

From the Margins to the Center: Supporting Teacher Diversity, Quality, and Retention

National Board for Professional Teaching Standards

Supporting Effective Educator Development (SEED) Grant, CFDA Number 84.423A

Project Narrative

Table of Contents

Introduction...	1
Absolute Priority 1.....	1
Competitive Preference Priority 1.....	2
Competitive Preference Priority 2.....	3
Competitive Preference Priority 3.....	4
Section A: Quality of Project Design...	6
A(1): Quality of Professional Development.....	6
A(2): Capacity and Results Beyond the Grant.....	13
A(3): Conceptual Framework.....	14
A(4): Collaboration with Partners.....	18
A(5): Needs of the Target Population.....	19
Section B: Significance.....	20
B(1): Magnitude of Outcomes.....	20
B(2): Costs, Persons Served and Anticipated Results and Benefits.....	23
B(3): Incorporation into Ongoing Programs.....	24
B(4): Dissemination Plan.....	25
Section C: Quality of the Management Plan.....	26
C(1): Goals, Objectives, and Outcomes.....	26
C(2): Adequacy of Management Plan.....	28
Section D: Quality of the Project Evaluation.....	32
D(1): Producing Evidence of Effectiveness.....	34
D(2): Providing Periodic Feedback and Assessment of Progress.....	37
D(3): Use of Objective Performance Measures.....	39
D(4): Producing Valid and Reliable Data.....	39
D(5): Potential for Replication.....	40

Introduction

The National Board for Professional Teaching Standards (National Board) proposes *From the Margins to the Center: Supporting Teacher Diversity, Quality, and Retention (M2C)*, a project for the 2022 Supporting Effective Educator Development (SEED) competition. The project will provide evidence-based professional development (PD) that leads to National Board Certification, an advanced credential for teachers (*Absolute Priority 1*). The program will directly advance the learning and effectiveness of more than 1,500 teachers, of whom at least 50% will be teachers of color (ToC) and 70% will be teachers serving high-need students. This will support improved learning outcomes for 90,000 students (45,000 each in years 2 and 3) through improved teaching. The project evaluation will provide replicable and scalable learning on solutions to longstanding workforce challenges of quality, retention, and diversity.

The National Board has worked to advance the quality of teaching and learning through advanced certification since 1987. In pursuing National Board Certification, teachers undergo a rigorous, multiyear process of learning, reflecting on their practice, and demonstrating their knowledge through performance-based, peer-reviewed assessments. From over 30 years of experience certifying teachers, the National Board knows that strong candidate support and professional learning communities (PLCs) are essential during the certification process, to improving teaching practice, and in becoming National Board Certified Teachers (NBCTs).

The proposed M2C project is designed to support the development, retention, and advancement of teachers, particularly ToC, to contribute to workforce diversity and improve student access to high-quality teachers. The approach builds on and extends existing National Board resources and frameworks to incorporate effective measures that can address the high attrition rate of teachers of color, such as culturally responsive and sustaining (CRS) PD and

leadership opportunities (Carver-Thomas, 2018; Bristol et al., 2020).

M2C will involve ten Partner Sites that will develop, adapt, and build evidence on practical and effective approaches to recruit and support teachers with PD grounded in National Board Standards and Certification. Resources and programs will be modified with particular focus on culturally responsive and sustaining (CRS) experiences that equitably engage and support ToC. Impact measures will include student social-emotional learning (SEL) and academic outcomes, changes to teacher instructional practice, teachers earning National Board Certification, and retention of teachers in high-need schools. These meet the guidance outlined in the SEED Notice Inviting Applications (NIA) to address equity and access for high-need learners, impact student SEL and academic learning, and increase retention of ToC. We expect 90% retention for teachers during the program, a 90% completion rate of National Board components by participants, and a 70% certification rate, yielding approximately 1,000 NBCTs.

This project satisfies *Absolute Priority 1—Supporting Effective Teachers* based on What Works Clearinghouse (WWC) moderate evidence requirements (Cowan & Goldhaber, 2016); meets the priorities, requirements, definitions, and selection criteria specified in the SEED NIA; and addresses the following three competitive preference priorities.

Competitive Preference Priority 1: Increasing Educator Diversity. Teachers of color exit the profession at disproportionately higher rates than white teachers for reasons such as: being placed in challenging schools with little support (Ingersoll et al., 2014), having little school influence (Carver-Thomas, 2018), having their qualifications questioned, and being passed over for professional advancement (Griffin & Tackie, 2017). While many efforts at diversifying the profession are focused on recruiting new ToC to the profession, the National Board and the proposed M2C project are uniquely positioned to support *current* teachers of color to improve

their practice, grow their PLCs, and earn advanced credentials. National Board Certification is proven to be a highly effective professional learning experience which centers on the highest professional standards and grounds teachers in practices that center their students learning and needs (Manzeske & Reese, 2017). Research shows that NBCTs stay in the classroom longer, with the compensation and leadership opportunities offered through Board certification leading to greater professional satisfaction and retention (CERRA, 2018).

M2C is structured to help fulfill the demonstrated need for highly effective ToC and address the isolation that can occur when schools lack diversity and ToC have few opportunities for leadership (Griffin & Tackie, 2017). The National Board will work with Partner Sites to support ToC as they pursue a nationally recognized, advanced teaching credential that certifies them as subject matter and instructional experts. Professional development will provide high-quality PD that is culturally relevant and sustaining for the diverse participants, including activities recommended by researchers to improve the satisfaction and retention of ToC such as affinity spaces and leadership opportunities (Carver-Thomas, 2018; Bristol, 2015). Through this, participating teachers, professional learning facilitators (PLFs), and mentors will benefit, strengthening the diversity of the profession through multiple approaches to retention. Evaluation and learnings from this project will contribute to the field's knowledge base of practices and approaches to support in-service ToC and improve quality and retention of teachers.

Competitive Preference Priority 2: Promoting Equity in Student Access to Educational Resources. Research consistently confirms that high-quality teachers are the single most important factor in student achievement (Rivkin et al., 2005; Rockoff, 2004). Unfortunately, they are in short supply, and ToC and teachers in high-need schools even more so. Teacher turnover rates at high-need schools are nearly 50% higher than at more affluent schools (Carver-Thomas

& Darling-Hammond, 2017; Ronfeldt et al., 2011); the rate of turnover for Black teachers is nearly 50% greater than for other teachers (Sutcher, et al, 2016) and 70% higher for teachers in schools serving the largest concentrations of students of color (Ingersoll et al., 2014). Multiple studies have demonstrated that for all students—and for high-need students, students in poverty, and students of color in particular—learning from ToC is critical to their academic success (Dee, 2004; Clotfelter et al., 2007; Egalite et al., 2015). Loss of these already too-few effective teachers means too few students will have access to benefit from their expertise. Improving retention of ToC is key to improving access for students to this most critical educational resource; a strong core of effective, diverse teachers can start to reverse the persistent cycle of under-education that fuels the student achievement gap in our country.

M2C will provide specially designed PD supports for ToC to improve their practice and which help the profession to overcome the systemic barriers to their equitable retention. NBCTs are shown to stay in the classroom longer (CERRA, 2018) as well as to be more reflective in their practice and produce deeper learning in their students (Cowan & Goldhaber, 2016; Goldhaber & Anthony, 2007). With an approach that directly addresses—through evidence-based practices—main barriers to growing and keeping qualified, diverse teachers, M2C promotes equitable access for students to the most essential factor in their education: high-quality teachers who know how to and can support their learning, growth, and development.

Competitive Preference Priority 3: Meeting Student Social, Emotional, and Academic Needs. The relationship between SEL and students’ academic achievement is well established (Durlak et al., 2011). The ways in which teachers develop SEL skills in their students require deep knowledge of their students and a repertoire of instructional approaches that promote caring learning environments, positive peer relationships, and meaningful and motivating activities that

promote goal setting, risk-taking, perseverance, and problem solving. National Board's Five Core Propositions and Standards used to frame the PD in this project are directly aligned with the SEED NIA outcomes for SEL. National Board Standards are explicit about how teachers define and demonstrate these practices in their local contexts and classrooms. For example, the first of the National Board's Five Core Propositions emphasizes how a teacher's "mission transcends the cognitive development of their students." This guiding principle further states:

Accomplished teachers...show students how to cope with [failure] and create environments in which learners are comfortable taking risks.... Accomplished teachers increase their students' engagement and motivation by providing them with options from which to choose, fostering their ownership in learning, and setting high expectations...the students of accomplished teachers recognize the effect that their actions have outside the classroom. They therefore develop civic responsibility and digital citizenship, becoming aware of how their actions affect others (National Board, 2016).

National Board Standards also explicitly address the need for accomplished teachers to:

...establish a productive, open, and enriching learning environment characterized by secure, active students who successfully interact with information and with one another. Teachers use knowledge of social groupings and relational dynamics within the classroom as a basis for students' collaboration and for democratic, equitable interactions... Teachers strive to create a learning environment that develops students' confidence. In their classrooms, teachers emphasize academic honesty, integrity, acceptance, and open-mindedness (National Board, 2010).

The PD activities proposed in M2C will support teachers to identify evidence of instructional practices aligned with these outcomes as they examine their own practice and that of accomplished teachers via subject-specific Accomplished Teaching, Learning, and Schools (ATLAS) video cases. Teachers will examine, analyze, and provide evidence for how they: (a) establish a safe, supportive, fair, equitable, and challenging environment that promotes self-directed learning, risk taking, and active student engagement; (b) promote a student-centered learning environment based on trust and mutual respect, supports students' use of inquiry, and effectively equips students with skills that foster collaboration; and (c) support all students in

acquiring and flexibly applying the tools and skills they need to become independent, self-regulated learners. The evaluation design for this project will measure changes to instructional practice and the impact on students' SEL and learning environments.

Section A: Quality of Project Design

A(1): Quality of Professional Development

Quality Features. The M2C project features culturally responsive and sustaining PD activities for teachers that help them to: develop the knowledge and skills needed to support students' SEL and academic learning; create safe and inclusive learning environments; grow their professional communities; and increase their opportunities for professional growth and leadership, leading to greater effectiveness, job satisfaction, and retention. Professional learning through the Board certification process has significant potential to improve results for teachers and students. One study of 20,000 teachers in three large districts found no substantial improvement in teacher performance following required PD and no direct link in growth to systemic development strategies (TNTP, 2015). In contrast, more than a decade of research has shown that NBCTs are more effective than their non-certified colleagues (producing an additional six to eight weeks of student learning), particularly as instructors of high-need students, and new teachers mentored by NBCTs generate 6.5 months of additional student learning compared with teachers mentored by non-NBCTs (Clotfelter et al., 2007; Cowan & Goldhaber, 2016; Goldhaber & Anthony, 2007; Zhu et al., 2019).

Research shows that teachers, and ToC moreso, move or leave the profession for reasons such as being placed in challenging schools with little support, having little classroom autonomy or school influence, lack of preparation and ongoing support, low salaries, and being passed over for professional advancement (Carver-Thomas, 2018). Activities associated with pursuing Board

certification and being an NBCT are proven pathways to improving teacher practice and retention by supporting teachers with PLCs (NBCT community, affinity groups), ongoing training and development (certification process, renewal of certification, National Board and NBCT-hosted webinars), opportunities for leadership (as mentors, NBCT champions, advocates), and pathways towards higher earning (state and district salary incentives).

High-quality PD should encourage teachers to align their teaching to established standards, evaluate the impact of their instruction on student performance, use student achievement data for planning and curriculum, tailor instruction to address specific learning needs, and learn how to thrive in the school culture. It should include mentoring with observation and feedback, time for collaborative planning with colleagues, and a focus on high-leverage activities such as analyzing student work and discussing and planning lessons using differentiated subject-specific instructional strategies. PLCs and affinity spaces also have a positive impact, particularly for minority and underrepresented teachers, in meeting personal and professional goals (Bristol et al., 2020). Such high-quality support is difficult for districts to access resources for in order to implement and sustain, and tailored supports are not always available to ToC (Haynes et al., 2014). (See Table 1 for alignment between National Board/M2C activities and ESEA definitions of quality PD as referenced in the SEED NIA.)

The M2C program integrates these best practices through mentoring by NBCTs, affinity groups designed around identity and/or career stage, and high-quality resources that support and strengthen professional learning (National Board Five Core Propositions, subject-specific National Board Standards, and more than 300 ATLAS video cases of accomplished teaching) (See Appendix G for a description of these resources.) Teachers must see and know what effective teaching looks like in order to reach expert levels of practice themselves.. Developed

and revised by educators based on research and practitioner expertise, the National Board Five Core Propositions and Standards describe what accomplished teachers should know and be able to do to have a positive impact on student learning. Board certification identifies teachers who meet those standards through a performance-based, peer-reviewed series of assessment components. ATLAS provides authentic, in-classroom video and instructional materials together with the teacher's own written reflection and analysis, including lesson planning, instruction, and impact on student learning. ATLAS enables educators to overcome traditional barriers to classroom-based PD and gives them virtual access to NBCTs, including exemplars of accomplished ToC working successfully in high-need environments with diverse student populations. Consistent with research multimedia to support changes in instructional practices that deepen student learning (Bloomberg et al., 2014), a previously funded Investing in Innovation (i3) project evaluation found that when preservice teachers have an opportunity to view accomplished teaching through ATLAS videos, their self-efficacy, readiness to teach, and self-reflection increase (Manzeske et al., 2016; Hougan et al., 2018).

M2C will also leverage the expertise of the National Board Network of Accomplished Minoritized Educators (NAME) in an advisory role to tailor the PD to coach and support ToC through culturally responsive and sustaining activities. Research has shown that National Board PLFs improve teaching among cohorts pursuing National Board Certification and foster a greater sense of community among teachers (Jaquith et al., 2016). All participating M2C teachers will receive affinity group mentorship either locally or virtually via NAME. Letters from potential Partner Sites share their desire to participate and conduct these activities (see Appendix D).

Intensity and Duration. The two-year professional learning program uses PLCs led by NBCTs of color in a sustained and intensive approach to support ToC that is collaborative,

job-embedded, data-driven, classroom-focused, and culturally responsive. Teacher learning will be continuous and concentrated in activities that are interrelated, sequential, and directly applicable to a teacher's practice, classroom, and students. Supported by PLCs and mentorship, teachers will receive feedback and coaching as they engage in improvement cycle inquiry aligned with National Board Standards and through the certification process. Activities include:

1. Building of developmentally appropriate content knowledge and pedagogical practices that create inclusive, supportive, equitable, unbiased, and identity-safe learning environments for their students.
2. Analysis of instructional design and execution anchored in the following questions: What are students expected to learn? How do I know when they have learned? How will I respond when they do not learn? How will I respond when they already know it?
3. Examination and analysis of their own students' work to inform next steps for student learning and changes to instruction.
4. Viewing and analysis of video recordings from their own teaching to evaluate the impact of practices on fostering a safe and inclusive learning environment and student learning.
5. Observation and analysis of accomplished teaching instructional practices aligned to the National Board Standards via collaborative, facilitated discussions of ATLAS cases.
6. Strengthened collaboration with other professionals, families, and stakeholders to meet social, emotional, and academic needs of students.

The National Board and a Design Team—made up of leadership from NAME, NBCTs from participating geographies, partners, and subject matter experts—will design these activities with Partner Site input and tailor implementation to be consistent with district and state PD structures and responsive to the interests, concerns, and needs of ToC. Each activity is designed

to enhance teachers' content-specific instructional practices with the intent of improving student learning and connecting their PD to daily practice, thereby requiring active teacher involvement in cooperative, inquiry-based work. Further, ToC will participate in affinity groups to leverage their expertise, honor the unique identities, and reduce isolation and alienation (Bell, 2015; Macias & Stephens, 2019). Teachers will also be connected through their local cohorts, consisting of their fellow M2C participants from their Partner Site. National Board Certification is not one-size-fits-all PD, but uses individual experience and student data to support teachers to assess the efficacy of their instruction and guide improvements—these practices set the stage for assessment components for the advanced certification process nested in the PD model.

The table below outlines how the six major professional development activities described above are aligned with SEED NIA criteria (left column).

Table 1. *The M2C Program Quality PD Activities and ESEA Alignment*

<i>Quality Professional Development ESEA definitions as referenced in SEED NIA and aligned Four Components (C1, C2, C3, C4 below) of the National Board Certification process.</i>	
Sustained and intensive	<ul style="list-style-type: none"> ● Participate in continuous and concentrated PLCs that meet regularly while working on components for National Board Certification.
Collaborative	<ul style="list-style-type: none"> ● Engage in collaborative inquiry to learn and improve their practice while working on components for certification. ● Examine evidence to assess and improve collaboration with families, community, and colleagues to advance student learning and growth (C4). ● Participate in collaborative affinity groups (locally or virtually).
Job-embedded	<ul style="list-style-type: none"> ● Center professional supports on issues of actual practice such as examining video of their classes and student work. ● Design supports to enhance teachers’ content-specific instructional practices to improve student learning and foster a safe and inclusive learning environment. ● Observe practice of NBCTs to identify and analyze instructional practices aligned with National Board Standards.
Classroom-focused	<ul style="list-style-type: none"> ● Analyze interaction with students, students’ interaction with each other, and creation of inclusive learning environments via video (C3). ● Evaluate learning strengths and needs for individual students, plan and

	<p>implement differentiated instruction for them, and modify instructional strategies and materials based on ongoing assessment and use student work to reflect on students’ growth over time (C2).</p> <ul style="list-style-type: none"> ● Engage with National Board Student Agency and Social and Emotional Learning Standard materials to more effectively support students’ SEL and academic needs.
Data-driven	<ul style="list-style-type: none"> ● Reflect that assessment choices are based on the knowledge of the students, the learning objectives of the unit, understanding of assessment principles and practices, and how data is used to effectively plan for and make a positive impact on student learning (C4).
Personalized based on observation or feedback	<ul style="list-style-type: none"> ● Receive coaching and actionable feedback based on classroom observation and student data from mentors/facilitators. ● Receive actionable feedback on reflective written commentary to strengthen analysis of teaching practice from NBCT facilitators of color. ● ToC receive critical mentorship and support from NBCTs of color. ● Observe and analyze accomplished teaching of Board-certified teachers, including a large representation of NBCTs of color, through ATLAS library of video cases.
<i>Additional National Board activities</i>	
Critical Professional Development	<ul style="list-style-type: none"> ● Use of a critical professional development framework that supports holistic needs of ToC. ● Develop professional supports in partnership with and facilitated by ToC.

Expected Improvements to Practice. The collaborative and reflective structures of support that are the foundation of this project change instructional practices. In a recent survey, 97% of the teachers who engaged with the National Board Standards report that they improved their practice and better understand their students. Among those teachers, 63% adjusted lesson plans to meet the needs of individual students, 54% gained or deepened knowledge in their subject areas, and 50% used data in new ways to assess student progress (Manzeske & Reese, 2017). The activities described in this project center on National Board Standards and culminate in the submission of National Board assessment components. Existing research indicates improved practice, knowledge, and student support. Table 2 below reveals the ways in which the

improvements in practice identified in the SEED NIA (left column) align with the National Board assessment component and the Core Propositions from the National Board Standards.

Table 2. *SEED NIA Alignment with National Board Assessment Components*

Improvements in Teacher Practice	Teacher Activities	National Board Assessment Component (C) and Propositions (P) that Support Activities
Teachers create inclusive, equitable, and identity-safe learning environments for their students (CPP2)	Analysis of learning environment	<p>C3: Videos of interactions between teacher and students, and students and students help teachers reflect on the impact of teaching practice on the learning environment.</p> <p>P1: Teachers are committed to students and their learning.</p> <p>P3: Teachers are responsible for managing and monitoring students’ learning.</p>
Teachers support students’ social and emotional learning (CPP3)	Support students to monitor and reflect on their progress	<p>C3: Teachers demonstrate a safe, inclusive, and student-centered learning environment.</p> <p>C4: Teachers demonstrate that students can effectively apply feedback in ways that positively impact social, emotional, and academic learning.</p> <p>P1: Teachers are committed to students and their learning.</p> <p>P3: Teachers are responsible for managing and monitoring students’ learning.</p> <p>P4: Teachers think systematically about their practice and learn from experience.</p>
Teachers’ knowledge of the academic subjects the teachers teach (PD)	Strengthen pedagogical content knowledge	<p>C1: Teachers demonstrate knowledge of and pedagogical practices for their content area, knowledge of developmentally appropriate content.</p> <p>P2: Teachers know the subjects they teach and how to teach those subjects to students.</p>
Teachers’ understanding of how students learn (PD)	Analysis of student work Analysis of teaching	<p>C2: Student work samples help teachers reflect on students’ growth over time.</p> <p>P2: Teachers know the subjects they teach and how to teach those subjects to students.</p>

<p>Teachers' ability to analyze student work and achievement from multiple sources, including how to adjust instructional strategies, assessments, and materials based on such analysis (PD)</p>	<p>Observe accomplished teaching Analysis of design Analysis of teaching</p>	<p>C2: Teachers examine their ability to evaluate learning strengths and needs for individual students, plan and implement appropriate differentiated instruction for those students, and analyze and modify instructional strategies and materials based on ongoing assessment. C3: Classroom-based portfolio entry requires video recordings of interactions between teachers and students, written commentary to describe, analyze, and reflect on their teaching and interactions. P1: Teachers are committed to students and their learning (academic and SEL). P3: Teachers are responsible for managing and monitoring student learning (academic and SEL).</p>
<p>CPP: SEED NIA Competitive Preference Priorities PD: ESEA definition of Quality Professional Development as referenced in SEED NIA.</p>		

A(2): Capacity and Results Beyond the Grant

Increasing the support for and number of NBCTs and NBCTs of color and creating a more equitable experience and assessment process are core priorities for the National Board. M2C will accelerate ongoing National Board efforts to support and create opportunities for advanced certification for these teachers in three specific ways. First, the project will develop more accomplished teachers and teachers of color that serve as leaders in their schools and districts as well as in growing national networks. Second, the project will provide insight into the candidate support services and structures that positively impact teachers of color to become Board certified, strengthening the implementation of those supports both in partner districts and beyond. Third, the project will inform National Board materials that are being continually refined for nationwide dissemination and use in communities across the country, enabling other districts and PD providers to benefit from known best practices and adapt for their local context and community needs.

Partner Sites are already well established and well positioned and committed to sustaining and expanding project activities after the grant. Partner Sites were selected based on

specific criteria, which included strong existing teacher support programs, interest and commitment to supporting and growing teachers of color, and large number of high-need schools and students and teachers of color.

M2C is particularly valuable to implement in Partner Sites because of these criteria. Partner Sites offer conditions that will most benefit and can provide extensive learning from efforts to strengthen teacher supports for Board certification through greater access, mechanisms of support, and conditions that lead to greater success—not only in achieving Board certification, but also improving student academic, social, and emotional learning. The resources, materials, and strategies developed for this project will be replicable and available to Partner Sites and other districts for adaptation and use, leading to national impact. Finally, as more teachers of color become NBCTs and leaders in their schools and communities, and stay in their schools and profession longer due to increased retention, this project will build the pipeline and capacity to better support other teachers of color through the existence of leadership and community support.

A(3): Conceptual Framework

Students do not have equitable access to high-quality educators who can support their academic and social-emotional learning. Teachers, and particularly teachers of color, do not receive the professional development or support communities they need to grow and stay in their jobs, and are leaving the classroom at an alarming rate. There are too few high-quality, experienced teachers and teachers of color.

M2C aims to provide high-quality PD that is culturally responsive and sustaining and includes effective methods for supporting ToC. It will recruit more ToC to participate in PD through pursuit of National Board Certification; more effectively support those teachers so that they become NBCTs; and promote the growth and achievement of more students, especially in

high-need settings. Teachers participating in M2C will receive culturally responsive and sustaining PD, be a part of PLCs and affinity spaces, and through National Board Certification, have access to leadership and earning opportunities that will counter traditional barriers to retention. Based on addressing barriers to retention and providing culturally responsive practice and advanced certification, M2C will:

- Significantly improve teacher practice and effectiveness.
- Increase the number of teachers of color who achieve National Board Certification, a national advanced certification.
- Improve teacher retention through the benefits of National Board Certification.
- Positively impact students' social, emotional, and learning needs.

By sharing the learnings from M2C, it will contribute to a profession that is more diverse, and made up of teachers who are more familiar with culturally responsive and sustaining practices and align their practices and learning with professional standards.

Teacher Diversity. M2C has a goal of engaging 50% teachers of color, which is significantly above the current percentage of NBCT candidates of color (approximately 33%) and the percentage of teachers of color nationwide (approximately 20%). National Board candidate support providers have successfully employed strategies to recruit and encourage more teachers to become NBCTs, but they have not had the same success with ToC. M2C addresses barriers that teachers of color face by introducing culturally responsive and sustaining strategies for recruitment and support for their PD to help refine and spread those strategies.

Practices developed within this project will incorporate practices from emerging research on how to more effectively support ToC, such as differentiated and tailored professional support, creating safe and culturally sustaining forums and feedback loops, and ensuring facilitators and

leaders have effective practices for supporting ToC (Gist et al., Sept 2021). M2C’s professional learning supports will be tailored and differentiated to support ToC to analyze and improve their practice; culturally sustaining affinity networks and cohorts will be created for ToC to receive feedback and reflect on their practice; and training and coaching will be given to facilitators and mentors to ensure they are designing safe spaces and providing culturally sustaining coaching.

Culturally Responsive and Sustaining Practice. Research confirms the importance of culturally responsive teaching practice, which recognizes the value of including students’ cultural references in all aspects of learning. Key elements of this pedagogical approach include communication of high expectations, culturally mediated instruction and learning within the cultural context (Ladson-Billings, 2009). The barriers to growth and achievement that affect students of color are often the same barriers that hinder the professional development of ToC. Teachers require lifelong learning, but PD opportunities can lack cultural sensitivity and leave ToC feeling alienated and disengaged. PD for ToC that incorporates culturally responsive and sustaining practices can have the same impact on teachers’ professional learning as culturally responsive teaching can have on student growth and achievement. Partners Sites will help develop and implement revised and new strategies to increase the number of NBCTs of color; National Board will support them as they test innovative approaches to context-specific implementation. Moreover, having Partner Sites with varied geographic and demographic contexts will enable dissemination of proven strategies from the testing of these approaches.

Evidence-Based Professional Development. The National Board Certification process provides high-quality PD and can positively affect student outcomes, particularly among high-need students. More than a decade of research, including a quasi-experimental study that meets standards under version 3.0 of the What Works Clearinghouse (WWC) Handbook, has

shown that NBCTs are more effective than their non-National Board Certified counterparts, particularly as instructors of high-need students (Cowan & Goldhaber, 2015; Goldhaber & Anthony, 2007). Students of NBCTs outperform their peers on achievement tests (Clotfelter et al., 2007; Goldhaber & Anthony, 2007) and make learning gains equivalent to up to an additional 6-8 weeks (Cowan & Goldhaber, 2015).

The certification process supports teacher retention and professional growth (Cavalluzzo, 2004; Ingersoll, 2001; Lustick & Sykes, 2006; National Research Council, 2008). NBCTs remain in the profession longer than their non-certified colleagues (Ingersoll, 2001), with one analysis finding that school systems retain NBCTs at nearly four times the rate they retain non-certified teachers (CERRA, 2018). Recent research has shown that National Board Certification in a cohort-based model improves teaching, increases opportunities for teacher PD, and fosters a greater sense of community among teachers (Jaquith et al., 2016). In one multistate survey, most teachers engaging in analysis of National Board Standards (91%) reported making deliberate changes to their instructional practices, such as adjusting lessons and assessments to meet the needs of individual students (Manzeske & Reese, 2017). National surveys of effective teachers' views on professional learning found that pursuing Board certification was seen by 68 to 96% of respondents as among the top three most impactful professional learning experiences for advancing their practice (Jacques et al., 2017; Behrstock-Sherratt et al., 2014). Moreover, recent research conducted by American Institutes for Research, which has been submitted to WWC for review, finds that new teachers who are mentored by NBCTs generate six and a half months of additional student learning compared to new teachers mentored by teachers who are not Board certified. These teachers also exhibit "positive and meaningful improvement" in instructional practices such as emotional support and classroom organization (Zhu et al., 2019).

The use of the ATLAS library will be a key tool for ensuring that all educators can see examples of NBCTs of color working successfully with high-need students in diverse student populations. The i3-funded ATLAS exploratory program evaluation found that when preservice teachers have an opportunity to view accomplished teaching through ATLAS videos, their self-efficacy, readiness to teach and self-reflection increase (Manzeske et al., 2016; Hougan et al., 2018). Preliminary findings derived from i3 ATLAS use are consistent with what has been reported more widely in the case analysis literature: Analysis of multimedia cases that contain video and teacher commentary promotes engaged, reflective teaching practices that in turn lead to deeper learning outcomes for students (Bloomberg et al., 2014; Edelson, 2001; Sherin & van Es, 2005). Similarly, teacher mentorship that is individualized, time-intensive, sustained, context specific and focused on discrete skills (Kraft et al., 2018) has a significant positive effect on teachers' instructional practice and effectiveness and on student achievement.

A(4): Collaboration with Partners

M2C involves the active engagement of ten Partner Sites, eight of which have signed initial partner letters (Appendix D), who will be primarily responsible for delivering the PD for teachers pursuing Board certification. These partners are a combination of regional/state professional support centers (Stanford National Board Resource Center, Illinois National Board Resource Center, the World Class Teaching Program at Jackson State University and Texas Educational Support Center 7), and districts (Jefferson County Public Schools, Charlotte-Mecklenburg Schools, Tuscaloosa City Schools and Los Angeles Unified School District). Partner Sites will be engaged in the project design to ensure that project plans are responsive to local environments and community needs, sustainable, and aligned with their priorities. NAME will also be involved throughout the process as an integral advisor to provide

expertise in creating learning communities for ToC, best practices in affinity spaces and mentor practices, and to ensure supports are culturally responsive and sustaining.

NBCTs—as mentors, PLFs, champions, and through ATLAS—will be an essential part of the process. Recruiting NBCTs of color to fill these positions will be essential to establish safe and shared spaces and elevate the expertise and leadership of NBCTs of color. The National Board will seek the collaboration and counsel of local and national partner organizations and experts specializing in supporting and retaining teachers of color in the project design.

A(5): Needs of the Target Population

Although students of color are no longer a minority in public elementary and secondary schools, ToC made up only about 20% of the public school workforce, and this group has a higher overall turnover rate compared with white colleagues (Carver-Thomas & Darling-Hammond, 2017). All students benefit from high-quality, experienced teachers and from teachers of color. M2C is designed to address quality, retention, and diversity needs in the teaching profession and better support ToC in their learning and communities. The design of the project and associated PD has been based on direct feedback from NBCTs and ToC, and will be further customized to meet the needs of ToC. Project design will also be responsive to the particular needs of the local communities, refining the activities of cohorts in the context of high-need schools and communities. The designs will incorporate the learning of current research on successful methods to support and retain ToC.

As described in the Management Plan (C), year 1 of the grant will target recruitment of teachers in high-need schools and ToC. Outreach activities will be created in partnership with Partner Sites and leverage local relationships, minority-serving institutions, and the expertise of local NBCTs and NBCTs of color to reach the target audience to make them aware of the project

and recruit them to the program. Years 2 and 3 will provide culturally responsive and sustaining, ongoing PD to this targeted population by developing their subject matter expertise, leveraging their cultural capital and diverse identities as assets, engaging them in meaningful reflection on their own teaching contexts, and analyzing instructional strategies that work with their own students. In addition to supporting the development of instructional practices that promote student achievement and SEL, M2C will increase the retention of ToC.

B: Significance

B(1) Magnitude of Outcomes

As education, public schools, and the teaching profession grapple with how to recruit, support, and retain high-quality, committed, and diverse teachers, there is hypothesizing and research about what structures might best achieve these results. This project will implement and test practical, replicable and scalable, culturally responsive and sustaining, and inclusive PD and community spaces. The designs, impact, and learnings from this project on teacher practice, student outcomes, and both student and teacher belonging will be shared with National Board Networks and teacher support providers to help grow the number of NBCTs and accomplished ToC working, leading, and staying in the profession. Learnings and data will also be shared with and widely available to partner organizations, PD providers and education leaders to contribute to the understanding of the types and structures of supports that can effectively support teachers and particularly teachers of color to feel safe, honored, supported, and satisfied in their noble vocation, leading to students and a next generation that feel the same.

Three central challenges face most schools, especially high-need schools: (1) teaching quality (influencing student learning that prepares students for college and career success); (2) retention of prepared and experienced teachers; and (3) a diverse teacher workforce that reflects

the student population. M2C directly and uniquely addresses each of these challenges as opportunities. The research-based rationale that the proposed project—which combines supports for ToC with the well-established learning gains associated with Board certification—will yield significant gains in student learning and teacher effectiveness.

M2C will evaluate the impact of high-quality PD on teacher instruction and retention. The learnings from successful approaches will be used to improve National Board Certification supports to increase the number of teachers achieving this advanced credential. Learnings and evaluation will be shared in the field to grow a replicable understanding of how to design and implement PD that will support the retention of accomplished teachers in the profession and in particular PD that supports and retains ToC. This wide dissemination of results and design, combined with the growth of professional accreditation, will help transform the profession far into the future, attracting more and more diverse teachers and keeping them in classrooms.

Teaching Quality. As previously satiated, more than a decade of research have shown that NBCTs are more effective than other teachers, particularly as instructors of high-need students (Cowan & Goldhaber, 2016; Goldhaber & Anthony, 2007). Teachers report National Board Certification as a powerful PD experience that changes their practices and provokes them to adjust lessons and assessments to the needs of individual students (Manzeske & Reese, 2017).

M2C aims to engage 1,500 teachers over the course of the project to receive high-quality, culturally responsive and sustaining PD. This will result in 45,000 more students per year who have access to high-quality teachers and are receiving instruction from teachers who have pursued an advanced credential.

Teacher Retention. Sutcher et al. (2016) find that first-year turnover is cut by more than half when teachers benefit from mentoring, collaboration, differentiated resources, and

participation in a strong teacher network, such as those proposed here. NBCTs remain in the profession longer than their non-certified colleagues (Ingersoll, 2001). In part, the higher retention rate for NBCTs results from the continual learning, recognition, and community that this advanced certification provides. Other professions use advanced certification to ground ongoing professional learning throughout the career continuum. Aspiring doctors, for example, are guided continuously by licensed, board-certified physicians: they master curricula created by these physicians; receive training, geocaching and feedback from them during medical school, internship, and residency; and ultimately earn board certifications awarded by the same body of professionals (Booth, 1995). For the last century, doctors have used standards for accomplished practice and advanced board certification as tools to bring coherence and consistency to the quality of practice (Cassel & Holmboe, 2008; Cooke et al., 2010). In turn, professionals stay in the field often for the duration of their career. The proposed initiative aims to apply a similar high-retention approach to teaching.

Teacher Diversity. M2C aims to strengthen the teaching workforce specifically by retaining teachers of color. The professional life of an educator includes three phases: becoming an educator, becoming an *accomplished* educator, and staying an educator. The National Board supports *current* teachers in those second two phases: to improve their practice, grow their professional learning communities, become leaders and mentors, and stay in the classroom or school building serving students. M2C will increase the effectiveness and retention of ToC in the aforementioned ways that apply to all teachers, and also will increase the number of ToC that are recognized as content and instructional leaders and who serve as mentors that inspire and support those around them—peers, aspiring teachers, parents, students, and policy leaders. The project affords an opportunity to refine a model that supports retention of ToC in high-need schools by

addressing their well-documented concerns (Dixon et al., 2019). The project is uniquely positioned to leverage the expertise of ToC (both NBCT mentors and NBCTs widely) to define accomplished teaching based on their classroom evidence of practice in relation to the National Board Standards and Five Core Propositions, critically positioning ToC as leaders and mentors in the project (Kohli, 2019). The continuous feedback feature and evaluation of the project will contribute essential understanding to the field's efforts of how to better support teachers of color throughout their career trajectory, including essential inventions in the critical years following pre-service and induction to keep teachers in the classroom.

M2C aims to engage 750 ToC in this project. This will result in up to 22,500 students per year benefitting from this cohort of teachers for every additional year they stay in the classroom. The perspectives and experiences of these teachers in the course of this project will be gathered, synthesized, and shared to understand more and how culturally responsive and sustaining PD can benefit the instructions and retention of ToC.

B(2) Costs, Persons Served and Anticipated Results and Benefits

The total anticipated cost of the project is approximately \$14.3 million, which equals approximately \$9,500 per teacher for two years of professional learning, mentorship and advanced certification. Approximately 90,000 students over the two years will experience better learning through access to these effective and experienced teachers who better represent and teach diverse populations of students, which equates to roughly \$160 per student.

A 2017 North Carolina study found that students taught by NBCTs have higher math and reading scores than their peers (Horoi & Bhai, 2018). The authors determined that a math NBCT increases the present value of students' lifetime income by \$48,000. The increased retention rates of NBCTs also translates to cost savings: According to the National Commission on Teaching

and America's Future, each departing teacher in a mid-sized urban district costs the district about \$15,000 per teacher. Districts spend an average of \$18,000 per year for each teacher on PD.

The requested funding level is reasonable, as the cost per participant is small compared with the benefits, and the per-teacher investment is a small fraction of traditional investments, especially considering funds are spread over multiple years. We will ensure overall cost-effectiveness by faithfully implementing the project proposal, managing the budget and focusing on continuous improvement. This project spreads high-quality PD resources and related tools, and invests in a design and systems that produce further returns through scale. Successful and effective learnings from this project will be shared widely with all National Board Certification teacher support programs and implementers to increase the number of NBCTs of color, and shared with partners and the education field for expansive understanding of the types of supports that positively impact the experience, learning and retention of teachers of color. As the learnings of M2C are spread to more places and implemented for more teachers, the cost per teacher and student positively impacted by this work will further be reduced.

B(3) Incorporation into Ongoing Programs

Diversifying the teacher workforce and increasing the number of NBCTs of color is core to the National Board's mission, goals and work. In the next ten years, the National Board seeks to dramatically scale and diversify the national community of NBCTs to 250,000 teachers, at least 25% of whom identify as teachers of color, and moving toward an aspirational long-term goal of 1,000,000 NBCTs that are 50% teachers of color. At this scale, NBCTs will substantively change the experience of education for young people, making a more equitable system in which all students have access to expert educators and the opportunity to learn and achieve.

The learnings and successful activities to support ToC through Board certification will inform the National Board's approaches to supporting candidates as it seeks to meet the above long-term goals. These learnings will be implemented internally among our teams to adjust their tactics for communication, recruitment, and partnership, and for how we support and train National Board Networks, PLFs, mentors, and other partners who are in the work of supporting candidates through Board certification.

B(4) Dissemination Plan

With over 130,000 NBCTs and 70 NBCT Networks nationwide (including NAME), M2C is well poised to spread proven and promising strategies for strengthening teacher development to a large national audience. National Board staff have been trained by the Billions Institute, an organization with a tested model for unleashing large-scale change, and will implement their recommended strategies to spread the essential elements of the intervention while supporting adaptation to local needs. Dissemination will include: developing a user-friendly brief that includes mini case studies of participating districts' impact stories and resource links; and implementing a dissemination plan that uses newsletter, eblast, website, social media, conference presentations, and virtual and in-person convenings and trainings to reach audiences of teachers, school and district administrators, NBCT Networks and partner organizations, such as the teachers' associations, teacher leadership and advocacy organizations, think tanks, and policy membership organizations.

The National Board is poised to leverage organizational relationships and networks with access to substantial numbers of teachers and system leaders. For example, recent presentations have included the Council of Chief State School Officers Systems to Elevate Excellent Teaching Collaborative, the National Conference of State Legislatures, and the National Association of

State Directors of Teacher Education and Certification, with multiple publications for the Education Commission of the States. In addition, as a result of the recent COVID-19 impacts across the country, the National Board team prepared and delivered 50 webinars and materials virtually to 250,000 practitioners and doubled access to ATLAS with more than 300 educator preparation programs now subscribing. Fifty-two districts that participated in prior SEED-funded projects will also be included. The National Board will actively disseminate the results of this project via newsletter, eblast, website, social media, virtual and in-person convenings and training, and through more formal presentations and publications.

C: Quality of the Management Plan

C(1) Goals, Objectives and Outcomes

The below tables explicate key features of the management plan, including goals and objectives aligned with Absolute Priority 1 and Competitive Preference Priorities 1, 2 and 3; staffing to achieve the outcomes; and activities and timeline to meet desired outcomes.

Table 3. *Project goals, objectives and outcomes*

<p>Purpose of SEED: Increase the number of highly effective educators by supporting evidence-based projects that provide PD or enhancement activities for teachers.</p> <p>SEED Performance Measures:</p> <ul style="list-style-type: none"> ● 70% of teachers serve concentrations of high-need students ● 56% of teachers serve concentrations of high-need students and are highly effective ● 50% of teachers serve concentrations of high-need students, are highly effective, and serve for at least two years 		
Goal	Project Objectives	Measurable Outcomes
<p>Goal 1: Improve students' social, emotional, academic development.</p>	<p>1A. As a result of PD, teachers implement new practices and reflect on their impact on students and the learning environment.</p>	<ul style="list-style-type: none"> ● 80% of students increase social-emotional learning ● 80% of students report that their learning environment is safe and inclusive ● 80% of students increase academic achievement

<p>Goal 2: Improve teachers’ instructional practice.</p>	<p>2A: PD is designed to be safe and inclusive learning and reflective spaces for teachers to analyze their practice.</p>	<ul style="list-style-type: none"> ● 90% of ToC improve instructional practice ● 90% of ToC report PD is leading to changes to instructional practice
	<p>2B: Partner sites implement high quality collaborative PD for teachers to improve their practice.</p>	
	<p>2C: Programs provide access to ATLAS so teachers can analyze teaching practice of accomplished ToC working successfully with high-need students in diverse student populations.</p>	
<p>Goal 3: Increase the number of highly effective teachers, with a preponderance of ToC, pursuing and achieving Board certification as an advanced credential.</p>	<p>3A: Programs recruit ToC to pursue Board certification as an advanced certification.</p>	<ul style="list-style-type: none"> ● 1,500 teachers pursue National Board Certification ● 750 ToC pursue certification ● 90% of ToC submit all four components ● 70% of ToC (525) achieve certification
	<p>3B: Programs retain ToC in their Board certification process.</p>	
	<p>3C: Programs support ToC to achieve Board certification.</p>	
<p>Goal 4: Improve retention of teachers, ToC serving high concentrations of high-needs students.</p>	<p>4A: PD is designed, facilitated, and assessed with a critically conscious and racial justice orientation.</p>	<ul style="list-style-type: none"> ● 100% of facilitators and mentors are trained in critical mentorship/ PD ● 100% of participating ToC report feeling supported ● Increase retention of ToC staying in the profession to 90%
	<p>4B: Professional supports are developed by and facilitated by ToC who provide critical mentorship/PD.</p>	
	<p>4C: Supports are adapted, based on formative feedback, to meet the learning needs of teachers.</p>	
	<p>4D: Teachers engage in affinity networks.</p>	

C(2) Adequacy of Management Plan

The core team managing M2C is responsible for milestones and activities and is made up of National Board staff. The National Board team has a long history managing SEED and other

Department of Education grants and provides the infrastructure to ensure that communication, activities, and evaluation are carried out collaboratively and effectively.

Table 4. *National Board staffing roles, responsibilities, and applicable expertise*

Role	Key responsibilities based on expertise
President and CEO from the National Board	<p><i>Expertise:</i> National leader in teacher quality, STEM education, and educational excellence for African Americans. Co-founder and Director of the Engineering and Manufacturing Institute of Technology at Forest High School.</p> <p><i>Responsibilities:</i> Ensure that M2C functions within and is responsive to the broader currents of the educational landscape and connects to other National Board projects, and leads key external partnerships.</p>
Chief Operating Officer	<p><i>Expertise:</i> Leads strategy development as well as programmatic operations for the National Board, overseeing organizational progress on strategic priorities and goals. Has previously led projects funded by a U.S. Department of Education SEED awards.</p> <p><i>Responsibilities:</i> Responsible for appropriate resource allocation to complete the project, ensure continued strategic alignment with other organizational priorities and projects, and financial accountability and risk management throughout the course of the grant.</p>
Vice President of Experience and Activation	<p><i>Expertise:</i> Leader in design thinking, process analysis and improvement, user experience, professional development and project management; current NBCT, former U.S. Department of Education Teaching Ambassador Fellow, project lead on previous SEED-funded projects.</p> <p><i>Responsibilities:</i> Ensure that systems and strategy are in place to equitably and sufficiently inform and support the program team, partners, and candidates. Helps drive strategy and vision toward progress and outcomes for the internal team, solve problems to dissolve barriers, and maintain positive relationships with Partner Sites.</p>
Project Director	<p><i>Expertise:</i> As an NBCT of color, has deep familiarity with Board certification and lived experience as an educator of color; background in adult learning and technology, having worked directly with districts to support them with early career programs; extensive experience in district support and coaching for PD programs.</p> <p><i>Responsibilities:</i> Lead the development of the professional development program; develop training for Partner Sites; refine program based on feedback from Partner Sites and Design Team; ensure partners receive coaching and improvement support relevant to their needs; and liaise with Partner Site teams and Design Team.</p>

Senior Project Manager	<i>Expertise:</i> Strong program manager who managed two previous SEED grants. Experience designing convenings and supporting program sites. <i>Responsibilities:</i> Work closely with executive leadership to lead decision making and overall project management; lead analysis of grant spending to ensure on-target spending of funds; responsible for project outcomes and designing and producing learning events.
Project Manager	<i>Expertise:</i> Extensive experience managing grant financials. <i>Responsibilities:</i> Project manage grant, financial recordkeeping, facilitate cross-partner site collaboration, and support execution of events.
Director of Diversity, Equity and Inclusion	<i>Expertise:</i> Led adult learning, training and professional development DEI trainings; developed environments and scaffolds for adult learning; experience in change and systems management. <i>Responsibilities:</i> Serve as key advisor to National Board staff and Design Team to ensure DEI lens is brought to all aspects of the work; work with professional learning providers and implementers to support them in best practices for conducting and creating spaces for culturally responsive learning and safe learning spaces.

Table 5. Partner roles and responsibilities

Role	Key Responsibilities
Design Team	Provide overall project guidance on design informed by their expertise in culturally responsible and sustaining professional learning; give feedback for improvement; support dissemination of findings and research.
Partner Sites	Oversight of program implementation; recruit and support PLFs and mentors; capture and share successful or unsuccessful strategy implementations; support data collection and monitoring of progress and outcomes; lead site-based decision making and overall management; connect to key initiatives to develop a sustainability plan.
PLFs and Mentors	Design and facilitate PLCs; make adjustments to facilitation and program implementation based on feedback from teachers and in consultation with district team; mentor teachers to reflect, practice, and improve their practice (may be split depending on number of teachers in the program).
NBCTs of Color	Provide insight on the experience of candidates and NBCTs of color throughout the Board certification process to inform program design; provide advice on program implementation to inform continuous improvement.
Evaluation Partner	Design and conduct impact and formative evaluation studies of the project; report on interim findings for mid-project continuous improvement; write final evaluation report for dissemination.

Table 6. Timelines, milestones, and responsibilities for accomplishing project tasks

Goal 1: Improve students' social, emotional, academic development Goal 2: Improve teachers' instructional practices Goal 3: Increase the number of highly effective teachers, with a preponderance of ToC, pursuing and achieving Board certification as an advanced credential Goal 4: Improve retention of ToC serving high concentrations of high needs students.				
Goal	Year	Tasks	Milestones	Lead
3	1	Gather feedback from NBCTs and ToC on meaningful professional learning supports related to certification.	List of recommendations for Design Team	Project Director
2 3 4	1	Identify experts for Design Team, design agenda and host Design Team convening.	Host a three-day meeting with Design Team	Project Director, Senior Project Manager
2 3 4	1	Use feedback from Design Team convening to strengthen implementation plan for model.	Revised model based on feedback from Design Team	Project Director
2 3 4	1	Design and host feedback sessions with program teams to address local needs.	Revised model based on feedback from program teams	Project Director
2 3	1	Develop additional ATLAS cases with exemplars of NBCTs of color.	Add 300 new ATLAS cases	ATLAS Director
3 4	1	Develop recruitment materials, work with principals to identify teachers, and host information sessions.	1,500 teachers commit to program	Project manager
3 4	1	Recruit NBCTs to mentor teachers.	Teachers matched with mentor	NAME, Partner Site lead, Project Director
4 3	1	Develop and administer training for PLFs in culturally responsive and sustaining coaching and facilitation.	All PLFs are trained in best practices for DEI facilitation	Design Team, Project Director

3 4	1	Develop and administer training for mentors for ToC.	Trained mentors	NAME, Partner Site lead
3	1	Affinity groups are organized in Partner Sites and/or across Partner Sites, with best practices and learnings.	Affinity spaces and guides developed	Design team, Project Director, NAME (advisor)
3	1	Project Lead adapt recruitment strategy and materials for ToC.	Improved recruitment strategies and resources	Project Manager, NAME
2 3 4	2 3	Partner site convenings to plan for implementation and sustainability.	Partner Site implementation plans	Project Director, Senior Project Manager
1 2 3 4	2 3	Bi-monthly PLC for teachers to improve practice by examining student work and video of their practice via component work.	Teachers successfully completing component requirements	PLFs
1 2 3	2 3	Teachers observe and analyze accomplished teaching through ATLAS cases in PLCs.	Teachers analyzing accomplished teaching via practice NBCTs of color	PLFs
3 4	2 3	Quarterly meetings with mentors and local Partner Site leads.	Formative assessment informs ongoing program improvement for ToC	Project Director, Partner Site leads
3 4	2 3	Calls every two months with all Partner Site leads, and Design Team.	Formative assessment informs program improvements	Project Director
2 3 4	2 3	Bi-annual surveys to measure teacher perceptions of the efficacy and impact of the program on their practice.	Revise program design and implementation based on feedback	Project Director, Design Team

3 4	2 3	Teachers receive mentorship by NBCTs of color.	750 ToC receive coaching, feedback and support through certification by NBCTs of color	NAME and Local Project Lead
3 4	2 3	Teachers participate in affinity groups based on race/ethnicity and potentially some sub-sections, such as affinity group for early career Hispanic teachers, or for Black male teachers.	750 teachers of color join affinity networks	NAME
2 3 4	2 3	Partner and design teams review ongoing feedback from teachers and facilitators on quality and impact of the program. Make improvements based on feedback.	90% of teachers submit all four components	District Team, Project Director, Design Team
2 3 4	2 3	Monthly coaching and support calls with Design Team and Partner Sites and Project Lead for feedback on improvement.	PLFs receive feedback and support	Design Team, Partner Site leads
2 3 4	3	Develop and implement dissemination plan to spread model to new programs.	Spread model to programs	Project Director, Senior Project Manager

Section D: Quality of Project Evaluation

American Institutes for Research (AIR) will evaluate M2C, a two-year program to support teachers and ToC with high-quality PD from 2023-24 to 2024-25. The evaluation will produce evidence about M2C’s effectiveness (impact evaluation) that will meet What Works Clearinghouse (WWC) standards with reservations and will provide periodic performance feedback of progress toward outcomes that can be used to inform programmatic improvements

(formative evaluation). Table 7 summarizes the research questions (RQs) addressed by the evaluation, outcome measures, and data sources used, aligned with the M2C theory of action.

Table 7. *Evaluation research questions, outcome measures, and data sources*

Research Questions	Outcome Measures	Data Sources
Impact Evaluation		
Project Goal: Improve teachers’ instructional practice		
1. What is the impact of M2C on the classroom practice of ToC?	Classroom observation scores (primary)	Classroom observation data from video recordings for intervention and comparison teachers scored using the CLASS rubric in grades K-12, 2023-24 (baseline) and 2024-25 (outcome)
Project Goal: Improve retention of ToC serving high concentrations of high needs students.		
2. What is the impact of M2C on the retention of ToC in the teaching profession and high needs schools?	Teacher assignment records from districts (extant)	Employment records for intervention and comparison teachers in grades K-12, 2023-24 (baseline) and 2024-25 (outcome)
Project Goal: Improve students' social, emotional, and academic development.		
3. What is the impact of M2C on students’ perceptions of social and emotional competencies and learning environment, including inclusivity and safety?	Student survey scores (primary)	Panorama social and emotional learning survey for students in grades 3-12, 2024-25/fall (baseline) and 2024-25/spring (outcome)
4. What is the impact of M2C on student achievement in mathematics and English language arts in grades 4-8?	Standardized scores from state achievement tests in English language arts (ELA) and mathematics (extant)	Districts’ achievement data for students in grades 4-8 in 2023–24 (baseline) and 2024–25 (outcome)?
Formative Evaluation		
Objectives and performance measures associated with programmatic supports, and program recruitment and retention.		

5. To what extent is M2C implemented with fidelity at the provider level? And to what extent are components adapted to fit local contexts?	Recruitment numbers, types of supports provided, frequency of delivery, rate of attendance (extant)	Provider’s implementation plan at the start of 2023-24 and 2024-25; session schedules and participation records from 2023-24 and 2024-25.
Objectives and performance measures associated with educator participation in M2C and implementation of learnings		
6. To what extent is M2C implemented with fidelity at the teacher level? And to what extent are components adapted to fit teacher needs?	Teacher attendance and participation, records of implementing learnings in classrooms (extant), survey (primary)	Providers’ coaching logs, classroom observation logs, debrief logs, and teacher surveys from 2023-24 and 2024-25.
Objective and performance measures associated with classroom practice change		
7. How do M2C teachers and providers perceive the usefulness of the program?	Survey scores, themes from interviews and focus groups (primary)	Teacher survey, interviews and focus groups with teachers and providers in 2023-24 and 2024-25.
Project Goal: Increase the number of highly effective ToC educators pursuing and achieving Board Certification.		
8. Do M2C participants pursue and attain the National Board certification as expected?	Certification results (extant)	National Board’s certification records for M2C participants from 2023-24 and 2024-25.

D(1): Producing Evidence of Effectiveness

AIR will use a quasi-experimental design to examine the effectiveness of M2C on teacher and student outcomes (RQs 1–4 in Table 7). AIR will use a matching approach to create intervention and comparison groups of teachers and students (Rosenbaum & Rubin, 1985) that do not differ on observable characteristics. An estimated 1,500 teachers (750 ToC) participating in M2C will serve as the pool of intervention teachers, and nonparticipating teachers from the same Partner Sites will serve as the pool of comparison teachers for the analytic samples described below. Matching will occur within the same district to control for the variability in

implementation between Partner Sites and other factors that could influence results, such as availability of financial incentives for National Board candidates.¹ AIR team will select, and, if needed, adjust, the matching procedure to ensure baseline differences on key covariates specified by the WWC are no greater than .25 standard deviations, and ideally close to 0 (WWC, 2020).

AIR will match participating ToC to nonparticipating ToC on observable characteristics captured in administrative data (e.g., years of experience, grade and subject, certification, and demographics). Additionally, AIR will match teachers on their students' aggregate prior-year achievement level. To balance on constructs that will be used as teacher outcomes, AIR also will match on baseline classroom practice scores and school-level prior-year retention rate. AIR will include school-level variables in the matching procedure (e.g., average achievement and the proportion of students eligible for the free or reduced priced lunch (FRPL)). If necessary, AIR will additionally match at the student level to optimize balance. Students of participating and matched ToC will serve as a pool of intervention and comparison students for student outcomes.

Teacher Outcomes. The impact evaluation will examine teachers' classroom practice (RQ1) and retention (RQ2) at the end of year 3 of the grant period (academic year 2024-25) after teachers participate in the program for two full years, with baseline data collected at the start of implementation in 2023-24. For RQ1, the sample will include 100 ToC teachers (50 intervention and 50 comparison) in grades K-12, who AIR will select randomly from the pool of all available intervention and matched teachers, stratifying on M2C sites and teacher characteristics to ensure that the sample is balanced at baseline. The sample is feasible within the budget limitations and sufficient for a minimum detectable effect size (MDES) of .36, which is below the average effect size of .49 from a meta-analysis of randomized trials of teacher coaching (Kraft et al., 2018).

¹ AIR will not match teachers in the same school: we anticipate that many schools will have insufficient number of ToC to use as matches; a spillover of M2C learning is likely to occur between teachers in same schools.

To maximize participation in data collection for RQ1, which includes teacher recordings and videos of classroom activities, AIR and the National Board will communicate the data collection expectations and significance to intervention and comparison teachers. To facilitate submission of videos, AIR will support teachers by offering trainings to teachers and school media specialists, providing video recording technology when needed, and designating a coordinator to answer questions during the observation collection window. AIR will use retention methods tested in prior research, including incentives for completing data, early and ongoing communication about participation, and targeted follow-up with nonrespondents (Brueton et al., 2011). AIR will over-recruit teachers for classroom observations to ensure that the analytic sample has sufficient power for detecting outcomes. For RQ2, the sample will include 1,500 ToC (750 intervention, 750 comparison teachers) in K-12. This estimate assumes that approximately 15% of matched teachers will not have employment records for examining retention in the profession because of mobility outside districts. The sample is sufficient for detecting an MDES of .08, which is aligned with the average impact estimates observed in research examining the effect of teacher support on retention (Kraft et al., 2016; Kraft, 2020).

Student Outcomes. AIR will examine the impact of M2C on students' perceptions of social and emotional competencies and learning environment (RQ3), and achievement in ELA and mathematics (RQ4) at the end of year 3 of the grant (academic year 2024-25), after teachers participate in M2C for two full years and are expected to have impacted students.² For RQ3, AIR will collect baseline survey data at the start of 2024-25 for students in grades 3-12, using a validated survey instrument. The sample will include 1,000 students (500 intervention and 500

² Students will be taught by teachers for one year. Although ideally the evaluation would examine the impact of M2C on students after full two-year implementation of M2C, this approach is impractical because most students shift to a different teacher each year. We anticipate that at the end of 2024-25 a small number of students will have been taught by intervention teachers for more than one academic year. We will include these students in the analytic sample and conduct an exploratory analysis of their outcomes.

comparison), which is feasible within the limitations of primary data collection from students, such as collecting parental consent. The sample for RQ3 is sufficient for detecting an MDES of .20, which is below the average impact estimates of .57 for similar interventions (Durlak et al, 2011). For RQ4, AIR will use test scores for students in grades 4–8, as those grades are tested and have prior year results needed for data analysis. AIR will use test scores from 2023-24 as baseline. Because test scores are extant data and, therefore, have fewer collection limitations, we anticipate the sample to include 3,000 students (1,500 intervention and 1,500 comparison). The sample is sufficient for an MDES of .11, which is below the average impact estimate of .18 reported by studies that examined similar interventions (Kraft et al., 2018; Zhu et al., 2019).³

To analyze teacher and student outcomes, AIR will use industry-standard regression methods, accounting for the nesting of data, district fixed effects, and controlling for teacher and student baseline characteristics. Using a quasi-experimental design, establishing baseline equivalence, using valid and reliable outcomes measures described in D(3) and D(4), and applying industry-standard analytic methods ensures that the evidence produced meets WWC evidence standards, thereby satisfying the SEED program application criterion.

D(2): Providing Periodic Feedback and Assessment of Progress

AIR will conduct the formative evaluation of M2C during full-scale implementation in 2023-24 and 2024-25. The formative evaluation will examine the extent to which M2C is implemented with fidelity at the provider and teacher levels and identify local adaptations (RQ5 and RQ6). To evaluate fidelity and adaptations, prior to full-scale implementation AIR and the National Board will identify specific implementation indicators for program delivery, activities,

³ MDES estimates for teacher outcomes (RQ1 and RQ2) are based on a two-level fixed effects blocked individual assignment design. MDES estimate for student outcomes (RQ3 and RQ4) is based on a three-level fixed effects blocked cluster assignment design. Appendix H provides additional details about the power analysis.

and participation, aligned to the core components of M2C theory of action (i.e., teacher recruitment, ongoing mentoring, submission of the National Board certification components). To gather in-depth understanding of M2C implementation, the formative evaluation will also examine how ToC and M2C providers view the usefulness of the program (RQ7), and whether the program supports the pursuit and attainment of the National Board certification (RQ8).

To ensure continuous feedback, the evaluation will include three feedback cycles in each 2023-24 and 2024-25, sequenced to best support programmatic needs. For example, the National Board may focus on programmatic refinements in 2023-24 and require feedback at the beginning, middle, and end of the school year, but the sequence in 2024-25 may have more frequent data collection earlier in the school year with the focus shifting to sustainability.

To ensure comprehensive feedback, AIR will use multiple data sources (Table 7). Extant sources include M2C providers' documents, records of teacher participation, coaching and observation logs, and certification records. Extant data will allow AIR to document implementation, develop a snapshot of available support and participation, and determine implementation fidelity. Primary data sources include teacher surveys and interviews/focus groups with teachers and M2C administrators. Primary data will allow for in-depth understanding of the perceived use and usefulness of M2C to teachers and providers, and successes and barriers to optimal engagement.

AIR will collect data from all 10 Partner Sites, include all 1,500 teachers in formative surveys, and randomly recruit teachers and administrators for up to 40 interviews/focus groups per year. Recruitment will be stratified to ensure representation across sites and teacher characteristics. AIR will report formative findings in decks and memos to maximize timeliness

and accessibility of information, accompanied by presentations to the National Board. AIR will compare findings from each data collection cycle to project benchmarks to assess progress to outcomes. Appendix I includes a schedule of the proposed evaluation activities and milestones.

D(3): Use of Objective Performance Measures

The formative evaluation will include extant and primary data sources for M2C outcomes and performance measures outlined in Table 7. The evaluation will use qualitative and quantitative data to deliver the breadth and depth of information on outcomes intended as precursors to the achievement of programmatic goals. To ensure that instruments for surveys, interviews, and focus groups are objective, AIR will develop questions (and answer options for surveys) that are clear and concise, understood by respondents, and offer sufficient response flexibility as these characteristics enhance measurement quality (Fowler, 1995). During the M2C planning period, AIR will test all instruments to ensure that they function as intended, including assessing the validity and reliability of surveys using factor analysis and the Rasch rating scale model (Wright & Masters, 1982). AIR will adjust the instruments throughout the evaluation as needed. We anticipate that program documents, such as M2C provider plans, coaching and observation logs, and records of teacher participation will be objective measures of M2C implementation and participation, as these sources capture observable behaviors which AIR also will be able to confirm (for example, by cross referencing attendance and signup sheets).

D(4): Producing Valid and Reliable Data

AIR will use valid and reliable instruments as defined by WWC (2020) in the impact evaluation to ensure credible data. AIR will use the Classroom Assessment Scoring System (CLASS) to score video recordings of ToC's classrooms. Developed and validated by researchers from the University of Virginia, CLASS has been used in more than 200 studies to evaluate

classroom practice and has been shown to have a strong connection to student achievement (Pianta et al, 2005; Teachstone, 2022). AIR will use district employment records to measure teacher retention, which are administrative data considered valid and reliable by the WWC. For the impact of M2C on students' social and emotional competencies, and perceptions of learning environment, AIR will use Panorama Education's Social-Emotional Learning survey, which addresses topics aligned with M2C goals, such as sense of belonging, teacher-student relationships, and inclusivity and safety of learning environments. Panorama surveys have been validated with large and diverse student samples and demonstrated validity and reliability aligned with WWC standards (Panorama Education, 2016). For the impact of M2C on achievement, AIR will use standardized test scores, which WWC identifies as valid and reliable.

D(5): Potential for Replication

AIR will use three strategies to support future replication of the program and research. First, AIR will document M2C implementation, including key components and adaptations, which AIR will use to provide independent feedback to the National Board as part of the formative evaluation. Second, AIR and the National Board will make M2C design and formative and impact evaluation results publicly accessible through publications, the National Board website, and dissemination through webinars, conferences, and professional meetings. And third, AIR will pre-register the M2C impact study in the Registry of Efficacy and Effectiveness Studies, including research and analysis activities, and sample information, and update the registry if changes are necessary.