Second Step lessons are designed to be delivered for 15–20 minutes weekly, depending on students’ grade level. SRI researchers compiled teacher implementation survey data across study years and conducted descriptive analyses to assess dosage and adherence to the Second Step protocol. Our descriptive analyses indicated that 16% of teachers reported spending 15 minutes or less delivering the weekly lessons (i.e., low dosage), 46% reported spending 16–30 minutes (i.e., adequate dosage), and 38% reported spending more than 30 minutes (i.e., high dosage). Further, most teachers rated their level of adherence

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3 In Cohort 3, SRI researchers could not complete posttest data collection in seven schools due to pandemic-related school closures. These schools were not considered “attrited” because “losing sample members after random assignment because of acts of nature ... is not considered attrition when the loss is likely to affect intervention and comparison group members in the same manner” (What Works Clearinghouse, 2020, p. 11).
as average or higher (94%), student engagement as average or higher (93%), and the contributions of the lessons to enhancing students’ social-emotional skills as average or higher (91%).

Analysis of the implementation fidelity of *Bounce Back*, based on the SSWs’ completion of the implementation checklist after each of the 10 weekly group sessions, revealed that students, on average, attended 89% of the weekly lessons (i.e., high dosage). Further, the SSWs adhered to the lesson protocols to a high degree (delivering 77% of the prescribed steps) and with high quality (rating 88% of the lessons as abiding to CBT principles).

**Analysis of main effects.** To analyze extant data related to *Second Step* expected outcomes (i.e., school climate, student achievement, attendance, and behavioral data), SRI researchers ran regression models on all posttest measures while covarying baseline measures. Ultimately, we found no significant effects across all school-level measures.

SRI researchers derived primary estimates of the impact of *Bounce Back* from intention-to-treat (ITT) analyses. Our findings revealed that students in the *Bounce Back* group reported significantly reduced separation anxiety disorder ($\beta = 1.64, p < 0.05, g = -0.27$) and total anxiety ($\beta = 4.40, p < .05, g = -0.20$) at posttest, compared to students in the comparison group. We detected no significant differences between the *Bounce Back* and comparison groups on the SAS-SR-Y.

**Interaction effects.** To examine whether program outcomes were constant or varied across contexts and characteristics, SRI researchers assessed the presence of differential *Bounce Back* treatment effects across student subgroups and school factors. Our moderation analyses showed that the *Bounce Back* by *Second Step* interaction term was not significant, indicating that the effect of *Bounce Back* did not differ based on whether students were in schools that implemented *Second Step* or not. Moderation analyses examining the differential impact of *Bounce Back* by gender, grade, race/ethnicity, or baseline social and behavior scores also
showed that the positive effects of *Bounce Back* were not differentiated by various subpopulations.

**Qualitative analysis of Tier 3.** SRI researchers qualitatively analyzed interview data gathered from key members of the City SAP team. This team comprised representatives from SFUSD’s School Health and Pupil Services Programs, Special Education Department, and Student, Family, and Community Support Department and from the San Francisco Department of Health’s School Based Mental Health Team. The interview data revealed much about the team’s perceived accomplishments in planning, membership, and sustainability. Findings include the following:

- City SAP successfully brought together dedicated team members representing diverse perspectives and expertise to collaborate on constructive solutions to common problems rather than remain in their professional “silos.”
- City SAP established shared goals and strategies for identifying and serving SFUSD students and their families with Tier 3 needs.
- City SAP streamlined and standardized intake procedures to gather eligibility and demographic information about referred students and families.
- City SAP delivered timely consultative services and supports to practitioners, students, and families at the local building level.

SRI researchers also learned ways the City SAP team members believed their work together could be strengthened:

- By providing SFUSD teachers and other school staff with training on MTSS and City SAP services to clarify the purpose of the team and methods to support students with intensive behavioral and academic needs.
- By reducing data sharing obstacles between SFUSD and the Department of Health and the redundancies in Tier 3 support meetings.
• By developing feasible methods to gather data on the implementation of Tier 3 action plans devised by the City SAP team, monitor student access and outcomes, and continue to improve the efficiency and effectiveness of the City SAP process and practices.

Conclusion and Implications for U.S. Criminal Justice Policy and Practice

In this mixed-methods study, SRI researchers examined the efficacy of a Tier 1 intervention (Second Step) and a Tier 2 intervention (Bounce Back) delivered concurrently, and we collected descriptive data on the referral and triage activities of a Tier 3 multidisciplinary team (City SAP). Our purpose was to examine whether students with elevated traumatic stress who participated in Bounce Back significantly improved on measures of emotional-behavioral symptoms, and whether participants attending a school whose staff also implemented Second Step would show added benefit.

The nonsignificant results of the Second Step evaluation need to be considered in the context of the study design and resulting limitations on data collection and analysis, based on a slightly underpowered sample of 36 schools. SRI researchers randomized participants at the school level, and our extant outcomes measures available for analysis included only aggregated school-level climate survey, academic state achievement tests, and schoolwide behavioral data. We were unable to obtain individual student- or item-level data from the SFUSD-administered SCCS surveys or from student-level social-emotional learning report card grades.

Although we found no statistically significant differences between Second Step and comparison schools on school-level measures after only 1 year of implementation, we consider some results to be promising and indicative of trends that could continue to demonstrate positive effects if longitudinal data were tracked. For example, the rate of unexcused absences per 100 students in comparison schools increased 27% during the implementation year (from...
427 to 542), while the rate in Second Step schools increased only 3% (from 530 to 547). Additionally, suspensions per 100 students decreased 13% in Second Step schools during the implementation year (from .957 to .831), while suspensions increased 9% in comparison schools (from .575 to .626). Given that previous effectiveness studies have shown that Tier 1 interventions must be implemented for up to 3 to 5 years before demonstrating significant school-level effects (Shapiro, n.d.), we believe that sustained implementation and evaluation are necessary to determine the efficacy of Second Step in SFUSD.

Results indicated that students in Bounce Back self-reported significantly fewer separation anxiety disorder symptoms and total anxiety symptoms—key targets of the intervention—than the comparison group at posttest. These significant reductions in emotional concerns are consistent with previous Bounce Back research (Langley et al., 2015; Santiago et al., 2018). However, the effect of Bounce Back did not differ based on whether students were in schools that implemented Second Step or not. Bounce Back, designed to help students cope with and recover from symptoms of traumatic stress and anxiety, coupled with Second Step, which teaches foundational social-emotional learning skills to all students, did not differentially “boost” positive outcomes. Although it is surprising that a broad-based SEL curriculum did not promote a more healing, positive, and trauma-informed environment that would add value to and enhance students’ well-being, particularly for students enduring the consequences of trauma, perhaps these findings also suggest that only 1 year of Second Step implementation was not salient enough to impact Tier 2 students’ self-reported levels of school adjustment and anxiety.

Policy and practice recommendations emerging from Project SECURE may assist U.S. Department of Justice and U.S. Department of Education (ED) personnel in formulating specific

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4 We calculated absentee and suspension rates per 100 students to standardize data across schools with different size enrollments. We then grouped Second Step schools and comparison schools and compared the rates within and across groups from baseline to posttest. To calculate the average rates for a school with 300 students, for example, multiply the figure (e.g., 530 unexcused absences) by 3; a school with 300 students logged 1,590 unexcused absences on average during that school year.
guidelines for the field. For example, in *Guiding Principles: A Resource Guide for Improving School Climate and Discipline*, ED (2014) recommends the use of restorative justice as an alternative to disciplinary exclusions as well as the creation of school structures that enable students, teachers, administrators, parents, and community stakeholders to work together. However, concrete strategies to translate these recommendations into practice are still lacking. Project SECURE sheds light on strategies to integrate preventive and restorative practices into school climate improvement (e.g., teacher coaching support from TSAs), how to implement evidence-based and trauma-informed targeted interventions (e.g., train and provide routine supervision or mentorship to SSWs), and how to examine data from multiple respondents (e.g., teachers, parents, students, practitioners) that are helpful for continuous quality improvement and for monitoring fidelity of implementation.

Further, the comprehensive multi-tiered framework, implemented and evaluated in the unique cultural context of SFUSD—within neighborhoods with high concentrations of African American, Asian, and Latinx students—provides a valuable contribution to our existing body of knowledge. It illustrates what it takes to universally screen elementary school students for traumatic stress and to implement and sustain tiers of trauma-informed interventions and supports. It also shows the necessity of longitudinal implementation and data examination at both the school and individual levels to assess the effects of schoolwide programs, and the impact of evidence-based targeted interventions on students with Tier 2 needs resulting from adverse childhood experiences and traumatic stress.
References


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