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Introduction, Absolute Priorities, and Competitive Preference Priorities

Sesame Workshop, Communities In Schools (CIS), and American Institutes for Research (AIR), are pleased to submit our proposed Education Innovation and Research (EIR) early-phase project, **Sesame Street in Communities (SSIC)**.

This project addresses two Absolute Priorities and two Competitive Preference Priorities: **Absolute Priority 1**: Demonstrates a rationale; and **Absolute Priority** 4: Field-initiated innovations—Meeting Student Social, Emotional, and Academic Needs; **Competitive Preference Priority 1**: Promoting equity in student access to educational resources and opportunities; and **Competitive Preference Priority 2**: Addressing the impact of COVID-19 on students, educators and faculty.

Sesame Workshop, the non-profit behind *Sesame Street*, has a long history of helping children grow smarter, stronger, and kinder. Our programs, rooted in research, aim to foster resilience, nurture physical and mental health, and provide critical early learning opportunities through multimedia resources and professional development opportunities. Partnerships are critical to our approach and allow Sesame Workshop content to be fully integrated into schools and community systems where they are needed most. CIS is a national network of independent organizations and licensed partners, working in more than 2,500 schools and community sites to address the complex barriers to learning that can keep students from achieving their full potential.

The proposed consortium (Sesame Workshop and CIS, along with external researcher, AIR) will develop, implement, and rigorously test an intervention, Sesame Street in Communities (SSIC).

SSIC is a combination of training and resources to equip providers working in schools and classrooms ("site coordinators") to develop children's social and emotional skills and resilience. The proposed intervention seeks to leverage the SSIC model to increase social emotional competencies, school engagement, and reading achievement among high need students in PreK – 2nd grade and build self-efficacy among site coordinators and caregivers to support children to cope with adverse childhood experiences.

The proposed project will be implemented with high need students and their caregivers in sixty CIS partner Title I schools in Nevada and North Carolina. 91% of CIS schools are Title I eligible and 81.7% of case managed students are eligible for Free and Reduced Lunch, indicating that CIS reaches the most vulnerable students. Site coordinators lead a data-driven needs assessment to identify the highest need students, promoting equity in access to resources and opportunities through small group and individual intervention support throughout the school year.

The proposed project builds on the promising results from an SSIC pilot in CIS schools in West Virginia, conducted with 408 children and 160 caregivers. Implemented during the height of COVID disruptions, the program had a significant positive effect on the social emotional skills of students exposed to the SSIC resources, above and beyond the average gains experienced by students who did not receive the resources. Parents found the resources easy to use and because of the program, they have more tools to help their child handle big feelings, and they feel more confident answering their child's questions about emotions (Sesame Workshop, 2021).

An early phase EIR grant will allow us to test the feasibility of this model (integrating the SSIC training and resources into CIS programming) and validate promising research results through more rigorous research design and at a larger scale. AIR will test the impact of the SSIC program on site coordinator, caregiver, and student outcomes through a rigorous evaluation designed to meet What Works Clearinghouse standards without reservations. The model will be tested in four pilot schools (two in Nevada, two in North Carolina) to analyze implementation of SSIC and refine the program for the evaluation phase. AIR will then test the impact of SSIC in an additional 54 schools, with 54 CIS site coordinators and approximately 1,050 students and their families in Nevada and North Carolina. The proposed project will result in a package of resources and training protocol that will likely prove to be an efficient, effective, and scalable solution to develop the social emotional skills and resilience that are critical to driving school engagement and academic success.

C. Significance

Toxic stress from Adverse Childhood Experiences (ACEs) can alter brain development and affect responses to stress. ACEs are linked to chronic health problems, mental illness, and substance misuse in adulthood. More than ¼ of children in the US have had at least one ACE by age 4. (Novoa C. & Morrissey T., 2020), with increased prevalence among children in low-income families (Child and Adolescent Health Measurement Initiative, 2016).

The COVID-19 pandemic exacerbated the experience of trauma for children who are already dealing with abuse, neglect, or other household challenges like parental addiction. Research suggests that the COVID-19 pandemic increased parental stress and social/physical isolation,

particularly among already marginalized communities. Recommendations from this research suggest response efforts build on protective factors for children and families, including supporting caring, safe relationships between children and their communities and participation in activities which support social and emotional wellbeing (Srivastav et al., 2021)

Social emotional skills have a significant, positive impact on children's resilience (the ability to overcome hardship) which is a major protective factor in a person's well-being and mental health, even if that person experiences trauma or ACEs (Campbell et al., 2016; Masten, 2001). Resilience and social emotional competencies are particularly important for children from low-income backgrounds who are regularly in high-risk environments (Bulotsky-Shearer et al., 2012; Nix et al., 2013). More specifically, exposure to resilience-supporting resources have been found to help moderate the impact of ACEs (Logan-Greene et al., 2014). Children's social emotional skills affect their development in multiple domains, including school readiness and learning. Children with stronger social emotional skills have better relationships with adults, enjoy more academic success, and demonstrate more resilience than children who have not developed strong social emotional skills (McCabe & Altamura, 2011; Campbell et al., 2016).

Yet, there continues to be a paucity of accessible, quality child-facing resources and training opportunities for caregivers, service providers, and educators to support children's development, particularly around key social emotional areas for young children. With limited social emotional competencies leading to an array of developmental challenges, the need for these kinds of interventions and resources is clear and critical. Sesame Workshop developed SSIC in response to prior needs-sensing research that identified that primary caregivers do not have access to

quality, trustworthy materials to support children's overall developmental, especially social and emotional skills and resilience-building in coping with traumatic experiences (Sesame Workshop, 2015a). Section B1 provides details on the findings of this assessment and how we used it to inform the proposed project design.

The 12-week SSIC intervention includes 8-weeks of content on resilience skills and an additional 4-weeks on specific topics selected by each community, such as parental addiction, grief, and gun violence. Site Coordinators will receive professional development including introductory training, with articles on resilience skills for their own education and implementation tips on how to best use the resources with students and caregivers. Ongoing implementation support webinars help Site Coordinators learn new content, plan for implementation, and troubleshoot challenges. The proposed research will measure the outcomes of this program and its impact on caregiver and provider self-efficacy, as well as student social and emotional competencies, school engagement and reading achievement.

This approach builds on the implementation model as piloted in West Virginia by:

- Establishing a more systematic way of implementing the scope and sequence (i.e. the amount of content/resources and the order in which it is presented) with applied feedback from CIS partners who implemented the program in West Virginia. By doing so, we ensure a streamlined and coherent model for potential scale up.
- Expanding offering available to caregivers to enhance a greater level of student home and school connection, including testing various strategies to measurably increase family engagement and self-efficacy levels. This improved practice is especially critical in the

aftermath of COVID-19 and the heightened importance of caregiver/child relationships on family mental health (Srivastav et al., 2021).

- Expanding the amount of time available to site coordinators to familiarize themselves with the resources, implementation plan, and data collection procedures, based on feedback from coordinators in West Virginia
- Addressing additional, contextually appropriate topic areas that communities can select after completing the core trauma & resilience course

The validated model and the findings from rigorous research have the potential to inform a variety of programs that support child outcomes and have wider implications given the Biden Administration's focus on supporting children and their families in a post-pandemic context. Early learning and social emotional skills are key features of the Administration's agenda in mental health support, reversing learning loss, and accelerating academic achievement. A validated and scalable model for integrating high-quality resources into school support systems and establishing protective SEL skills can improve how students and their families interface with SEL and resilience resources and support improved development outcomes in the long-term.

B. Quality of the Project Design

B.1. Conceptual Framework

The proposed project, SSIC, is built on a robust foundation of research and pilot testing, including advisory meetings and formative research. Beginning in 2015, a set of advisory meetings were convened with leading experts in relevant fields to inform the initial project and concept design. As detailed in the SSIC National Advisory Meeting Report (Sesame Workshop, 2015b), key recommendations affirmed that Sesame Workshop's unique role as a trusted brand

and respected source of research-proven content positions the initiative well to achieve several critical objectives for vulnerable families. Among the key recommendations from these advisory meetings were the following: (a) leverage Sesame Workshop's trusted voice and content addressing traumatic situations commonly faced by vulnerable families from a child-centric perspective; (b) use various technology platforms and be creative about how we reach families; and (c) fill the existing gaps in services by bringing organizations and providers together. Following the advisory meetings, formative and exploratory research were conducted to gauge appeal and comprehension of prototype resources and explore how resources could be used by partners and what barriers might hinder their use. Key findings from this research influence the structure of and provides the rationale for the proposed conceptual framework, namely:

- A clear need: Caregivers and providers little to no access to reliable print or online resources for supporting child development, particularly around sensitive topics, like trauma, grief, community and gun violence or parental addiction.
- Utility and Appropriateness of Resources: Caregivers reported SSIC resources were useful, entertaining, easy to understand, age-appropriate, educational.
- Self-efficacy: Many caregivers reported an increase in proactive parenting and confidence around strategies for dealing with their child's behavior and emotions. The research also showed a statistically significant and practically meaningful impact on providers' self-efficacy with respect to their perceived resources to support caregivers.

Through this research SSIC resources and approach evolved. The components below (Table 1) were created through iteration and integration of feedback from advisors, providers, and families and, in the proposed project, will be implemented by Site Coordinators in partner schools.

Table 1: Core Components of Sesame Street in Communities (SSIC)

Components	Description
SSIC Resources for Students & Families	Resources for students and families include videos, storybooks, printables curated into a 12-week scope & sequence, with 8-weeks of core content for all participants and 4-weeks of additional choice topic area modules.
Site Coordinator Professional Development	**Site Coordinator Training** Digital course with training, overviews of resources, & implementation tips from CIS site coordinators **Implementation Support Webinars** Providers participate in bi-weekly and/or monthly implementation support webinars co-hosted by Sesame and CIS
Provider Implementation with Students	CIS Site Coordinators implement resources with case managed students in small groups during pull out intervention sessions
Provider Implementation with Families	CIS Site Coordinators share aligned resources with families in various formats (digital, print, etc.)
Comfy Cozy Nests	Sesame Street wall decals and other physical materials to visually denote a comforting space for students

The logic model describes the throughline between these components, activities and outcomes for site coordinators, caregivers and students (see Appendix G). The logic model posits that

implementing these core components will 1) increase Site Coordinator efficacy to support students in Grade K-2 cope with ACEs, 2) increase Caregiver efficacy in supporting their children cope with ACEs and foster a home-school connection, and 3) increase student's social and emotional skills. We expect these improvements to strengthen student engagement and achievement in school. We will be using student attendance as an indicator for engagement (Balfanz & Byrnes 2012; Ehrlich, Gwynne, & Allensworth, 2018) and reading as our academic achievement outcome. Empirical evidence demonstrates positive effects of social-emotional interventions on early reading achievement (Ashdown & Bernard, 2012; Smith-Adock, Leite, Kaya, & Amatea, 2019) and early reading and social-emotional competencies are significant predictors of later academic achievement (Cooper et al., 2014).

B.2. Goals, Objectives, Strategies, and Measures

The project's goal is to improve social and emotional competencies in students in K-2nd Grade by improving CIS Site Coordinator and Caregiver self-efficacy to support students in coping with ACEs. Further, based on existing research, we expect social emotional outcomes to drive increased school engagement and reading achievement outcomes, as well. To achieve this programmatic goal there are four objectives: (1) design the SSIC intervention; (2) pilot and refine the SSIC intervention; (3) test SSIC for impact; and (4) disseminate findings about SSIC. Each objective has clear outcomes and is measurable. See Appendix J, Exhibit A: Strategies, Outcomes and Measures table, required attachment "Project objectives and Performance Measures Information" and Section D for more information.

B.3. Meeting the Needs of the Target Population

The proposed project will be implemented via CIS in Title I schools which have a larger number of low-income students. Children from low-income households are more likely to be marginalized and experience at least one ACE. SSIC was designed for children who have experiences with ACEs and the proposed project is designed to buffer the negative effects of ACEs by building resilience and other social emotional skills that allow children to succeed in school and in life. The proposed implementation model, working through CIS site coordinators who engage high need students, will ensure that resources, designed to support the needs of these children, will meet these students where they are. We also know from our exploratory research that there is a high demand for these types of resiliency resources among caregivers and educators, particularly with the lasting impacts of COVID-19 on students and their families.

As part of the continuous quality improvement process of this grant and to ensure that the project continues to meet the needs of the target population, we will create an Advisory Board that will include CIS staff, site coordinators, and caregivers to provide feedback on the training, student-facing, and caregiver-facing materials, as well as on implementation plans, to ensure that strategies are feasible and meet their needs.

D. Quality of Project Personnel

SSIC will draw on the expertise and strong skill set of existing staff across the consortium. Sesame Workshop, as the lead applicant/lead project partner and content and curriculum creators for this intervention, will devote Sesame Workshop staff and leadership with training and experience in early childhood development, school- and community-based interventions, content

and experience creation, and project management. Sesame Workshop and its expert staff have a unique approach to creating high-quality, research-driven content that resonates with children. All Sesame Workshop key personnel have devoted their entire careers to improving child outcomes across domains of innovative content development, programming, and research. As lead implementing partner, CIS staff have extensive experience in project management, training, and innovation. CIS state-level affiliates, who will support the implementation of this project, have established relationships with schools in their regions and a unique understanding of the barriers to learning among their students. As the external research partner, AIR brings decades of experience developing and implementing rigorous evaluations and, moreover, the AIR staff dedicated to this project have experience and backgrounds in the education sector.

At the organizational level, all three organizations strive for diversity and equity in hiring practices and staffing decisions. Across hiring practices, Board of Director composition, and employee engagement, SW, CIS, and AIR embrace a diversity of perspectives and abilities and seek to maintain a representative workforce. This project and its dedicated staff will reflect those collective organizational values.

Key personnel are outlined below, including their role and responsibility under the proposed project. CVs are included in Appendix B.

- [redacted], SVP US Social Impact Programs - [redacted] will serve as a project advisor. She will provide supervisory oversight and guidance to the project.
- [redacted], VP US Social Impact Operations (SW PD) - [redacted] will serve as the project director. She will oversee the project timeline, budget and deliverables to

ensure the goals and outcomes shown above are met. [redacted] has extensive experience leading the design and implementation of innovative educational programs, working directly with schools to measure, iterate and scale innovative approaches.

- [redacted], Director, Education Experiences (SW PDL) - [redacted] will serve as professional development lead. He will collaborate with CIS to design and deliver training for CIS site coordinators and co-host the implementation support webinars.
- [redacted], Director, US Social Impact Research (SW RL) - [redacted] will serve as the research lead. In this role, he will be the primary point person in working with AIR.
- [redacted], Principal Researcher (AIR PI) - [redacted] will serve as the evaluation principal investigator. She will provide substantive, conceptual, and methodological leadership to all aspects of the evaluation and will enforce rigorous quality standards.
- [redacted], Senior Researcher (AIR PD) - [redacted] will serve as the evaluation project director. She will direct all research tasks and manage the evaluation timeline and budget to ensure progress on project objectives and milestones. [redacted] will be the primary point of contact for SW, CIS, and the participating districts.
- [redacted], Sr. Director of Learning and Practice (CIS IL) - [redacted] will serve as the implementation lead and primary point of contact with Sesame Workshop and AIR. [redacted] will be responsible for co-planning and co-facilitating trainings with the participating CIS affiliates and site coordinators. She will review ongoing feedback from the CIS network and interim analyses and make recommendations for programmatic improvements and enhancements.
- [redacted], Sr. Principal of Innovation and Strategic Initiatives - [redacted] will provide oversight and management throughout the project. [redacted] will work directly with

the Director of Data Quality to conduct data checks to identify any challenges with data and will engage contacts within local affiliates to troubleshoot and resolve any issues.

- [redacted], Director of Data Quality (CIS DL) - [redacted] will be the data lead and responsible for creating/modifying data fields within the CIS Data Management System (CISDM) to allow efficient capture of program implementation data, along with any new fields required for the evaluation. [redacted] will develop queries and/or reports to allow local affiliates, site coordinators and members of the CIS National team to monitor service delivery, goal progress, and end of program performance.

F. Quality of Management Plan

To meet the four project objectives, we propose the following management plan which effectively utilizes the strengths of individuals, teams, and organizations to ensure timely completion of project delivery and research. See Appendix J, Exhibit B for a detailed management plan with key roles and dates.

As the offeror, Sesame Workshop will serve as financial and procurement overseer for the proposed activities, as well as providing training, design and content support, quality control, and with clear communication and collaboration across partners. Sesame Workshop will lead the design of the SSIC intervention, with guidance from an Advisory Board which includes national experts, CIS staff, and caregivers.

CIS, as lead implementing partner, will be responsible for facilitating the selection of participant schools, coordination and management of CIS staff to ensure fidelity of implementation, and

data collection in collaboration with AIR. CIS affiliates, as the local implementing entity in Nevada and North Carolina, will work closely with CIS National, Sesame Workshop and AIR to ensure successful execution of the project. Specific responsibilities of CISNC and CISNV include: contributing staff time the initial SSIC training and ongoing support webinars; providing ongoing support to site coordinators use of the SSIC modules and resources; assisting AIR with the evaluation of the SSIC program by: 1) connecting AIR to designated school and district partners that will participate in the evaluation, 2) helping AIR to recruit schools from local affiliates to participate in the pilot study and efficacy study; 3) ensuring designated CIS site coordinators participate in data collection efforts including interviews, surveys, and focus groups, 4) supporting AIR in the recruitment of school leaders and parents/caregivers to participate in the evaluation, 5) ensuring timely recording in CISDM of student attendance in the case management sessions using the SSIC resources and other extant student data AIR can link to school- and district-level data and 6) ensuring site coordinators administer the Devereux Student Strengths Assessment (DESSA) social-emotional learning assessment provided by CIS National for each student participating in the efficacy study.

American Institutes of Research is an external evaluator for the project. AIR will lead the design and execution of all phases of evaluation for this project. For details, please refer to section E.

The Advisory Board will provide a unique and comprehensive lens in the design and iteration of SSIC and will include end user feedback by incorporating CIS site coordinators and families.

E. Quality of Project Evaluation

The American Institutes for Research® (AIR®) will evaluate *Sesame Street in Communities (SSIC)* in two phases: a pilot study phase, in which the evaluation will provide formative feedback about its usability and feasibility from an initial cohort of four schools to inform program improvements, and an efficacy study phase, in which the evaluation will provide causal evidence of SSIC's impact on site coordinators' self-efficacy to help students in Grades K–2 cope with adverse childhood experiences and on students' social and emotional competencies, school engagement, and reading outcomes using a 2-year randomized controlled trial in 56 schools. The efficacy study will meet What Works Clearinghouse (WWC) standards without reservations and will generate novel evidence for policymakers, practitioners, and researchers.

E1. Evidence That Meets WWC Standards

The evaluation will address the seven research questions shown in Exhibit E1. AIR will first conduct a pilot study (RQs 1–2) in four purposively selected elementary schools during the 2023–24 school year. The pilot study will provide formative feedback about the usability and feasibility of *SSIC* to inform refinements to (a) the site coordinator trainings and webinars, (b) the scope and sequence of the resources used with students (five modules over 12 weeks), and (c) the resources shared with caregivers (shared biweekly during 12 weeks). Next, AIR will conduct a school-level randomized experiment (RQs 3–7) with blocked random assignment of schools within CIS affiliates. Site coordinators in intervention schools will receive the *SSIC* training and resources to use with students identified for case management services and the caregivers of these students. Students identified for case management services in control schools will receive business-as-usual supports from their site coordinator. This design will yield causal estimates of the impact of *SSIC* resources on site coordinator, caregiver, and student outcomes.

Exhibit E1. Project Objectives, Research Questions, and Data Sources

Objectives	Research questions	Data sources
Pilot study (one cohort: 2023–24 school year)		
1. Develop the *SSIC* 2. Pilot and refine *SSIC*	**Usability/Feasibility Questions**	
	1. To what extent are the *SSIC* modules and their resources easy to understand and use for site coordinators and caregivers?	• Site coordinator interviews • School leader interviews • Caregiver survey
	2. What changes or additional supports are needed to improve the *SSIC* trainings for site coordinators and/or the modules for students?	• Training attendance records • Site coordinator logs • Site coordinator interviews • School leader interviews • Observations of training
Efficacy study (two cohorts: 2024–25 and 2025–26 school years)		
3. Rigorously test the impact of the *SSIC* on student outcomes 4. Disseminate learnings	**Implementation Questions**	
	3. To what extent is the *SSIC* implemented with fidelity?	• Training attendance records • Site coordinator logs • Caregiver survey • Fidelity rubric • Site coordinator survey
	4. What are the community and school contextual factors that support and/or hinder implementation of *SSIC*?	• Site coordinator focus groups
	Impact Questions	
	5. What is the impact of *SSIC* on site coordinators' and caregivers' self-efficacy to help students in Grades K–2 cope with adverse childhood experiences?	• Site coordinator survey • Caregiver survey
	6. What is the impact of *SSIC* on Grade K–2 students' social and emotional competencies, school engagement, and reading achievement?	• DESSA • District administrative records (attendance, reading assessments, demographics)
	Mediator Question	
	7. To what extent are changes in students' social and emotional competencies mediated by site coordinators' and parents'/caregivers' self-efficacy to help students cope with adverse childhood experiences?	• Site coordinator survey • Caregiver survey • DESSA • District records (see above)

Sample. During the pilot phase, AIR will gather data in four innovation sites: two in North Carolina and two in Nevada. We anticipate the pilot study sample to include four site

coordinators; 84 high-need students in Grades K–2 who are identified for case management services by school staff based on academic, behavioral, and/or social and emotional indicators; and 84 caregivers. For the efficacy study, we will recruit 56 schools across seven CIS affiliates in North Carolina and Nevada. CIS of North Carolina and CIS of Nevada are committed to participating in the study and asking their CIS site coordinators in schools assigned to the intervention to use the *SSIC* resources. We anticipate the efficacy study sample to include 56 site coordinators (28 intervention, 28 control) and roughly 1,050 high-need Grade K–2 students identified in the fall for case management services (525 intervention, 525 control) who are associated with 1,050 caregivers (525 intervention, 525 control).

With the sample of 1,050 students, we can detect a minimum detectable effect size (MDES) of 0.21 even with 10% attrition during the school year (see power analysis assumptions in Appendix J, Exhibit D). The student-level MDES is appropriate given meta-analyses of social-emotional interventions that demonstrated effects on social-emotional competencies larger than 0.21 (ES = 0.57; Durlak et al., 2011) and reading (ES = 0.25; Corcoran et al., 2018). For the caregiver sample of 1,050 caregivers, we also have an MDES of 0.19, accounting for 10% attrition, which is appropriate given that studies on parent interventions have demonstrated a larger effect size on parent self-efficacy (standardized mean difference = 0.57; Amin et al., 2018). With the proposed sample of 56 site coordinators and accounting for 10% attrition, the evaluation is powered to detect an MDES of 0.58. While larger than the student and caregiver effect sizes, these too are appropriate given prior studies of training interventions aimed at increasing attitudes and self-efficacy related to trauma-informed care that show effect sizes ranging from 0.50 to 1.00 (Parker et al., 2020; Purtle, 2020).

Pilot Study Measures. In the pilot year, AIR will conduct telephone **interviews with the four site coordinators** at three time points: immediately after the initial site coordinator training, after 6 weeks/three modules of implementation, and after the 12 implementation weeks/six modules. The interview protocol will include questions to understand coordinators' perceptions of the usability (i.e., clarity, relevance, and efficiency) and feasibility (i.e., ease of implementing within the local context) of the *SSIC* program and its resources (**RQ 1**). In addition, the protocol will gather feedback about the training, webinars, and modules, including about their dosage, duration, and density to identify opportunities to improve the program (**RQ 2**). Also, AIR will conduct caregiver surveys and interviews with school leaders that explore whether the *SSIC* resources are easy to understand and use (**RQ1**). **School leader interviews** will be conducted by phone or videoconference after the 12-week implementation window with one school leader in each pilot school. The research team will collaborate with pilot study site coordinators to administer a 10-minute **survey for caregivers** of the students who participated. This survey will gather information on how often caregivers used the resources as well as their perceptions of the resources' clarity, relevance, and ease of use with their child. AIR also will conduct **observations of the SSIC trainings and webinars** to collect data on participant engagement (**RQ 2**). AIR will use the Observation Checklist for High-Quality Professional Development (Gaumer Erickson et al., 2020). The checklist will measure the extent to which the training prepares participants for learning, contextualizes content, and engages participants in learning.

Implementation Measures for the Efficacy Study. Understanding estimated impacts (or the absence of impacts) requires knowing the extent to which the initiative was implemented with fidelity and what barriers and facilitators to implementation exist. ***Implementation Fidelity (RQ 3).*** AIR will use quantitative and qualitive data from multiple sources to understand

implementation fidelity, including training attendance records, site coordinator logs of the sessions with students, site coordinator surveys (post training), caregiver survey, and scores on an implementation fidelity rubric. Findings from the pilot study will inform the AIR team whether the *SSIC* trainings, modules, and resources were used as intended by the site coordinators and their perceived quality. These findings may lead to changes in the scope and sequence; the quantity and quality of the supports provided via webinars; and the content of the trainings, modules, and resources. AIR will develop an implementation fidelity rubric based on the refined *SSIC* program that rates intervention schools on implementation fidelity in terms of quantity and quality (see Appendix J, Exhibit E for an example rubric). The rubric will specify the data sources used to rate each indicator, along with thresholds for low, medium, and high levels of fidelity. Based on a review of randomized controlled trials that produce the intended impacts (Schmidt et al., 2020), the initial proposed thresholds for low (< 60%), moderate (60%–80%), and high (80% +) fidelity levels are based on the percentage of participants in the program and ratings on the quality of the trainings, modules, and resources. Project documentation records and attendance records are commonly used metrics for assessing implementation fidelity (Durlak, 2015), and the proposed thresholds (a) meet criteria for high fidelity as defined by a review of implementation literature (Hill & Erickson, 2019) and (b) permit further exploration of productive adaptations to inform continued program improvement (Quinn & Kim, 2017). AIR will include questions about supports that site coordinators provided to students in the follow-up time-point site coordinator surveys and use extant data from site coordinator logs to ascertain crossover exposure to the *SSIC* resources and to build understanding about the business-as-usual supports for students. ***Implementation Barriers and Facilitators (RQ 4).*** During the efficacy study, AIR will invite site coordinators in intervention schools to participate in one of four

virtual focus groups per cohort after the 12-week implementation window. Focus groups among intervention school site coordinators will identify facilitators of and barriers to implementation.

Outcome Measures for the Efficacy Study. WWC standards require that outcome measures demonstrate face validity, be reliable, be collected in the same way across conditions, and not be overaligned to their intervention. All proposed measures meet these requirements.

Self-Efficacy to Help Children Cope With Adverse Childhood Experiences (RQ 5). Site coordinators and caregivers in intervention and control schools will complete online surveys before and after *SSIC* to measure their self-efficacy and attitudes toward helping children cope with adverse childhood experiences. The site coordinator survey will use the 35-item education version of the Attitudes Related to Trauma-Informed Care (ARTIC) scale (see Appendix J, Exhibit H for the scale dimensions). The parent survey will include adaptations of existing measures of parenting self-efficacy such as the Self-Efficacy Parenting Tasks Index and the Parental Self-Agency Measure (see Appendix J, Exhibit H). ***Students' Social and Emotional Competencies (RQ 6).*** CIS will ask site coordinators in study intervention and control schools to complete the Devereux Student Strengths Assessment (DESSA) rating scales for students identified to receive case management services. The DESSA is an indirect, strengths-based assessment organized around eight key social and emotional competencies (see Appendix J, Exhibit H) AIR will receive extant student-level DESSA data from CIS. ***School Engagement (RQ 6).*** AIR will obtain extant data from the participating districts on attendance for students in Grades K–2. As part of the same data request, AIR will also obtain student characteristics to describe the study sample, test baseline equivalence, and include as covariates in the impact analysis. Student background characteristics will include gender, student race/ethnicity, birthdate, eligibility for free or reduced-price lunch, English learner status, and special education

status. AIR also will obtain site coordinator background characteristics from CIS, including gender, race/ethnicity, age, years of experience, and highest degree. AIR will receive deidentified student-level data linked to school IDs. ***Reading Achievement (RQ 6).*** AIR will obtain extant reading assessment data from the study districts. All the participating districts use either the mCLASS or the NWEA MAP. Both assessments are administered three times a year and provide teachers with data to monitor growth and personalize reading instruction. The mCLASS and the NWEA MAP are reliable and valid assessments (median subscale alpha > .85 for mCLASS and > .90 for NWEA MAP) (National Center on Intensive Intervention, n.d.-a; National Center on Intensive Intervention, n.d.-b).

Analyses. AIR will conduct implementation analyses for the pilot and efficacy studies as well as impact analyses for the efficacy study. ***Implementation Analyses.*** Both the pilot and efficacy studies include implementation analyses. To examine usability and feasibility of *SSIC* and to identify barriers and facilitators to implementation (**RQs 1, 2, and 4**), AIR will code interview and focus group transcriptions using NVivo. The evaluation team will use pattern coding to reveal perceptions of *SSIC* and facilitators of and barriers to implementation (Miles & Huberman, 1994). We will use a hierarchical coding scheme that includes primary, secondary, and tertiary codes, where applicable. To examine fidelity of implementation (**RQ 3**), AIR will use multiple data sources (training and webinar attendance logs, student attendance logs for case management sessions, and scores from the fidelity rubric) to examine the extent to which the program provided the inputs, or resources, and activities of the program model as intended in the logic model (Appendix G). The fidelity scores will be based on a rating of both the quantity and quality of the training received by the site coordinators and the quantity and quality of the case management sessions using the *SSIC* resources. The rubric will generate an overall fidelity score

at the school level. In addition, AIR will compute descriptive statistics to summarize the variation in implementation fidelity at the indicator level (see Appendix J, Exhibit F).

Impact Analyses. AIR will follow WWC standards for cluster-level random-assignment studies. First, AIR will examine the extent of overall and differential attrition using guidelines developed by the WWC (2020). To guard against attrition due to nonresponse, we will provide incentives to respondents for all primary data collection activities. Moreover, the evaluation incorporates extant data on student outcomes that districts are already gathering for nearly all students. We expect attrition for outcomes measured by extant data to be lower and attributed primarily to the small percentage of students (2%) leaving or entering their districts within a typical year. Individuals without pre- and postintervention data for the outcome of interest in an analysis will be dropped from the analyses. One limitation of this study design is students in both treatment and control schools will be identified to receive case management services after schools are randomly assigned to conditions. To examine compositional changes between the intervention and comparison groups, AIR will examine baseline equivalence on student and school characteristics from the current and prior school years. In addition, AIR will examine the representativeness of the student analytic sample with the original group of students identified for case management services.

Student Impact Analyses. Our primary approach to determining the impact of *SSIC* on student outcomes is to conduct intent-to-treat (ITT) analyses using a two-level model that nests students within schools and includes CIS affiliate (randomization block) fixed effects. Multilevel linear modeling is an appropriate analytical approach because it considers the nested structure of the data as well as the shared variance of students in the same school. Controlling for randomization blocks ensures that only site coordinators within the same area (CIS affiliate) are

compared with one another, which will reduce alternative explanations for estimated impacts that include those from other initiatives rolled out at the same time by the CIS affiliate. We will control for site coordinator characteristics, student-level characteristics, and baseline outcome measures. Full impact analysis models are presented in Appendix J, Exhibit G.

Site Coordinator and Caregiver Impact Analyses. For site coordinator–level outcomes, we will conduct an ITT (including all intervention group site coordinators regardless of whether they fully participated) using ordinary least squares regression with randomization block fixed effects to measure impacts on site coordinators' self-efficacy. We will also control for site coordinator characteristics and baseline outcome measures to increase the precision of our impact estimates. Caregiver outcomes are considered exploratory given that caregivers will not receive the *SSIC* training and because we anticipate more missing data than for site coordinators. Like the student outcome analyses, the research team will conduct ITT analyses using a two-level model that nests caregivers within schools and includes CIS affiliate (randomization block) fixed effects. We will control for caregiver characteristics (e.g., relationship to child, educational attainment, indicators of economic disadvantage) and baseline outcome measures.

Mediator Analyses. To examine the extent to which the effects of *SSIC* on students' social and emotional competencies are mediated by site coordinator and caregiver self-efficacy, we will use structural equation modeling to estimate the interrelationships among the intervention outcomes, intermediate outcomes, and subsequent student outcomes. We will conduct a series of parsimonious mediator analyses in which each model will include the self-efficacy measures as the mediators for the student outcome. In addition, we will test a more comprehensive model that examines multiple mediating pathways and the interrelationship among them with the student outcome. We will include student, caregiver, site coordinator, and

school characteristics and random assignment block indicators as exogenous covariates. To compare the importance of specific pathways, we will use model fit indices (e.g., RMSEA, CFI, TLI) to test whether model fit worsens when certain paths are fixed to 0.

E2. Articulates Key Project Components, Mediators, Outcomes, and Acceptable Implementation Thresholds

The evaluation design is informed by clear program components, mediators, and outcomes, as depicted in the logic model (see Appendix G) that specifies key program components (site coordinator training and webinars); *SSIC* resources; and resources for each module for site coordinators to share with caregivers. The site coordinator training and webinars are aimed at improving their understanding of ACEs and the negative impact of ACEs on children. In addition, the trainings will show site coordinators how to help children cope with trauma and build resilience by using the *SSIC* resources. Through improving site coordinator and caregiver knowledge and practices, the *SSIC* program—if delivered with fidelity—will boost students' social emotional competencies, increase school engagement, and improve student reading achievement. The evaluation design includes measures that can capture changes in both site coordinator and caregiver mediators and student outcomes. The design also will document delivery of program inputs and establish clear and measurable thresholds for adequate implementation of the program.

E3. Performance Feedback and Periodic Assessment of Progress

AIR will provide actionable performance feedback on an ongoing basis to Sesame Workshop and CIS. Beginning in the pilot phase, AIR will establish a feedback loop with the Sesame and CIS teams by scheduling quarterly meetings to provide performance feedback and assessment of progress on the project objectives and research questions. Performance data will include training

attendance logs; student attendance logs; survey, interview, and focus group data; and outcome data from site coordinators, parents, and students. AIR will collaborate with Sesame and CIS to use the findings collected in the study phases to inform programmatic decisions throughout the course of the project that may lead to changes in the scope and sequence as well as the content of *SSIC* modules and resources. Sesame may use findings from the pilot phase to improve the usability and feasibility of the *SSIC* modules and resources for the Cohort 1 efficacy study phase. At the completion of that phase, AIR, Sesame, and CIS will review the findings on the impact of the *SSIC* program on outcomes (**RQs 5–7**) and the extent to which the program was implemented with fidelity across intervention schools (**RQs 3 and 4**) to consider and develop further refinements to the program for Cohort 2. The study will be structured so that data collection will inform continuous improvement throughout the project (see Appendix J, Exhibits B and I).

Periodic Assessment of Progress Toward Achieving Intended Outcomes. AIR will facilitate quarterly meetings to share findings that will provide an opportunity for school leadership, site coordinators, and caregivers to engage in joint discussions about data to inform *SSIC* implementation and outcomes. During the pilot study and efficacy study phases, AIR will provide interim reports that (a) summarize in-depth findings about implementation fidelity, barriers, and facilitators and (b) highlight opportunities for refinement. During the efficacy study phase, AIR will prepare an annual interim report to share preliminary impact findings and a formal evaluation report in Year 5 that includes the final results and lessons learned. AIR will also create, with input from Sesame Workshop and CIS, a series of family-friendly briefs that presents key findings.

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