

# Plan, Lead, Act, Network, and Sustain (PLANS) for Equitable Student Outcomes

<b>Introduction: Absolute Priority and Competitive Priorities</b>	<b>1</b>
<b>A. Significance</b>	<b>2</b>
<b>B. Strategy to Scale</b>	<b>8</b>
B1. Strategies that Address Barriers to Scaling	8
B2. Management Plan	11
B3. Capacity to Scale	12
B4. Dissemination for Further Development and Replication	15
B5. Utility of Resulting Products in Other Settings	17
<b>C. Quality of the Project Design</b>	<b>18</b>
C1. Conceptual Framework	18
C2. Goals, Objectives, and Outcomes	20
C3. Address Needs of Target Population	20
<b>D. Quality of the Project Evaluation</b>	<b>23</b>
D1. Methods to Generate Evidence That Meets WWC Standards Without Reservations	25
D2. Guidance About Effective Strategies Suitable for Replication or Testing	27
D3. Clear Articulation of Components, Mediators, Outcomes, and Measurable Threshold	29
<b>References</b>	<b>31</b>

## Introduction: Absolute Priority and Competitive Priorities

This Educational Innovation Research (EIR) Mid-Phase proposal from the Center for Leadership and Educational Equity (CLEE) will address Absolute Priority 1 (Moderate Evidence Requirement) by replicating *evidence-based program components*<sup>1</sup> that meet the definition of “moderate evidence” and Absolute Priority 5 (Promoting Equity in Student Access to Educational Resources and Opportunities: Educator Recruitment and Retention) by building on, scaling, and studying the components through a program called **Plan, Lead, Act, Network, and Sustain (PLANS)** in diverse local educational agencies (LEAs) in Connecticut (CT), Massachusetts (MA), and Rhode Island (RI). PLANS is an *evidence-based leadership development curriculum* for school leaders, teams, and stakeholders to improve *school*

---

<sup>1</sup> Terms with articulated definitions in Table 1 are italicized in their first use.

*improvement processes* aimed at increasing *equity* for *high need focal groups* of students (see definitions in Table 1). In addition, the program will address Competitive Preference Priority 2 by engaging educational stakeholders in mapping community assets and needs (see Section C) to inform school improvement plans that ensure all students meet challenging academic content without using inequitable strategies (e.g., tracking, remedial courses).

## **A. Significance**

When school leaders facilitate school improvement processes that embolden leadership among many stakeholders, the following are increased: (a) academic outcomes for students, (b) collegial and instructional practices for educators and leaders, and (c) retention rates for school leaders. This section will support this assertion with research, demonstrate how the PLANS evidence-based curriculum and program components enable school leaders and communities to lead effective school improvement, and delineate the national necessity for this work.

The historical and persistent disparities in educational outcomes among groups of high need underserved<sup>2</sup> students throughout the United States (Reardon, 2019; Reardon et al., 2015) are often referred to as ‘achievement gaps’. However, these gaps do not represent the abilities of students in marginalized groups. Instead, the gaps reside within the current capacity of educators, leaders, and policy makers. Gloria Ladson-Billings calls this an “education debt” (2006) that is owed to oppressed groups, a debt that must be addressed by improving educational conditions and practices that support marginalized students to realize their unlimited potential.

PLANS represents a promising opportunity to invest in repaying this historically-rooted debt by equipping educators, school leaders, and stakeholders with the capacity to continuously improve the core function of schools, student learning (Peurach et al., 2021), especially for

---

<sup>2</sup> This proposal uses the definition of “underserved” students presented in the NIA for this grant, and embeds the concept in our definition of “high need focal groups of students” defined in Table 1.

students in high need focal groups. PLANS is a professional learning program that implements *evidence-based program components* to improve *Core Leadership Practices* of groups of educational leaders. PLANS supports school leaders to build the leadership capacity of educators, students, and families (referred to in this proposal as *widespread leadership*) to engage in school improvement processes, deepening the implementation of school improvement initiatives that increase English Language Arts (ELA) and math outcomes (see definitions in Table 1). Supporting school leaders to engage the widespread leadership potential in their school communities reduces the heavy burden carried by school leaders, increasing leader retention.

**Table 1. Definitions and Terms**

Terms	Definitions
<b>Core Leadership Practices</b>	Evidence-based Core Leadership Practices (CLP) include: Setting Direction, Building Capacity to Teach, Building Capacity to Collaborate, Building Capacity to Lead, Reorganizing Systems, and Monitoring Progress (██████ et al., 2021; 2017). CLPs will be measured by the validated Learning Community Survey (LCS) (██████ et al., 2015). The evidence base for the CLPs and the LCS is in Appendix J1. The detailed rubric for the CLPs is in Appendix J2.
<b>Equity</b>	For the purposes of this proposal, educational equity means eradicating disproportionality in educational outcomes by ensuring all students have the access and support in the learning environments they need to thrive.
<b>Evidence-Based Leadership Development Curriculum</b>	PLANS evidence-based leadership development curriculum (██████ et al., 2021; 2017) (See Appendix J1 and Section C) trains leaders to implement Core Leadership Practices to facilitate widespread leadership (see definition below) to improve school and instructional practices.
<b>Evidence-Based Program Components</b>	The evidence-based program components from two leadership development studies (Gates et al., 2019; Nunnery et al., 2011) that are rated for moderate evidence of effectiveness in WWC. Components include: <ul style="list-style-type: none"> <li>● <b>Interactive learning component:</b> use of diagnostic instruments to assess participants’ skills and school climates, coaching for school leaders, and an aim for participating school leaders to have the knowledge, skills, and tools to effectively set direction for teachers, support their staff in improving instructional practices, and design an efficient organization that becomes a professional learning community (Nunnery et al., 2010).</li> <li>● <b>Experiential learning component:</b> participants engage in job-embedded practice of the knowledge and skills learned in professional learning (Gates et al., 2019).</li> </ul>

	<ul style="list-style-type: none"> <li>• <b>Data use for continuous quality improvement component:</b> participants use multiple sources of data to set direction, monitor progress, adjust efforts, celebrate/study success, and amplify efforts (e.g. Plan, Do Study, Act cycles that are a hallmark of Continuous Improvement (Gates et al., 2019)..</li> </ul>	
<b>High Need Focal Groups of Students</b>	The ‘target population’ for this proposal refers to students who are underserved in participating schools (evidenced by student outcome data) from specific subgroups (i.e., students who are categorized as economically disadvantaged, receiving special education services, multilingual learners, and/or from a marginalized racial group). Participating leaders will use data to identify a specific subgroup of high need students that will be referred to as their “focal group”. This term is used to minimize the deficit-based language of “high need” being used to label students. The participating leaders' focus will be on leading improvements that aim to increase outcomes for focal groups.	
<b>School Improvement Processes</b>	The process schools engage in to decide on goals, strategies, and action steps to improve student learning outcomes and educator practices. The states included in this proposal require schools to create improvement plans with stakeholders.	
<b>Widespread Leadership</b>	Leadership is distributed across multiple groups rather than being concentrated in a single or few individuals. Multiple groups influence decision-making and drive initiatives, fostering collaboration, innovation, and resilience. Below are the PLANS participant groups that will be engaged:	
	<b>Stakeholders</b>	Students and families from the participating schools.
	<b>Educators</b>	All educators from the participating schools.
	<b>School leadership teams</b>	Any educator or stakeholder serving as a member of a school’s leadership team (e.g. school improvement team).
	<b>School Leaders</b>	Principals, assistant principals, and other leaders responsible for school-wide instructional improvements.
	<b>Principal Supervisors</b>	District leaders responsible for providing guidance, mentoring and/or evaluation of school leaders.
	<b>District Leaders</b>	Superintendents, assistant superintendents, and directors responsible for district-wide instructional improvements.

The U.S. has a history of utilizing mandates and investments in “educational resources as the primary driver of innovation and improvement” (Peurach et al., 2021, p.3). Mandates, like the nationwide movement to adopt high-quality curriculum materials or requirements for schools to utilize improvement plans (Jamieson et al., 2022), need to be accompanied by strategies to deeply implement the initiatives. PLANS provides an alternative to the existing school improvement strategies (e.g., mandates and resources) by fostering leadership practices that

support deeper implementation, allowing for continuous learning and evolution of craft (Peurach et al., 2021). PLANS will do this by building the capacity of educators, leaders, and stakeholders to use Core Leadership Practices to drive and sustain effective school improvement processes through the continuous improvement methodology integrated into the PLANS curriculum.

Continuous improvement (CI) is growing in use nationally as a process for educators to improve their school and instruction practices. CI integrates, rather than isolates, three often utilized levers of improvement: (a) using data/assessments of student learning, (b) engaging in professional learning/collaboration, and (c) implementing educational standards, mandates, guidance (Bryk et al., 2015). For educators and leaders to use CI to achieve deep and sustainable practice shifts, widespread leadership must be built (Grissom et al., 2021; Spillane et al. 2015).

Effective school leadership is widely recognized as critical to drive school improvements (Grissom et al., 2021; Leithwood et al., 2010), and is correlated with outcomes that are important across the United States as well as the outcomes of PLANS: student achievement (Grissom et al., 2021; Seashore-Louise, 2010), reducing disparities in educational outcomes (██████ et al., 2021), and retention of school leaders (Jacob et al., 2015; Levin & Bradley, 2019). Considering how important effective school leaders are to impact and sustain changes in practices and systems over time, low levels of retention of school leaders is becoming a nationwide concern (Goldring & Taie, 2018). The average length of time a person stays in a principal position is only four years (Levin & Bradley, 2019) and 50% of new principals leave their position after their third year (New Teacher Center, 2018). The impact of this turnover is the loss of time and money spent in preparation (New Teacher Center) and a negative impact on student achievement and teacher turnover (Henry & Harbatkin, 2019; Béteille et al., 2012). A key reason principals leave the

profession is due to inadequate professional development and support for their challenging positions (Levin & Bradley, 2019).

PLANS supports school leaders with the professional learning they need to enact Core Leadership Practices that foster widespread leadership. There is clear evidence that effective school leaders distribute, share and facilitate leadership across multiple groups to influence decision-making and drive initiatives (Grissom et al., 2021; Spillane, 2015; Leithwood et al., 2010). Doing so, fosters collaboration, innovation, and resilience by tapping into the diverse perspectives, skills, and expertise of a broader range of stakeholders.

When school leaders try to lead alone, it is evident that implementation and impact are weak and school leader turnover increases (Henry et al., 2019; Levine et al., 2019; Seashore Louis et al., 2010). Building widespread leadership is critical to broaden ownership, increase efficacy of implementation, sustain practices (Herman et al., 2017; Leithwood et al., 2010), and shift beliefs regarding students' unlimited potential (█ et al., 2022; █ et al., 2017; 2021) - all of which are necessary levers to eliminate disproportionality in student outcomes. Though it is an investment that will improve their schools and lighten their overloaded role (Yan, 2020), school leaders have too little time to foster leadership of others. School leaders need support to engage the widespread leadership capacity of educators and stakeholders. These capacities are what PLANS will provide through the implementation of evidence-based program components.

### **The Evidence-Based Program Components**

PLANS will provide a needed national model of professional learning that utilizes three evidence-based program components: experiential learning (e.g., job-embedded practice), data use for continuous improvement (e.g., data-driven cycles), interactive learning (e.g., coaching, diagnostic assessments) (see Evidence Form, Table 1 Definitions). The components equip

leaders, educators, and stakeholders with the practices needed to implement critical school improvements that increase high and equitable outcomes for underserved focal groups of high need students. This focus is especially important for underserved students coming out of the pandemic. Section C3 represents further detail about how PLANS will implement the components to address the needs of the target population.

CLEE has implemented, studied and refined professional learning programs that utilize the three program components that undergird PLANS for the past fourteen years. [REDACTED] et al. (2021; 2017) have shown that implementing these components in programming aimed at strengthening leader capacity to enact the Core Leadership Practices significantly correlates (medium to large effect sizes) with increasing academic learning for focal groups of students in high need groups and for their peers. CLEE's research (see Appendix J1) enabled continuous improvement to the professional learning programs delivered by CLEE. The research provides correlational evidence that the way PLANS utilizes the components has a positive impact on improving the student outcomes of ELA and math, increasing widespread leadership practices and reducing disparities for high need student groups. Further, learning from a recent implementation of the components through a U.S. Department Of Education (USDOE) Supporting Effective Educator Development (SEED) grant informs the design of PLANS.

### **New/Significant Evidence from PLANS**

Implementation of PLANS and the associated evaluation (see Section D) will allow for a refined understanding of the three evidence-based program components (see above).

**Implementing the components for a wide range of leaders.** The three components have been implemented (and studied) to strengthen the capacity of formal leaders alone (Gates et al., 2019; Nunnery et al., 2011). Implementation of PLANS will allow for the study of how these

components can drive implementation and impact when used to build capacity of a wider range of leaders in schools (i.e., teams, educators, educational stakeholders).

**Understanding how the components influence outcomes for high need groups.** The results of PLANS results will strengthen the evidence of professional learning practices that support school leaders to implement Core Leadership Practices aimed at increasing equity. Current research on the components (Gates et al., 2019; Nunnery et al., 2011) only examines aggregate results for all students. PLANS will also examine results for high need focal groups of students, adding important understanding to the leadership and professional development practices that increase learning for high need groups (aligning with CPP 2).

**Evidence and products to support scaling.** The study of PLANS will allow for a greater understanding of the supports needed for effective scaling of the program (see Section B for greater detail). Further, the past research on CLEE’s programs that serve as predecessors to PLANS have been conducted in two states (MA and RI). This proposed study will allow an expansion to an additional state (CT), diverse LEA types (5 charter, 16 typical and 1 career and technical), and different LEA settings (12 urban and 10 suburban) (see Appendix C for LEA Letters of Support). The varied states, LEA types and settings will allow a greater understanding of how state policy contexts, LEA type and setting support and/or inhibit implementation of PLANS. This understanding will allow scaling strategies to be refined for optimized success.

## **B. Strategy to Scale**

### **B1. Strategies that Address Barriers to Scaling**

In over a decade of implementing and studying the effectiveness of the evidence-based components utilized in PLANS, CLEE iterated strategies to address persistent barriers to scaling. We define scaling using Coburn’s (2003) four dimensions of scaling: depth, sustainability,



spread, and a shift in ownership. To increase the spread (number of districts and schools), increase the depth, sustainability and strong ownership of the model in schools, PLANS will utilize two strategies supported by research: (a) building strong partnerships with LEAs (Gates et al., 2019) and (b) building on high-quality leadership development curriculum aligned to research-based standards/competencies (Gates et al.; Nunnery et al., 2011). These strategies to scale are represented below with the key barriers that they address. They are also represented in the PLANS Theory of Change (Figure 1) and Logic Model (Appendix G).

**Sustaining and Scaling Strategy 1: Build strong district partnerships.** The way PLANS will work with partnering LEAs will address key barriers (below) CLEE has experienced to scaling. The implementation supports described below will create the conditions needed for addressing all four dimensions of scaling.

- **Barriers addressed - Alignment and Ownership:** Many district and school leaders struggle to coherently align their many initiatives (Spillane et al., 2015; Leithwood et al., 2010). This causes confusion that can lead to and be exacerbated by frequent leadership turnover. Further, district and school leaders often struggle to foster the level of ownership and commitment needed among stakeholders and educators to accelerate implementation and sustain progress toward critical school improvement goals (Spillane et al.). This can often manifest as shallow or compliance-oriented implementation, rather than deeper transformational implementation that sustains changes to practice over time.
- **Implementation support #1 to address barriers - Organizing for Implementation:** PLANS's coaches will support district leaders to organize for all aspects of PLANS implementation. Key activities will include: (a) alignment of initiatives, (b) organizing for participation from a wide range of stakeholders, (c) improving LEA recruitment and

retention practices (see Appendix G for further details). Note, to maintain the contrast between intervention schools and comparison schools, CLEE will also guide LEAs to avoid communicating about PLANS with schools that have not yet participated in the intervention and are in the comparison group.

- **Implementation support # 2 to address barriers - Strategic Communication:** As part of the management plan (see Appendix J3), CLEE will develop a strategic communication plan to share learning and resources among PLANS schools. CLEE will also support LEA leaders to communicate to their participating schools the way PLANS aligns with LEA initiatives and goals. Both efforts have synergy with the PLANS curriculum (Section C1) and dissemination efforts (B4) for which PLANS schools will receive support to create effective communication and dissemination strategies to their communities regarding how they are progressing their efforts toward their school goals.

**Sustaining and Scaling Strategy 2: Modify high quality curriculum material that can flexibly meet partner needs.** To create the conditions needed for addressing all four dimensions of scaling, high quality curriculum must meet needs of current, diverse and evolving school contexts. By implementing this strategy, the PLANS curriculum will address multiple challenging barriers CLEE has experienced in past efforts to scale.

- **Barrier addressed - Time and Structures:** Schools often do not have time and/or structures that allow for the ongoing collegial collaboration needed to establish widespread leadership, including the collegial feedback in order to deeply implement school improvement strategies (Darling-Hammond et al., 2019). Further, school leaders have little time to engage in professional learning for themselves, let alone plan for the type of professional learning needed for staff and stakeholders to foster collective agency.

- **Implementation support #1 to address barriers - Curriculum Modification for Scaling:** The PLANS curriculum will be modified from CLEE’s current curriculum to ensure a diversity of school contexts (e.g., different states, types, student demographics) can engage through leveraging their state-required school improvement processes. By helping leaders improve a process they are already expected to lead, their engagement in PLANS will not be an additional burden of time. This approach will also meet schools where they are (which varies greatly) and use time efficiently to engage in learning and implementation that is the highest priority for them.
- **Implementation support #2 to address barriers - Flexible, Anytime Learning:** CLEE will use a number of implementation supports to maximize the limited time of leaders, educators, and stakeholders. Time in network or peer sessions will be limited and will occur after school hours. Asynchronous modules and resources will provide divergent pathways for leaders/schools to implement quickly in their unique contexts, and to connect with one another through a learning management system. Finally, virtual and/or on-site coaching and observations will be used by CLEE coaches to eliminate the need for participants to travel and/or hire substitutes.

## **B2. Management Plan**

CLEE will work with an external evaluation team from the American Institutes for Research (AIR) to achieve the objectives of PLANS, on time, and within budget. This section reflects how CLEE and AIR will bring their skills and experiences together to successfully manage PLANS implementation and evaluation. Appendix J3 (Table J3a) details the PLANS timeline, activities, and primary people responsible to achieve the goals and objectives (Appendix J5). The overall responsibilities of the key CLEE personnel and the CLEE

Organizational Chart are described in Appendix J3. The resumes/CVs of key CLEE personnel are included in Appendix B. The detailed evaluation activities, timeline, and qualifications of the AIR team are included in Appendix J4, and AIR's budget is in the PLANS Budget Narrative.

CLEE and AIR will maximize the strengths of both teams through biweekly project management meetings, shared communications channels, and quarterly formative data meetings. CLEE and AIR bring together decades of complementary experience managing large scale multi-year programs. We have worked together successfully to implement a USDOE SEED grant and are bringing key learning into this collaboration. For example, we learned that the modification of curriculum, training of staff, and relationship-building with LEA partners needs to occur in two phases: (a) an initial, intensive period within the first six months of the grant, and (b) ongoing efforts throughout the grant (see Table J3a).

Beyond CLEE and AIR, a number of entities are critical in order to implement, evaluate and scale PLANS successfully. The management plan described in Appendix J3 includes roles for CLEE (program implementation and management), AIR (independent evaluators), LEA partners (recruitment/direction setting), and educational stakeholders (input/collaboration).

### **B3. Capacity to Scale**

CLEE and AIR have the established systems, skilled personnel, and management capacity to bring PLANS to the scale described in this proposal.

**Qualified personnel: CLEE.** See Appendix J3 (Table J3b) for a list of key CLEE personnel and Appendix B for corresponding CVs and resumes. The CLEE team will be led by [REDACTED] who has been a successful project director on two USDOE multi-year grants. Both grants were built on the research [REDACTED] led the organization to conduct in partnership with third party evaluators. [REDACTED], and [REDACTED]

will provide program implementation leadership, having led the successful implementation of programming for large multi-year, multi-district grants and contracts. The rest of the key personnel, both program and support staff, have all supported the implementation of programs of the same scale as PLANS. Further, the CLEE staff are in place to allow swift implementation of the initial grant activities (see Section B2), including hiring/onboarding new hires, and organizing LEA partnerships. Finally, CLEE has excellent, proven consultants on retainer to expand the organization's capacity during the initial intensive months.

**Qualified personnel: AIR.** The AIR program evaluation will be led by [REDACTED] and [REDACTED], who will serve as Co-Principal Investigators. Ms. [REDACTED] has 18 years of experience managing multiple concurrent projects on school and district leadership, teacher preparation, evaluation, mentoring, college enrollment, and alternative certification programs. [REDACTED] has over sixteen years of experience designing and conducting large-scale evaluations of education and workforce policies and interventions. [REDACTED] will serve as Project Director and will also lead the community-based participatory research and qualitative research components of the evaluation. [REDACTED] will lead the team responsible for impact study design and analysis, while [REDACTED] will head the implementation evaluation analysis. The remainder of this section will focus on CLEE's capacity and track record in scaling the evidence-based components and programs. See Appendix J4 (section J4.8 and J4.9) for further details on AIR's capacity and extensive track record.

**Financial and other resources.** CLEE has other resources to contribute beyond the capacity of PLANS key personnel. CLEE maintains a physical headquarters in Providence, RI that serves as a convening and office space with all the amenities needed to support staff. CLEE

has successfully applied the requirements of Government Auditing Standards and the Uniform Guidance, completing single audit requirements with no findings or corrective action.

**CLEE's management capacity to scale PLANS.** CLEE's capacity to bring PLANS to fruition at the scale proposed, and continue beyond the grant period, can be observed in the organization's track record of successful project management. CLEE has achieved all goals and objectives as the lead grantee for a USDOE Turnaround School Leaders Program (2014-2018) and as a current grantee under the USDOE SEED (2022-2025). In addition, CLEE has successfully achieved all goals and objectives for multiple multi-year foundation grants and projects, including multimillion scaling grants from Overdeck Family Foundation, Networks for School Improvement from Bill and Melinda Gates Foundation, as a subcontractor with the RI Department of Education's USDOE School Climate Transformation grant, as a grantee for multiple MA Department of Education contracts to improve principal preparation, induction, and retention, and as a grantee to facilitate a five-state network of 11 district/community organization partnerships through the Nellie Mae Education Foundation. Annually, CLEE successfully works intensively with over 53 local educational agencies and 2 state agencies across 5 states.

The proposed scaling of PLANS will further build the capacity of CLEE, allowing greater expansion post-EIR funding. Founded in 2010, CLEE has grown to annually directly serve nearly 1000 educators, 53 LEAs and educational organizations, and two State Educational Agencies across 5 states, impacting an estimated 120,000 students. Implementing PLANS will allow CLEE to evolve programming toward lower-cost, higher impact, sustainable strategies to achieve the outcomes of PLANS. The hybrid (virtual and in-person) approach and associated modules and materials developed will allow CLEE to address common barriers participants face related to lack of time and costs to travel to in-person sessions (see Section B1).

#### **B4. Dissemination for Further Development and Replication**

Disseminating the components, results, and lessons learned from implementing PLANS is a key goal of the project (see Appendix J5, Goal 2). Four strategies are described in this section for broad dissemination to support further development and replication of PLANS.

**Strategy 1: Dissemination to stakeholders at participating LEAs.** PLANS coaches will support participating schools to engage in regular dissemination of learning to their stakeholders (students, families, educators). CLEE will provide templates and resources for school leaders and stakeholders to create newsletters, blogs, etc. to share their improvements, learning, and impact. Regularly communicating progress, learning, and impact of school improvement efforts is an essential aspect of the Core Leadership Practices of Setting Direction and Monitoring Progress.

**Strategy 2: Dissemination to PLANS participants.** CLEE will create a bi-monthly digital newsletters disseminated to all the PLANS participants to feature learning, challenges, and progress across the network of PLANS schools. In addition, CLEE coaches and communication staff will regularly interview PLANS participants, and publish quarterly blog posts that highlight the ways schools are implementing PLANS in different contexts. Blogs will be shared with participants through multiple channels (web, newsletter, Canvas).

**Strategy 3: Regional and national dissemination beyond participating LEAs.** Content that contains the learning, progress, results, and perspectives from diverse stakeholders (created in Strategies 1-2) will be disseminated broadly to foster interest in implementing PLANS practices in LEAs beyond participating schools. Dissemination will be via CLEE's monthly newsletter, on CLEE's website, and via social media posts. To aid the breadth of dissemination, in 2022 CLEE acquired a national nonprofit organization, the School Reform

Initiative, which serves educators and stakeholders across the United States. As part of this acquisition, CLEE acquired an open bank of resources (see clee.org) accessed by an average of 20,000 people/month and a mailing list of over 10,000 educators who have a keen interest in scaling the evidence-based program components used in PLANS. This large core audience, in addition to the 3,000 superintendents and principals located in the states of implementation (i.e. Connecticut, Maine, Massachusetts, Rhode Island), will be the recipients of strategy 3.

CLEE will also respond to calls for articles and calls for presenters in educational conferences located in the states of implementation, as well as nationally. CLEE has a strong track record of research and dissemination of practices through research (see Appendix J1) and practitioner publications (█ et al., 2021; █ et al., 2024).

AIR will feature dissemination products about the project on the AIR website, which logs hundreds of thousands of visits monthly. AIR will also use the e-mail networks it maintains for those who use evidence to support high-quality leadership and teaching. For example, AIR will leverage the dissemination networks of its Center on Great Teachers and Leaders and Regional Educational Laboratories, each of which engage policymakers, practitioners, and researchers.

**Strategy 4: Data and technical infrastructure for dissemination.** A key lesson learned from past efforts has been to establish the infrastructure to reach broader audiences, as well as track interest in replication, engagement and adoption of the program from new partners. This data-based system can make the difference between catching a policy-maker's or educational leader's attention for a few minutes and building a relationship that blossoms into full adoption/implementation of PLANS in the near future. Therefore, the market research, communication plan, and data-based tracking of interested partners have been built into the



management plan (See Table J3a in Appendix J3) to move dissemination from sharing knowledge of PLANS to partnerships to implement PLANS in more districts and schools.

### **B5. Utility of Resulting Products in Other Settings**

PLANS will build substantial capacity for continued sustainable implementation as a replicable model beyond the period of federal assistance in a number of ways. As required by the U.S. Department of Education, CLEE will openly license all new content created with federal funds. New digital content will be added to the (a) open/free online resources housed on CLEE's website and (b) learning management system (Canvas) utilized by participants.

**Utility of PLANS dissemination for a variety of settings.** By recruiting 22 diverse LEAs (representing 144 schools) from 3 states that have committed interest in participating in PLANS (see Letters of Support in Appendix C), CLEE and AIR will be able to study the utility of PLANS materials and processes in a variety of contexts. This will allow CLEE to refine dissemination efforts to share key benefits with districts and schools with specific contexts, and to communicate clearly how PLANS can be used to meet their current needs.

**Utility of PLANS no-cost resources and community to serve a variety of settings.** The open resource bank maintained on CLEE's website will be accompanied by a national community of practice accessible from the website. This access will allow districts and schools entry-level pathways to explore, inquire, and begin to implement key practices of PLANS in their context. In doing so, they can be in dialogue with practitioners from PLANS schools, as well as practitioners across the country, who aim to improve their school improvement processes.

**Utility of PLANS processes to serve a variety of settings.** The PLANS evidence-based program components and curriculum material support schools to strengthen their improvement processes toward their priority goals for their specific high need students. This makes the

processes and materials highly accessible and adaptable to a wide variety of contexts. Further, the use of asynchronous learning (modules and resources) and high engagement virtual sessions allows participants to engage across geographies and time preferences.

## **C. Quality of the Project Design**

### **C1. Conceptual Framework**

To describe the PLANS conceptual framework, we first present an overview (see Theory of Change in Figure 1) and then the detailed logic model in Appendix G. The PLANS Theory of Change (TOC) in Figure 1 posits that the scaling strategies (see Section B1) will enable the effective implementation of the three evidence-based program components (see Section A) to strengthen widespread leadership that implements effective school improvement processes, in turn supporting the outcomes of improved leader retention, educator practices, and student achievement. Each aspect of the TOC is based on evidence and research, described both throughout this proposal and noted in parentheses in Figure 1.

The TOC in Figure 1 includes: (1) strategies to implement PLANS at scale (bottom purple box), (2) the PLANS program itself (upper left blue box), and (3) the intended outcomes (right purple box). To ensure PLANS is scalable and sustainable, CLEE will build strong partnerships with districts and build on high-quality leadership development curriculum (see blue box and Section B1). To achieve the outcomes, CLEE will implement professional learning that utilizes the evidence-based program components (see Section A) of experiential learning, data use for continuous quality improvement, and interactive learning components delivered through coaching, professional learning sessions, network sessions, and asynchronous modules and resources for groups of educational stakeholders, school teams, educators, school leaders, and district leaders (see green box) to achieve the outcomes (see purple box).

The PLANS Logic Model (Appendix G) demonstrates how implementation of the strategies to scale (bottom of the table), program implementation (column 1) and continuous monitoring (columns 2-4) will enable improved outcomes for the target population of high need focal groups of students. Further, column 1 of the PLANS Logic Model, as well as the detailed articulation of the program implementation activities in Appendix G describe the ways CPP2 will be addressed through community assets/needs mapping for each school.

In summary, the TOC of the PLANS model (Figure 1) and the logic model (Appendix G) contextualize PLANS in evidence of effectiveness. They will guide the implementation of the program and the outcome evaluation.

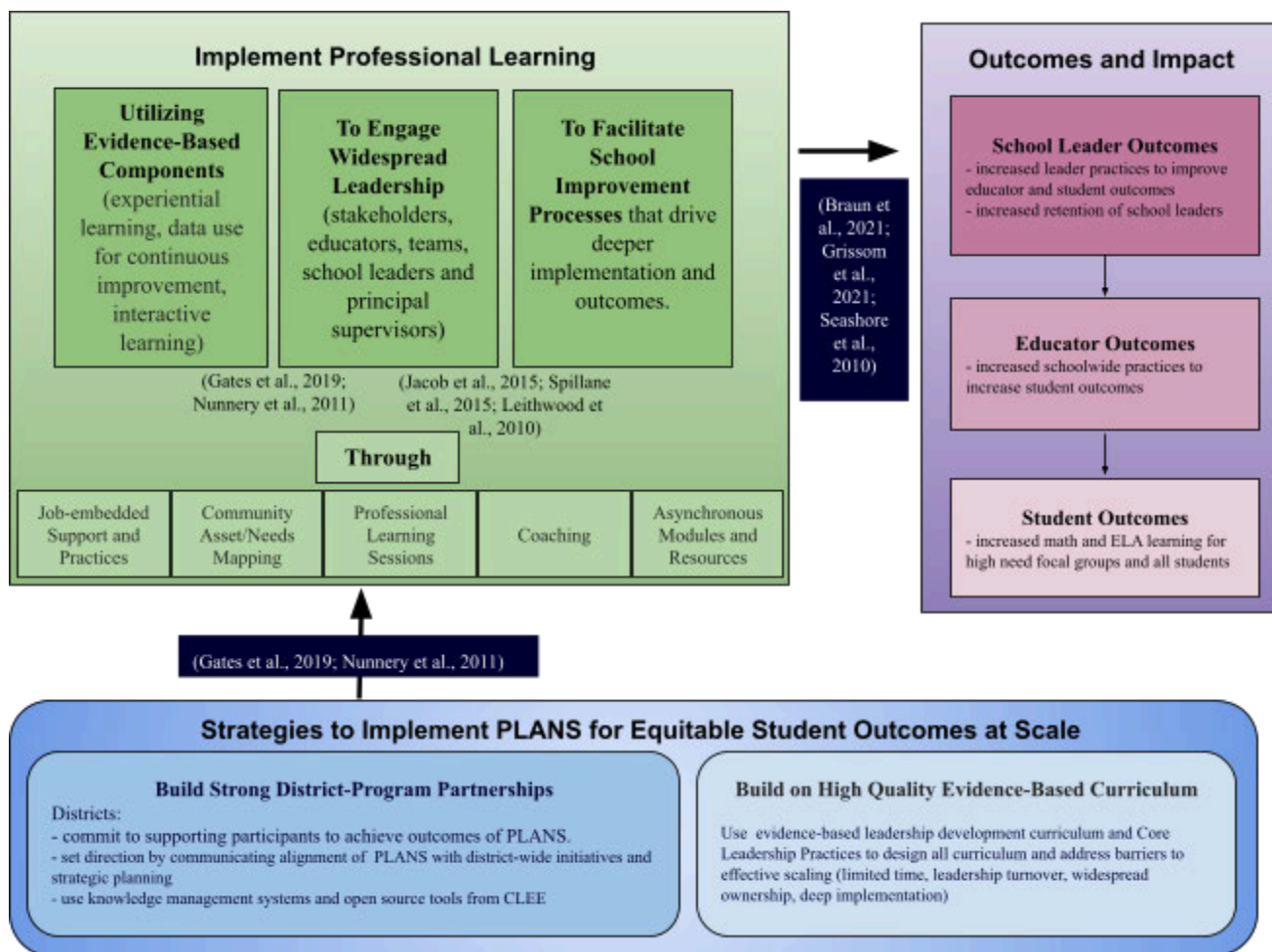


Figure 1. PLANS Theory of Change

## **C2. Goals, Objectives, and Outcomes**

The PLANS goals and associated objectives are specified in Appendix J5. There are two overarching goals: (1) increase academic outcomes for students in high needs focal groups and retention for school leaders and (2) make learning, practices and resources widely available through dissemination efforts, strong district partnership and high quality curriculum materials. Each goal has associated objectives that are measured through aligned performance measures (see Appendix J5, Table J5a).

The goals, objectives, and performance measures are aligned to evaluation outcomes (see logic model in Appendix G, last column) and Section D. Further, they are detailed in the Grant Application Form for Project Objectives and Performance Measures. In addition to these goals and objectives, CLEE is committed to collecting data related to all the required GPRA measures.

## **C3. Address Needs of Target Population**

Persistent and significant inequities exist in education (Reardon et al., 2015) for the target population of this proposal - high need focal groups (see definition in Table 1). PLANS can significantly and sustainably improve educational practices and systems to meet the needs of the target population. PLANS trains and supports leaders to harness widespread leadership to engage in continuous improvement cycles, creating learning environments where all students thrive, especially those who have been marginalized.

Educational leaders and stakeholders have inherited the complex work of rapidly transforming systems that often perpetuate educational inequity for the target population into one in which each child has their unlimited potential unleashed. Through the implementation of the evidence-based curriculum used in PLANS, many root causes underlying current inequities are addressed (i.e., educator practices and mindsets about students and their own abilities are

expanded, systems are reorganized to serve those who have been underserved) (██████ et al. 2021; 2017). Two essential efforts contribute to this effect: (a) engaging leaders and stakeholders in efforts to both understand the current strengths and needs of students, as well as why those strengths and needs exist, and (b) guiding leaders and stakeholders to identify a high need focal group to focus on while designing school improvements. Both efforts ensure that improvements aim to strengthen school and practices and are designed to both increase outcomes for focal groups of high need students and to improve outcomes for all students. Also, these efforts address limitations of typical improvement strategies that focus on increasing score averages of all students or only students who are on the verge of meeting expectations (Issacs et al., 2013). The full curriculum is described below.

In PLANS, educators and leaders are trained to facilitate cycles that focus on improving instruction to meet the needs of a focal group of high need students by implementing Core Leadership Practices: Setting Direction, Building Capacity to Teach, Building Capacity to Collaborate, Building Capacity to Lead, Reorganizing Systems, and Monitoring Progress (██████ et al., 2017). The steps of the leadership development curriculum include:

- **Setting Direction** (this crucial step directly addresses CPP2):
  - Map and analyze school communities' assets and needs
  - Revise school improvement plans based on the results of the asset/need mapping to identify strategies to increase attendance, ELA, and math outcomes for high need focal group(s) and all students.
- **Building the Capacity to Teach**: build the capacity for educators to improve practices in the instructional core to impact the root causes of the inequity.

- **Building the Capacity to Collaborate and Lead:** build the capacity for educators to collaborate and lead together to increase equity using facilitative leadership practices that empower widespread leadership.
- **Reorganizing Systems:** reorganize systems to achieve the best outcomes.
- **Monitoring Progress:** monitor data and adjust efforts to continue improvements.

The PLANS curriculum moves beyond the common approach to professional learning of giving educators resources and initial training (see Section A), to an approach that enables educators to see and understand systemic inequities, as well as their own and others' mindsets and assumptions. Doing so, allows them to implement strategies that utilize community strengths and address the underlying causes of inequities (a key focus of CPP2) to transform both instructional practices and student learning. Appendix G details the specific activities and services that will be conducted to carry out PLANS.

To further serve the needs of the primary target population of high need focal groups of students, PLANS aims to positively impact the retention of school leaders, particularly leaders from underrepresented categories (e.g., racial and ethnic minority groups, women, individuals with disabilities, individuals with low socioeconomic backgrounds, Lesbian, Gay, Bisexual, Transgender, Queer/Questioning (LGBTQ+) spectrum). Retaining school leaders has an impact on the target population (Henry et al., 2019). Further, supporting more leadership from underrepresented groups can have many positive impacts on the target populations. For example, leaders of color can positively impact the outcomes for teachers of color (Grissom & Keiser, 2011). Likewise, educators of color can positively impact the social emotional and academic outcomes for marginalized students (Carver-Thomas, 2018) and all students (Will, 2021).

CLEE has utilized and extended the evidence-based program components and created a fully scalable model from field-testing and evaluating, demonstrating strong evidence of effectiveness that the strategies used in PLANS can improve instruction and student learning (██████ et al., 2021). Implementing PLANS will enable CLEE to further scale the leadership development curriculum, address key barriers to scaling (see Section B), study the results (see Section D), and disseminate learning and resources nationally (see Section B).

## **D. Quality of the Project Evaluation**

PLANS for Equitable Student Outcomes program builds on three evidence-based program components: experiential learning, data use for continuous quality improvement, and interactive learning. (See Sections A and C and Appendix G.) The PLANS theory of change posits that implementation of these key program components will result in improved schoolwide Core Leadership Practices of educational leaders, which in turn will increase school leader retention and ultimately improve student achievement in math and English language arts (ELA), particularly for students in high-need focal groups.<sup>3</sup> The American Institutes for Research® (AIR®) will conduct an independent, rigorous evaluation of PLANS that aligns with the program theory of action, includes both formative and summative components, and meets *What Works Clearinghouse (WWC) 5.0 Evidence Standards Without Reservations* (2022). Exhibit 1 displays alignment between the evaluation outcomes, research questions, and data sources that will be used to inform the PLANS evaluation.

---

<sup>3</sup> *Students in high-need focal groups* include students from specific subgroups that the participating states designate as “high need,” including students who are categorized as economically disadvantaged, receiving special education services and/or multilingual learner, and/or from a marginalized racial group, as well as who are underserved in participating schools as evidenced by student outcome data

## Exhibit 1. PLANS Impact and Implementation Outcomes, Research Questions, and Data Sources

Evaluation Intended Outcomes	Research Questions (RQs)	Data Used To Answer RQs
<b>Impact Evaluation</b>		
Improved student achievement in ELA and math	<p><b>RQ1:</b> What is the impact of PLANS on student achievement?</p> <p><b>RQ1a:</b> How does the impact of PLANS on student achievement differ by student characteristics (e.g., race/ethnicity, English learner status, disability status)?</p>	<ul style="list-style-type: none"> <li>● Massachusetts Department of Elementary and Secondary Education (MA DESE) Massachusetts Comprehensive Assessment System (MCAS) data for Grades 3–8 and 10 for the 2024–25 through 2027–28 school years.</li> <li>● Rhode Island Department of Education (RIDOE) Rhode Island Comprehensive Assessment System (RICAS) data for Grades 3–8 and 11 for the 2024–25 through 2027–28 school years.</li> <li>● Connecticut State Department of Education (CSDE) Connecticut Summative Assessment System data for Grades 3–8 and 11 for the 2024–25 through 2027–28 school years.</li> </ul>
Increased school leader retention	<p><b>RQ2:</b> What is the impact of PLANS on school leader retention?</p> <p><b>RQ2a:</b> How does the impact of PLANS on school leader retention differ by school leader characteristics (e.g., race/ethnicity, years of experience)?</p>	MA DESE, RIDOE, and CSDE school leader retention data for the 2024–25 through 2028–29 school years.
<b>Implementation Evaluation</b>		
Activities are completed as intended, with the expected level of participation among all PLANS participants (i.e., principal supervisors, school leaders, school leadership teams, all school staff, students and families, and district leaders).	<p><b>RQ3:</b> To what extent is PLANS implemented with fidelity?</p> <p><b>RQ3a:</b> What factors support or inhibit program implementation?</p>	<ul style="list-style-type: none"> <li>● Logs of job-embedded support and practice meetings.</li> <li>● Logs of individual attendance at group sessions.</li> <li>● Coaching logs.</li> <li>● Records of individual team members’ engagement with asynchronous learning modules.</li> <li>● CLEE Reflection Forms collected after each coaching and group session.</li> <li>● PLANS implementation documents.</li> <li>● Purposive interviews with PLANS program staff and CLEE senior staff.</li> <li>● Focus groups with PLANS participants.</li> </ul>
PLANS participants report positively on the quality of the program.	<p><b>RQ4:</b> To what extent do participants find key components of PLANS to be useful and of high quality?</p> <p><b>RQ4a:</b> How well does the program align with the needs and values of the participants’ community?</p>	<ul style="list-style-type: none"> <li>● CLEE Reflection Forms.</li> <li>● CLEE post-survey completed by principal supervisors, school leaders, and school leadership teams.</li> <li>● Focus groups with PLANS participants.</li> </ul>
Improvements in key leadership and instructional practices in participating schools.	<p><b>RQ5:</b> To what extent do PLANS participants report improvements in key leadership and instructional practices?</p>	<ul style="list-style-type: none"> <li>● CLEE pre–post surveys completed by principal supervisors, school leaders, and school leadership teams.</li> <li>● Core Leadership Practices Assessment completed by school leaders.</li> <li>● Focus groups with PLANS participants.</li> </ul>



Evaluation Intended Outcomes	Research Questions (RQs)	Data Used To Answer RQs
<b>Mediation Analysis</b>		
Improved schoolwide leadership practices	<b>RQ6:</b> What is the relationship between participation in PLANS and schoolwide leadership practices?	<ul style="list-style-type: none"> <li>• CLEE Learning Community Survey, completed by educators in PLANS treatment and control schools.</li> </ul>

**D1. Methods to Generate Evidence That Meets *WWC Standards Without Reservations***

AIR will conduct an impact evaluation, with cluster random assignment at the school level, that will meet *What Works Clearinghouse (WWC) 5.0 Evidence Standards Without Reservations (2022)*. Recruitment efforts will target schools in Massachusetts, Rhode Island, and Connecticut that serve students in high-need focal groups. The impact study sample will consist of students and school leaders in 68 schools, with an estimate of 200 students and one school leader per school, for a total of 13,600 students.

Two cohorts of 34 schools will be recruited to participate in PLANS. (See letters of support from 22 Local Education Agencies in Appendix C.) In spring 2025, AIR will randomly assign 17 schools in the first cohort of 34 schools to participate in PLANS between June 2025 and May 2026, and the other 17 schools will continue with business as usual but will receive delayed treatment the following year. Schools will be blocked by school level (i.e., elementary, middle, high) and school-level student demographic characteristics before randomization to ensure that the treatment and control groups are equivalent on observable characteristics. Control group schools in the first cohort will participate in PLANS between June 2026 and May 2027. In spring 2027, AIR will randomly assign 17 schools in the second cohort of 34 schools to participate in PLANS between June 2027 and May 2028, and the other half will continue with business as usual. Control group schools in the second cohort will participate in PLANS between June 2028 and May 2029.

There are three main threats to internal validity for this design: treatment spillover,

joiners, and potential selection bias resulting from sample attrition, and we address each in turn. Because the intervention is assigned at the school level and the study team will be able to control who receives support, we do not expect spillover across groups. Our analysis will exclude joiners, who are students and school leaders who transferred to a school after schools were randomly assigned to the treatment or control condition. In each cohort, schools assigned to the control condition will participate in PLANS after data collection is completed for the intervention and control schools in their cohort, which provides an incentive for control schools to continue engaging with the study even if they had preferred to receive the treatment earlier.

We will conduct an attrition analysis after follow-up data collection for each treatment cohort and calculate the level of overall attrition and differential attrition between the treatment and control groups. If overall and/or differential attrition is high, we will establish equivalence between treatment and control schools on baseline measures of outcomes of interest, which will be collected prior to randomization, and baseline school- and student-level characteristics.

**Measures and Analyses for Testing PLANS Impact.** AIR has selected outcome measures that demonstrate face validity, are reliable, are collected in the same way across conditions, are not over-aligned with the condition, and provide objective assessments of project impact. The outcome measures include state standardized test scores in ELA and math (RQ1) and state and district administrative records of school leader retention within the same school (RQ2). (See J.4.1 in Appendix J4 for details on the proposed measures.) To estimate the impact of PLANS on student achievement, AIR will estimate a regression of standardized test scores in ELA and math on a treatment indicator, the student's baseline scores and characteristics, school characteristics, and state fixed effects. To estimate the impact of PLANS on school leader retention (i.e., whether the school leader remained in the school from the spring prior to the start

of the intervention to the end of the intervention, AIR will estimate a regression of retention on a treatment indicator, school leader characteristics, school characteristics, and state fixed effects. All regression models and the power analysis account for clustering of students within the schools, which is the unit of treatment assignment.

**Power and Effect Size.** We designed the impact evaluation to detect an effect size of 0.16 standard deviations or larger for student achievement, which Kraft (2020) characterized as a “moderate” effect size. This effect size is also educationally meaningful, equivalent to increasing average teacher effectiveness in intervention schools by more than 1 standard deviation (Hanushek & Rivkin, 2010). The impact evaluation is designed to detect minimum effect sizes of 0.49 standard deviations, or 14.7 percentage points, for school leader retention, which Kraft (2020) characterized as a “large” effect size. (See J.4.2 in Appendix J4 for details.)

## **D2. Guidance About Effective Strategies Suitable for Replication or Testing**

The proposed evaluation will inform development and generate guidance suitable for replication or testing in other settings through both its implementation and impact evaluations. AIR will provide CLEE with both formative and summative reporting. To allow for the continuous improvement and implementation of PLANS, AIR will provide formative feedback to CLEE on PLANS implementation during Program Year 1 (Cohort 1) and Program Year 3 (Cohort 2) via midyear presentations and end-of-year summative reports. In the final year of the grant, AIR will produce a report that summarizes program implementation (RQs 3–5), the relationship between participation in PLANS and schoolwide practices to increase student outcomes (RQ6), and the impact of PLANS on student achievement and school leader retention (RQs 1–2) across both treatment cohorts, as well as findings from the cost-effectiveness study. See J.4.3 in Appendix J4 for a timeline of AIR’s implementation and impact analyses, as well as

AIR's and CLEE's reporting and dissemination timelines.

AIR will pre-register the PLANS impact study details, including the design summary, confirmatory contrasts, and impact models, in the Registry of Efficacy and Effectiveness Studies, updating the registry when changes are needed. The final evaluation report will be published on AIR's website and presented at conferences to ensure that information about program effectiveness can guide implementation of PLANS by other organizations. AIR will also write and publish a journal article and support CLEE in disseminating evaluation results to parents, teachers, and school staff in participating districts with the goal of informing on the ability to replicate and test PLANS in other settings. (See Section B4 for additional information about CLEE's proposed dissemination approach.)

The program will capitalize on the insights gained from developing PLANS to provide guidance for future implementation or testing of the program in other settings, building a strong foundation for future replication efforts. AIR will descriptively analyze a rich set of implementation, focus group, and interview data to assess implementation fidelity, PLANS program quality, and participant-reported improvements in key leadership and instructional practices (RQs 3–5), which will be used to provide independent feedback to CLEE in 2025–26 and 2027–28. The evaluation also will provide guidance for subsequent replication and testing by exploring whether the program impact differs across student characteristics and achievement outcomes (RQ1a) and school and school leader characteristics and their retention outcomes (RQ2a). These results from these moderator analyses will help indicate whether PLANS needs refinement to better support participants, their schools, and their students in specific settings and will provide insights to inform later efforts to scale.

To provide information about whether PLANS is a cost-effective investment, we will conduct a cost analysis using the resource cost model (RCM), which has been used extensively by AIR and incorporate feedback from the AIR Evaluation Advisory Council. (See the description below and J.4.4 in Appendix J4 for additional details about AIR’s proposed cost-effectiveness study.)

### **D3. Clear Articulation of Components, Mediators, Outcomes, and Measurable Threshold**

The implementation evaluation will examine and analyze the implementation fidelity of the PLANS program’s three key evidence-based program components (experiential learning, data use for continuous quality improvement, and interactive learning) through the delivery of the following activities: (a) job-embedded supports and practice with principal supervisors, school leaders, school leadership teams, and all school staff; (b) CLEE-led community asset and needs mapping with school leaders, school leadership teams, district leaders, and students and their families; (c) professional learning sessions with principal supervisors, school leaders, school leadership teams, all school staff, and district leaders; (d) coaching with principal supervisors, school leaders, and district leaders; and (e) asynchronous learning modules with principal supervisors, school leaders, school leadership teams, and district leaders.

Between January and June 2025 (CLEE’s planning period), CLEE and AIR, in collaboration with EIR technical assistance providers, will work together to finalize a plan for measuring implementation of each key program component, establishing thresholds for “high,” “moderate,” and “low” levels of implementation for each component. Thresholds for acceptable implementation for each activity associated with each program component are presented in J.4.5 in Appendix J4. During this 6-month period and throughout the first year of program implementation (June 2025–May 2026), AIR will work with CLEE and participating PLANS schools to establish an evaluation advisory council composed of diverse stakeholders, including

CLEE program staff, educational leaders, district partners, school leaders, and school team members to co-develop protocols and be engaged as part of our community-based participatory research (CBPR) approach in 2025–26, 2026–27, and 2027–28. (See J.4.6 in Appendix J4 for a description of AIR’s planned CBPR approach.)

AIR will descriptively analyze implementation fidelity, program quality and utility, and improvements in leadership and schoolwide instructional practices in treatment schools. In addition, AIR will analyze variation in implementation by school characteristics and location (e.g., school size, urbanicity, and state), as well as conduct up to 12 interviews in 2025–26 and 2027–28, respectively, using a purposive sampling approach with both CLEE senior staff and PLANS program staff to identify factors that support or inhibit successful program implementation. AIR will also facilitate up to thirty 90-minute virtual focus groups across 10 PLANS treatment schools in spring 2026 and spring 2028 with PLANS district team members, school leadership team members, and school improvement team members to gather their perceptions on the usefulness and quality of PLANS, its alignment with their schools’ needs and values, as well as the factors that support or inhibit their engagement.

AIR will evaluate the relationship between participation in PLANS and schoolwide practices to increase student outcomes, a theorized program mediator, for Cohort 1 and Cohort 2 using regression analyses (RQ6). (See J.4.73 in Appendix J4 for more details on the impact analyses.) Schoolwide practices will be measured by CLEE’s Learning Community Survey, which will be administered to educators in treatment and control schools prior to randomization and again at the end of each treatment year. The survey evaluates learning communities on six domains, as well as the reliabilities for the domains ranged from 0.72 to 0.82 (██████ et al., 2015).

## References

Béteille, T., Kalogrides, D., & Loeb S. (2012). Stepping stones: Principal career paths and school outcomes. *Social Science Research*, 41(4). <https://doi.org/10.1016/j.ssresearch.2012.03.003>

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

Bryk, A. S., Gomez, L. M., Frunow, A., & LeMahieu, P. G. (2015). *Learning to improve: How America's schools can get better at getting better*. Harvard Educational Press.

Carver-Thomas, D. (2018). *Diversifying the teaching profession: How to recruit and retain teachers of color*. Learning Policy Institute.

<https://learningpolicyinstitute.org/product/diversifying-teaching-profession-report>

Coburn, C. E. (2003). Rethinking scale: Moving beyond numbers to deep and lasting change. *Educational Researcher*, 32(6), 4.

Darling-Hammond, L., J. Oakes, S. K. Wojcikiewicz, M. E. Hyler, R. Guha, A. Podolsky, T. Kini, C. M. Cook-Harvey, C. N. J. Mercer, & Harrell, A. (2019). *Preparing Teachers for Deeper Learning*. Harvard Education Press.

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

Fuller, E., Young, M., & Baker, B. D. (2011). Do principal preparation programs influence student achievement through the building of teacher-team qualifications by the principal? An exploratory analysis. *Educational Administration Quarterly* (47), 173-216.

Gates, S. M., Baird, M.D., Doss, C.J., Hamilton, L.S., Opper, I.M, Master,B.K., Prado Tuma, A., Vuollo, M., Zaber, M.A. (2019). *Preparing school leaders for success: Evaluation of New Leaders' Aspiring Principals Program, 2012–2017* RAND Corporation.  
[https://www.rand.org/pubs/research\\_reports/RR1550-3.html](https://www.rand.org/pubs/research_reports/RR1550-3.html)

Goldring, R., & Taie, S. (2018). *Principal attrition and mobility: Results from the 2016–17 Principal Follow-up Survey First Look* (NCES 2018-066). U.S. Department of Education. Washington, DC: National Center for Education Statistics.

Grissom, J. & Keiser, L. (2011). A Supervisor like me: Race, representation, and the satisfaction and turnover decisions of public sector employees. *Journal of Policy Analysis and Management*, Vol. 30(3), 557–580.



- Grissom, J., Egalite, A.J., & Lindsay, C.A. (2021). *How principals affect students and schools: A Systematic synthesis of two decades of research*. The Wallace Foundation.  
<http://www.wallacefoundation.org/principalsynthesis>
- Hanushek, E. A., & Rivkin, S. G. (2010). Generalizations about using value-added measures of teacher quality. *American Economic Review: Papers & Proceedings*, 100, (May 2010): 267–271.
- Henry, G.T. & Harbatkin, E. (2019). *Turnover at the top: Estimating the effects of principal turnover on student, teacher, and school outcomes*. Annenberg Brown University. :  
<https://www.edworkingpapers.com/ai19-95>
- Herman, R., Gates, S., Arifkhanova, A., Barrett, M., Bega, A., Chavez-Herrerias, E.R., et al. (2017). *School leadership interventions under the Every Student Succeeds Act: Evidence review*. RAND Corporation. [https://www.rand.org/pubs/research\\_reports/RR1550-3.html](https://www.rand.org/pubs/research_reports/RR1550-3.html)
- Isaacs, T., Zara, C., & Herbert, G. (2013). *Key concepts in educational assessment*. Sage Publications.
- Jacob, R., Goddard, R., Kim, M., Miller, R., & Goddard Y. (2015). Exploring the causal impact of the McREL Balanced Leadership program on leadership, principal efficacy, instructional climate, educator turnover, and student achievement. *Educational Evaluation and Policy Analysis*, 37(3), 314-332.
- Jamieson, C., Silva-Padron, G., Thomsen, J, Bloomquist, L., Fulton, M., McCann, M. (2022). *50-State Comparison: States' School Improvement Policies*. Education Commission of the States. <https://www.ecs.org/50-state-comparison-states-school-improvement-policies-2022/>
- Kraft, M. A. (2020). Interpreting effect sizes of education interventions. *Educational Researcher*, 49(4), 241–253.

Ladson Billings, G. (2006). From the achievement gap to the educational debt: Understanding achievement in US schools. *Educational Researcher* 35(7), 3-12.

Leithwood, K., Harris, A., Strauss, T. (2010). *Leading school turnaround: How successful leaders transform low-performing schools*. San Francisco, CA: Jossey-Bass.

Levin, S. & Bradley, K. (2019). *Understanding and addressing principal turnover: A Review of the literature*. Learning Policy Institute.

<https://learningpolicyinstitute.org/product/nassp-understanding-addressing-principal-turnover-review-research-report>

[REDACTED]

[REDACTED]

[REDACTED]

New Teacher Center. (2018) *Churn, the high cost of principal turnover*. New Teacher Center.

[https://newteachercenter.org/wp-content/uploads/2021/07/Churn-The-High-Cost-of-Principal-Turnover\\_RB21.pdf](https://newteachercenter.org/wp-content/uploads/2021/07/Churn-The-High-Cost-of-Principal-Turnover_RB21.pdf)

Nunnery, J. A., Ross, S. M., Chappell, S., Pribesh, S., & Hoag-Carhart, E. (2011). Norfolk, VA: Center for Educational Partnerships, Darden College of Education, Old Dominion University.  
: <https://eric.ed.gov/?id=ED531042>

Peurach, D.J., Foster, A.T., Lyle, A.M., Seeber, E.R. (2021). *Democratizing educational innovation and improvement: The Policy contexts of improvement research in education*.

CPRE Working Papers. Retrieved from [https://repository.upenn.edu/cpre\\_workingpapers/27](https://repository.upenn.edu/cpre_workingpapers/27)

Reardon, S. (2019). *Racial and ethnic achievement gaps*. Stanford Center for Educational Policy Analysis.

<https://cepa.stanford.edu/educational-opportunity-monitoringproject/achievement-gaps/race/>

- Reardon, S. F., Cimpian, J., & Weathers, E. S. (2015). Patterns and trends in racial/ethnic and socioeconomic academic achievement gaps. In H. F. Ladd, & M. E. Goertz (Eds.), *Handbook of Research in Education Finance and Policy* (2nd ed.). Routledge.
- Seashore-Louis, K., Leithwood, K., Wahlstrom, K., & Anderson, S. (2010). *Learning from leadership: Investigating the links to improved student learning*. Educational Research Service.
- Spillane, J. P., & Diamond, J. B. (2015). *Distributed leadership in practice*. Hawker Brownlow Education.
- What Works Clearinghouse. (2022). *What Works Clearinghouse procedures and standards handbook, version 5.0*. U.S. Department of Education, Institute of Education Sciences, National Center for Education Evaluation and Regional Assistance (NCEE).  
<https://ies.ed.gov/ncee/wwc/Handbooks>
- Will, M. (2021). Teachers of color are linked to social-emotional, academic gains for all students. *Education Week*. February 08, 2022.  
<https://www.edweek.org/teaching-learning/teachers-of-color-are-linked-to-social-emotional-academic-gains-for-all-students/2022/02>
- Rui Yan, (2020) The Influence of working conditions on principal turnover in K-12 public schools. *Educational Administration Quarterly* (56)1, 89-122  
<https://doi.org/10.1177/0013161X19840391>