

## A. Quality of the Project Design

### Introduction

The COVID-19 pandemic disrupted learning across the United States, closing schools and significantly altering the educational landscape. Now, more than two years since the pandemic began, studies are showing greater-than-expected declines in student academic performance as well as rising concerns over social and emotional needs and student well-being (Barshay, 2022; Kuhfeld et al., 2022).

The pandemic's impact on students in Missouri has been substantial and far reaching. On statewide MO Assessment Program (MAP) grade level and End-of-Course (EOC) assessments, students experienced a decline in scores across all subjects and grade levels. A January 2022 survey of counselors, principals, and teachers by the Missouri Department of Elementary and Secondary Education (DESE) indicates a rise in negative social behaviors and growing concern over students' engagement in school (DESE, 2022b). Moreover, as it has across the United States, the pandemic has exacerbated disparities in student outcomes (Dorn et al., 2021). In Missouri, Black and Hispanic students, as well as economically disadvantaged students, show greater academic loss on MAP assessments than white students, especially those students who spent a greater proportion of learning time in hybrid or virtual instruction.

**Schools need strong leaders to address intensified learning needs.** Research makes clear, “leadership is second only to classroom instruction among all school-related factors that contribute to what students learn at school” (Leithwood et al., 2004). Moreover, due to the reach of a principal, when looking at the school as a whole an effective principal is more important than the effectiveness of a single teacher (Grissom et al., 2021). As schools seek to address intensified social and emotional issues and effectively accelerate learning, principals are key to creating effective learning and instructional environments that reach the greatest number of students. Efforts to build the capacity of principals are essential to addressing the negative social, emotional, and academic impacts of the pandemic.

The Missouri Leadership Development System (MLDS) is the nexus for building the capacity of principal and assistant principals<sup>1</sup> throughout the state of Missouri. MLDS is a comprehensive, evidence-based system that develops, supports, and refines the leadership capacity of Missouri principals. Evidence has shown that MLDS changes principal practice in ways that result in changes to teacher practice (Liang & Slotnik, 2021). MLDS is the launching point for this initiative.

**Project Expanded Impact (IMPACT) takes MLDS to its next iteration. It enables MLDS to reach more principals across the state. Further, it expands and develops new capacities principals need to address the increased challenges exacerbated by the pandemic.** IMPACT builds on MLDS and the longstanding partnership between the Community Training and Assistance Center (CTAC) and the Missouri Department of Elementary and Secondary Education (DESE). IMPACT represents an exceptional approach to addressing Absolute Priority 2 (Supporting Effective Principals or Other School Leaders) and Competitive Preference Priorities (CPP) 1–Increasing Educator Diversity, CPP 2–Promoting Equity in Student Access to Educational Resources and Opportunities, and CPP 3–Meeting Student Social, Emotional and Academic Needs.

### **1. Quality, Intensity and Duration of Services**

IMPACT increases the number of highly effective principals and improves teaching and learning through four key elements: (1) conducting outreach to engage more principals in MLDS, particularly those from low-performing schools with underserved students; (2) addressing the increased social and emotional needs of students; (3) addressing the increased academic needs of students; and (4) recruiting, developing, and retaining a high performing, diverse teaching force.

**IMPACT builds on the MLDS foundation.** MLDS has been heralded as a national model for statewide efforts which successfully cultivates effective school leaders (Rowland, 2017, p.

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<sup>1</sup> In the sections that follow, where “principals” are referenced, the term includes both principals and assistant principals.

13). The Wallace Foundation has recently highlighted MLDS’s high-level of effectiveness in supporting principals (Duffrin, 2022). Three comprehensive, external evaluations have generated extensive data on the effectiveness of MLDS (Slotnik & Liang, 2019; Liang & Slotnik, 2020; Liang & Slotnik, 2021). By building on this foundation, and emphasizing the above four key elements, IMPACT has the quality, intensity, and duration to expand and improve the practice of Missouri principals.

IMPACT differentiates training, coaching, and mentorship support for principals using MLDS’s career development model. Principals are supported at each level of their career from *Aspiring* (pre-certificated), to *Emerging* (initial career entry), through *Developing* (mid-career), and ultimately *Transformational* (exceptional). Participants learn and apply new skills and knowledge with the coaching of leadership specialists and the guidance of professional mentors. This multi-stage career approach is similar to those employed by both New Leaders and the National Institute of School Leadership’s Executive Program (Nunnery et al., 2011; Gates et al., 2019), each of which was associated with improved student growth outcomes on ELA and Math assessments.

**MLDS features evidence-based components for delivering IMPACT’s four elements.**

First, principals are engaged in a range of *professional learning experiences* that are both embedded in their schools and provided through multiple in-person and virtual engagements (Lawrence et al., 2008). The professional learning experiences are a primary vehicle through which participants master forty-one evidence-based leadership competencies. Participating principals receive 18 hours per year of the professional learning experiences supported by 20 hours per year of mentoring during their first two years and 104 hours per year of training via networking events (see below). This job-embedded professional development is tailored to discrete working conditions and rooted in specific problems of practice, which are more effective than traditional “sit and get” trainings (Darling-Hammond, 2013; Derrington & Kirk, 2017).

Second, principals have ready access to MLDS Specialists, *content experts who lead professional development and provide executive coaching* (Davis et al., 2020). MLDS Specialists are selected from among the elite corps of school leaders in the state. These Specialists

are located in nine regions and receive more than 150 hours of formal training. The training emphasizes adult learning theory (Knowles et al., 2015), facilitation skills, and MLDS content, with continuing education each year. Specialists have all served in school leadership roles and are skilled providers of effective professional training support and coaching (Powell et al., 2010).

Specialists are based out of Missouri’s nine Regional Professional Development Centers (RPDC), a model that ensures contextual awareness and sensitivity to the cultural patterns that distinguish urban hubs such as St. Louis and Kansas City from the state’s rural communities.



Figure 1. Missouri Regional Professional Development Centers

This regional model of support allows for immediate and direct responses to unprecedented statewide and local challenges, ranging from the impact of the COVID-19 pandemic to civil rights issues in Ferguson, Missouri.

Through IMPACT, the Specialists build the capacity of principals to have direct impact in improving students’ social and emotional health and academic progress (**Competitive Preference Priority 3**).

Third, principals receive *mentoring* in their school settings (Gray, 2018). Former and current principals and superintendents are trained to serve as Mentors, providing one-to-one support to participating principals (Parylo et al., 2012; Spiro et al., 2007). The MLDS Specialists lead the Mentors through a 6-part, 25-hour training series and the Mentors participate in the 104 training hours per year via networking events. This ensures Mentors gain (1) a deep understanding of the MLDS content; (2) a clear understanding of their roles and responsibilities; (3) effective facilitation skills based on adult learning theory; and (4) the ability to apply the research-based evidence on effective leadership and continuous learning to principals.

And fourth, MLDS provides principals with focused *networking* training opportunities to connect with peers and experts (School Leaders Network, 2014). The networking occurs statewide and regionally. These networking opportunities, involving 104 hours of focused

assistance to principals, are led by MLDS Specialists and other content experts, building a network of support for the principals. Cieminski (2018) found that districts with higher retention rates created opportunities for principals to network with others and provide mutual support in addition to individualized support. Across three years of evaluations, 88%–92% of principals agree MLDS makes them more likely to stay as a school leader in Missouri (Liang & Slotnik, 2021). As one superintendent noted in a review of MLDS, “MLDS is not just a ‘training’. It provides a support network of experienced administrators to counsel an administrator through processes in the job” (Slotnik & Liang, 2019, p. 40).

These components are the foundation of MLDS. As such, they serve as the effective launching points for IMPACT.

## 2. Building Capacity and Yielding Results

**IMPACT builds on an established vehicle for delivering learning that strengthens principals’ leadership practices.** MLDS began as a cohort of 150 principals. By its second year, it increased to over 700. In the current year, 2021–22, the system now serves 1,295 principals—37% of principals across Missouri. These principals represent more than 60% of Missouri public schools districts and 30% of charter schools. By serving these principals, MLDS currently reaches nearly 42% of the entire Missouri teacher workforce and 40% of all Missouri students. As described below, IMPACT extends this reach markedly.

MLDS is having a substantial impact on the quality of school leadership across the state in a relatively short period of time. **More than 95% of principals participating in MLDS agree that the program is making them better school leaders and improving their instructional leadership** (Liang & Slotnik, 2021).

In fact, MLDS is considered so critical that **eligibility for receiving Title I funding requires leaders of all schools identified under the state’s accountability system for Comprehensive Support and Improvement (CSI) to participate in MLDS.** This requirement particularly ensures school leaders will apply learnings from IMPACT at the schools in greatest need and in support of the state’s underserved students.

Sustainability is a cornerstone of the system. Research indicates that principals benefit from preparation that is authentically aligned to their job-specific responsibilities (Wieczorek & Manard, 2018). DESE has now codified the leadership competencies in regulations covering requirements for principal training and expectations for principal performance (5 CSR 20-400.610-630). Thus, from the moment they embark on a school leadership pathway, *Aspiring* principals engage in MLDS professional learning experiences that are embedded in the coursework, internship, and performance assessment requirements of all 23 institutions of higher education (IHEs) in Missouri offering master’s degrees in administration. These institutions have taken the unprecedented step of working together to rethink their curricula, revise their internship experiences, and assess their principal candidates’ readiness through the state’s performance assessment. This is a rare collaborative effort that continues to evolve along with MLDS (Guerra et al., 2017).

IMPACT is rooted in these extensive, enduring partnerships among state and local policymakers; K-12 school district officials; and IHE administrators. It draws on a unique alignment between preparation, certification, schools in need, and continuing education for school leaders across Missouri.

IMPACT expands principal participation and builds the capacity of these leaders to serve hundreds of thousands of students. **IMPACT expands the number of principals participating in MLDS to 2,100—60% of principals statewide.** By so doing, IMPACT will also reach 73% of teachers (nearly 52,000) and 70% of students (more than 600,000). With the greater reach of IMPACT, the result is a broad base of skilled principals who can effectively lead their schools in addressing pandemic-related challenges.

### 3. Conceptual Framework

IMPACT leverages principals as the key driver in advancing student learning and responding to pandemic-related challenges. First, IMPACT **expands the reach of MLDS to achieve a critical mass** of participating principals in Missouri. Second, IMPACT **builds the capacity of**

**principals to have a significant impact** on three key areas: social and emotional learning, accelerated academic learning, and teacher recruitment, development, and retention.

The conceptual framework of IMPACT has four elements:

*Element 1: Conduct outreach to engage more principals in MLDS, especially in low-performing schools with underserved students.* **Principal leadership is second only to effective instruction among school-related factors that contribute to student achievement** (Grissom et al., 2021). In particular, research findings indicate “highly effective principals can raise the achievement of typical students in their school by between two and seven months in a single year” (Branch et al., 2013).

Research shows that principals’ leadership is positively correlated with school culture (Sahin, 2011; Parlar et al., 2021), classroom instruction (Bellibas et al., 2020), student achievement (Hou et al., 2019; Robinson et al., 2008), teacher retention (Grissom & Bartanen, 2018), and teacher professional development (Graczewski et al., 2009).

IMPACT recognizes that principals are uniquely positioned to provide the leadership in addressing the social and emotional, academic, and staffing challenges exacerbated by the pandemic. It is therefore essential to develop a critical mass of Missouri’s principals with the knowledge and skills to address these issues successfully. IMPACT expands the number of principals participating in MLDS to 60% of principals statewide.

First, the CTAC and MLDS leadership teams, the Specialists from the nine RPDCs, the organizations represented on the MLDS commission, and marketing experts will build a marketing campaign with multiple modalities (e.g., recruitment videos, infographics, webinars) that are disseminated through various channels (e.g., career websites, social media, emails, referrals). The intensive marketing campaign will include information from recent evaluations which show MLDS is a talent development impact strategy that is evidence-based, instructionally impactful, and cost-effective. This campaign will demonstrate to superintendents that MLDS bridges the gap between research, practice, and policy (Sutcher et al., 2017) and stress how the

MLDS professional development and coaching support are tailored to meet the unique needs of principals in these settings (Schmidt-Davis & Bottoms, 2012).

Second, MLDS Specialists and Mentors will conduct school site recruitment visits in their RPDC regions, specifically identifying and reaching principals identified as serving low-performing schools or those with a higher percentage of underserved students. As Black, Hispanic and economically-disadvantaged students have been disproportionately impacted by the pandemic, reaching their principals is critical. As part of the outreach, these targeted principals will participate in MLDS awareness sessions and also receive one-on-one meetings or virtual follow-ups. Finally, CTAC and DESE will reach out to students graduating from all 23 IHEs offering masters programs in School Administration.

*Element 2: Build the capacity to address the increased social and emotional needs of students.* The pandemic significantly deepened the need to address student social and emotional well-being in schools. It also heightened awareness of the importance of creating equitable, supportive school environments. Recent research suggests 30 to 40 percent of young people have experienced negative impacts on their mental or social-emotional health during the pandemic (Hamilton & Gross, 2021). Feeling depressed, stressed, or anxious has risen to the number one barrier to learning, according to a survey of American youth (Youth Truth, 2020). Furthermore, in terms of both human and financial loss, the pandemic disproportionately affected Black, Hispanic, and economically disadvantaged students (Hamilton & Gross, 2021).

Principals are key to building a supportive school climate and developing responses to students' social and emotional needs. "Principals who build a school climate in which teachers and students feel emotionally supported provide a bedrock on which academic improvement efforts can rest" (Grissom et al., 2021). Principals are critical in organizing schools which help students feel safe and supported (Jacobson et al., 2007). With the increased trauma students continue to experience as a result of the pandemic, Missouri principals must have new skills to develop trauma-informed practices in their teachers and coordinated interventions to address student social and emotional needs.

Through IMPACT, principals learn to develop their teachers' ability to identify and respond to students experiencing trauma. Principals learn to assist teachers in recognizing signs of trauma, such as difficulty engaging and trouble managing emotions. Further, principals need to ensure teachers can respond to student social and emotional needs with interventions which support students' in both the short- and long-term. This includes increasing their self-awareness and trauma competency, developing school-wide structures for behavior management that focus on positive reinforcement, establishing identity-safety classrooms, and avoiding bias in the design and delivery of mental health interventions. IMPACT's professional development and mentorship for principals specifically target the development of these skills in principals.

*Element 3: Build the capacity to address the increased academic needs of students.* As research continues to emerge on the pandemic's ongoing impact on student learning, it is clear there have been severe, negative disruptions to student outcomes.

**The pandemic has increased the academic need of Missouri students.** Student performance outcomes on the MO MAP grade level and End-of-Course Assessments in the 2020–21 school year illustrate the impact of the pandemic. In a study conducted by the SAS Institute (2022) students' projected performance prior to the pandemic are compared to their actual performance on the 2021 MO MAP assessments. Findings on student achievement are reported in effect size, where an effect size of 0.00 equates to expected student performance. Across grades and subjects, students registered lower than expected achievement in 2021 (-0.13) than in 2019 (-0.02).

Significant findings of the study show students had greater learning loss in Math than in ELA, and that earlier grades experienced the greatest impact. Across grades and subjects, students in distanced or virtual learning (which occurred more predominantly in urban areas) experienced a larger effect size (-0.29) than those receiving onsite instruction (-0.07) during the 2020–21 school year. Across student subgroups, Black students experienced the largest effect size (-0.31), with Hispanic students also showing a larger effect size (-0.14) as compared to the effect size of white students (-0.10).

Key to rapidly and effectively addressing student academic needs are principals' abilities to strengthen and improve instructional practice. Research consistently demonstrates that high-quality leaders can and do improve student learning outcomes (Gates et al., 2019; Branch et al., 2013; Marzano et al., 2005). Principals are essential catalysts for effective school improvement (Leithwood et al., 2004). IMPACT responds to student academic needs. It equips principals with the instructional leadership knowledge and skills to close student learning gaps exacerbated by the pandemic.

IMPACT provides principals intentional, focused strategies to lead their teaching staff in accelerating the learning of all students. Through IMPACT, principals learn to guide teachers in probing student achievement data to determine students' current progress toward achieving grade-level standards. Principals also learn to guide teachers in using the student data to personalize and make responsive adjustments to instructional strategies. Principals ensure teachers implement instructional strategies which create equitable and supportive learning opportunities for all students. In addition, IMPACT builds principals capacities to observe classrooms and coach teachers on scaffolding instruction. In so doing, principals become the instructional leaders needed to improve teacher practices and student academic outcomes even as the effects of the pandemic linger.

*Element 4: Recruit, develop, and retain a high performing, diverse teaching force.* Across the United States, a teacher shortage is being exasperated by the pandemic. "Nearly half (44 percent) of public schools currently report full- or part-time teaching vacancies. Of public schools with at least one reported vacancy, 61 percent specifically identified the COVID-19 pandemic as a cause of increased teaching and non-teaching staff vacancies" (NCES, 2022).

In Missouri, 44 percent of teachers do not stay in the public schools beyond their third year of teaching and 53 percent do not stay beyond their fifth year (Missouri Department of Elementary and Secondary Education, 2021a). Moreover, many positions, particularly those in Special Education, have extensive vacancies or are filled with less-than-fully certified teachers (Missouri Department of Elementary and Secondary Education, 2021b). Staff turnover and

shortages threaten school improvement efforts and student achievement (Learning Policy Institute, 2017). At a time when high-quality teachers are most needed, the challenges of recruiting and retaining teachers are significant and escalating.

IMPACT recognizes principals have a large influence on recruiting, developing, and retaining teachers. Research confirms that schools which consistently hire effective teachers have substantially higher academic achievement growth (Beteille et al., 2012). Effective principals have lower rates of teacher turnover (Grissom, 2018). Research has shown that principal support is a deciding factor in teacher decisions to remain in their schools, even more important than salaries (Learning Policy Institute, 2017). Moreover, effective principals are more likely to retain high-performing teachers (Grissom & Bartanen, 2018).

Given the current staffing landscape in Missouri, principals need to be more effective in recruiting teachers to their schools. This need is significant statewide and acute in rural communities. IMPACT builds the capacity of principals to create a comprehensive recruiting plan which includes creative marketing strategies, knowledge of alternative certification pathways, and partnerships with regional educational preparatory institutions. Further, recognizing the importance of a diverse staff for the academic outcomes of students of color as well as white students, IMPACT also trains principals on targeting their recruitment through partnerships with Historically Black Colleges and Universities (HBCUs) and other preparation programs with above average numbers of teacher candidates of color.

To retain teachers, IMPACT focuses on principals' ability to create a teacher talent development system for their schools. The teacher talent development focuses on providing a systematic two-year induction for novice teachers and advancing the pedagogical skills of more experienced teachers. It also emphasizes developing classroom and school cultures that are culturally responsive and supportive of diverse educators. Lastly, it guides principals in creating leadership pathways for experienced teachers to advance to coaching and mentoring roles.

Through expanding the reach of MLDS to achieve a critical mass of participating principals in Missouri and building the capacity of principals in the three key areas, IMPACT will improve teacher practice, diversity, and retention, while advancing student learning.

#### **4. Collaboration of Appropriate Partners**

IMPACT relies on a statewide network of partners to accomplish its goals and deliver comprehensive professional learning to principals.

**MLDS is the product of uncommon collaborative effort.** The MLDS Commission is a strategic oversight body that guides the system’s evolution and implementation. The Commission includes senior leaders and representatives from DESE, professional associations for elementary and secondary school principals and district superintendents, IHEs, MLDS principal participants, and nine RPDCs. These partners have collaborated to create MLDS and establish the foundation to ensure the successful implementation of IMPACT.

The MLDS Commission was essential in identifying the competencies of highly effective principals at each level of experience, from Aspiring to Transformational. The Commission’s research and planning resulted in the design of a comprehensive system aligned with the Professional Standards for Educational Leaders (PSEL), as developed by the National Policy Board for Educational Administration (NPBEA, 2015), and the National Educational Leadership Preparation (NELP) standards (NPBEA, 2018).

**IMPACT continues the collaborative effort.** The Commission partners solicited feedback from Missouri superintendents, principals, teachers, and counselors to identify the most salient needs of Missouri’s students. These needs drive the design of IMPACT. As IMPACT is implemented, the partners on the Commission are essential to the review and design of the principal learning content for each element of IMPACT. Furthermore, the superintendent association as well as the two principal associations and the IHE association are key partners in bringing more principals into the MLDS system, part of IMPACT Element 1.

**In short, the key partners to drive, inform, and ensure the success of IMPACT have a track record of successful collaboration and are already at the leadership table.**

## 5. Addressing the Needs of the Target Population

The design of IMPACT provides a comprehensive response to the challenges exacerbated by the pandemic. Principals are key to school success and the pandemic has required them to take on greater responsibilities. Principals must become leaders who can guide their teachers in overcoming trauma and social and emotional learning barriers. At the same time, principals need to lead their teachers to make responsive instructional decisions which accelerate student learning. While developing these skills in their teachers, principals must also be able to recruit, develop, and retain instructional staff during a period of significant teacher shortages.

IMPACT’s four elements directly address these needs. By integrating the four elements of IMPACT within the existing structure of MLDS, this SEED initiative provides a comprehensive response to the issues exacerbated by the pandemic. The project design, delineating strategies aligned to needs, is described below.

**Table 1. Project Design: Strategies Aligned to Needs**

Needs	IMPACT’s Aligned Strategies
<b>Element 1: Conduct outreach to engage more principals in MLDS, especially those in low-performing schools with underserved students</b>	
<ul style="list-style-type: none"> <li>Missouri needs more principals capable of providing leadership to address pandemic exacerbated problems.</li> <li>Missouri needs more principals who can improve the performance of low-performing schools with underserved students.</li> </ul>	<p>IMPACT will:</p> <ul style="list-style-type: none"> <li>Develop a marketing campaign with multiple modalities to reach principals across the state.</li> <li>Utilize the statewide network of RPDCs, through MLDS principals and supporting superintendents, to recruit additional principals in all regions of the state.</li> <li>Disseminate information from recent evaluations on MLDS which describes the positive impact on principal leadership practices and increased principal retention.</li> <li>Target outreach to principals in low-performing schools to increase the percentage of low income students and students of color served by MLDS principals.</li> </ul>
<b>Element 2: Build the capacity to address the increased social and emotional needs of students</b>	

Needs	IMPACT's Aligned Strategies
<ul style="list-style-type: none"> <li>Principals need to be able to guide their teachers in overcoming trauma and social and emotional learning barriers.</li> </ul>	<p>IMPACT prepares principals to expand teachers' abilities to:</p> <ul style="list-style-type: none"> <li>Recognize behavioral indications of students experiencing trauma.</li> <li>Provide early response to student warning signs with classroom interventions.</li> <li>Respond with extended interventions, at classroom and school-wide levels, to address students' long-term social and emotional needs.</li> <li>Ensure interventions focus on the learning potential of students, rather than on stigmatizing students—particularly students of color—who are in need.</li> </ul>
<p><b>Element 3: Build the capacity to address the increased academic needs of students</b></p>	
<ul style="list-style-type: none"> <li>Principals need to be able to lead their teachers to make responsive instructional decisions which accelerate student learning.</li> </ul>	<p>IMPACT prepares principals to expand teachers' abilities to:</p> <ul style="list-style-type: none"> <li>Probe student achievement data to personalize instructional approaches based on students' current progress toward achieving grade-level standards.</li> <li>Implement instructional strategies which create equitable and supportive learning opportunities for all students.</li> <li>Scaffold instruction to address the requisite foundational skills and content knowledge students need to master.</li> <li>Benchmark progress toward meeting the grade-level learning targets and use student data to make responsive adjustments to instructional strategies.</li> </ul>
<p><b>Element 4: Recruit, develop, and retain a high performing, diverse teaching force</b></p>	
<ul style="list-style-type: none"> <li>Principals need be able to recruit, develop, and retain instructional staff during a period of significant teacher shortages.</li> <li>Principals need be able to recruit, develop, and retain a diverse teacher workforce.</li> </ul>	<p>IMPACT prepares principals to:</p> <ul style="list-style-type: none"> <li>Implement a marketing strategy for their school which attracts teachers from regional educational preparatory institutions and alterative certification pathways</li> <li>Develop a system for teacher talent development that focuses on: <ul style="list-style-type: none"> <li>Providing a systematic two-year induction for novice teachers.</li> <li>Advancing the pedagogical skills of more experienced teachers.</li> <li>Developing classroom and school cultures that are culturally responsive and supportive of diverse educators.</li> </ul> </li> <li>Create leadership pathways for teachers to advance to coaching and mentoring roles.</li> </ul>

**Overall.** IMPACT expands on the foundation of MLDS to reach 60% of principals statewide and addresses needs—exacerbated by the pandemic—which are resulting in the underperformance of Missouri’s students. By leveraging MLDS, a proven, established delivery system for professional learning, IMPACT will quickly and effectively build the leadership capacity of 2,100 principals and, in turn, increase the instructional skills of 52,000 teachers and the learning outcomes of 600,000 students throughout Missouri.

## B. Significance

### 1. The Importance or Magnitude of the Results or Outcomes Likely to be Attained

Research has consistently demonstrated that high-quality leaders can and do improve student learning outcomes (Gates et al., 2019; Branch et al., 2013; Marzano et al., 2005). Principals are also essential catalysts for effective school improvement (Leithwood et al., 2004). With many students falling further behind due to the educational disruptions caused by COVID-19, it is imperative that Missouri equip principals with the knowledge, skills, and abilities to improve teaching and student achievement.

Through the four elements of IMPACT (i.e. conduct outreach to engage more principals in MLDS; build the capacity to address the increased social and emotional needs of students; build the capacity to address the increased academic needs of students; and recruit, develop, and retain a high performing, diverse teaching force) this SEED project will accomplish two primary goals:

- **Goal 1: IMPACT will engage a critical mass of 60% of Missouri principals in leadership development and increase principal retention statewide.** Element 1 directly addresses this goal. As a result, these principals will influence the practices of 73% of the Missouri teacher workforce and serve 70% of all Missouri students.
- **Goal 2: IMPACT will increase the capacities of principals to address the salient needs exacerbated by the pandemic.** Elements 2–4 directly address this goal. As a result, the principals will effectively lead school efforts to improve student well-being and achievement, and be effective in recruiting, developing, and retaining teachers.

Extensive research supports the proposition that IMPACT will increase Missouri’s supply of highly effective principals and lead to improved teaching and learning. Nunnery et al. (2011) and Gates et al. (2019) found that programs structured similarly to MLDS resulted in improved student growth outcomes on ELA and Math assessments. *These studies meet the What Works Clearinghouse (WWC) standards for Tier 2, Moderate Evidence and demonstrate that IMPACT exceeds the evidence base required for Absolute Priority 2.* IMPACT is an extension of MLDS, which has yielded positive feedback from superintendents and principals, 92%–95% of whom believe that the system effectively develops principal leadership skills (Liang & Slotnik, 2021).

IMPACT’s evidence-based approach, broad base of support, and skilled management team instill confidence that IMPACT will attain the following two outcomes:

**(1) Engage and retain a critical mass of highly-effective principals in Missouri.**

IMPACT will increase the supply of highly-effective principals leading Missouri schools by both bringing more principals into MLDS and increasing the retention of effective school leaders.

IMPACT ensures that principals, and especially those in low-performing schools with underserved students, receive continued support that is specific to their local needs and community context. Research indicates that principals benefit from preparation that is authentically aligned to their job-specific responsibilities (Wieczorek & Manard, 2018). IMPACT prepares and positions Specialists, Mentors, and peer networks to identify and address current challenges alongside principals. Through IMPACT, principal development is adaptable to current circumstances—the system has the ability to be responsive to the challenges and concerns of schools and districts. IMPACT builds on the success of MLDS, which is reflected in principals’ opinions of the system, 95% of whom believe that MLDS makes them a better school leader (Liang & Slotnik, 2021).

IMPACT is designed to address each of the factors that research has identified as influencing retention. This includes restructuring roles and policies to clarify expectations for school leaders; offering differentiated professional development throughout the phases of a principal’s career; providing one-on-one coaching beyond a principal’s first two years; and creating opportunities for

meaningful networking (Cieminski, 2018; School Leaders Network, 2014). When principals leave schools—particularly those with underserved students being targeted by IMPACT’s outreach efforts—student performance declines (Béteille et al., 2012). Programs of support for principals similar to IMPACT have been found to improve principal retention (Jacob et al., 2015).

Moreover, MLDS has already demonstrated a positive impact on principal retention. **Over the past three years, Missouri principals participating in MLDS were retained at a rate 20 percentage points higher (98%) than non-participating principals (78%)** (DESE, 2022a). By achieving IMPACT’s goal to bring 60% of Missouri principals into MLDS, IMPACT is expected to raise the overall state retention average from 84% to 90%.

**(2) Improve principal leadership to increase teacher effectiveness and student learning opportunities and results.** Effective principals have a significant impact on the quality of teaching and student learning. Principals enhance student learning by “developing teachers, improving teaching quality, and promoting a favorable school climate and culture that emphasize high expectations and academic outcomes” (Day et al., 2016, p. 239). A recent meta-analysis of the domains of school leadership found to have moderate to strong effects on student outcomes in low-performing schools identified “promoting and participating in teacher learning” and “planning, coordinating, and evaluating teaching and the curriculum” as key levers (Cosner & Jones, 2016, p. 41). Accordingly, principals who participate in IMPACT will improve their students’ achievement by building their capacity to nurture effective teaching, focusing on social and emotional learning, academic learning and recruiting, developing, and retaining teachers.

**IMPACT improves teaching and student learning by addressing student trauma and implementing appropriate interventions.** IMPACT’s professional learning experiences emphasize the importance of principals setting the context and priorities for social and emotional learning in their schools. IMPACT builds the capacity of principals to lead their teachers in recognizing and responding to trauma and implementing social and emotional interventions.

Children exposed to adverse childhood experiences, such as many experienced during the pandemic, often exhibit challenges with skills critical for success in school such as executive

functioning, social skills, and emotional regulation (Jones et al., 2021). Research shows that students participating in social and emotional learning programs improve social and emotional skills, attitudes, behaviors and, importantly, an 11-percentile-point gain in academic achievement (Durlak et al., 2011). A recent review found that social and emotional interventions enhance student social and emotional skills and reduce symptoms of depression and anxiety in the short-term (Clarke et al., 2021). Furthermore, schools which implement high-quality social and emotional learning can contribute to building more equitable and inclusive learning environments (Jones et al., 2021). IMPACT’s emphasis on social and emotional learning and interventions provides principals with the skills to lead school-wide responses to social and emotional learning barriers.

**IMPACT accelerates student learning.** IMPACT uses MLDS’s evidence-based components to build the capacity of principals. Studies show that with strong leadership from the principal, teachers grow more effective and in turn, increase student achievement (Grissom et al., 2021). IMPACT increases the capacity of principals to improve teacher understanding of and ability to implement instructional strategies that are effective in accelerating learning. IMPACT also prepares principals to provide coaching and feedback to bolster teacher performance, which in turn engenders stronger student learning outcomes. Principals often struggle to provide effective coaching and feedback, both of which are correlated with improved student learning. In a recent meta-analysis of 60 studies, Kraft and Blazar (2018) found that providing teachers with high quality coaching and feedback raises the quality of teachers’ instructional practice and improves student achievement. IMPACT trains principals to focus coaching and feedback on the instructional practices which increase the rate and depth of learning to accelerate student progress toward grade-level standards.

Evaluations of MLDS demonstrate IMPACT is well-positioned to achieve positive results. More than 90% of both principals and superintendents believe that MLDS has contributed to their ability to identify and describe different levels of quality instruction, and more than 95% of respondents agree that MLDS has enhanced their ability to provide teachers with quality

feedback (Liang & Slotnik, 2021). More than 92% of principals and 80% of superintendents report that participation in MLDS has led to improved student achievement (Liang & Slotnik, 2021). Moreover, in a survey of over 500 teachers serving under MLDS principals, 89% agree that their principal's leadership contributes to improvement in student achievement at their school (DESE, 2022).

**IMPACT supports a high performing, diverse teaching force.** IMPACT builds principal capacity to recruit, develop, and retain a high performing and diverse teaching staff. IMPACT provides professional learning to principals on targeting recruitment to teachers of color and building a culturally responsive, supportive school environment. Research shows that students are more likely to attend school, achieve, and graduate when at least one of their teachers is the same race or ethnicity (Gershenson et al., 2017).

Further, IMPACT develops the capacity of principals to implement a two-year teacher talent development program for novice teachers. Studies have established positive relationships between teacher induction and teaching practices (Stanulis & Floden, 2009) and student achievement (Glazerman et al., 2010; Schmidt et al., 2017). Furthermore, research shows that teachers who receive more sustained induction perform better at various aspects of teaching and their students perform higher on achievement tests (Ingersoll, 2012).

IMPACT also focuses on strengthening principals to develop the talents of more experienced teachers. Research on talent development shows that it comes in stages (Bloom, 1985; Coyle, 2009). Studies of expert teachers reveal that the key is to develop their skills to the point that they have strong pedagogical content knowledge, can evaluate student learning, and know what to do next if students are struggling (Coe et al., 2014). IMPACT's training builds these capacities so that teachers can become more effective in addressing students' social, emotional and academic learning needs.

By building upon the existing MLDS structure, IMPACT is well-positioned to recruit and retain a diverse teaching force. In a survey of over 500 teachers serving under MLDS principals,

82% agree their principal's leadership encourages teachers to come to their school and 78% agree their principal's leadership encourages teachers to stay at their school (Liang & Slotnik, 2022).

## 2. Extent to which the Costs are Reasonable

**IMPACT is a high value proposition.** IMPACT extends the reach and expands the scope of MLDS. The total average cost per principal projects to \$2,200 per year. Reaching 60% of the principals in Missouri by the end of the three year grant period equates to 2,100 principals, who each serve approximately 290 students. **This cost-effective investment comes to less than \$7.60 per student.**

Currently, MLDS is funded through Title I, Title IIA professional development, Title II set aside for leadership development, Preschool Development Birth to 5 resources, state appropriations, and public school districts. This funding model ensures the sustainability of MLDS for the long-term and the continuation of IMPACT beyond the grant period.

**IMPACT's project design reduces costs in the long-term.** Costs for hiring, placing, and developing a new principal are estimated at \$75,000 (School Leaders Network, 2014). As the foundation of IMPACT, MLDS provides both a more cost-effective and sustainable system. Highlighted in Section B.1., MLDS principals are being retained at a rate of 20 percentage points higher than non-participating principals in the state. As IMPACT brings more principals into the MLDS system, principal retention across the state will rise, reducing the above costs for districts.

Furthermore, IMPACT also builds principal capacity to implement the most promising strategies to recruit and, critically, retain effective teachers. Estimates of the cost to replace a teacher range between \$9,000 to more than \$20,000 per teacher depending on the geographic setting of the district (i.e., rural, suburban, or urban) (Espinoza et al., 2018). High teacher turnover consumes valuable staff time and resources. When teachers leave a school within 1 or 2 years, the investments made in their onboarding and training must be repeated with their replacements. IMPACT reduces these costs by building principal capacity to effectively recruit, develop, and retain teachers.

IMPACT provides high-quality professional learning to principals specifically focused on the issues facing schools right now. New content on social and emotional learning and accelerated learning will be supported with six new Specialists. The knowledge and capacity building these Specialists bring to MLDS will be incorporated into the system’s leadership curriculum materials. Funding for this additional staffing will transition from SEED and be paid by MLDS’s funding sources upon completion of the grant. **The return on investment, given the intensity and quality of training and support provided to principals, is exceptionally high.** In fact, given principals’ reach and their impact on student learning outcomes, the Wallace Foundation found “*It is difficult to envision an investment in K-12 education with a higher ceiling on its potential return than improving school leadership*” (Grissom et al., 2021).

### 3. Potential for the Incorporation of the Project into the Ongoing Program of the Agency

IMPACT builds on the MLDS foundation, an established principal leadership development system, ensuring its ongoing implementation and success.

**MLDS is woven into the fabric of Missouri’s educational system.** Since 2014, MLDS has become progressively more embedded at all levels of the state education system, from pre-service to transformational principals, from DESE to the State Board of Education, from school classrooms to IHEs, and from the granular level of school community to the highest policy levels of the state (see Appendix D: Letters of Support).

IMPACT will significantly increase the number of Missouri principals in the MLDS system, further engraining MLDS within the state. DESE will continue to use the marketing tools, materials, and skills developed through IMPACT to bring principals into the system. MLDS intends to continue to recruit principals beyond the goal of 60% after the three year grant period.

Engagement in MLDS is widespread, and leaders in the field have come to rely on the support of the Specialists and Mentors. Districts are pleased with this leadership development system: 95% of superintendents with MLDS principals agree MLDS supports the growth of school leaders in Missouri (Liang & Slotnik, 2021). One superintendent exemplified the belief in MLDS, stating, “I have been so impressed that I am requiring my new hires to enroll and

participate in MLDS” (Slotnik & Liang, 2019, p. 36). SEED funding will support IMPACT to immediately expand and extend MLDS. The system is a linchpin of the state’s educational landscape and the elements of IMPACT will be sustained as it continues to become more deeply embedded year-over-year.

#### **4. Dissemination**

IMPACT, with MLDS at its core, provides an exemplar of a statewide system of growth and development for principals. The system is fully aligned from initial preparation at IHEs to each stage of a principal’s career progression. IMPACT will provide a playbook for other states on how to design a process for cultivating highly effective school leaders. MLDS is deeply rooted in research and IMPACT will expand and extend the system based on pandemic-induced challenges within the field. Accordingly, DESE has learned how to (1) create the system, (2) adjust it to changing contexts, (3) elicit greater participation, and (4) scale the system sustainably as participation increases. This knowledge is transferable to other settings.

IMPACT will also develop an accompanying cost model for others who seek to establish a statewide leadership development program. The cost model will describe initiative components such as the roles, expertise, staffing, and resources needed.

The Project Evaluation (Section D) demonstrates how the impact of supporting principals through MLDS will achieve the goals set forth above in Section B.1. Using a quasi-experimental design that meets WWC standards with reservations, this evaluation will utilize both qualitative and quantitative data to provide evidence of IMPACT’s efficacy and effectiveness (including its impact on teacher practice, principal retention, and student learning).

IMPACT has multiple strategies for disseminating project information and findings from the implementation and evaluation.

(1) Formative and summative evaluation findings will be reported as they are completed through presentations, webinars, and conferences for national foundation and association leaders such as the School Superintendent Association (AASA), the CCSSO, the National Association of Elementary Principals, the National Association of Secondary Principals, the Wallace Foundation,

the National Child Traumatic Stress Network, the Knowledge Alliance, the University Council for Education Administration, and the U.S. Department of Education Comprehensive Center Network and the Regional Educational Laboratories. The findings will also be provided within the state, to the Missouri Association of Elementary School Principals (MAESP), the Missouri Association of Secondary School Principals (MoASSP), the Missouri Association of School Administrators (MASA), the Missouri School Boards Association (MSBA), and the Missouri Professors of Education Administrators (see Appendix D: Letters of Support).

(2) The IMPACT team will make presentations at national conferences, such as at ASCD or AASA and will submit articles to professional journals such as School Administrator (AASA) or Educational Leadership (ASCD), conveying the key attributes of the IMPACT model and its outcomes.

(3) IMPACT will establish an interactive, dedicated project website, providing open source materials to interested practitioners, policy makers, and researchers. This resource platform is intended to include artifacts, hands-on implementation guides, FAQs, and formative and summative evaluation reports. The goal is to provide information and online assistance related to developing principals' leadership skills, advancing student learning, and creating a statewide comprehensive principal leadership system.

(4) IMPACT will use multiple forms of media to engage educators and disseminate project information. For example, MLDS has a well-established weekly Twitter chat program to discuss professional learning topics with educators. IMPACT will use this and other platforms such as Facebook, YouTube, and the state's virtual learning platform for teachers and leaders to maintain connections and inform the community about IMPACT.

(5) MLDS competencies, and updates made under IMPACT, will be incorporated within the coursework and internship expectations for leaders enrolled in master's programs within all 23 Missouri IHEs.

(6) Formative data on the impact of the MLDS content will be actively collected (see section D). These data will be regularly presented to the Leadership Council, MLDS Commission,

Commissioner of Education, State Board of Education, and to the other partners and stakeholders that contribute to MLDS. Additionally, the formative data will also be shared with practitioners in PK-12 school systems and higher education institutions. These data and dissemination efforts will guide the refinement of the program and serve as a recruiting tool for additional participants.

CTAC has a demonstrated track record of success in establishing and using mechanisms to support the development and large scale replication of promising initiatives. For example, CTAC introduced and showed the effectiveness of Student Learning Objectives (SLOs) in a groundbreaking initiative in Denver, CO, and subsequently helped Austin, TX and Charlotte-Mecklenburg, NC to implement SLOs at an increasingly higher level of science. CTAC then assisted the U.S. Department of Education to adopt, and more than 40 states and several thousand school districts to embrace, SLOs as a model for new educator evaluation systems.

CTAC and DESE are drawing from these experiences and using the above-mechanisms to ensure an effective dissemination of the project’s lessons and results.

## C. Quality of the Management Plan

### 1. Goals, Objectives, and Outcomes

**IMPACT delivers on the promise of SEED by using evidence-based practices to increase the number of highly effective principals serving Missouri teachers and students.** The goals, objectives, outcomes and metrics for the management plan are described below.

Table 2. Goals, Objectives, and Outcomes

Objectives	Outcomes	Metric
<i>Goal 1: Engage a critical mass of 60% of Missouri principals in leadership development and increase principal retention statewide</i>		
1.1 Conduct outreach to engage more principals in MLDS, especially in low-performing schools with	<ul style="list-style-type: none"> <li>• Increase principals in MLDS from 37% to 60% (Y1-45%, 1,575), (Y2-53%, 1,855), (Y3-60%, 2,100)</li> <li>• Increase overall state principal retention rate from 84% to 90% (Y1-86%, Y2-88%, Y3-90%)</li> <li>• Increase the percentage of MLDS principals</li> </ul>	<ul style="list-style-type: none"> <li>• MLDS program participation records</li> <li>• Principal retention data</li> <li>• ELA and Math MAP data from</li> </ul>

Objectives	Outcomes	Metric
underserved students.	in schools that have over 50% students with FRPL from 47.5% to 55% (Y1-50%, Y2-52.5%, Y3-55%)	schools that have over 50% students with FRPL
<i>Goal 2: Increase the capacities of principals to address the salient needs exacerbated by the pandemic</i>		
2.1 Build principals' capacity to guide teachers in overcoming trauma and social and emotional learning barriers.	<ul style="list-style-type: none"> <li>70% of MLDS principal supervisors report their principals have the ability to develop teachers' trauma-informed practices and social and emotional diagnoses/interventions</li> <li>80% of principals report the ability to develop teachers' trauma-informed practices and social and emotional diagnoses/interventions</li> <li>70% of teachers report ability to respond to students experiencing trauma and social emotional learning needs</li> </ul>	<ul style="list-style-type: none"> <li>Results from principal supervisor surveys and interviews</li> <li>Results from principal surveys and interviews</li> <li>Results from teacher surveys and interviews</li> </ul>
2.2 Build principals' capacity to lead teachers to make responsive instructional decisions which accelerate student learning.	<ul style="list-style-type: none"> <li>80% of principals report the ability to guide teachers to make responsive instructional decisions which accelerate student learning</li> <li>70% of teachers report the ability to create equitable learning opportunities and accelerate student learning</li> <li>Rate of proficiency and growth in MAP and End-of-Course student scores for MLDS principals will exceed that of comparison group by 10 percentage points by end of year three</li> </ul>	<ul style="list-style-type: none"> <li>Results from principal surveys and interviews</li> <li>Results from teacher surveys and interviews</li> <li>MAP ELA, Math data and EOC data</li> </ul>
2.3 Recruit, develop, and retain a high performing, diverse teaching force.	<ul style="list-style-type: none"> <li>70% of MLDS Specialists report principals ability to create a comprehensive teacher diversity targeted recruiting plan</li> <li>80% of principals report the ability to create a comprehensive teacher diversity targeted recruiting plan</li> <li>80% of teachers report their school culture is culturally responsive and supportive of diverse educators</li> </ul>	<ul style="list-style-type: none"> <li>Results from Specialist surveys and interviews</li> <li>Results from principal surveys and interviews</li> <li>Results from teacher surveys and interviews</li> </ul>

Objectives	Outcomes	Metric
	<ul style="list-style-type: none"> <li>80% of teachers with 3 or more years of experience report their principal has advanced their pedagogical skills and provided opportunities for coaching and mentor roles at their school</li> <li>90% of novice teachers enrolled in a systematic two-year induction</li> <li>Teacher retention is 10% higher for those teachers led by MLDS principals</li> </ul>	<ul style="list-style-type: none"> <li>Results from teacher surveys/interviews</li> <li>Results from novice teacher enrollment data</li> <li>Calculated teacher retention data</li> </ul>

**2. Adequacy of the Management Plan**

IMPACT provides the leadership and project management to ensure fidelity and quality of implementation. IMPACT is critical to the future of Missouri’s school leaders, teachers, and students. Therefore, IMPACT has the active engagement of all key state decision-makers, including the Commissioner of Education, and leaders of partnering associations.

*Management Structure*

**The Leadership Council** (meets every two months) oversees the entire initiative, reviews formative and summative evaluations, ensures progress toward all



project objectives, and makes adjustments to strengthen implementation. The Leadership Council consists of the highest-level decision-makers in the state system and the partner associations. As such, the Leadership Council is empowered to cut through issues of turf or jurisdiction so that IMPACT is substantive and extensive. In so doing, the Leadership Council sends a clear message about the importance of this initiative. Members: DESE’s Commissioner of Education, DESE’s Assistant Commissioner, Office of Educator Quality, CTAC’s Chief Executive Officer, MLDS Commission Chair, Project Co-Directors.

**Principal Outreach and Engagement Team** (meets monthly) – develops a statewide outreach strategy for the recruitment of principals into MLDS, with emphasis in each of the nine regions for principals in low-performing schools with underserved students. Members: MLDS Principal Recruitment and Development Lead, Marketing and Recruitment Expert, Lead Regional Specialist, and Project Co-Directors.

**Social and Emotional Learning Team** (meets monthly) – guides the implementation for addressing principal development in leading teachers in trauma-informed practices, responding to students experiencing trauma and social and emotional learning barriers with extended interventions. Members: Social and Emotional Learning Lead, Social and Emotional Learning Expert, Social and Emotional Learning Specialists (3), and Project Co-Directors.

**Academic Acceleration Team** (meets monthly) – guides the implementation for developing principals ability to lead teachers in probing student achievement data for personalized and responsive adjustments to instruction, scaffolding instruction, and implementing instructional strategies which create equitable and supportive learning opportunities. Members: Academic Acceleration Team Lead, Academic Acceleration Expert, Academic Acceleration Specialists (3), and Project Co-Directors.

**Teacher Recruitment, Development and Retention Team** (meets monthly) – guides the implementation for developing principals ability to create a comprehensive recruiting plan, conduct recruitment in partnership with HBCUs and other IHEs, and retaining high performing and diverse teaching staff by implementing a system for talent development. Members: Principal and Teacher Talent Development Lead, Marketing and Recruitment Expert, and project Co-Directors.

**Research and Evaluation Group** (meets every two months) – The Research and Evaluation Group reports directly to the Leadership Council. It provides regular formative feedback on progress towards project objectives, outcomes, implementation, and potential improvements and course corrections along with summative reporting. Members: Research and Evaluation Lead, Senior Associate-Research and Evaluation (2), and Project Co-Directors.

*Project Team*

The IMPACT project team is comprised of highly skilled professionals from both DESE and CTAC. The leadership and execution of the grant is co-led by the collaborative efforts of the two Project Co-Directors, [REDACTED] for DESE and [REDACTED] for CTAC. The Executive leaders, [REDACTED] for DESE and [REDACTED] for CTAC, ensure successful project implementation and partnerships.

Key team members and roles are identified below, followed by short bios for each. Full resumes are in Appendix B.

Table 3. Project Team Members

Name	Project Role	Time	Partner
[REDACTED]	Executive Project Leader	25%	DESE
[REDACTED]	Co-Director, Project Management	75%	DESE
MLDS Specialists (18)	Professional Development	65%	DESE/RPDC
MLDS Lead Specialists (9)	Professional Development	100%	DESE/RPDC
MLDS Specialists (6 new)	Professional Development	100%	DESE/RPDC
[REDACTED]	Executive Project and Fiscal Leader	25%	CTAC
[REDACTED]	Co-Director, Project Management	75%	CTAC
[REDACTED]	Principal Outreach and Engagement Lead	30%	CTAC
[REDACTED]	Social and Emotional Learning Lead	30%	CTAC
[REDACTED]	Academic Acceleration Lead	25%	CTAC
[REDACTED]	Teacher Recruitment, Development, and Retention Lead	30%	CTAC
[REDACTED]	Research and Evaluation Lead	40%	CTAC
[REDACTED]	Senior Associate, Research and Evaluation	30%	CTAC
[REDACTED]	Senior Associate, Research and Evaluation	25%	CTAC

*Missouri Department of Elementary and Secondary Education (DESE) Staff*

DESE staff bring deep knowledge and ownership of project IMPACT.

██████████, Ed.D, Assistant Commissioner, serves as the Executive Project ██████████ ██████████ has thirty years of experience in education and is the original architect of MLDS. He oversees the approval of preparation programs, the certification of educators in Missouri, and the development and implementation of PD and evaluation programs for teachers and leaders.

██████████, Ed.D, Office of Educator Quality, serves as the Co-Director, Project Management. ██████████ has four decades of experience in education, including school and district leadership. He oversees and coordinates the regional MLDS Specialists and Mentors.

**MLDS Specialists** from the nine RPDC regions provide training and coaching to participants in IMPACT and lead the mentors. Collectively, these 27 current Specialists (9 of whom serve as regional leads) have extensive experience in school leadership. They were selected through direct recommendations from members of their regions. IMPACT will bring on 6 additional Specialists (3 focusing on social emotional learning, 3 focusing on academic acceleration).

*Community Training and Assistance Center (CTAC) Project Staff*

CTAC is a 43-year-old, national nonprofit, with extensive expertise and national experience in successfully leading and managing large-scale projects, major state initiatives, and Federal grants. CTAC has partnered with state education agencies (ranging from New York State to Texas to Maryland), served as the lead or partner on 15 successful U.S. Department of Education grants, and conducted initiatives in hundreds of districts. Our grant management expertise will ensure on-time, on-budget completion of project goals and objectives, including meeting reporting requirements and performance measures.

The CTAC program team is composed of highly skilled, experienced professionals.

██████████, Founder and Chief Executive Officer of CTAC, serves as Executive Project and Fiscal Leader. He provides executive leadership and fiscal oversight of the initiative. He has provided extensive assistance to 45 state education agency leaders and departments, superintendents, state and local boards of education, unions and leadership teams nationally. He

leads technical assistance/evaluation initiatives nationally to address such issues as teacher and principal effectiveness, teacher and administrator evaluation, and systemic school reform.

██████████, Chief Officer, National Field Operations, serves as Co-Director, Project Management. He provides overall project management for the grant, is the primary point of contact to the U.S. Department of Education, and serves as liaison for the project. ██████████ will provide technical assistance to IMPACT leadership, key staff, and partners. ██████████ has led multiple large-scale state and system-wide efforts.

██████████, Ed.D, Senior Associate, National School Reform, serves as Principal Outreach and Engagement Lead. He has over 28 years of district leadership experience, including 15 years as superintendent with a focus on developing talent in multiple school districts. ██████████ will provide leadership to recruit principals into MLDS.

██████████, Senior Associate, National School Reform, serves as Social and Emotional Learning Lead. ██████████ has experience teaching and coaching in public schools. She has expertise in school culture and climate, diversity, equity and inclusion, and English language learning. She has worked on national initiatives to improve school culture and climate.

██████████, Ed.D., Senior Associate, Leadership Development, serves as the Academic Acceleration Lead. ██████████ has 32 years of experience in public education. She has led school and district reform efforts in diverse districts in her roles as Chief Academic Officer, Executive Director of Curriculum and Instruction, Director of Elementary Education, and principal.

██████████, Ph.D., Senior Associate, School Turnaround, serves as the Teacher Recruitment, Development, and Retention Lead. ██████████ has led multiple district and school improvement initiatives. He has expertise in using differences in organizational assets to create a climate and culture that serves diverse teachers. He will provide technical assistance to support principals in recruiting teachers with an emphasis on teachers of color.

### *CTAC Evaluation Group*

The CTAC evaluation group has years of educational evaluation and research experience, including conducting multiple federal grants, is well versed in *What Works Clearinghouse* (WWC) requirements, and has firsthand knowledge on MLDS.

██████████, Ph.D., Research and Evaluation Lead, serves in a key role for CTAC’s research and evaluation work. ██████████ performs quantitative and qualitative data analysis and conducts comprehensive research and evaluation for various projects throughout the country, including Teacher and School Leader Incentive Program grants, Evaluation of Teacher Recruitment and Retention Grants for DESE, Texas Education Agency CSP grant, Education Innovation and Research grant in Tracy, CA, and formative reviews of MLDS. He also played a critical role in evaluating the fidelity of implementation of the System for Educator Evaluation and Development (SEED) in Connecticut. ██████████ was post-doctoral researcher on Educational Leadership and Policy Analysis at the University of Missouri.

██████████, Ph.D., Senior Associate, Research and Evaluation, plays a leading role in education research and evaluation for numerous CTAC projects and holds a What Works Clearinghouse certification. ██████████ is an expert in the area of program effect evaluation, including designing evaluation questions, methodologies, and instruments. He has extensive experience in student achievement data analysis and teacher performance analysis.

██████████, Ph.D., Senior Associate, Research and Evaluation, provides strategic support, policy guidance, and technical assistance at district and state levels. She supported the rollout of educator evaluation processes in several districts and states. ██████████ previously served as the Senior Research Program Analyst for Charlotte-Mecklenburg Schools’ Leadership for Educators’ Advanced Performance initiative.

Table 4. IMPACT Timelines and Organizational Responsibilities

Objectives	Tasks	Responsible <sup>2</sup>	Timeline
1.1 Conduct outreach to engage more principals in MLDS, especially in low-performing schools with underserved students.	Formalize and renew contracts with recruiting and marketing experts.	LC, Co-Directors	Y1 Q1 Y2 Q1 Y3 Q1
	Develop a marketing campaign with multiple modalities and refine each year.	PrinOETeam, TeaTeam, MLDS Commission	Y1 Q1 Y2 Q1 Y3 Q1
	Use MAP data to target outreach to non-MLDS principals in low-performing schools with underserved students.	PrinOETeam, LC	Y1 Q1 Y2 Q1 Y3 Q1
	Utilize the statewide network of specialist in RPDCs, to recruit MLDS principals in all nine regions.	Specialists, Mentors	Y1 Q1-4 Y2 Q1-4 Y3 Q1-4
	Disseminate information from recent evaluations on MLDS describing value proposition of being in MLDS.	LC, Co-Directors	Y1 Q4 Y2 Q4 Y3 Q4
	2.1 Build principals' capacity to guide teachers in overcoming trauma and social and emotional learning barriers.	Formalize and renew contracts with social and emotional learning and competency experts.	LC, Co-Directors
Refine MLDS competencies and train principals to recognize behavioral indications of students experiencing trauma and social and emotional learning barriers.		SELTeam, SELSp, SELExpert	Y1 Q1-2 Y2 Q1-2 Y3 Q1-2
Train principals on providing early response to student warning signs with classroom interventions.		SELTeam, SELSp, SELExperts	Y1 Q1-Q4 Y2 Q1-Q4 Y3 Q1-Q4
Train principals on responding with extended interventions, at classroom and school-wide levels, to address students' long-term SEL needs.		SELTeam, SELSp, SELExperts	Y1 Q1-Q4 Y2 Q1-Q4 Y3 Q1-Q4

<sup>2</sup> PrinOETeam = Principal Outreach and Engagement Team; LC = Leadership Council; SELSp = Social and Emotional Learning Specialists; AcadSp = Academic Acceleration Specialists, SELTeam = Social and Emotional Learning Team, AcadAccTeam = Academic Acceleration Team, TeaRDRTeam = Teacher Recruitment, Development, and Retention Team

Objectives	Tasks	Responsible <sup>2</sup>	Timeline
	Train principals on focusing interventions on the learning potential of students.	SELTeam, SELSp, SELExperts	Y1 Q1-Q4 Y2 Q1-Q4 Y3 Q1-Q4
2.2 Build principals' capacity to lead teachers to make responsive instructional decisions which accelerate student learning.	Formalize and renew contract with experts for accelerated learning.	LC, Co-Directors	Y1 Q1 Y2 Q1 Y3 Q1
	Develop principal ability to probe data and lead teachers in personalizing instructional approaches.	AcclTeam, AcadSp, AcclExperts	Y1 Q1-Q4 Y2 Q1-Q4 Y3 Q1-Q4
	Develop principal ability to implement instructional strategies which create equitable and supportive learning opportunities for all students.	AcclTeam, AcadSp	Y1 Q1-Q4 Y2 Q1-Q4 Y3 Q1-Q4
	Develop principal ability to demonstrate and lead teachers to scaffold instruction.	AcclTeam, AcadSp	Y1 Q1-Q4 Y2 Q1-Q4 Y3 Q1-Q4
	Develop principal ability to benchmark progress toward meeting the grade-level learning targets and use student data to make responsive adjustments to instructional strategies.	AcclTeam, AcadSp	Y1 Q1-Q4 Y2 Q1-Q4 Y3 Q1-Q4
2.3 Recruit, develop, and retain a high performing, diverse teaching force.	Develop principal ability to implement a marketing strategy to attract teachers from regional educational preparatory institutions and alternative certification pathways.	TeaRDRTeam	Y1 Q1 Y2 Q1 Y3 Q1
	Develop principal ability to implement and revise a system for teacher talent development that focuses on two-year induction for novice teachers.	TeaRDRTeam, AccTeam	Y1 Q2 Y2 Q4 Y3eQ4
	Develop principal ability to advance the pedagogical skills of more experienced teachers.	TeaRDRTeam, AccTeam	Y1 Q1-Q4 Y2 Q1-Q4 Y3 Q1-Q4
	Develop principal ability to create leadership pathways for teachers to advance to coaching and mentoring roles.	TeaRDRTeam, AccTeam	Y1 Q1-Q4 Y2 Q1-Q4 Y3 Q1-Q4

## *Formative and Summative Feedback Cycles*

IMPACT will use a Plan-Do-Study-Act (PDSA) cycle to gather performance feedback and permit periodic assessment of progress and rapid cycle problem solving, as outlined by the National Implementation Research Network (Jackson et al., 2018). To faithfully execute the PDSA Cycle, the Leadership Council is committed to the ongoing collection and analysis of data. The Leadership Council will make project modifications as necessary, noting that minor findings can lead to important insights about potential improvements (Taylor et al., 2013).

At each Leadership Council meeting, the Project Co-Directors and the Research and Evaluation Group will report on milestone and task completion and make recommendations for any needed project adjustments. The active leadership of the executives of both CTAC and DESE ensure swift and decisive actions in addressing needs.

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

**Overview.** CTAC has a proven track record of conducting comprehensive program evaluations of educational initiatives.<sup>3</sup> CTAC will evaluate project IMPACT using a mixed-methods approach based on both quantitative and qualitative data. The **first component** of the evaluation will meet WWC standards with reservations, using a quasi-experimental design to assess the impact of the project on student achievement and principal retention. The **second component** of the evaluation will assess both the fidelity of implementation and the processes that impact principal and teacher effectiveness. CTAC will collect and examine perceptual, participation, and extant data to provide evidence for the impact of the project. The evaluation is designed to answer the following research questions:

**RQ1:** To what extent is IMPACT being implemented as planned?

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<sup>3</sup> CTAC has completed comprehensive evaluations for numerous large scale evaluation projects. Representative examples include: Missouri – Missouri Leadership Development System; Maryland – Teacher and Principal Evaluation System; Texas Education Agency – Charter School Program; Houston ISD, Texas – Race to the Top Grant; and Henrico County Public Schools and Prince William County Public Schools, Virginia – Teacher Incentive Fund Grants.

**RQ2:** What is the perceived impact of the project on engaging principals in MLDS leadership development, especially in low-performing schools with underserved students?

**RQ3:** What is the perceived impact of the project on building the capacity of principals and teachers to address the increased social, emotional, and academic needs of students?

**RQ4:** What is the perceived impact of the project on recruiting, developing, and retaining a high performing, diverse teaching force?

**RQ5:** To what extent does the project impact student achievement?

**RQ6:** To what extent does the project impact principal retention?

### **1. Extent Project Will Produce Evidence to Meet the WWC Standards with Reservations**

CTAC will use a quasi-experimental design to analyze student achievement and principal retention at the school level. Schools with newly enrolled IMPACT principals will constitute the treatment group while a select group of similar schools led by non-participating principals will serve as the comparison group. The analyses are designed to meet WWC standards with reservations, by (1) identifying the comparison schools through Propensity Score Matching (PSM) techniques; (2) establishing baseline equivalence by comparing individual characteristics; (3) constructing an analytical sample and conducting a power analysis; (4) using valid and reliable outcome measures; (5) making baseline adjustments; (6) making clustering corrections; and (7) addressing the role of mediators and moderators.

**Comparison schools.** According to the most recent data from Missouri Department of Elementary and Secondary Education (DESE), 37% of Missouri principals are currently participating in MLDS. IMPACT will recruit 280, 280, and 245 principals in Year 1, Year 2, and Year 3 of the grant years, raising the percentage of MLDS principals from 37% pre-IMPACT to 60% at the end of Year 3. These principals and their schools will serve as the treatment group. As a result, 1,358; 1,078; and, 833 schools will be available for the comparison groups in Years 1 to 3, respectively. Using PSM techniques, CTAC will identify two comparison schools that have the closest estimated propensity scores for each treatment school.

**Baseline equivalence.** At the beginning of Year 1, CTAC will collect the baseline (Year 0) data of 840 schools identified through PSM (280 treatment schools and 560 comparison schools). Baseline equivalence will be established by comparing the school-level individual characteristics of the treatment and comparison schools that have (1) the same grade configuration (i.e., elementary, middle, high school); (2) similar baseline outcomes (i.e., student achievement and principal retention); and (3) demographic characteristics (e.g., free and reduced lunch percentages and principal experience) that satisfy the baseline equivalence thresholds (i.e., the baseline effect size  $\leq |0.25|$ ), according to WWC standards.

**Analytical sample and power.** After Year 1 of the program, CTAC will construct the analytical sample to estimate IMPACT's effects on outcomes. Due to principal attrition and missing data, the analytical sample will likely be smaller than the baseline sample. Based on the Missouri overall principal attrition rate of 16% in 2020–21, the student school mobility rate of 19.5% in 2020–21 as reported by DESE, and DESE targeted student state assessment participation rate of 95%, we expect the baseline sample will be representative of the clusters in the analytical sample, meeting WWC standards with reservations on clusters.

CTAC conducted a priori power analysis on G\*Power (*F-test on linear model regression priori test for student achievement and Z-test on difference between two independent proportions for principal attrition*), and determined that the estimated minimum detectable effect size (MDES) of IMPACT is 0.03 standard deviations on student achievement. Conservatively, the input assumptions for the analysis are: 244 (280\*0.77) treatment schools and 488 comparison schools in the analytical sample, a statistical significance level of 0.05, a statistical power of 0.9, and a number of predictors of 10. The estimated MDES of IMPACT is 3 percentage points on principal attrition. The assumptions are: 2,600 schools in baseline year and 2,600 schools in each of the grant years, principal attrition rate of 16% at the baseline, a statistical significance level of 0.05, and a statistical power of 0.9. Therefore, we will have sufficient sample sizes to detect meaningful differences as IMPACT targets the principal retention rate to increase by 6 percentage points from 84% in baseline year to 90% in Year 3.

**Outcome measures.** CTAC will use Hierarchical Linear Modeling (HLM) to estimate IMPACT’s effects on student achievement and principal retention by comparing the difference in these outcomes between treatment and comparison schools after the implementation of the treatment. Student achievement data will be retrieved from the Missouri Assessment Program which reports school performance on English Language Arts and Mathematics for grades 3–8 and end-of-course (EOC) assessments for high school grades. The MAP assessments are administered near the end of the school year and aligned with Missouri Learning Standards for each grade level and content area. Achievement data also include student demographic characteristics at the school level, which will be used as covariates in our estimation models. Using the unique ID numbers assigned to principals and DESE retention data, CTAC will determine which principals employed in a participating school during the baseline year remained in that same school at the end of Year 1.

**Baseline adjustments.** Where appropriate, CTAC will make difference-in-differences adjustments or regression covariate adjustments to account for pre-program differences. For example, the difference-in-differences adjustments requires pre- and post-student achievement tests to be measured in the same units with a correlation of at least 0.6. Should CTAC determine empirically that the MAP assessments do not meet this condition, we will use regression covariate adjustments when the baseline differences are greater than  $|0.05|$  but less than  $|0.25|$  standard deviations.

**Clustering corrections.** HLM addresses the nested nature of the data in educational settings (e.g., students clustered in classrooms and schools nested within districts) by taking into account multiple levels of regression relationships to estimate the relationship between predictor and outcomes. The clustering correction is particularly important for student achievement (ELA and Math) analysis, where the unit of assignment (school-level data) and the unit of analysis (grade-level data) are different.

**Mediators and moderators.** CTAC will collaborate with DESE to identify the possible mediators and moderators (e.g., the viability of strategies recommended in IMPACT may differ

depending upon the grade level of the school) during IMPACT implementation and incorporate those identified factors into the estimation models as appropriate (e.g., through interaction terms in capturing the difference in intensity and quality).

CTAC will conduct the same type of analysis as described above for the second and third groups of participants in Years 2 and 3. In each of the two years, CTAC will reset the base year, conduct the PSM analysis, establish baseline equivalence, perform HLM analysis, and make any necessary adjustments. In addition, CTAC will conduct multi-year analysis for those principals with multiple years of data, i.e., IMPACT principals who enrolled in Years 1 and 2. This will serve as a summative evaluation.

## **2. Performance Feedback and Assessment of Progress**

As described in Section C.3, IMPACT will use a Plan-Do-Study-Act Cycle (PDSA) to gather performance feedback and conduct a periodic assessment of progress (Jackson et al., 2018). CTAC will collect performance feedback from multiple data sources to triangulate findings, including interviews, surveys, self-assessments, program documents and records, and principal and student outcome data.

**Interviews.** CTAC will conduct interviews with teachers serving under MLDS principals, MLDS school leaders, MLDS Specialists, Mentors, and central office staff (e.g., superintendents and principal supervisors) on a semi-annual basis. The protocols will be developed in conjunction with MLDS staff and customized to the role of the participant. Questions will examine, in particular, perceptions of educators regarding the impact of the project on (1) principal recruitment and retention, especially in low-performing schools with underserved students; (2) principals' and teachers' ability to address student trauma and implement appropriate interventions; (3) principals' and teachers' ability to accelerate student academic learning; (4) the recruitment, development, and retention of a high performing and diverse teaching force; and (5) student achievement and principal retention. CTAC will use a stratified sample in order to capture differentiated experiences relative to region, level of MLDS, grade

level configuration, and role in the school. CTAC will conduct thematic analyses to identify common themes and key issues based on similarities across interviews and roles.

**Surveys.** Each spring, CTAC will develop and administer surveys to key stakeholders including school leaders, teachers, MLDS Specialists, Mentors, and central office staff (e.g., superintendents and principal supervisors). Many of the survey questions will follow the same pattern as those from the interviews, and educators, for the most part, will be asked to respond to parallel sets of survey questions. Teachers will be asked specifically about their perceptions of the impact of MLDS participation on their principal's instructional leadership and the impact on their teaching effectiveness. We will conduct thematic analyses on the open-ended questions for the qualitative data, and Mann-Whitney U tests to examine the statistical significance of the differences across groups and years for the quantitative data.

In addition, MLDS Specialists will provide participants with a **post-training online survey** to assess the relevance, quality, and usefulness of each professional development offering. Survey findings will be reported by MLDS level (aspiring, emerging, developing, transformational), region of the state, and other key demographic variables.

**Self-Assessments.** MLDS participants will complete semi-annual self-assessments using rubrics based on the MLDS leadership competencies, to assess their growth over time. In part, these are used as the basis for discussions with their support staff, MLDS Specialists and Mentors. The resulting data will also serve as a qualitative assessment of the interim impact of the program.

**Program documents and records.** CTAC will collect documents and administrative records (e.g., recruitment effort details, new and continuing school leader participation rates, and attendance at training and networking events). These data will be gathered on an ongoing basis and reported to the Leadership Council monthly to address questions of implementation fidelity as well as obstacles to progress. Any adjustments made to the implementation plan will be documented for the record.

**Outcome quantitative data.** CTAC will examine annual data from the APR reports and student achievement data. Trend data in each of these measures will be analyzed with descriptive

statistics and reported annually, including data from the 3 years prior to the grant period as well as every subsequent year. CTAC will review principal recruitment and retention data to determine the effectiveness of engaging and retaining principals in MLDS. CTAC will also review teacher recruitment and retention data to determine principals' ability to recruit, develop, and retain a high performing, diverse teaching force. We will record the number of participating principals annually and the milestones for development of content and delivery.

CTAC will gather data from all of these data sources, triangulate the results, and discuss the findings with the Leadership Council. CTAC will prepare data in a dashboard format, creating easily understood displays of progress and highlighting areas of challenge. These data will serve as the evidence for changes warranted in the delivery and design of MLDS moving forward and will be accumulated in each annual report, as well as the final report.

### 3. Objective Measures with Quantitative and Qualitative Data

CTAC will use quantitative and qualitative data to assess both the implementation and the impact of the project based on the research questions in Table 5. This will include (1) an annual formative evaluation, (2) an annual summative analysis based on interim data collection, and (3) a summative evaluation at the completion of the grant period. As Table 5 outlines, each of these data sources are tied to the goals specified in Section C.

Table 5. Evaluation Research Questions, Outcomes Measures, and Data Sources

Research Question	Outcome Measures	Data Source(s)
RQ1: To what extent is IMPACT being implemented as planned? (Goal 1)	<ul style="list-style-type: none"> <li>Recruitment plan is enacted</li> <li>Trainings and mentorship are provided for principals with fidelity</li> <li>Principal competency levels increase</li> </ul>	<ul style="list-style-type: none"> <li>Program records/materials</li> <li>Recruitment records</li> <li>Surveys and interviews of all stakeholders</li> <li>Participants' self-assessment of progress</li> <li>Principal Supervisor feedback</li> </ul>

Research Question	Outcome Measures	Data Source(s)
<p>RQ2: What is the perceived impact of the project on engaging principals in leadership development, especially in low-performing schools with underserved students? (Goal 1)</p>	<ul style="list-style-type: none"> <li>• Number of MLDS principals</li> <li>• Number of MLDS principals in low-performing schools with underserved students</li> <li>• Stakeholders express higher levels of success in recruiting principals</li> </ul>	<ul style="list-style-type: none"> <li>• MLDS program participation records</li> <li>• School-level ELA and Math MAP data</li> <li>• Surveys and interviews of all stakeholders</li> </ul>
<p>RQ3: What is the perceived impact of the project on building the capacity of principals and teachers to address the increased social, emotional, and academic needs of students? (Goal 2)</p>	<ul style="list-style-type: none"> <li>• Stakeholders perceive principals' effectiveness improves in developing teachers trauma-informed practices</li> <li>• Teachers perceive their effectiveness improves in responding to students experiencing trauma and social emotional learning needs</li> <li>• Teachers perceive their effectiveness improves in responding to students' academic needs.</li> </ul>	<ul style="list-style-type: none"> <li>• Surveys and interviews all stakeholders</li> </ul>
<p>RQ4: What is the perceived impact of the project on recruiting, developing, and retaining a high performing and diverse teaching force? (Goal 2)</p>	<ul style="list-style-type: none"> <li>• Principals perceive their effectiveness increases in creating a comprehensive and diversity targeted teacher recruiting plan</li> <li>• Teachers perceive their effectiveness improves</li> <li>• Teacher retention is higher for those teachers led by IMPACT principals</li> </ul>	<ul style="list-style-type: none"> <li>• Surveys and interviews of all stakeholders</li> <li>• Teacher enrollment data</li> <li>• Teacher retention data</li> </ul>
<p>RQ5: To what extent does the project impact student achievement? (Goal 2)</p>	<ul style="list-style-type: none"> <li>• MAP results improve at IMPACT schools</li> <li>• Missouri growth percentiles improve</li> </ul>	<ul style="list-style-type: none"> <li>• Missouri APR performances measures and achievement results state assessments</li> </ul>
<p>RQ6: To what extent does the project impact principal retention? (Goal 1)</p>	<ul style="list-style-type: none"> <li>• Principal retention increases</li> <li>• Participants express higher levels of job satisfaction</li> </ul>	<ul style="list-style-type: none"> <li>• Retention rates</li> <li>• Surveys and interviews of all stakeholders</li> </ul>

The outcome measure on school performance is based on the Missouri Annual Performance (MAP) results. The measure is comprised of scores for each of the 5 standards in Missouri School Improvement Program (MSIP). Standards 1 and 2 are based on the Missouri Assessment Program, academic achievement and subgroup achievement, respectively. The MSIP for Standard 1 and 2 encompass all student outcomes on state assessments required for the grade levels served in a school. The MSIP as created by DESE is consistent year-to-year and is appropriate for comparison across schools and years. Standard 4 measures attendance. Standards 3 (College and Career Readiness) and 5 (Graduation Rate) will be omitted when analyzing across grade ranges because they are not calculated for Elementary and Middle Schools.

The use of a quasi-experimental design will allow us to draw valid comparisons between those schools led by IMPACT principals and those led by non-participants. By isolating the impact of the project on principal retention and student achievement, educational policy makers can ensure that the state's investment in developing and supporting principals remains focused on research-based practices that are, indeed, having their intended impact.

#### **4. Valid and Reliable Performance Data on Relevant Outcomes**

The evaluation of IMPACT will provide valid and reliable performance data on the relevant outcomes. For interviews, multiple experienced CTAC evaluators will code the data for an inter-coder agreement of 100%. CTAC's surveys will incorporate existing, validated measures that have strong validity and reliability (e.g., the Panorama SEL Questionnaire) where possible, supplementing with new measures as needed. We will employ exploratory and confirmatory factor analysis to confirm the unidimensionality of the scales and Cronbach's alpha to assess the reliability of scores on the scales. In Year 1 of the project, CTAC will pilot the surveys and interviews on a small group of respondents prior to full-scale administration. In each subsequent year, CTAC will review and make appropriate adjustments to the instruments.

The student achievement and principal retention data are extant data that will be retrieved from DESE website or received from DESE. These data, by definition, meet the validity and reliability requirements in the WWC standards.

## 5. Information Guiding Possible Replication of Project Activities or Strategies

Across the project years, the multiple formative and summative evaluation reports provide a comprehensive understanding of implementation and impact of the project strategies, along with actionable recommendations. These reports will include detailed description of the project's content, partnership, delivery methods, measures, outcomes, and the effectiveness of the strategies. These reports will be publicly available on the dedicated project website. The findings and key learnings will also be shared with a range of audiences (e.g., leadership associations, educational community), both nationally and in Missouri. By providing information on what works for implementation, mid-course corrections and overall impact, the formative and summative evaluations will also inform the creation of a cost model and implementation playbook. All of the above information will guide others who seek to replicate and advance a successful statewide leadership development system for principals.

## Conclusion

IMPACT addresses Absolute Priority 2 and the three competitive preference priorities. Below is a summary description of how they are embedded in the proposal.

**Absolute Priority 2: Supporting Effective Principals or Other School Leaders.** IMPACT focuses fully on providing principals and assistant principals with evidence-based professional development activities. IMPACT extends and expands the Missouri Leadership Development System (MLDS), a system rooted in research and which multiple evaluations has shown to be effective in improving principal practice. Using MLDS as a foundation, IMPACT targets professional learning to build the capacity of principals to respond to the social, emotional, and academic learning needs exacerbated by the pandemic.

**Competitive Preference Priority 1: Increasing Educator Diversity.** IMPACT builds the capacity of principals to recruit, develop, and retain a high performing, diverse teaching staff. IMPACT element 4 directly responds to CPP1. IMPACT trains principals to partner with and recruit from regional IHEs and alternative preparatory programs, specifically focusing on those with the highest number of teachers of color. IMPACT trains principals to develop classroom

and school cultures which are culturally responsive and supportive of diverse educators, encouraging their development and retention.

**Competitive Preference Priority 2: Promoting Equity in Student Access to Educational Resources and Opportunities.** IMPACT promotes equity in student opportunities and results by ensuring an equity focus is present in all of its elements. In element 1, IMPACT targets outreach to principals who are serving in low-performing schools with underserved students. In element 2, IMPACT trains principals on leading teachers to recognize and overcome social and emotional learning barriers, with an emphasis on providing pedagogy and interventions that focus on the learning potential of students, rather than on stigmatizing students—particularly students of color—who are in need. In element 3, IMPACT trains principals on expanding teachers’ ability to implement instructional strategies which create equitable and supportive learning opportunities for all students. Finally, in element 4, IMPACT prepares principals to develop classroom and school cultures that are responsive to and supportive of diverse educators, who in turn create identity-safe environments for students.

**Competitive Preference Priority 3: Meeting Student Social, Emotional, and Academic Needs.** IMPACT builds the capacity of principals to meet the increased social, emotional, and academic needs of students. IMPACT element 2 focuses specifically on preparing principals to expand teachers’ abilities to overcome trauma and social and emotional learning barriers. It trains principals to lead teachers in recognizing signs of students experiencing trauma, providing early response, and developing extended interventions to address long-term social and emotional needs. IMPACT element 3 prepares principals to lead their teachers to make responsive instructional decisions and improve practices to accelerate student learning.