

PARTNERS Project (Providing Apprenticeships through Residency Teams for
Novice Educator Retention and Student Achievement)

EIR Early Phase Table of Contents

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A. SIGNIFICANCE

A1. Project Overview and Alignment with EIR Priorities. To support new diverse elementary teachers from a range of teacher entry portals to become highly-effective with students in high-need schools, Clemson University (CU) and Charleston County School District (CCSD) in South Carolina (SC) in partnership with 3 SC Historically Black Colleges and Universities (HBCUs) (Claflin University, Clinton College, and SC State University) propose the Providing Apprenticeships through Residency Teams for Novice Educator Retention and Student Achievement (PARTNERS) project under the EIR Early-Phase competition. This project’s innovation is an intensive, coteaching model of teacher apprenticeship for novice teacher induction support, and aligns with Absolute Priority (AP) 1 (Demonstrates a Rationale) and AP5 (Field-Initiated Innovations—Promoting Equity in Student Access to Educational Resources and Opportunities: Educator Recruitment and Retention), and includes activities addressing Competitive Preference Priorities (CPP) 1 (Promoting Partnerships with Underrepresented Entities) and 2 (Addressing the Impact of COVID-19).

Project PARTNERS will focus on recruiting, supporting, and retaining high-quality diverse teachers (60 pairs of novices and mentors) in the North Charleston area of CCSD to become effective educators and teacher leaders and improve student achievement in two high-need schools serving Grades K-5—Pinehurst Elementary and Dunston Elementary. Over 3 cohorts, 30 novice and mentor teacher pairs will be placed in each school. These N. Charleston schools have large populations of **high-need students**, those who are economically disadvantaged (determined by free or reduced-price lunch (FRPL)) and/or are from underrepresented minority communities and have low test scores on the SC READY reading and math assessment (Appendix J).

CCSD is the second-largest school system in SC with a blend of urban, suburban, and rural schools in a county that spans 1300 square miles. Of its 47 elementary schools, 21 are in N. Charleston. The majority of elementary schools in CCSD that are rated “unsatisfactory” or “below-average” are found in N. Charleston. Compared to other geographic areas in CCSD, N. Charleston schools consistently have

the highest student of color enrollment, poverty rates, percent of multilingual (ML) students, and percent of students who score “Does Not Meet Expectations” on state-wide reading and math tests. N.

Charleston residents and city leaders have lamented the disparities for their K-12 students (compared with other CCSD schools) and demanded action be taken to address educational inequities among the district’s highest need schools (Ashbaugh, 2024). A quality teacher is the most critical in-school factor positively correlated with improved learning outcomes and student achievement (Chetty et al., 2014). Hence, progress in closing opportunity gaps for students in N. Charleston elementary schools requires that students have equitable access to quality teachers. Project PARTNERS will build evidence for promising strategies to recruit and retain high-quality novice and experienced teachers in N. Charleston high-need schools and improve student achievement for ALL students.

A2. Significance: Teacher Shortages and Quality Gaps Persistent in High-Need Schools. The

teacher shortage is a significant educational crisis. 86 percent of US public schools reported challenges hiring teachers for the 2023-24 school year (NCES, 2023). As of 2022, approximately 200,000 US classrooms were either vacant or staffed by personnel who were not certified for their positions (Nguyen et al., 2022). In SC, 1613 teacher vacancies marked the start of the 2023-24 school year, and on average, more than 7000 educators leave their teaching positions annually (CERRA, 2023). A contributing factor to the teacher shortage nationally and in SC is declining enrollment in teacher preparation programs (TPPs), which in both cases have seen decreases of 30% (CERRA, 2023; NCTR, 2023).

With declining enrollment in TPPs, districts increased the number of entry portals available to recruit teachers, including hundreds of alternative certification pathways established across the country. Among comprehensive TPPs and alternative certification programs, the structure, content, and quality are regulated differently across the US (Wilson & Kelly, 2022). Graduates from TPPs often have limited to no teaching experience with underserved students and have fewer student teaching placement experiences in high-need schools (Goldhaber et al., 2017). Teachers trained in alternative certification pathways often fare worse since they enter the profession through an expedited process which may

require little to no coursework or training before becoming the teacher of record. Hence, recruitment of novice teachers from various entry portals may provide short-term reductions in teacher vacancies; however, this strategy alone is insufficient to address retention challenges and inequities in outcomes for high-need students.

Recruiting and Retaining High-Quality Teachers in High-Need Schools. High-poverty schools and those with a large proportion of students of color and lower-performing students are the most hard-to-staff schools (Garcia & Weiss, 2019a). Consequently, high-need schools often resort to hiring novice, inexperienced teachers (1-2 years of experience) and teachers prepared through alternative programs who, on average, are less effective than their more experienced, credentialed peers (Clotfelter et al., 2007; Kini & Podolsky, 2016), particularly in challenging educational settings (limited resources, substandard working conditions, and leadership turnover). In SC, high-quality, experienced teachers are unequally distributed across schools and districts, including CCSD (Appendix J), often concentrated in schools with adequate or abundant resources, and majority White student populations. Referred to as *teacher quality gaps*, this uneven distribution of high-quality teachers continues to impede meaningful progress in improving achievement and attainment for high-need students.

In the deeper context of US teacher shortages, teachers of color continue to be underrepresented in the teacher workforce especially when compared to the demographics of K-12 students (NAE, 2024). Furthermore, Black teachers who do enter the workforce increasingly use alternative certification pathways (NAE, 2024) because the cost of teacher preparation programs places more debt burdens on teachers of color than White peers. As a result, Black teachers are 3.5 times more likely to have no teaching experience (Carver-Thomas, 2018) and higher turnover rates, in part due to inadequate preparation and mentoring. In PARTNERS target schools, enrollment of students of color averages 91% and only 28% of teachers are teachers of color. Considering that there is a strong link between a diverse teacher workforce and improved outcomes for students (Gershman et al., 2017), it is imperative that strategies specifically focus on recruiting teachers of color through high-retention pathways.

Teacher shortages and educational inequities are fueled by other structural challenges. A larger percent of teachers in high-poverty schools compared to low poverty schools report a school climate, stress, job satisfaction, and student absenteeism as serious concerns (Garcia & Weiss, 2019c), all factors that worsened during and after the Covid-19 pandemic. Many students experienced significant disruptions, leading to gaps in their knowledge and skills, and teachers now face the dual challenges of addressing these gaps and keeping up with current curricula. The pandemic affected students' social interactions and emotional well-being, and many struggle with anxiety, depression, and other mental health issues. Chronic student absenteeism is worse than ever, a major source of concern for teachers, since absenteeism accounts for 27% of the test score declines in math and 45% of test score declines in reading (The White House, 2023). Between 29% and 43% of the students in PARTNERS project schools were chronically absent during the 23-24 school year (Appendix J).

First-year teachers in high-need schools often do not receive key supports to help them address the complex needs of teaching in these settings, where differentiating instruction, diagnosing student learning, implementing culturally responsive pedagogy, and supporting a range of social and emotional needs are crucial (Poldolsky et al., 2016). High-need schools have higher shares of novice and inexperienced teachers, yet they are less likely to have access to induction and mentor programs than their peers in lower poverty schools (Gracia & Weiss, 2019d). Retaining experienced teachers in high-need schools is also difficult. Teachers experience more positive working climates and job satisfaction when they are offered meaningful PD opportunities and tend to stay in their positions (Garcia & Weiss, 2019d). More teachers in high-poverty schools report they participate in PD activities that are not useful compared to teachers in lower poverty schools (Garcia & Weiss, 2019d).

With lower job satisfaction, difficult school climates, greater stress, and less meaningful PD opportunities, along with fewer early-career supports for novice teachers, teacher turnover and attrition in high-need schools is high. Teacher turnover has lasting, negative consequences for the quality of the instructional staff at high-need schools and student achievement (Sorensen & Ladd, 2016). High teacher

turnover, especially in high-need schools, strengthens the case for researchers, school district leaders, and policymakers to develop and implement innovative, evidence-based teacher support programs that directly address challenges of recruiting and retaining quality teachers.

Innovations Adapted from Educator Preparation Programs Surface Promising Solutions. Teacher residencies (TRs) and registered apprenticeships (RAPs) are examples of programs with innovative recruitment and retention strategies implemented across the US. Over 100 TRs are active in the US and 23 states have supported TRs through statute or regulation (Rowland et al, 2024). Design features of TRs include strong district-university partnerships, integration of coursework and clinical experience, and a full year of residency alongside an expert mentor teacher. This design has resulted in success in recruiting and preparing diverse teachers who are retained in the profession (specifically in high-need schools) (NCTR, 2023) and gains in student achievement (Worley & Zerbino, 2023). In 2021, the US Department of Labor (USDOL) approved the K-12 teacher occupation as eligible for apprenticeship, and TRs have been foundational to the creation of RAPs. The USDOL defines RAPs as an industry-driven, high-quality career pathway where employers develop and prepare their future workforce and individuals obtain paid work experience with a fully qualified mentor, receive progressive wage increases, classroom instruction, and a portable, nationally recognized credential (Apprenticeship USA, 2023). **TRs and RAPs allow prospective teachers to experience teacher preparation while they work; however, few if any of these programs are available for early career teachers who are already in the workforce nor experienced teachers with few opportunities for professional growth and advancement.** Field-initiated, effective innovations embedded within TRs and RAPs include mentoring, coteaching, intensive PD, job-related instruction through coursework, peer support, and leadership development. These innovations can be paired with intensive early career support that affords prospective AND novice teachers with the pedagogy, skills, and experiences to effectively teach in a high-need school. **Comprehensive, high quality induction programs specific for teachers in high-need schools accelerate new teachers' professional growth, contributing to improved teacher**

effectiveness and new teacher retention (Bastien & Marks, 2017; Ingersoll, 2012; Ronfeldt & McQueen, 2017). Collectively, these strategies inform the PARTNERS project innovations (Table 1).

Table 1. PARTNERS Project Promising Recruitment and Retention Strategies and Innovations

Evidence-Based Effective Strategies Embedded into PARTNERS Projects	PARTNERS Project Novel Innovations
Adapted from <i>Teacher Residency Programs</i>	
-Yearlong support from a mentor teacher -Coteach with a mentor teacher -Living stipend/wage while in residency	Residency year in high-need schools provided teacher candidates (alternative certification and traditional education student) and novice teachers
Adapted from <i>Registered Apprenticeships</i>	
-On-the-job training for teacher candidate -Quality instruction by a partner institution -Increase in wage when completed	-On-the-job training and instruction provided to preservice AND in-service teachers to become quality teachers in high-need schools -Mentors who work with apprentices receive quality instruction alongside apprentices
Adapted from <i>Comprehensive Induction Support</i>	
-Monthly seminars provided in Year 1 -PD opportunities such as workshops and single trainings -Work with an instructional coach 1-2 times a month in the first year	-Monthly seminars provided in Year 1 and 2 Graduate coursework distributed over 2 years that can lead to NBCT certification -Paired with a mentor teacher in the same classroom -Mentor teacher trained to provide daily instructional coaching

A3. Project Involves Development and Demonstration of Promising New Strategies. The

PARTNERS project implements several promising strategies to recruit and retain teachers in high-need schools that have the greatest teacher workforce development needs.

Promising Strategy 1: Prospective and novice teachers recruited to teach in PARTNERS schools will

participate in a yearlong, coteaching RAP that will help close the quality gap for novice teachers from various teacher entry portals employed in N. Charleston area high-need schools. Diverse novice teachers from several different teacher entry pathways will be recruited and hired to teach students in

PARTNERS target schools with support through full-time **coteaching** with an experienced teacher for one year (PARTNERS Mentor). Effective coteaching requires daily collaboration about instructional strategies, curriculum, and assessment, and each teacher’s voice is valued as they generate lessons with the goal of improving student learning. Teachers who engage in these higher levels of collaboration demonstrate improved instructional quality (Papay et al., 2020) and are more effective at raising student achievement in reading (Jackson & Bruegmann, 2009;). Students in the cotaught classroom will have increased opportunities to learn from two prepared adults in the classroom, and smaller groups of

students can be provided with high-dosage tutoring during the school day when two teachers work together in the classroom. Jones and Winter (2022) provided the first causal estimate for the effects of coteaching between a regular classroom teacher and a special education teacher across a large public school system and found that coteaching leads to significant test score improvements for both students with and without disabilities. Bacharach et al. (2010) investigated the differences in K-6 student achievement and found that students in cotaught student-teaching settings attained higher mean proficiency levels in reading and math. **Having two teachers work together in the coteaching classroom is a promising strategy, providing additional opportunities for high-dosage tutoring to students, an evidence-based strategy to improve learning gains and mitigate chronic absenteeism and persistent learning loss from the pandemic.** (Nickow et al., 2024) (CPP2). There are several coteaching strategies that can be implemented (e.g. alternative, station teaching, supplemental teaching) (Appendix J for a description of coteaching strategies) that allows one teacher to work intensively with a small group of students and provide targeted intervention and support while the other teacher instructs a larger group of students. High-dosage tutoring programs that use teachers or paraprofessionals during the school day at least 3 days a week are the most effective and have the largest effect sizes on student academic growth compared with tutoring conducted after school (Nickow et al., 2024). Using an apprenticeship coteaching model in high-need schools is not only an effective method of providing comprehensive early career support to novices, but it also provides schools the opportunity to provide high-dosage, in-school tutoring to its highest need students (CPP2). **Coteaching (teacher candidate and a mentor) is not a new phenomenon in TR programs across the US; however, providing employed novice teachers a paid apprenticeship year to coteach in high-need schools is a promising new strategy for novice teacher induction and for addressing pandemic-related learning loss and current chronic student absenteeism.**

Promising Strategy 2: Both PARTNERS novice and mentor teachers will receive high-quality professional development through graduate coursework offered at no cost to the teachers. Novice

teachers will engage in high-quality, *graduate coursework in effective and reflective teaching practices* (Appendix J for course descriptions) aligned with National Board Professional Teacher Standards (NBTS), preparing them to apply for NBCT certification. Teachers who complete NBCT have been shown to be more effective than their peers with the same experience (Cowan & Goldhaber, 2016). Mentors will also engage in high-quality, graduate coursework (4 courses) specializing in instructional coaching and teacher leadership (Appendix J for course descriptions). The coursework prepares mentors to coteach, effectively implement mentoring and daily instructional coaching throughout the apprenticeship year to improve student learning and leads to a teacher leader endorsement on their SC teaching certificate. This coursework provides increased salary opportunities for both novice and mentor teachers, which has been shown to positively impact retention (Darling-Hammond, et al., 2017). Opportunities to assume leadership roles and share expertise with other teachers is associated with increased teacher retention and job satisfaction (Booker & Glazerman, 2009).

Promising Strategy 3: PARTNERS mentors will provide personalized, daily instructional coaching on

top of coteaching. The teacher leader endorsement coursework that is provided to mentors allows them to develop an understanding of coaching models, student-centered collaborative protocols, and student-centered instructional and coaching practices to guide their novice coteacher in data analysis and best practices to improve student learning. Most induction programs that incorporate instructional coaching typically include only 1 to 2 coaching sessions per month due to the limited number of instructional coaches available (Kraft et al., 2018). However, including more intensive, sustained instructional coaching support in a comprehensive induction program has shown promising results. For example, North Carolina’s induction program, The New Teacher Support Program, was significantly more effective at improving teacher performance and retention for participants who received more instructional coaching visits per month than others who received fewer visits (Bastien & Marks, 2017). Kraft et al.’s (2018) meta-analysis of 60 studies found that teacher coaching has a large effect on instructional practices and student achievement. **More personalized, instructional coaching is possible**

as a promising new strategy when embedded throughout the day for a novice teacher sharing a high-need classroom with their coteacher.

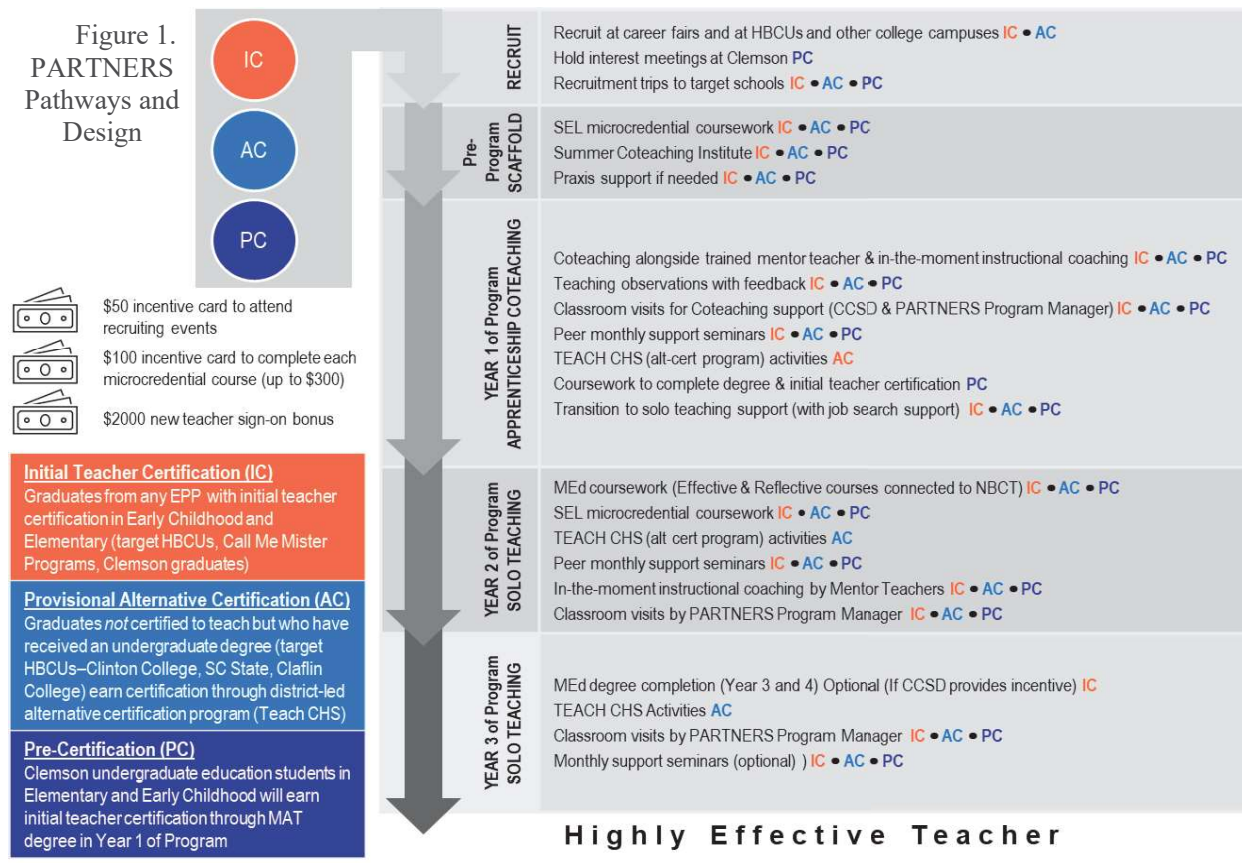
An initial iteration of these promising strategies was piloted in one N. Charleston school during the 2023-24 school year, with funding from CCSD. Ten novice teachers were recruited to spend a year in a coteaching apprenticeship at Pinehurst Elementary where they shared a classroom with a highly-effective mentor. This pilot demonstrated promising results for using a whole-school model to improve teacher retention and student achievement in high-need schools. 100% of teachers (novices and mentors) who participated in the coteaching apprenticeship year returned to teaching in high-need schools for a 2nd year. Additionally, students in cotaught classrooms demonstrated greater growth on reading and math assessments than students in non-cotaught classrooms. With promising early results for teacher retention and student achievement gains, we have developed a more ambitious project (PARTNERS) to expand to more elementary schools in N. Charleston, and recruit through multiple teacher entry pathways in partnership with 3 SC HBCUs to focus recruitment on hiring more underrepresented teachers and conduct rigorous evaluation of outcomes that meet the WWC standards.

In summary, the PARTNERS project provides novice teachers with a year of a coteaching apprenticeship with a trained mentor who provides daily instructional coaching while engaging in meaningful PD through graduate coursework that embeds the effective and reflective teacher practices of the NBCT, all promising strategies for improving teacher retention, recruitment, and student achievement in high-need schools. The PARTNERS Project offers practical and potentially scalable solutions to today's teacher workforce challenges: the demand for more teachers and the need to provide equity in student access to high-quality educators for ALL students.

B. QUALITY OF THE PROJECT DESIGN

B1. High-Quality Conceptual Framework that Underlies the Research and Activities. PARTNERS project's theory of action (TOA) poses that school districts will be more effective in recruiting and retaining diverse, high-quality teachers when novice teachers, especially minority teachers, are provided with more comprehensive induction through a coteaching apprenticeship and meaningful graduate

coursework, coupled with intensive coaching and mentoring from an experienced teacher. Additionally, providing meaningful PD to experienced teachers along with leadership and career advancement opportunities will lead to improved veteran teacher retention (Appendix G Logic Model). This TOA adapts effective, evidence-based practices from teacher preparation, including TRs and RAPS design elements, into intensive early-career induction supports in high-need schools available to ALL novice teachers irrespective of the entry pathway they followed into the teaching profession.



The PARTNERS project will incorporate several design elements grounded in strong evidence for recruiting and retaining quality teachers in high-need schools that also address the post-pandemic challenges students and teachers face (See Overview in Figure 1).

Design Element 1: PARTNERS has partnered with 3 HBCUs to recruit diverse educators through several high-retention pathways that provide a full teaching salary or living stipend (CPP 1). Several hiring conditions are associated with recruiting more candidates of color into the teaching profession

including early hiring and partnering with human capital pipeline organizations such as HBCUs (Carver-Thomas, 2018) (Appendix J for recruitment plan).

Design Element 2: Once recruited, scaffolding support is provided to PARTNERS candidates to help

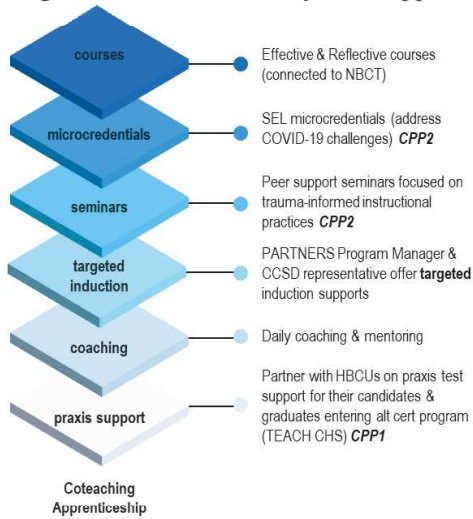
prepare them for teaching students in high-need target schools. Praxis test support will be provided to help reduce barriers to passing certification exams, an effective strategy to prepare diverse students to pass required tests (Goe & Roth, 2019). Recruited participants will also attend a weeklong coteaching summer institute before the apprenticeship year with mentors to 1) facilitate relationship building between coteachers; 2) provide the novice opportunities to learn about the specific needs and context of their schools, students, and community; 3) train the pairs to implement coteaching effectively; 4) facilitate structured time to begin co-planning; and 5) provide PD for the coteaching pairs to implement educational practices important in high-need schools such as meeting the needs of ML learners.

Design Element 3: PARTNERS novice teachers and mentors will engage in a full year of coteaching.

Prior to attending the coteaching summer institute, the novice teacher will be paired with a mentor (Appendix J for mentor selection teacher criteria) through an intentional matching process, considering compatibility, dispositions, subject matter and grade level preferences, and expertise. **Coteaching provides the novice teacher access to relevant, nuanced, scaffolded daily mentoring and instructional coaching.** Novice teachers who receive more personalized, instructional coaching sessions are more effective and tend to remain in teaching (Bastien & Marks, 2017). Additionally, **coteaching helps address post-pandemic challenges including learning loss, chronic absenteeism, and students' socioemotional learning (SEL) needs.** Daily coteaching will reduce the student to teacher ratio and allows two teachers to provide differentiated instruction, culturally responsive high-dosage tutoring, enhanced intervention support, and supportive classroom environments that meet students' socio-emotional needs (CPP2) and **improve student outcomes** (Reeve et al., 2017). Additionally, providing daily opportunities for teachers to collaborate has been shown **to improve teacher well-being and mental health** (Collie et al., 2012).

Design Element 4: PARTNERS novice and mentor teachers will engage in meaningful PD

Figure 2. PARTNERS Layered Supports



opportunities including graduate coursework, monthly seminars in cohorts, SEL microcredential coursework, and attendance at professional conferences during and after the year of coteaching for continued career support (Figure 2 for a summary of PD offerings). Novice teachers will be placed in cohorts with their peers each year for the graduate coursework and monthly seminars. The cohort model will be used to facilitate relationship-building and increase collegiality with other PARTNERS novice teachers. The

cohort model provides an opportunity for diverse educators to be a part of an affinity group that fosters a sense of belonging and reduces feelings of isolation (Dixon et al., 2019). Novice teachers will complete 4 graduate courses in the Effective and Reflective Practitioner specialization (see Appendix J for course descriptions) of CU’s MEd degree in Teaching and Learning that incorporates the portfolio component of the NBCT process. The coursework will prepare them to complete the NBCT process once they have attained three years of teaching experience. Both the novice and mentor teachers will also take 3 SEL microcredential courses (Appendix J for course descriptions) and will receive \$100 gift cards for each course they complete. The SEL microcredential prepares teachers to make instructional decisions with the goal of nurturing students’ social, emotional, and academic learning to create a positive classroom environment and stronger relationships with their students, which improves student outcomes and can be an effective strategy for decreasing students’ chronic absenteeism (Gottfried et al., 2024). Engagement in the SEL microcredential coursework that emphasizes understanding biases and the impact of racism also leads to a more supportive environment for Black educators (Dixon et al., 2019). Sustained PD like the Effective and Reflection Practitioner coursework, Teacher Leader coursework, and SEL microcredential courses provided over 2 academic years has been shown to be more effective as PD as

opposed to other short, one-off workshops typically provided to teachers in high-need schools (Darling-Hammond et al., 2017; Garcia & Weiss, 2019d). Mentor Teachers will engage in four Instructional Coaching Specialization graduate courses (Appendix J for course descriptions) at no cost to them that leads to a Teacher Leader Endorsement on their SC teaching certificate. With the additional graduate coursework and endorsement, mentors will become teacher leaders in their school and will be paid a \$5000 stipend to continue mentoring and coaching novice teachers in high-need schools. Opportunities to assume leadership roles and share expertise with other teachers is associated with increased teacher retention and increased job satisfaction (Booker & Glazerman, 2009; Silman & Glazerman, 2009). Studies of teacher pay incentives find that modest payments of \$1000 per year help reduce teacher attrition (Feng & Sass, 2015). Mentors who continue working with novice teachers for multiple years will also receive the opportunity to attend a professional conference of their choice and all travel costs and associated fees will be provided. See Figure 3 for summary of mentor teacher supports.

Both novice and mentor teachers will earn 18 hours of graduate credit from successful completion of coursework, SEL microcredentials, and attending monthly seminars. The coursework hours will count towards earning the “bachelor’s + 18 hours of graduate credit in advanced education coursework” level of teacher certification, which comes with a salary increase. The graduate courses will also count towards an MEd degree in Teaching and Learning through CU for the novice and mentor teachers who have not yet earned a master’s degree.

Design Element 5: PARTNERS novice teachers will receive support to effectively transition them to year 2 of solo teaching in a stand-alone teaching role in a high-need school in N. Charleston once they complete their coteaching RAP. During their coteaching apprenticeship

year, the novice teacher will spend a few weeks each

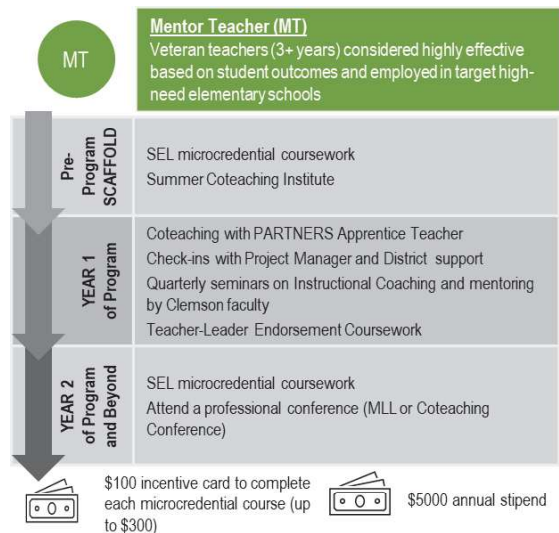


Figure 3. PARTNERS : Mentor Teachers Parallel Pathway as Coteachers

semester solo teaching while their mentor spends time in other teachers' classrooms and provides feedback and support to teachers who may not be participating in the project. This not only gives novices an opportunity to practice leading a classroom on their own but also provides the mentor an opportunity to expand their reach of mentoring and instructional coaching expertise beyond their classrooms. Time spent visiting other classrooms corresponds to higher job satisfaction ratings for teachers (Reeves et al., 2017), and strong collegial relationships contribute to a more favorable work environment, a factor that contributes to teacher retention (Johnson et al., 2012). As part of the transition to solo teaching support, novices in their 1st year of solo teaching will continue to be paired with their mentor who will visit their classrooms monthly to offer in-the-moment feedback and support. The PARTNERS project manager will also visit novices in their classrooms and gather data on areas of growth that can be addressed in monthly seminars.

Design Element 6: PARTNERS novice teachers will receive sustained, comprehensive induction support in their first and second years of solo teaching in a high-need N. Charleston school. Along

with the mentor visiting the novice teacher's classroom in Year 1, the project manager will also conduct classroom visits in solo teaching Years 1 and 2 to provide additional support and determine areas where novices need more PD that will be provided through monthly seminars in a cohort of novice teachers. Providing new teachers with induction support that pairs mentorship with collaboration and targeted feedback sustained throughout their first year can improve teacher retention and student achievement (Fiddman & Partelow, 2021). Job-embedded individual observation and feedback increases the effectiveness of new teachers and improves student achievement (Smith & Ingersoll, 2004).

Design Element 7: The PARTNERS leadership network will provide continuous input and feedback and share unique insights and experiences to help ensure that the project is responsive to novice and mentor teacher needs as well as the high-need school settings. The PARTNERS leadership

network consists of a consultant from each of the 3 HBCUs, principals from each PARTNERS school, Clemson University personnel, a CCSD district personnel, and advisory board members (see Appendix J

for a description of their roles). The PARTNERS leadership network will use data from early implementation to gauge initial impact and collaborate and discuss changes in implementation that will improve the project’s effectiveness and improve the recruitment and retention of diverse educators and student achievement. Engaged stakeholders are more likely to advocate for the continuation and expansion of successful interventions beyond the grant period and facilitate the development of scalable models that can be adapted and implemented in other school districts SC and nation for a mid-phase expansion. Involving a wide range of stakeholders ensures that the project is comprehensive, relevant, and sustainable while enhancing the quality and effectiveness of the intervention and increasing community and institutional support, which ultimately leads to better educational outcomes.

B2. Goals, Objectives, Outcomes Clearly Specified and Measurable. The overarching goal of PARTNERS is to develop and implement an innovative apprenticeship model for multiple pathways into teaching that includes intensive coteaching, instructional coaching, and PD for novices alongside retention supports and incentives for experienced teachers. PARTNERS will result in a stronger teacher workforce and improved student outcomes in elementary schools in N. Charleston with the greatest educational disparities. The project will prepare 60 high-quality novices placed in high-need schools during an apprenticeship coteaching year that will positively impact outcomes for 1500 students in these cotaught classrooms. If all teachers continue teaching in a high-need N. Charleston school for Year 2 in a solo teaching position, 1500 additional students will be taught by an effective educator. As more experienced PARTNERS mentors are retained in high need schools, even more students will be taught by qualified teachers which will help to close the opportunity gap for the students of N. Charleston. PARTNERS will accomplish 5 primary goals, and each goal is aligned to objectives, activities, and performance measures summarized in Table 2. A comprehensive description is found in Appendix J.

Table 2. Goals, Objectives, and Performance Measures

Objectives	Outcomes and Performance Measures
Goal 1: Recruit diverse, underrepresented prospective and novice teachers to teach in high-need elementary schools (AP5, CPP1)	
1.1 Broaden pool of highly qualified, diverse teachers.	60 PARTNERS novice teachers hired; 40% are from underrepresented groups.

1.2. Remove admissions, persistence, and completion barriers.	90% PARTNERS novice teaches pass all required certification exams before beginning their coteaching apprenticeship year.
1.3. Incentive hard-to-staff positions in high-need schools.	85% of PARTNERS novice teachers employed in high-need schools in stand-alone positions in Y2. 40% are from underrepresented groups.
Goal 2: Prepare novice and inexperienced teachers to effectively implement strategies to best meet the needs of the high-need student population including challenges resulting from the pandemic (SEL needs, chronic absenteeism, learning loss (AP5, CPP2))	
2.1. Effectively train PARTNERS teachers in coteaching.	60 cotaught classrooms in high-need schools in grades K5-5 (20 each year for Yrs 1, 2, 3). 95% of coteaching pairs attend the coteaching institute. 40% of cotaught classrooms have at least one teacher from underrepresented groups.
2.2 PARTNERS teachers implement coteaching effectively for an academic year.	75% of cotaught lessons observed (min=6 lessons) include at least 2 coteaching strategies. 90% of coteaching lessons observed include incorporation of high-dosage tutoring.
2.3. Increase teacher effectiveness and teacher promotion through structured training.	90% of PARTNERS novice teacher complete the 4-course sequence earning a B or higher. 90% of PARTNERS novice teachers' evaluation scores will improve at least 15% from Y1 to Y2.
2.4. Encourage continued growth and job satisfaction through PD	90% of PARTNERS mentor teacher complete 4 graduate courses earning a B grade or higher.
2.5. Provide SEL trainings to promote inclusive, safe classroom environments.	Chronic absenteeism in target schools improves by 5%. 90% of PARTNERS novice and mentor teachers report that they implement strategies to create inclusive, supportive, equitable learning environments on CASEL SEL Panorama Teacher Self-Reflection Survey.
2.6 Gradually and intentionally release PARTNERS novice teachers' level of responsibility.	100% of PARTNERS novice teachers spend a minimum of 4 weeks solo teaching (2 weeks in the Fall and 2 weeks in the Spring) during apprenticeship coteaching year. 90% of PARTNERS novice teachers teacher observation scores (SCTS 4.0 Evaluation Rubric in Appendix J) will improve from Fall to Spring. 85% of PARTNERS novice teachers will show 25% improvement in their Teachers' Sense of Self-Efficacy from Fall to Spring (TSES Survey)
Goal 3: Retain high-quality novice and experienced teachers in high-need schools, especially underrepresented teachers (AP5, CPP1)	
3.1. Provide a strong foundation in which PARTNERS novice teachers thrive.	85% of PARTNERS teachers from prep programs and preservice residency entry pathways move from "Initial" to "Professional" level in SC Teacher Certification. 85% of PARTNERS novice teachers from alt cert pathway becomes certified to teach. 90% of PARTNERS novice teachers complete Y2 in a High-need elementary school. 85% of PARTNERS novice teachers complete Y3 in a high-need elementary school.
3.2. Appropriate incentive PARTNER mentor teachers.	75% of PARTNERS novice teachers report an overall positive score on job satisfaction survey. 85% of PARTNERS mentors retained in a high-need school.

Goal 4: Retain high-quality novice and experienced teachers in high-need schools, especially underrepresented teachers (AP1, AP5, CPP2)	
4.1. Create an optimal learning environment for students in high-need schools.	80% of students in co-taught classrooms show 5% improvement in iReady Math and ELA assessment scores. Chronic absenteeism improves by 5% in target schools.
4.2. Retain PARTNERS teachers in high-need schools.	80% of students show significant improvement in iReady Math and ELA Assessment scores from Fall to spring.
Goal 5: Implement continuous and iterative improvement in the project design, conduct rigorous program evaluation, and plan for scalability. (AP1, AP5)	
5.1. Collaborate regularly with principals.	Principals of high-need target schools attend at least 80% of the monthly meetings.
5.2. Collaborate with project partners to continuously improve recruitment and retention efforts.	PARTNERS leadership network members attend at least 90% of the monthly meetings.
5.3 Optimize program effectiveness and scalability throughout the implementation process.	Advisory board members, CU personnel, and CCSD personnel attend at least 75% of the meetings.

B3. Project Design Appropriately and Successfully Meets Needs of Target Population. The project is designed to address academic opportunity gaps in CCSD high-need elementary schools (Appendix J), through increasing teacher quality and retention. In the wake of the COVID-19, math and reading scores declined in every state between 2019 and 2022 for all students, but achievement scores remained significantly lower for low-income and students of color compared to White students (NAEP, 2022). Chronic absenteeism has become a problem for many schools since the pandemic which has further stalled progress in learning gains. Progress in closing the opportunity gap for high-need students in N. Charleston and the US demands that students have equitable access to quality teachers. Employing novices in high-need schools to coteach with experienced mentors will facilitate a deeper understanding of teaching underserved students living in poverty. By gaining the year of experience learning from more-skilled, experienced PARTNERS mentors, novices will be more effective when teaching as a stand-alone teacher in Year 2. Teachers who work in schools with strong professional environments improve much faster than their peers working in schools with weaker professional environments (Kraft & Papay, 2014), and teachers and schools that engage in quality collaboration have better achievement gains in math and reading (Ronfeldt et al., 2015). PARTNERS mentors will advance into teacher leadership roles and earn more money. Career advancement opportunities with compensation is an effective strategy to retain high-quality teachers in high-need schools (Podolsky et al., 2016). The

project’s unique approach addresses teacher quality and retention for both novice and experienced teachers and directly addresses inequities. Over the course of the grant, over 4500 high-need students in N. Charleston will have enhanced, more equitable learning opportunities because of the project.

C. QUALITY OF THE PROJECT PERSONNEL

C1. Applications for Employment Encouraged from Underrepresented Groups. CU and CCSD are AA/EEO employers and foster culturally diverse personnel committed to working in a multicultural environment. CU College of Education (CoE) is guided by a strategic plan for inclusive excellence that prioritizes increasing the college’s capacity to engage in equity, diversity, and inclusion systematically, systemically, and collaboratively. For new hires and replacements, a search committee will seek out diverse applicants to fill PARTNERS positions. Each search in the CoE is accompanied by a Diversity Plan (Appendix J). The Diversity Plan outlines the composition of the search committee to ensure diverse representation. The committee must have a plan to expand the pool of underrepresented applicants which includes setting a target for the diversity of the applicant pool, identifying outlets for advertising and outreach, using language to highlight the diversity, equity, and inclusion priorities for the position, and monitoring the diversity of the applicants during the search to decide about extending the search. CCSD is committed to providing equitable and quality educational opportunities for all students through employing the highest qualified and diverse education professionals. CCSD will recruit diverse PARTNERS applicants through their existing partnerships with HBCUs and advisory board members who are part of the nationwide Call Me MiSTER program. Additionally, diverse PARTNERS mentors will also be recruited by personal invitation by school administration and interest meetings will be held to explain the roles, expectations and opportunities of teacher leadership.

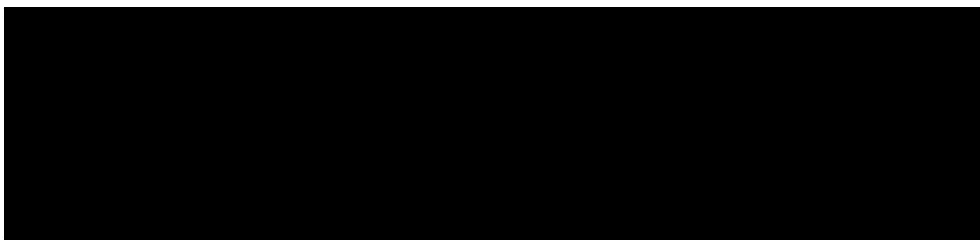
C2. Key Project Personnel are Qualified. PARTNERS personnel (Table 3) include researchers and practitioners with expertise to successfully implement the project (Appendix J for full descriptions of expertise and resumes). Basis Policy Evaluation will conduct the project evaluation. Key personnel have specific project roles as outlined in Table 4, Section D.

Table 3. PARTNERS Personnel and Project Roles

PARTNERS Project Director: [REDACTED] (PI) is Director of the Teacher Residency and Strategic Initiatives and leads development and implementation of new initiatives for the CoE in SC school districts.
Clemson Support Faculty: [REDACTED] is a lecturer in CU’s Department of Teaching & Learning, and a NBCT with expertise in instructional coaching and mentoring.
Clemson PARTNERS Project Manager: To be hired when project is funded.
CCSD Project Director: [REDACTED] is a Project Director for CCSD, managing day-to-day operations of the CU-CCSD partnership. [REDACTED] has served CCSD schools for over 30 years as a teacher, assistant principal, and principal. She has extensive knowledge of the district and N. Charleston community.
CCSD Human Resources: [REDACTED] is the Director for Certified Recruiting and Staffing in CCSD. As a former director of the Office of Teacher Effectiveness, [REDACTED] brings experience from the academic leadership and human resources functions of the district.
Clemson CoE Administrator: [REDACTED] (Co-PI) is Senior Associate Dean of Undergraduate Programs in CU’s CoE.
HBCU Consultant: [REDACTED] currently serves as an Assistant Professor and Division Chair of
HBCU Consultant: [REDACTED], currently serves as Assistant Professor of Education at Claflin University in Orangeburg, South Carolina.
HBCU Consultant: [REDACTED] serves as a Professor of Special Education, Coordinator of the Special Education program, and Acting Chair of the Department of Education at SC State University.
Principal Mentor: [REDACTED] is the principal at Pinehurst Elementary and has served as an administrator for many years in high-need schools.

The PARTNERS project will also have an Advisory Board with diverse representation that meets quarterly to discuss program evaluation, ways to improve the program, and opportunities for innovation

(Appendix J for description of advisory board members and Appendix C for letters



of support). The advisory board members bring a wealth of experiences working with target students in CCSD and in the N. Charleston area and have expertise with key aspects of the PARTNERS project including attracting diverse teacher candidates, addressing teacher shortages, effective coteaching implementation, and providing equitable access to education.

D. QUALITY OF THE MANAGEMENT PLAN

D1. Management Plan Will Achieve Objectives on Time and Within Budget. The PARTNERS project is organized into four workstreams—Initiating, Implementing, Monitoring and Continuous Improvement, and Evaluating—to ensure the project is implemented with high fidelity, on schedule and within budget. [REDACTED] (PI) will oversee and ensure implementation of all activities involving CU

personnel, Basis evaluation team, and the Advisory Board. [REDACTED] will oversee and ensure implementation of all activities involving CCSD personnel. The project milestones and timeline in Table 4 list activities aligned with the logic model (Appendix G) and PARTNERS objectives (Table 2 in Section B).

Table 4. PARTNERS Milestones and Timeline

Milestone/Activity (Objective)	Timeline	Person/People Responsible
Initiating		
Within 2 months post award, complete formal agreements with CCSD, Basis, and HBCU partners	Jan 2025	[REDACTED] & [REDACTED] & [REDACTED]
Convene Advisory Board	Jan 2025	[REDACTED] & [REDACTED]
Submit paperwork with Apprenticeship Carolina (US Department of Labor entity) for PARTNERS project to become a Registered Apprenticeship Partner	Feb 2025	[REDACTED] & [REDACTED]
Refine and implement recruitment plan (Appendix J) for PARTNER prospective and novice teachers and PARTNER mentor teachers (Obj. 1.1)	Jan 2025	PARTNERS Leadership Network and Advisory Board
Hiring of PARTNERS prospective and novice teachers (Obj. 1.3)	Jan-May Y1, Y2 Y3	[REDACTED] & School Administrators
Implementing		
Preparation for Coteaching Apprentice Year		
Early hires identified who need Praxis Test Prep and support provided (Obj. 1.2)	Jan-May Y1, Y2, Y3	[REDACTED] & [REDACTED] HBCU consultants
Hired PARTNERS novice teachers and mentors engage in 2 SEL microcredential courses (Obj. 2.5)	Jan-July Y1, Y2, Y3	[REDACTED] [REDACTED] CU Project Manager, HBCU consultants
Intentional Matching of PARTNERS novice and mentor teachers (Obj. 2.1)	Jan-May Y1, Y2, Y3	School Administrators, HBCU consultants, CU Project Manager
PARTNER novice and mentor teachers attend summer coteaching training institute (Obj. 2.1)	Summer Y1, Y2 Y3	[REDACTED] [REDACTED] CU Project Manager,
Coteaching Apprenticeship Year		
Cohorts of PARTNERS novice and mentor teachers coteach. Daily mentoring and instructional coaching provided by PARTNERS mentors (Obj. 2.2)	School Year Y1, Y2, Y3	[REDACTED] & School Administrators; CU Project Manager
Monthly support seminars held for cohort of PARTNERS novice teachers and mentors (Obj. 2.6)	School Year Y1, Y2, Y3	CU Project Director, [REDACTED] HBCU consultants
Observe cotaught classrooms and provide support on effective implementation (Obj. 2.2)	School Year Y1, Y2, Y3	[REDACTED] CU Project Manager,
PARTNERS mentor teachers complete 4 teacher leader graduate courses (Obj. 2.4)	Fall, Spring, Summer Y1, Y2, Y3	[REDACTED]
PARTNERS novice teachers complete 3 effective and reflective graduate courses (Obj. 2.3)	Fall, Spring, Summer Y1, Y2, Y3	[REDACTED] CU-Faculty
PARTNERS novice teachers spend a few weeks solo teaching in the cotaught classroom to prepare for transition to solo teaching (Obj. 2.6)	Fall, Spring Y1, Y2, Y3	CU Project Manager, [REDACTED]
PARTNERS novice teachers in alt cert pathway complete TEACH CHS activities (Obj. 3.1)	Summer Y1, Y2, Y3	[REDACTED]
First Year of Solo Teaching for PARTNERS Novice Teachers		

PARTNERS teachers employed for a 2nd year in high-need N. Charleston elementary school in stand-alone positions (Obj. 3.2)	School Year Y2, Y3, Y4	██████████ School Administrators
PARTNERS novice teachers alt cert pathway complete Y2 TEACH CHS activities (Obj. 3.1)	Summer Y2, Y3, Y4	██████████
2 nd Year PARTNERS teachers complete the last effective and reflective graduate course (course 4) (Obj. 2.3)	Fall Y2, Y3, Y4	CU Faculty
PARTNERS novice teachers in stand-alone positions attend monthly seminars (Obj. 3.1)	School Year, Y2, Y3, Y4	CU-Project Manager, ██████████ ██████████ HBCU consultants, ██████████ CU Faculty
PARTNERS novice and mentor teachers complete last SEL microcredential course (#3) (Obj. 2.5)	School Year, Y2, Y3, Y4	CU Faculty
PARTNERS mentor teachers spend a full day in the classroom with PARTNERS novice teacher in stand alone teaching positions to provide in-the-moment feedback and instructional coaching (Obj. 3.1)	School Year, Y2, Y3, Y4	Cu Project Manager, ██████████
Second Year of Solo Teaching for PARTNERS Novice Teachers		
PARTNERS novice teachers in stand-alone positions attend monthly seminars (Obj. 3.1)	School Year, Y3, Y4, Y5	CU-Project Manager, ██████████ HBCU consultants
Classroom visits for feedback and support (Obj. 3.1)	School Year, Y3, Y4, Y5	CU-Project Manager
PARTNERS novice teachers in alt cert pathway complete Y3 TEACH CHS activities (Obj. 3.1)	Summer Y3, Y4, Y5	██████████
Monitoring and Continuous Improvement		
Monthly meetings for feedback and continuous improvement of strategies and implementation	Y1-Y4, Spring Y5	██████████ and ██████████ CU Project Manager, ██████████ and ██████████
Monthly principal check-ins for continuous feedback and improvement of induction seminars (Obj. 5.1)	Y1-, Y4, Spring Y5	██████████ and ██████████
Monitor coteaching implementation, coaching, and mentoring (Obj. 2.2)	School Year Y1, Y2, Y3	██████████ & School Administrators; ██████████ CU Project Manager
Monitor participation and engagement in monthly induction seminars (Obj. 3.1)	Y1-Y5	██████████ CU-Project Manager
Advisory Board meeting four times a year (Obj. 5.3)	Fall & Spring Y1-Y5	Advisory Board; Partners Leadership Network
Evaluation and Dissemination of Findings		
Data Collection (See Appendix J for detailed data collection timeline)	Fall Y1-Spring Y5	Basis
Prepare annual reports to the US Dept of Ed on progress towards objectives and outcomes	Y1- Y5	Basis
Submit WWC report on PARTNERS project	Spring Y5	Basis
Create shareable resource materials for school districts across the state interested in implementing PARTNERS project (scaling up project) (Obj. 5.3)	Fall Y5	██████████ & ██████████ PR & Marketing Team
Disseminate findings via conferences, presentations, and publications	Fall Y5	██████████ ██████████ & ██████████
Submit Final Report to the US Dept of Ed	Fall Y5	██████████ & ██████████

E. QUALITY OF THE PROJECT EVALUATION

Basis Policy Research (Basis), an independent research firm with experience conducting large-scale evaluations of federally funded programs, will conduct a rigorous, independent evaluation of the PARTNERS program. This evaluation is designed to (1) assess program impact on student and teacher outcomes using a matched comparison quasi-experimental design (QED) that will meet What Works Clearinghouse (WWC) evidence standards with reservations and (2) provide formative feedback through a continuous data collection cycle that will promote ongoing progress toward program goals and objectives, alignment of key project components, and fidelity of implementation.

E1: Evaluation Design Meets What Works Clearinghouse Standards. Basis will use a matched comparison QED using propensity score matching to establish baseline equivalence that meets WWC evidence standards with reservations to assess the impact of the program on student and teacher outcomes with three impact research questions. First, we will examine whether students in classrooms where a novice teacher coteaches with a mentor (treatment) experience different academic and attendance outcomes compared with matched students in classrooms without novice coteachers (control). Second, we will examine whether students in classrooms in the 1st year that novice teachers are the teacher of record (treatment) experience different academic and attendance outcomes compared with matched students in classrooms of 1st year teachers without the apprenticeship training (control). Third, we will examine differences in teacher retention for novice teachers (treatment) matched with new teachers who did not receive the PARTNERS apprenticeship training (control) and mentors (treatment) with matched teachers who did not coteach with a novice teacher (control). For the three research questions, we will examine the moderating effects of student and/or teacher characteristics.

Research Question	Data Sources
RQ 1. What impact did PARTNERS have on student achievement and attendance during the apprenticeship year for novice teachers? Are impacts moderated by student or teacher characteristics?	Programmatic data Math and ELA student achievement data Student attendance data Teacher personnel data
RQ 2. What impact did PARTNERS have on student achievement and attendance when the novice teacher was teacher of record? Are impacts moderated by student or teacher characteristics?	Programmatic data Math and ELA student achievement data Student attendance data Teacher personnel data

RQ 3. What impact did PARTNERS have on novice teacher and mentor teacher retention rates? Are impacts moderated by teacher characteristics?	Programmatic data Teacher assignment and personnel data
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Propensity Score Matching. Basis will create three analytic samples using propensity score matching to address the impact research questions. We will use a two-step PSM for each of the three research questions. Step one: (RQ 1) estimate the probability of a student in N. Charleston being enrolled in a PARTNERS coteaching classroom based on grade level, demographic characteristics (e.g., race/ethnicity, gender, student mobility, English Learner, free- or reduced-price lunch/FRPL, multi-tiered system of support (MTSS) status)), prior achievement levels, and school-level characteristics; (RQ 2) estimate the probability of a student in N. Charleston being enrolled in a PARTNERS novice teacher classroom in their 1st year as teacher of record based on grade level, demographic characteristics (e.g., race/ethnicity, gender, student mobility, English Learner, FRPL, MTSS status) and prior achievement levels, and school-level characteristics; and (RQ3) estimate the probability of a first year teacher of record being a PARTNERS novice teacher in N. Charleston based on teacher demographics (e.g., race/ethnicity, gender) and estimate the probability of an experienced teacher being a PARTNERS mentor in N. Charleston based on teacher demographics (e.g., race/ethnicity, gender, years of experience, certification) and prior student achievement. Step two: use nearest neighbor matching to select control groups based on propensity scores closest to treatment individuals, by research question. We will conduct baseline equivalence tests to construct treatment and control groups that differ by no more than 0.25 standard deviations on baseline characteristics, per WWC guidelines.

Attrition, Risk, and Bias. Participant attrition is a threat to the study meeting WWC evidence standards with reservations. We will examine two kinds of attrition – overall and differential – to determine if the characteristics of participants who leave the study introduce bias. Basis will continuously monitor attrition across all groups, mitigating risk through the PARTNERS model highly responsive and supportive structures including frequent mentor touch points, a community cohort model, financial retention incentives, and intentional and frequent peer interactions.

Power Analysis. Basis conducted a power analysis using *PowerUpⁱ* to estimate the minimum detectable effect size (MDES) for the three research questions. We assume a total of 60 PARTNERS coteaching classrooms in the apprenticeship year with 25 students each for a total of 1,500 treatment students for the first research question and a total of 60 PARTNERS novice 1st year teachers with 25 students each for a total of 1,500 treatment students for the second research question. Furthermore, we assume 20% of the variation will be between teachers or classrooms, that covariates at the student-level will explain 70% of the variance, and classroom-level covariates will explain 15% of between classroom variance.ⁱⁱ These parameters will provide 80% power for MDES of the student outcomes of approximately 0.313. For the third research question, we assume 60 PARTNERS novice teachers in their 1st year of record and 60 PARTNERS mentor teachers. Further assuming that 70% of the variance will be explained by teacher covariates, the parameters will provide 80% power for MDES of the teacher outcomes of approximately 0.283.

Outcomes and Analyses. The student outcome data for the first two impact research questions are objective and valid measures of student achievement and attendance, which Basis will obtain from CCSD administrative data for school years 2024-25 through 2028-29. Student achievement data will include math and ELA scores from the state standardized assessment (SC READY). The attendance data will be daily attendance. Basis will examine differences between students in the treatment and control groups by estimating the following equation:

$$Y_{ij} = \beta_0 + \beta_1 PARTNERS_{ij} + \beta_2 X_{ij} + \beta_3 W_j + \pi_i + \epsilon$$

where Y_{ij} is the academic performance or attendance outcome for student i with teacher j , $PARTNERS_{ij}$ is an indicator variable for being taught in a coteaching classroom or for being taught in a classroom with a first year teacher after the apprenticeship year, X_{ij} is a vector of student-level covariates including race/ethnicity, special education, English Language, and low-income, and W_j is a vector of classroom-characteristics. π_i are grade configuration group fixed effects and ϵ is the error term. If the estimated coefficient for $PARTNERS_{ij}$, β_1 , is statistically significant and positive, then we can conclude

that PARTNERS is more effective in raising student achievement or improving student attendance than the control group.

The teacher outcome data for the third impact research question will be flags indicating whether the teacher stayed in the school or district after school years 2025-26 through 2028-29. Basis will examine differences in the predicted probability of staying in the school and/or district for novice teacher and mentor treatment and control groups using logistic regression.

E2: Evaluation methods provide performance feedback and permit periodic assessment of progress toward achieving intended outcomes. To allow for continuous assessment of PARTNERS progress toward achieving intended project outcomes, Basis will implement qualitative and quantitative research methods to collect and analyze quarterly formative data while providing structured opportunities for collective feedback and understanding, including bimonthly meetings with PARTNER staff and biannual Discover Days for co-interpreting data referenced below.

Research Question	Data Sources
RQ 4. To what extent were components of the PARTNERS program implemented with fidelity?	Programmatic data Program staff surveys and interviews
RQ 5. In what ways does PARTNERS increase recruitment, selection, and enrollment of diverse, underrepresented novice teachers?	Programmatic data Program staff surveys and interviews
RQ 6. How do PARTNERS novice teachers and mentors perceive the apprenticeship experience, coteaching, and their ability to best meet the need of high-need students?	Program staff surveys and interviews Novice and mentor teacher surveys and interviews
RQ 7. Do mentor teachers experience changes in their job satisfaction because of participating in the PARTNERS program?	Mentor teacher job satisfaction survey
RQ 8. In what ways does PARTNERS SEL coursework increase novice and mentor teacher self-efficacy toward cultivating a strong classroom culture?	Novice and mentor teacher Panorama SEL survey

Quantitative Data. The quantitative data will include surveys of participants and PARTNERS programmatic data. Basis will annually administer a novice and mentor teacher perception survey to understand PARTNERS program experience. PARTNERS mentor teachers will complete a calibrated job satisfaction survey in the fall and spring of their mentor year to assess changes in satisfaction after participating as a mentor. Additionally, all novice and mentor teachers will complete a Panorama survey to assess Social and Emotional Learning (SEL) knowledge and self-efficacy as a result of completed

coursework. To understand how PARTNERS program components were implemented, Basis will collect and analyze programmatic data.

Qualitative Data. To complement the quantitative data, Basis will conduct annual, random-sampling interviews and focus groups with PARTNERS novice and mentor teachers as well as with program staff. Through the interviews and focus groups, Basis will seek to understand the following: the novice and mentor teacher experience, recruitment experiences, reasons for retention and attrition, challenges and barriers experienced, perceptions of preparedness, and perceptions of SEL knowledge and implementation. Interview and focus group data will be analyzed and shared annually through Discover Days and interim reporting, serving as formative feedback on project implementation.

Evaluation Reporting. Basis will present formative and summative data through the following deliverables: **Discover Days.** Basis will facilitate two Discover Days per grant year, providing a rich opportunity for partner engagement and understanding of formative and summative evaluation findings. Discover Days, a unique Basis approach, show promise in increasing partner efficacy and engagement while simultaneously cultivating trusting relationships. Typically held over one full day or two half days, partners spend time co-interpreting results and developing collective insights to inform on-going grant activities and evaluation efforts. **Interim Reports.** Basis will produce four interim reports at the end of Years 1-4. The interim reports will be organized by the evaluation questions and present data available through the reporting period. The reports will provide formative feedback to the PARTNERS project team to inform programmatic decisions and federal reporting. **Summative Report.** Basis will produce a final report that captures the entire project scope. The report will be organized by evaluation question, describing the fidelity of implementation, relationships between implementation and outcomes, implications for replication, and overall impact of the PARTNERS project. Basis will submit the summative report to the PARTNERS project team at the end of Year 5. **WWC Reporting.** Basis will produce a report of the project's impact design methodology and results for WWC review and

reporting. The WWC report will be completed at the end of Year 5. Proposed data collection efforts are captured in the Data Collection and Reporting Timeline Chart, found in Appendix J.

E3: Evaluation plan articulates key project components, mediators, and outcomes as well as a measurable threshold for acceptable implementation.

Project Components and Outcomes. The evaluation plan is well aligned with the PARTNERS logic model, which thoughtfully captures program goals and outcomes. Program objectives have been cross walked with program goals, strategies, and outcomes as captured in Appendix J. The data reporting timeline and structures allow for ongoing and analysis of program impact through continuous reflection with PARTNERS program staff.

Mediators and Moderators Analysis. Basis anticipates the impact of the PARTNERS Program on teacher and student outcomes may be moderated by student and teacher characteristics, which we will examine through the QED impact analyses. Further, the student and teacher outcomes may be mediated by implementation of components of the PARTNERS model. Projected program implementation moderators include adherence and exposure, including participating district engagement, program support, and cohort engagement. To understand the variance and influence of mediators, Basis will conduct descriptive analyses, isolating for school, grade level, program pathway, and PARTNERS cohort. Basis will complete a regression analysis to understand how the mediators were correlated with student and teacher outcomes.

Measurable Threshold for Acceptable Implementation. To determine the extent to which PARTNERS is implemented with fidelity, Basis will work with the project team during Discovery Days to define measures of adherence and exposure for key components of the PARTNERS model outlined in the logic model and set levels for unacceptable, acceptable, and ideal implementation.

ⁱ N. Dong and R.A. Maynard, “PowerUp!: A Tool for Calculating Minimum Detectable Effect Sizes and Sample Size Requirements for Experimental and Quasi-Experimental Designs,” *Journal of Research on Educational Effectiveness* 6, no. 1 (2013): 24–67.

ⁱⁱ M. M. Chingos, G. J. Whitehurst, and M. R. Gallaher, “School Districts and Student Achievement,” *Education Finance and Policy* 10, no. 3 (2015): 378–98; Larry V Hedges and E. C. Hedberg, “Intraclass Correlation Values for Planning Group-Randomized Trials in Education,” *Educational Evaluation and Policy Analysis* 29, no. 1 (2007): 60–87.

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