



RESEARCH BRIEF

Impact of Resident-Mentor Pairs on Teacher Effectiveness

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ON THE COVER:

Marchele Williams is a Resident at the Memphis Teacher Residency. This photograph was taken at Kingsbury Middle School in Memphis, Tennessee.

Acknowledgments

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A recent study examines the value-add of hosting a resident on the effectiveness of the host teacher performance.

The research uses data from three residency programs and their respective school district partners. Among host teachers using the mentor model advocated by NCTR, hosting a resident in the classroom is positively associated with a higher teacher effectiveness score for the host teacher.

BACKGROUND

Teacher residencies are the most comprehensive model of teacher preparation in the nation. Residencies play an essential role in supporting human capital strategies by creating a pathway that responds directly to the hiring needs of school districts. Furthermore, teacher residencies raise the bar for quality while reducing historical and enduring barriers to entry for teachers of color and other underrepresented groups. Finally, residencies provide opportunities for experienced teachers to step into leadership roles as mentors¹, working alongside residents to support the development of highly effective new teachers who are capable of impacting student achievement when they enter the classroom as a teacher of record.

NCTR's residency model blends a rigorous full-year classroom apprenticeship for pre-service teachers with academic coursework that is tightly aligned with the classroom experience. Residents learn how to teach by working alongside highly trained host teachers—who serve as mentor, coach, and teacher educator to residents²—in the district where residents will eventually work. Coursework is tailored to the district context, with residents learning the district's core instructional initiatives and curriculum during the training year. Teacher residency programs typically require that candidates commit to

teach in the district for a minimum of three years.

Though the primary purpose of the residency program is to prepare a consistent, reliable pipeline of effective new teachers, having a resident in the classroom could provide other immediate benefits to students and host³ teachers by lowering the student-teacher ratio in classrooms for more personalized learning, giving students another adult with whom they can forge a relationship, or elevating the practices of host teachers who are responsible for mentoring residents. Research on residency programs typically focuses on programs' effectiveness in meeting primary outcome goals (i.e., measuring the effectiveness of residency graduates).

The Overdeck Family Foundation commissioned an exploratory study, conducted by research and evaluation firm Glass Frog Solutions, of the ancillary benefit of the residency model on teacher effectiveness. This research brief summarizes the findings from examining the added value of hosting a resident as reflected in the teacher effectiveness scores (TESes) of host teachers. The research uses data from three residency programs and their respective school district partners during the year of residency.

1. While hosting a resident provides an opportunity for a teacher to provide mentorship to a resident, not all residency programs specifically recruit for and train host teachers with the mentorship role in mind.

2. NCTR advocates for a "mentor model" approach, wherein host teachers are selected to serve as mentors based on their experience, efficacy in the classroom, and willingness to act as a mentor and serve as a model of success in a high-needs classroom. NCTR defines a specific set of host teacher selection criteria, as well as a clear description of host teachers' roles and responsibilities in the preparation of a new teacher.

3. In this research study, the role of the teacher of record is described as "host" in that these individuals agree to host a resident in their classroom for a full year. This allows the study to look at residency programs inclusive of the differences in how host teachers are selected and in host teacher roles and responsibilities.

DATA AND METHODS

For [Exploring the Ancillary Benefits of Residency and Differential Staffing Programs](#), researchers selected three residency programs—Res Ed, Teacher Prep, and City Teach⁴—based on their scale and design of their residency program model. Their respective school district partners were selected based on their willingness and ability to share data and the depth and length of their partnerships with their respective residency programs.

Res Ed and City Teach are both NCTR partner programs and employ a mentor residency model. NCTR’s mentor residency model uses a strategic and targeted mentor identification, selection, and development process. These mentors are selected for demonstrating a strong impact on student learning and for having the skills of working with an adult learner as coach, teacher educator, advisor, and evaluator. Over the course of the residency year apprenticeship, residents co-plan and co-teach with mentor teachers to learn, rehearse, and practice the competencies of an effective teacher. Additionally, Res Ed and City Teach programs provide high quality professional development and support to mentors so that mentors, in turn, can provide effective data-based mentoring to residents. Teacher Prep employs a different model with an important distinction: classroom teachers as “host.” This

means that the host teacher simply needs to demonstrate a willingness to have a resident present in the room. Personal and professional development to the resident is provided by Teacher Prep staff.

The value-add of hosting a resident was measured using the TES in the year a teacher hosted a resident. The measure of TESes varies across programs, depending on how a program’s partner district measures teacher effectiveness as part of its teacher evaluation system, though student performance is always a primary factor in the TES. Since both TES and data availability varied by program, researchers ran the analyses separately by program and by year. Researchers compared host teachers’ average TESes during the year they hosted a resident to the average TESes of non-host teachers. Because a teacher’s effectiveness is influenced by a variety of factors other than their pedagogical skills, the analyses controlled for TESes in prior years, years of teaching experience, and teachers’ school characteristics (i.e., percentage students who are English language learners, have individualized education plans, are economically disadvantaged, or are Latinx, Black, Asian, or White). As it is possible that working with a resident has an enduring impact on a teacher’s practice, such that the teacher is more effective

4. This research brief uses pseudonyms to conceal the names of the residency programs and their district partners.

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after hosting a resident, teachers are dropped from the dataset in all years succeeding the year they host a resident.

Table 1 shows average baseline TESes and teaching experience of host and non-host teachers included in the sample. The average TES in baseline years was higher among Res Ed and City Teach host teachers relative to comparison teachers; however, among Teacher Prep teachers, the average TES for

host teachers is comparable to that of other teachers. Res Ed host teachers have roughly 1.3 additional years of teaching experience compared to other teachers; the opposite is true among Teacher Prep host teachers (no teacher experience data for City Teach was available). Notably, this was anticipated by the researchers, given the different host teacher recruitment models used by Res Ed and Teacher Prep.

TABLE 1.

Characteristics of host teachers compared to teachers who did not serve as hosts.

Source: Residency and partner district administrative records.

	Res Ed		City Teach		Teacher Prep	
	Host	Non-host	Host	Non-host	Host	Non-host
Avg. baseline TES	3.6	3.2	1.0	0.4	2.2	2.2
Yrs. teaching experience*	6.6	5.3	--	--	3.4	4.5
N (teachers)	187	1707	113	7290	101	972

*Data not available for City Teach.

FINDINGS

For Res Ed and City Teach, the study finds evidence that hosting a resident in the classroom was positively associated with higher teacher effectiveness scores, controlling for teachers' baseline TESes, teaching experience, and school-level characteristics; for ResEd, a difference in TESes of 0.11 units and for City Teach, a difference of 0.60 units (see Figures 1a and 1b). Since the academic performance of students in a teacher's classroom is one of the major factors—and the only factor in the case of City Teach—contributing to the calculation of a teacher's effectiveness scores, higher TESes among mentor teachers suggest that hosting a resident in a classroom may be positively associated with improved student academic outcomes.

The results for Teacher Prep showed no significant difference in the TESes of host teachers and other teachers (see Figure 1c). That said, the residency model for Teacher Prep differs from the model used by the other two programs, which are based on the mentor model and therefore have stricter selection criteria for host teachers.

Researchers further examined whether more experienced and more effective teachers were better equipped to support residents, finding positive evidence of this for one program: City Teach. Specifically, City Teach host teachers with higher baseline TESes demonstrated greater gains in the year they hosted a resident than host teachers with lower baseline TESes. The researchers did not find this effect for Res Ed or Teacher Prep teachers.

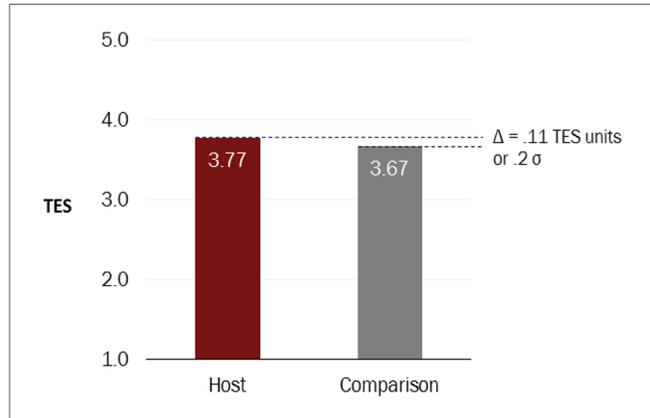
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FIGURE 1.

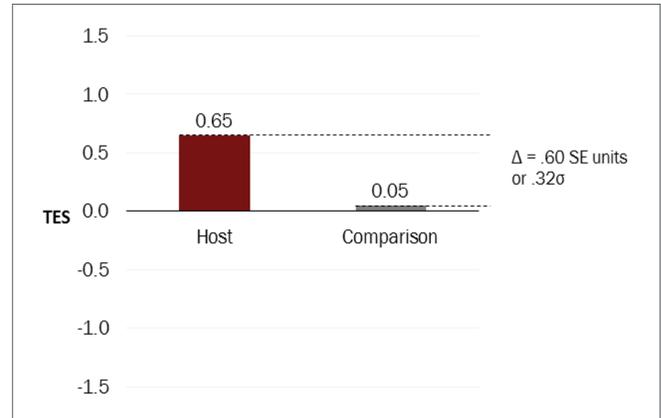
Estimated teacher TES/Standard Error in the year(s) host teachers worked with residents.

Source: Residency and partner district administrative records.

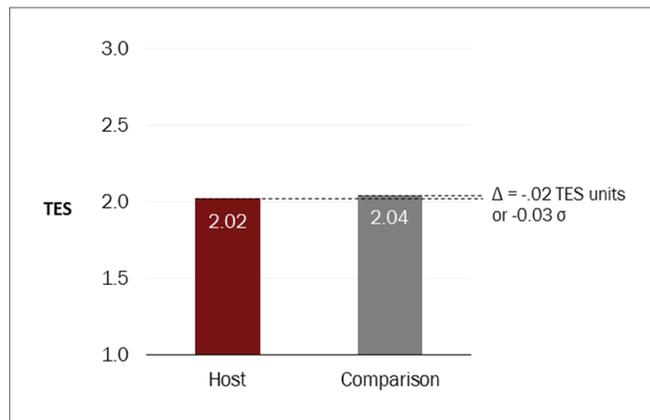
a. Res Ed



b. City Teach⁵



c. Teacher Prep



5. The y-axis shows negative values because it is possible for TES scores at City Teach schools to be negative.

OPPORTUNITIES FOR FUTURE RESEARCH

As mentioned in the analysis, no evidence was found showing that hosting a resident in a classroom was associated with lower TESes for the host teachers. The results indicate that teachers are either as effective, in the case of Teacher Prep, or more effective, as in the cases of City Teach and Res Ed, when hosting a resident in the classroom. With some evidence that TESes increase in the years they host residents in a mentor model program, additional research should examine whether the higher TES persists after the teacher stops hosting the resident.

Furthermore, the question of why host teachers at Res Ed and City Teach were able to translate having a resident in the classroom into higher effectiveness scores is a compelling area of further study.⁶ There are several, non-mutually exclusive hypotheses: having a resident in the classroom makes a

teacher more effective because the training and experience improve their own practice, or there is something about having a resident in the classroom (e.g., the lower student-teacher ratio, greater opportunity for student-teacher relationships, etc.) that improves student learning. There are also questions about the residency model itself, and the systems and structures put in place to create a cohesive learning and growth experience for residents, mentors, and staff. For example, it is worthwhile exploring which “mentor model” residency activities are associated with greater impact on student learning during the residency year. Also, examining the characteristics of effective host teachers and residents and whether those characteristics can be isolated to improve recruitment and training efforts are interesting areas for further research.

6. NCTR has explored these issues previously, most recently in the [2017 Stakeholder Perception Report](#), and in briefs on [Principal, Graduate, Mentor, and Resident Perceptions](#).

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ABOUT GLASS FROG SOLUTIONS

Glass Frog works with organizations that are addressing serious social and economic problems. Many of these organizations express a desire to improve their research and evaluation efforts, but do not have the time or staff to make real progress on this front. Glass Frog exists to meet these organizations' needs. Their overarching goal is to provide high quality, actionable research and evaluation services to nonprofit and education organizations both big and small, young and old.

ABOUT NCTR

The National Center for Teacher Residencies (NCTR) is the only organization in the country dedicated to developing, launching, supporting, and accelerating the impact of teacher residency programs. Our mission is to disrupt historical educational inequities by advancing the teacher residency movement to prepare effective, diverse, culturally responsive educators.

ABOUT OVERDECK FAMILY FOUNDATION

Overdeck Family Foundation was founded in 2011 by John and Laura Overdeck with the goal of providing all children the opportunity to unlock their potential. They focus exclusively on education, funding organizations that seek to open doors for every child in the U.S. by measurably enhancing education both inside and outside the classroom.

Overdeck Family Foundation believes that, in order to succeed, children need access to strong foundations for early learning, exceptional educators, innovative schools, and engaging out-of-school opportunities. They support organizations and researchers that work toward these goals, helping early-stage initiatives develop and validate their programs and scaling evidence-based growth-stage.