

Clearing the Path

Redesigning Teacher Preparation
for the Public Good



Bank Street
College of Education


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FOREWORD

Following the release of our first report, *For the Public Good: Quality Preparation for Every Teacher*, our team began hearing from districts, universities, and schools across the country that were implementing yearlong clinical practice models through teacher preparation/district partnerships. Over the past year, we have worked to understand and disseminate the kinds of models we've been fortunate enough to be invited to learn from, focusing in particular on how programs, schools, and districts manage to fund their efforts.

Clearing the Path: Redesigning Teacher Preparation for the Public Good presents our developing set of models for ways to reallocate resources towards yearlong, residency-style teacher preparation. We have learned about these models from innovative partnerships across the nation—from a range of rural, urban, and suburban districts that all use or are developing new approaches based on these ideas. Public, private, and alternative teacher preparation programs across the country—from New York to Albuquerque and from Minneapolis to Seattle—have embraced significant shifts to partner in the ways these models require.

The Sustainable Funding Project (SFP) at Bank Street College is honored to be working with innovative leaders across the nation who are designing approaches to sustainably fund quality teacher preparation. Our vision is for all aspiring teachers, in every state and district, to matriculate through such sustainably funded, high-quality residency pathways. We hope that this report inspires

even more schools, districts, and teacher preparation programs to embrace the programmatic and funding shifts that these approaches offer.

In addition to the general models we have presented here in *Clearing the Path*, the SFP also engages deeper case study analyses. For example, we are simultaneously releasing a report, *Investing in Residencies, Improving Schools: How Principals can Fund Better Teaching and Learning*, about a charter school in California, detailing how its financial model for co-teaching for all new hires might offer fiscal lessons for other schools that would like to build co-teaching pre-service residency models. Later this year, the SFP will also release a series of case studies and an associated policy report on how districts and preparation programs across the nation are financially supporting their candidates in undergraduate and graduate preparation programs.

We hope these reports generate helpful ideas for you and your partners. And we invite your input and feedback. By learning from those who are doing this work, we believe we can strengthen teacher preparation across the nation, ensuring that all P-12 students have effective educators from diverse backgrounds at the helm of their classrooms. If you're interested in new releases and resources, or if you would like us to learn from your own efforts to financially support quality teacher preparation, please sign up for our mailing list at <http://www.bankstreet.edu/sfp> or email us at sfp@bankstreet.edu.

EXECUTIVE SUMMARY

The United States stands alone among developed nations in its willingness to allow aspiring teachers to enter their profession through alternative routes with as little as a week of pre-service clinical experience before being assigned to lead a classroom of students.¹ Even traditional preparation programs in the United States, which have an average of 14 weeks of student teaching, would be unthinkable elsewhere.² Other nations recognize education as a key responsibility of government and, ultimately, a public service that grows their economy and well-being.³ They treat teaching as a “clinical practice profession,” ensuring that candidates successfully complete an integrated and rigorous academic and clinical training sequence—often called a residency—before being approved to lead a classroom.⁴

The commitments these nations have made to the preparation of teachers align with what we know about how human beings become expert practitioners.⁵ Whether one is training to be a concert pianist, a winning quarterback, a surgeon, or simply learning to drive, practice—and the kind of practice—matters. Building true expertise requires practice that is not simply rote repetition or imitation of others’ work: just as knowing which notes to play is necessary but insufficient to be a successful musician, memorizing a set of techniques to use with students does not ensure a novice teacher can become an expert. Candidates need sustained practice that is contextualized and deliberate, with frequent self-reflective processes that reference others’ expert knowledge. Strong residencies build these features into their design.

Quality residencies also incorporate other clinical preparation elements associated with positive teacher outcomes. For example, we know that teachers, teacher candidates, and students all benefit when candidates are placed in supportive school contexts where they work under the guidance of effective practitioners. Candidates who are placed in schools that serve student populations similar to those they will later teach, and those who receive clinical experiences that apply theory and coursework to practice, all build skills and experiences that can directly translate to future success.⁶

Research increasingly shows that residency-style preparation models are more effective than other approaches.⁷ In particular, the establishment of residency programs positively impacts four persistent challenges schools and districts face around teacher quality:

Paid residency programs are able to successfully attract strong, economically and racially diverse candidates into the profession, and those candidates are more likely to remain in teaching.⁸

Quality residencies provide teachers with the skills they need before they begin teaching, diminishing the first-year learning curve novice teachers experience.⁹

Intentionally-designed residencies ensure districts have strong, qualified candidates for their high-need positions and hard-to-staff schools.¹⁰

Residency-prepared candidates remain in the profession, reducing teacher churn and teacher shortages, in particular in schools serving low-income and diverse families.¹¹

The road towards transforming our preparation systems to meet the high standards that residency-style preparation affords is in plain sight: as other countries have already done, we too can improve education outcomes by adopting intensive preparation approaches that include yearlong co-teaching residencies and financial support for teacher candidates during their studies.¹² Financial supports clear the path for aspiring candidates to concentrate on their studies so they can ingrain new behaviors into their practice, opening up mental space to engage in deeper learning.¹³

Ironically, the United States invented the approach these other nations are using. In the beginning of the 20th century, medical preparation was so poor that a movement began to strengthen academic rigor and clinical requirements.¹⁴ Today, the US supports future doctors with \$11.5 billion dollars a year in public funding—or roughly half a million public dollars for each new doctor.¹⁵ It is possible to do the same for teachers at a much lower cost. We need preparation requirements that increase clinical practice, but without financial supports we can't expect high-quality potential teachers to flock to the profession.

This report focuses on how existing dollars can be used across schools, districts, and preparation programs to support residency-style preparation. Because residents work directly in schools, providing individualized instruction for students, schools and districts can support residents who help meet instructional and staffing needs. Because the work of teacher preparation focuses on how to support student learning and development, preparation programs can redesign their resource use to benefit schools and districts. The shifts systems will need to make will require dedicated leadership and significant work, but the effort will be worth it for teachers, students, and society as a whole.

Districts and preparation programs committed to moving their systems towards residency-style preparation use a range of approaches to financially support their candidates:

Integrating substitute teaching into teacher preparation programs,

Reducing reliance on “quick-entry” programs, that recruit individuals to enter the profession with minimal training and financial incentives,

Reallocating school and district staffing and professional development dollars, and

Committing to help candidates graduate without heavy debt burdens.

These approaches all directly benefit current and aspiring teachers and their students, while also strengthening districts' access to strong teacher candidates who stay in the profession longer and reduce teacher turnover costs.

Of course, other approaches to improving education are essential to ensuring that all students have effective teachers. Induction and support programs, leadership development, and systemic commitments to building positive and professional school cultures are all critical for building a high-quality school system that can attract and retain good teachers. But without well-prepared teachers entering classrooms from day one, those efforts all face an uphill battle. Funded teacher residencies should be part of every district and preparation program's efforts to strengthen and stabilize our teaching force.

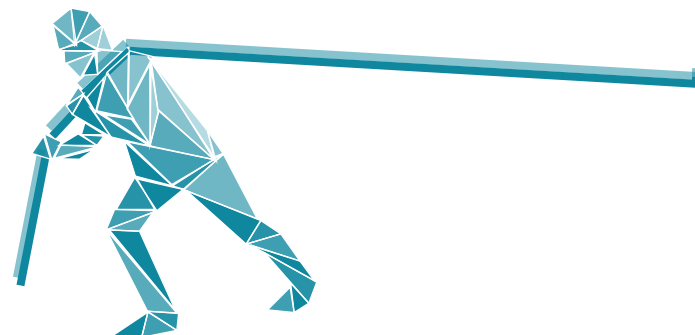
CLEARING THE PATH

“CLEARING THE PATH” TO TRANSFORM TEACHER PREPARATION

In their groundbreaking book *Switch: How to Change Things When Change is Hard*, Chip and Dan Heath use an analogy to explain the challenges inherent in making a big change. Describing an elephant needing to alter course, they note that sometimes the mammoth simply doesn't want to shift; sometimes the rider doesn't know how to guide the beast; and sometimes a fallen tree might block the path.¹⁶ Turning the animal around requires alignment of all three: a willing elephant, a skilled rider, and a clear path.

In the field of pre-service teacher preparation, programs and districts could be viewed as riders or elephants, depending on the point of view. Ample critiques have been leveled at both sectors for not changing quickly enough (an “elephant” problem) or smartly enough (a “rider” problem). Accordingly, countless practice and policy efforts have been designed—to continue the *Switch* analogy—to answer two questions: How can we persuade the beast to change? How can we create a new cadre of riders to outsmart the elephant?

The SFP entered the space of teacher preparation improvement asking a different question, one about the path. We knew many aspiring teachers can't afford to commit to intensive, unpaid student teaching requirements, much less unfunded “residencies,” where candidates work full-time for the entire academic year alongside an experienced, effective mentor to fulfill clinical practice requirements for teaching. As a result, candidates often seek out quick, cheap alternatives that don't prepare them sufficiently for the rigors and complexities of the classroom but do pay them to



serve as teachers of record in hard-to-staff schools and high-need areas. Candidates of color and those from poor and working class communities, in particular, gravitate towards funded programs that offer exceptional financial packages—making it difficult to scale the growth of a diverse teaching force, since very few funded preparation opportunities exist. We therefore wondered the following: How much of the persistence of sub-par teacher preparation is actually caused by prohibitive financial costs for individuals? Does the lack of a means to support oneself while pursuing certification operate like a fallen tree in the path towards improvements in teacher preparation?

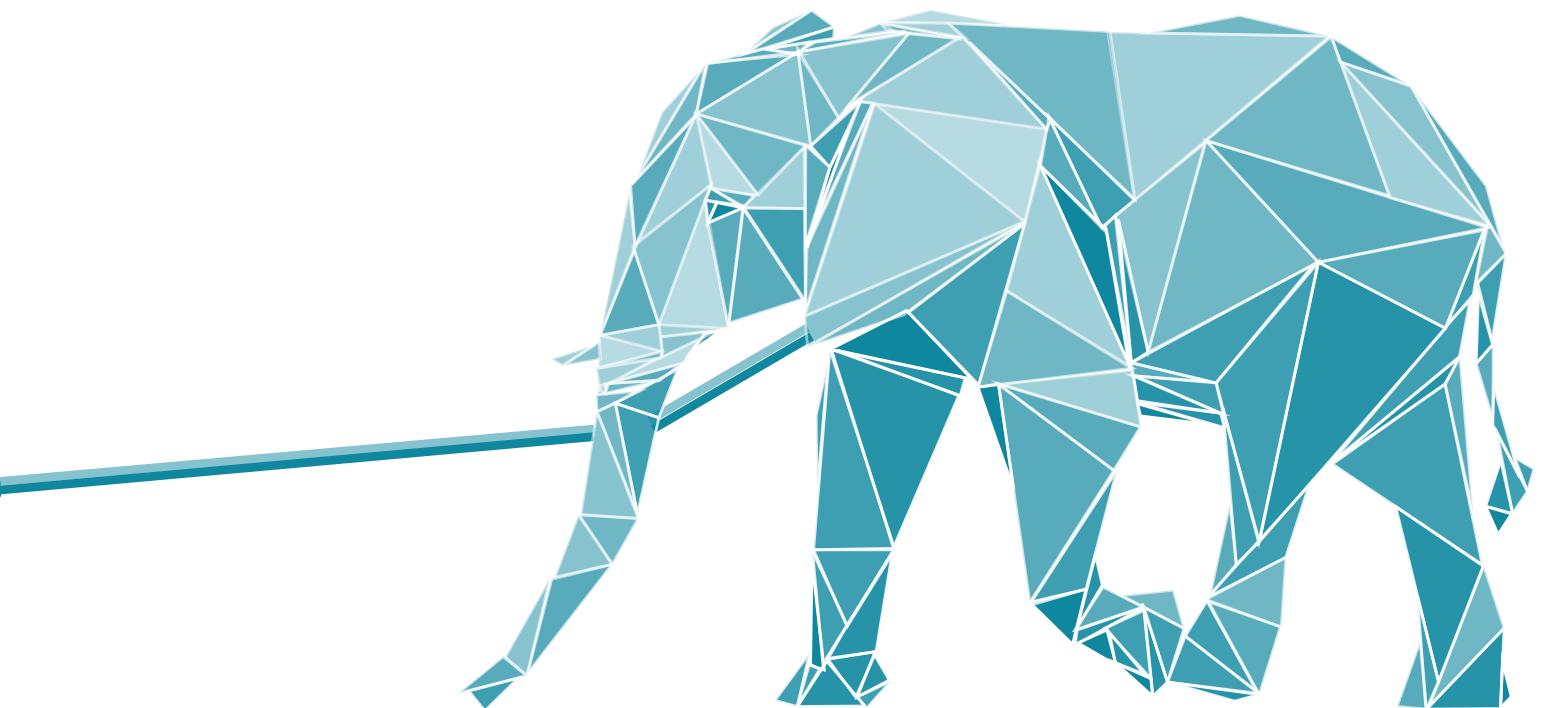
We began exploring this question assuming that funding for residencies could help grow quality programs, so our initial goal was twofold: identifying new dollars and tapping into existing dollars to support the spread of residencies. As the nation's policy context changed, new dollars became less likely. Happily, we have learned that in many teacher preparation markets both the “elephants” and the “riders” are ready to change course. Districts and programs *want* high-quality, residency-style preparation. Many have had grant-funded experiences that have demonstrated how to move programs towards high-quality residencies. They are ready to try to change course, even absent new

dollars, if they can find ways to “clear the path” by incentivizing their teacher candidates in residency-style preparation.

That “if” points to a core challenge to ensuring that candidates’ financial limitations do not derail important preparation program improvements: the sector does not yet understand the economics behind teacher preparation models. Absent evidence-based understandings, conflicting discussions about costs permeate the field. While some institutions claim their quality residency programs do not cost more than traditional programs, others claim that it’s impossible to create quality programs for less than \$40,000 a candidate.

It turns out that understanding the costs of quality teacher preparation requires understanding a web of complexities related to the economics and policy systems surrounding teacher preparation.ⁱ That complexity, however, does not mean we are paralyzed from moving towards stronger teacher preparation systems. SFP analyses have established that more potential dollars exist for residency-style preparation than might be initially imagined:

ⁱ The SFP will release a report that explores these issues and frames policy options to address them in the winter of 2017-18.



Federal dollars: Federal law allows all dollars in schoolwide programs to support residencies, whether funds are intended for targeted efforts like Perkins for STEM teaching, IDEA for teaching students with disabilities, or ESEA (formerly authorized as NCLB and currently authorized as ESSA) for students needing additional educational supports. In addition, federal dollars used for instructional support and reductions in student-teacher ratios, including ESSA and IDEA, are eligible for residency programming when programs are designed to support P-12 student needs.¹⁷

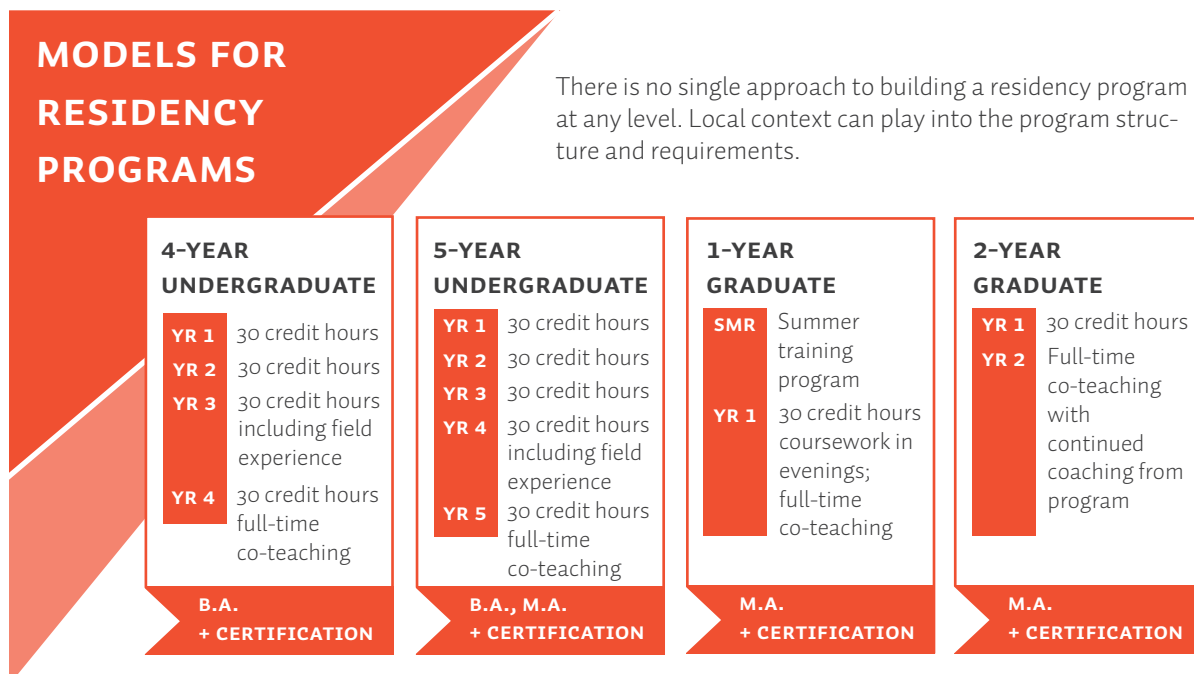
District-based dollars: Our calculations show that, over the course of five years, urban districts could find cost savings from reduced attrition and remediation needs. Coupled with resource reallocation efforts, all new hires could conceivably enter the district through paid residency-style programs.¹⁸

School-based dollars: Our analysis of California school-based budgets suggests that reallocation strategies might be able to fund 9 residents for every 38 teachers.¹⁹ In another analysis, partnerships between 21 districts and nine universities were able to lower proposed costs for a federal application for residencies to less than

half of the average for federal Teacher Quality Partnership grants.²⁰

In addition, across the country, we have found a number of funding approaches that could help “clear the path” for teacher candidates to engage in residency-style preparation, which are gathered into the set of models that we share in this report.

The nation may not be able to fund quality residencies for every future teacher through reallocation tactics alone, but we can grow the number of quality experiences through these approaches that innovators across the land have adopted. Educational leaders should advocate for such shifts wherever possible. The dollars available through reallocation could bring more aspiring teachers into the profession through high-quality residency-style preparation, helping realize our shared goal of ensuring every student has a caring, qualified, and effective teacher committed to the profession.



UNDERSTANDING THE PATH

UNDERSTANDING THE PATH: HOW ECONOMICS SHAPE TEACHER PREPARATION

Individual residency programs know their budgets; they can share information relatively easily about their funding models using data from their accounting systems and their on-the-ground knowledge of how they cobble together funding.

Unfortunately, though, budget sheets don't offer sufficient information for districts, programs, or policymakers to address the broader underlying questions about the costs behind teacher preparation. Program budgets provide only a small glimpse into the economics of the larger teacher preparation ecosystem.

SHIFTING PERCEPTIONS ROOTED IN STATUS QUO FUNDING MODELS

In many settings, districts fund programs to attract candidates to high-needs teaching fields in hard-to-staff schools.²¹ These candidates receive financial supports, reduced or free tuition, and mentoring as they learn their craft, in addition to job placement supports, induction programs, and efforts to maintain a sense of belonging across residency cohorts over time. Some of these costs show up on budget sheets as direct expenses. Other costs are “hidden,” absorbed in administrative budgets, linked to other program budgets, or simply expected as new responsibilities in people's work portfolios. An analysis of districts' economic commitments to these programs could conclude that teacher preparation institutions benefit directly from district dollars for tuition but have little responsibility, fiscal or otherwise, to ensure candidate success.

At the same time—and often in the same districts—higher education programs commit personnel to write grants and raise dollars for certification programs that fund candidates who work all year in schools, supporting P-12 student learning and developing novice teacher skills that will strengthen districts' talent pools—all at no cost to districts. University faculty integrate school

improvement efforts into programs, providing free school-based professional development for teachers and principals, and pay for principals and teachers to participate. Additional hidden costs also exist beyond the program budget sheets.²² Analyses of such programs' residency commitments might conclude that districts have no financial responsibility for quality programs, even though these residencies directly benefit their P-12 students and supply qualified new teachers to fulfill their hiring needs.

These program-specific understandings of who pays for what can reinforce mindsets that hinder improving our teacher preparation ecosystems. On the district side, the difficult realities of finding unencumbered dollars for expensive programs makes the thought of scaling residencies almost impossible to imagine. These high tuition costs might also encourage them to support alternative certification options that require no formal study of educational theories or research. On the preparation program side, the use of grant dollars to fund residencies often results in stand-alone, short-lived programs. The siloed nature of the work increases costs and virtually ensures that traditional programs remain uninfluenced by the grant-funded work done to build and maintain a residency program. Reliance on external dollars also facilitates a mindset that the only way to have residency programs is through massive infusions of additional dollars.

By learning from both districts' and programs' funding experiences, partnerships can better understand the strengths and challenges of different fiscal models as they plan for new residency programs. The partnerships we work with are doing just that: discovering that they can pool their human, financial, and physical resources in new and creative ways to design more effective and efficient pre-service clinical experiences. They reduce duplication of roles, often creating shared positions between schools, districts, and teacher preparation programs; align pre-service and in-service performance expectations that save induction dollars; streamline and improve professional development; use building space more productively; and design new teacher career ladders to reward and incentivize effective teacher leaders. Cost

savings surface from less valuable spending streams, while new investments strengthen strategic directions. Much like friends moving in together to save money on rent, they have newfound dollars to reallocate to other purposes and they benefit from the human and material assets of their roommates.ⁱⁱ

STUDENTS' FINANCIAL NEEDS: FALLEN TREES ON THE PATH

A solid picture of how both districts and programs support residencies is, of course, crucial to building a more complete understanding of the costs of residency-style preparation. But a third component in the economics of teacher preparation also exists: candidates' monetary needs. Aspiring teachers' fiscal concerns are missing from discussions of how to improve the quality of teacher preparation, but financial constraints for participating in residency-style preparation may be the single-most important factor limiting the nation's ability to scale residencies.

Without money to pay for food and shelter during a residency year, many candidates gravitate towards quick, cheap programs that provide them with certification credentials that allow them to start earning a salary, sometimes with as little as a week of clinical practice.²³ These individuals serve in hard-to-staff schools and high-need areas but are not prepared to meet the needs of their students. They may work tirelessly, but both they and their students suffer as a result of their sub-par preparation. For many of these underprepared novices, there might be no other way to become a teacher. The financial barriers to enrolling in programs with unpaid clinical practice are like fallen trees on their pathway towards certification.

Other professions support their future workforce to learn the skills required to succeed on the job, just as countries with high-performing education systems support their teachers as they are learning their craft.²⁴ In the United States, though, we ask aspiring teachers in our traditional preparation

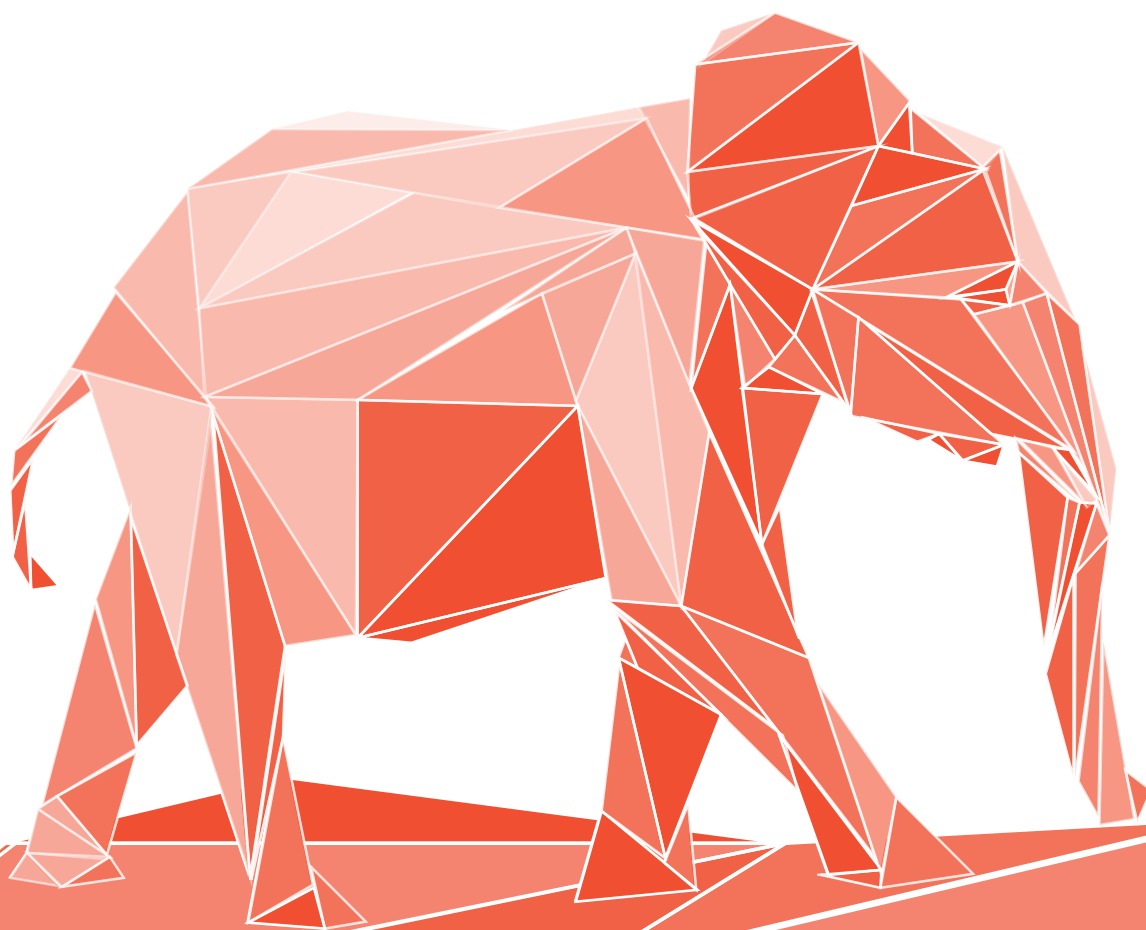
ⁱⁱ The SFP has a short animated video resource on the concept of teacher preparation and districts "moving in" to improve quality and efficiency free for use: <http://bit.ly/2whJYGC>

programs to engage in unpaid, full-time work for anywhere from 14 weeks to 10 months.

Such expectations are both unreasonable and unrealistic. Nationally, about 70% of college students work to support themselves; 40% percent of undergraduates and 76% of graduate students work at least 30 hours a week. A fifth of those working also are supporting children.²⁵ In one study the SFP conducted of a large graduate teacher certification program, the picture was even more bleak. Many of the candidates were already working in schools on provisional licenses. More than 90% of candidates worked, with nearly 70% working 40 or more hours a week. Almost half had children. Over

80% said full-time student teaching would have been impossible, though they would have been better prepared for their jobs with full-time clinical placements.

Despite working so many hours to support themselves, these college students all face rising debt. Because teaching pays so little compared to other professions in our country—60 cents to the dollar compared to graduates with similar levels of education—teachers face one of the longest uphill battles across all academic majors for paying off student loans.²⁶ Requiring unpaid clinical practice simply adds to this burden.



STUDENTS' FINANCIAL NEEDS: A ROOT CAUSE

Regardless of overall program costs, when candidates are asked to work full-time as part of their preparation experiences, it creates a financial burden that can wind up shutting out talented potential teachers and counteracting strategies to recruit diverse candidates into the teaching workforce. Financial support for candidates might appear to be the biggest challenge of moving to full-time clinical placements as it usually represents a new cost outside of traditional costs on either the preparation program or district side, but it is an important element of a quality and sustainable model.

NATIONALLY

70%



of college students work to support themselves.

40%



of undergraduates work more than 30 hours/week.

76%



of graduate students work more than 30 hours/week.

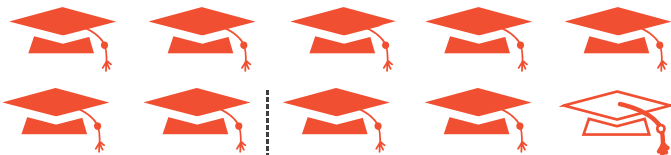
1 IN 5



of those working are also supporting children.

The data below are based on a survey of graduate level teacher candidates. While undergraduate candidates face many of the same financial burdens, the proportion of students working full-time or unable to complete full-time placements might look different at the undergraduate level.

259/700 GRADUATE STUDENTS RESPONDED (37% RESPONSE RATE) AT A LARGE UNIVERSITY IN AN URBAN DISTRICT



91%

of respondents work

69%

work 40+ hours/week

“ it's **asking a lot** of candidates to give up all their time with **no compensation**.



82%

said it would be impossible to complete a full-time, one-semester placement



83%

said a full-time co-teaching placement would have prepared them better than the experience they had

it's **a great idea in theory;** **logistically it's not possible** for a lot of students. ”

TOOLS TO CLEAR THE PATH

TOOLS TO CLEAR THE PATH: HIGH-LEVERAGE FUNDING MODELS

If the nation wants strong candidates to enter teaching and to be well prepared for their responsibilities, we need to financially support them to enroll in high-quality residencies that will give them a strong foundation for their careers.²⁷ Doing so would address persistent teacher labor market issues, allowing states and districts to

Attract economically and racially diverse candidates into the profession,

Ensure all teachers have the skills to promote student growth and learning,

Retain effective teachers, especially in schools serving low-income and diverse families, and

Create a teacher development continuum that offers professional roles for current teachers.²⁸

Schools and districts we know use three key approaches to financially support candidates while they work in schools during their residency:

Integrating substitute teaching into teacher preparation programs,

Reducing reliance on quick-entry programs, and

Reallocating staffing positions and professional development dollars.

Local realities affect which options are viable. One district may have a flexible approach to staffing assistant teachers, enabling immediate funding through open positions. Another district may be able to reallocate professional development dollars with relative ease. Creative, strategic leadership can identify which local funding sources can seed the shift towards residencies and which might only be available after realizing savings from the increased quality and retention of teachers.

Importantly, for any of these approaches to be viable for districts, preparation partners need to redesign programs to meet district instructional and staffing needs. When programs align curriculum with district priorities, ensure candidates bring strong knowledge and skills to their host sites, and increase support for schools, districts can justify spending dollars to support residents.

INTEGRATING SUBSTITUTE TEACHING INTO PROGRAM CURRICULUM

An astounding seven percent of the nation's instructional staff are substitute teachers, providing some 13 days of instruction a year for each student in our schools.²⁹ Innovators in districts and teacher preparation programs see that reality as an opportunity to design financial supports for residency programs and improving linkages between coursework and clinical practice.

By integrating substitute teaching responsibilities into residency programs, districts can reallocate dollars from substitute teaching to support residents. For every five residents in a school or district, the equivalent of one full-time substitute teacher (FTE) could be staffed by residents, with each resident substituting one day a week. The saved FTE dollars can be reallocated to support residency costs. Depending on substitute teacher pay in a district, savings from substitute teacher costs could range from \$12,000 to \$26,000 for every five residents.³⁰

Whether both undergraduate and graduate programs can build substitute teaching into a year-long residency depends on state and local regulations. Some states allow high school graduates or individuals who have completed two years of undergraduate coursework to substitute; others require a bachelor's degree. Some states leave substitute teaching requirements up to districts, while other states have created specialized substitute teaching regulations for candidates in teacher preparation programs (see Appendix 1 for a state-by state presentation of regulations).

Where regulations permit, many teacher candidates already seek substitute teaching positions in order to help pay their living expenses. Unfortunately, those experiences are not mentored and are, at best, uneven. As a result, candidates can build unproductive classroom habits and develop negative impressions of teachers, students, and teaching while they try to navigate substitute teaching demands on their own.

Instead of allowing individuals to substitute teach with predictably uneven results, programs can formally integrate substitute teaching into the curriculum.

For example, as part of pre-service preparation, candidates often take courses in classroom management, building classroom culture, and curriculum before their clinical placements. By linking their fieldwork in the schools to substitute teaching, programs give candidates the opportunity to explore how course content plays out in classrooms and to build their understanding of how to put theory into practice. When programs link observation, feedback, and reflection with substitute teaching, districts benefit from a well-supported substitute teaching pool.

The SFP recommends that partnerships integrate these experiences into programs so that candidates experience consistent, supported substitute teaching and saved dollars become part of the pool of money that supports candidates while they engage in their residency year. Where it is necessary to pay individual candidates directly to substitute teach, agreements between districts and programs should clarify that only one day a week during the residency year is eligible for substitute teaching, or the incentives both to schools and candidates to increase sub days can erode the quality of the residency placement.

Some of the best-known models for residencies have been designed so that residency co-teaching occurs four days a week and coursework is scheduled one day a week.³¹ As a variation on those models, programs can shift coursework to after school so that residents can substitute teach one day a week. For traditional two-year graduate programs, candidates could conceivably substitute teach full-time during the first year of their programs, with coursework linked to those experiences. Some undergraduate programs can even incorporate substitute teaching before a senior year residency, including days before and after the university's academic calendar, when students would be free to substitute full-time.

SUPPORTED SUBSTITUTE TEACHING INTEGRATION

7%

of instructional staff nationwide are substitute teachers.

**13
DAYS**

of each student's school year are spent being taught by substitute teachers.

**WHAT IF DISTRICTS
REALLOCATED THE
DOLLARS THEY SPEND
ON SUBSTITUTES TO
SUPPORT RESIDENT
STIPENDS?**

Five full-time residents who each sub for one day a week make up the equivalent of **one FTE substitute teacher**.



S	M	T	W	T	F	S
	X	X	X	X	X	

Savings from having residents substitute teach one day a week depend on pay in the district, but can range from

\$12,000 TO \$26,000
PER FIVE RESIDENTS IN A SCHOOL/DISTRICT

A cohort of residents can cover a significant number of substitute needs over the course of the school year. Those savings can be invested in the residency program to support high-quality learning for students and aspiring teachers. This model can work for undergraduate and graduate students, depending on state and local requirements for substitute teaching. To ensure that residents are fully supported in their roles as substitute teachers, programs can design supportive coursework and coaching around the subbing model.

FOR EXAMPLE:

1

During the year before their full-time, co-teaching residency, candidates sub twice a week and take aligned coursework. Classes focus on classroom management, relationship building, and other topics that support candidates while substitute teaching. Field experience instructors observe candidates in the classroom to strengthen the connection between theory and practice.

2

Once candidates start their full-time residency experience, they switch to subbing one day a week. Classes are held after school or on the weekends and continue to support residents' substitute teaching and co-teaching roles. Residents are paid a stipend, funded in part from the district or school savings on substitute teachers.

REDUCING RELIANCE ON QUICK-ENTRY PREPARATION PROGRAMS

Of course, quick-entry options to enter teaching exist because districts have faced persistent shortages in candidates who are qualified for specific hiring needs. Quick-entry programs craft specialized solutions to staffing problems, designing approaches to recruitment, selection, and support that

By partnering closely, districts and preparation programs can design residency-style pathways that address hiring needs and ensure candidates have the clinical preparation needed to succeed and remain in teaching. Many districts currently fill vacancies through pathways that provide candidates with a few weeks of training before they take positions in high-needs subject areas and hard-to-staff schools. The guarantee of jobs with few requirements for clinical practice “clears the path” for individuals to enter teaching, pay back student loans, and take care of financial responsibilities.

Unfortunately, graduates of quick-entry programs are likely to leave the profession quickly because they are underprepared for the demands of the job. When teachers lack a sense of efficacy, they are unlikely to want to continue teaching.³² As a result, quick-entry programs contribute to low retention rates and a constant revolving door of teachers in our schools.³³

Districts can continue to run quick-entry programs for immediate hiring needs, while simultaneously seeking “gap” funding to support cohorts of residents who are recruited, selected, and prepared through high-quality residencies. Once a cohort of residents graduates, districts can anticipate increased retention and reduced need for quick-entry hires.³⁴ Dollars previously spent on underprepared teachers can then be reallocated towards supporting candidates in residencies, making the residency program more self-sustaining.

Most quick-entry programs rely on taxpayer or philanthropic dollars to recruit and incentivize their aspiring teacher pool into high-need licensure areas and hard-to-staff schools. District-sponsored programs are reported to cost between \$15,000 and \$25,000 per candidate for training and supports. Recruitment fees cost between \$2,000 and \$5,000 for each new teacher. Quick-entry programs also often require additional tens of thousands of public dollars through grants and subsidies. Total costs to taxpayers for such programs can easily top \$40,000 per candidate.³⁵

offer better options than districts have historically had available for some of their positions. Many observers also credit quick-entry programs for bringing new candidates into teaching who work hard and help districts ensure students all have committed teachers in their classrooms. Districts we work with are thinking strategically about how to retain the strengths of their quick-entry pathways while addressing the downside that, in general, these candidates do not remain in their positions long enough to help schools build stable, professional cultures that can promote systemic improvements in teaching and learning.

By shifting the equivalent of a quarter of a district’s quick-entry candidates a year into residencies, a district could expect to change quick-entry programs into residency-style preparation programs over the course of five years.

For example, if a district currently has quick-entry programs that provide 100 hires a year for shortage areas, each year their new residency partnership could raise dollars to prepare 25 candidates through year-long co-teaching models. In the first year, 100 candidates would continue through the quick-entry program, and 25 would begin a residency-style program. In the beginning of year 2, those residents would be ready—and well-prepared—to step into the roles that quick-entry candidates used to fill, reducing the need for quick-entry candidates to 75. Funds that would have gone towards quick-entry teachers for those same vacancies then would shift to support the residency. By the fifth year, the need for funding for cohorts would be reduced if not eliminated, and classrooms would all have well-prepared teachers.

Transforming a teacher pipeline along these lines cuts costs for hiring and ensures that new teachers have a full year of clinical preparation prior to leading a classroom. While not every quick-entry program is equally expensive, rolling over quick-entry funds will decrease the turnover rate, since residency-trained teachers stay longer, increasing the stability of the teacher pipeline in the district. It is an investment worth making.

REALLOCATE QUICK-ENTRY FUNDING TO SUSTAIN A RESIDENCY PROGRAM

A district starts to conceptualize this model knowing that 100 quick-entry teachers will be filling vacancies. During the transition, the district needs to keep 100 teachers in the classroom.



The district uses gap funding for a yearly cohort of 25 residents.

YEAR 1



Teaching: 100 quick-entry



Preparing: 25 residents



Gap funds: 25 residents



Rollover funds: 0 residents

YEAR 2



Teaching: 75 quick-entry
25 residency trained



Preparing: 50 residents



Gap funds: 25 residents



Rollover funds: 25 residents

YEAR 3



Teaching: 50 quick-entry
50 residency trained



Preparing: 75 residents



Gap funds: 25 residents



Rollover funds: 50 residents

YEAR 4



Teaching: 25 quick-entry
75 residency trained



Preparing: 100 residents



Gap funds: 25 residents



Rollover funds: 75 residents

YEAR 5



Teaching: 0 quick-entry
100 residency trained



Preparing: 100 residents



Gap funds: 0 residents



Rollover funds: 100 residents

IN FIVE YEARS, THE DISTRICT HAS TRANSFORMED ITS TEACHER PIPELINE



25 quick-entry teachers



25 residency-trained teachers
prepared with gap funds



25 residency-trained teachers
prepared with rollover funds

REALLOCATION OF SCHOOL AND DISTRICT DOLLARS

When partnerships design high-quality residency programs that meet district staffing and school improvement needs, districts have incentives to reprioritize personnel and professional development dollars to support residencies.

Both districts and preparation programs need to make fundamental shifts for these resource reallocation possibilities to succeed. Partnership designs need to ensure a continuous supply of committed, qualified residents to fill positions in order for districts to adjust personnel investments. Programmatically, preparation faculty need to link coursework to school-level priorities for instructional improvement. Districts and schools, for their part, need to be able to access and pool funding sources across different departments, such as administration (including human resources at the district level), instruction, and specialized programs.

Where all these conditions are met, significant dollars can begin to be reallocated so that pre-service and in-service teacher development efforts are aligned through a seamless system, with residencies as a central component of a strong human capital and teacher professional development strategy. Importantly, dollars that districts might consider reallocating can come from local, state, federal, or private sources. Since quality residencies bring additional instructional support into classrooms, they meet restrictions that most funding sources require for expenditure of funds, including federal ESEA and IDEA dollars.³⁶

PARAPROFESSIONAL OR ASSISTANT TEACHER LINES

In an average district size of 190 teachers, some 20 staffing lines support teachers in the classroom. Often called “paraprofessionals,” these assistant teachers would cost that average-sized district roughly \$660,000.³⁷ Paraprofessionals help individualize instruction,

often providing supports for students identified with special education needs.

Qualifications can vary across states, but teacher candidates meet basic federal requirements for paraprofessional certification, qualifying them for these positions. In fact, in private schools and charter management organizations across the nation, teacher candidates are paid full salaries and benefits as assistant teachers, ensuring that those entities can select from the top candidates in the new teacher pool. Districts can begin to compete with those hiring systems by strategically thinking through how they use their paraprofessional lines.

A crucial caveat exists for this reallocation opportunity. Existing paraprofessional staff are important assets to districts, sometimes representing the most diverse portion of districts’ staffing pools. Paraprofessionals provide stability to schools and communities that face a revolving door of new teachers, so rethinking these staffing lines requires a long-term strategy to develop a diverse teacher candidate pool in most districts. Exploring program designs that help paraprofessionals become fully certified teachers or other “grow your own” options should be part of district discussions.

If preparation programs’ candidates are enrolled in programs that lead to the kinds of expertise that districts need—most often in areas of special education, English language learning, and STEM fields—then districts can strategically plan to reallocate paraprofessional positions that are vacated by retirements or resignations towards residency positions. Specialized programs can also qualify for funding that is reserved for those targeted positions. For example, a strong special education certification program where candidates serve as paraprofessionals could qualify for IDEA funds.

In some districts, especially for high-need or hard-to-staff areas, paraprofessional positions are offered as full-time jobs for residents when their licensure program is aligned to the paraprofessional’s duties. Some partnerships we

have seen split paraprofessional lines between two residents, with candidates working half the day in the district as paraprofessionals and serving as a resident co-teacher for the other half of their placement. In other cases, the cost savings from the salaries and benefits of vacated paraprofessional positions is reallocated into stipends for candidates. Since stipends for educational positions do not require benefits, districts can fund more residents than they can paraprofessionals.

TUTORING, SUMMER SCHOOL, AND SUPPLEMENTAL PROGRAMS

Schools and districts invest significant dollars in before school, after school, and summer school programming. Teacher candidates have a long history of volunteering and working in such programs, but rarely do programs systematically link candidates' curriculum to these instructional settings. By designing creative placement structures for residents, districts can redirect some of the dollars spent in tutoring, remedial programs, and enrichment opportunities to residency programs.

For example, expenditures for staffing after school programs such as tutoring are estimated at \$600 a week—roughly \$20,000 a year per after school teachers.³⁸ If residency program candidates were to staff a portion of those positions in a district as part of their course-aligned field placements, savings could support their residency stipends. Well-designed summer coursework that blends clinical placements in classrooms likewise offers cost savings to districts, since residents increase personalized attention in classes and lessen the need for additional certified staff.

These sorts of program designs need to ensure that current teachers are not displaced by new program models that use residents in training for lower-cost staffing. Because our teacher salaries are typically very low, teachers often rely on extracurricular positions to supplement their income. Local pay scales and staffing patterns for these kinds of positions ultimately will determine whether these reallocation possibilities are viable for a district.

REALLOCATING SUPPLEMENTAL STAFFING DOLLARS TO FUND A RESIDENCY

PARAPROFESSIONAL/ASSISTANT TEACHER LINES

Assistant teachers/
paraprofessionals
compose



TUTORING & SUPPLEMENTAL PROGRAMS

After school programs
like tutoring cost
about



RESIDENTS

can serve in the same instructional support role as assistant teachers for a lower cost. Districts could explore reallocating vacated assistant teacher positions to fund residency stipends.

Candidates & residents can also provide tutoring, before & after school, and summer instruction as part of their field placements. This staffing model can save \$20,000/year per after school instructor to reinvest in resident stipends.

PROFESSIONAL DEVELOPMENT DOLLARS

National estimates of expenditures for professional development range from \$6,000 to \$18,000 per teacher per year—an enormous investment in our teaching force.³⁹ These dollars buy district curriculum supports, school-building coaches, induction costs, substitute teacher pay when teachers are out of the building for training, consultancy and materials fees for professional development, and more.

Unfortunately, teachers regularly assess their professional development experiences quite poorly. Research shows that traditional “one-off” trainings have little impact on instruction, but well-designed learning communities can exert a powerful influence on schools’ improvement trajectories.⁴⁰

Residency partnerships can be designed so that preparation programs partner deeply with schools to design in-school coursework and professional development opportunities for both residents and other teachers in the school.

Faculty and teacher leaders in schools can co-lead learning communities that take advantage of the additional staffing that residents provide to school sites. Savings from substitute teacher needs for professional development and from consultancy costs can all be reallocated to support resident stipends.

Although it is not yet clear how fully districts and schools might be able to fund residency stipends from existing dollars, some dollars exist from which to begin to build a pool of funding for residents. Rethinking any of these approaches—substitute teaching, paraprofessional lines, extracurricular instruction, and professional development—at either the school or district level can result in a significantly broader pool of monies to support residents. For example, our analyses suggest that reallocating just 20% of substitute teacher dollars and 10% of dollars from the other areas would provide enough money in an average-sized district with 190 teachers to fund 26 residents at \$15,000 each. Local partnerships may be able to find other ways to reallocate additional existing funding streams to residencies.

REALLOCATING PROFESSIONAL DEVELOPMENT DOLLARS TO FUND A RESIDENCY

Residency programs can be designed to provide high-quality professional development opportunities for teachers & administrators. Mentor teachers are able to engage in reflective practice and additional training, programs can offer professional development sessions free of charge, and staff can lead & join professional learning communities around school improvement goals.

Professional development is estimated to cost

\$6,000 TO \$18,000 PER TEACHER PER YEAR

and teachers often report that some trainings, supports, and enrichments have little impact on their instruction

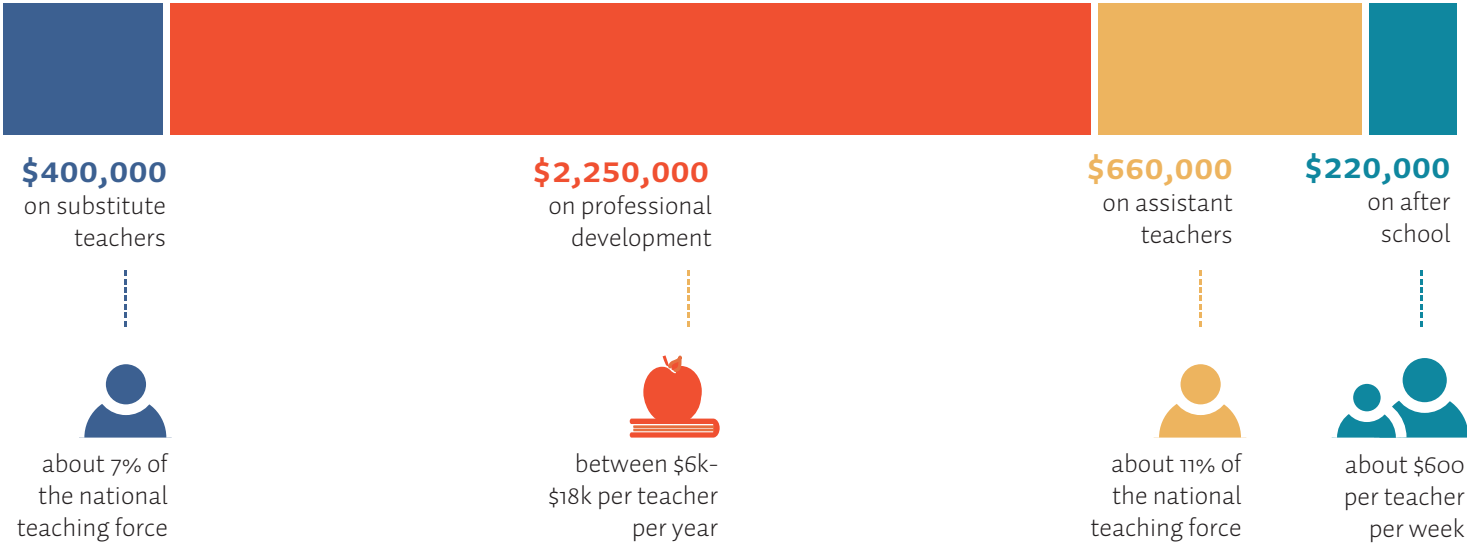


Partnerships that are intentional about including professional development opportunities can save some of those costs to apply to residency funding.

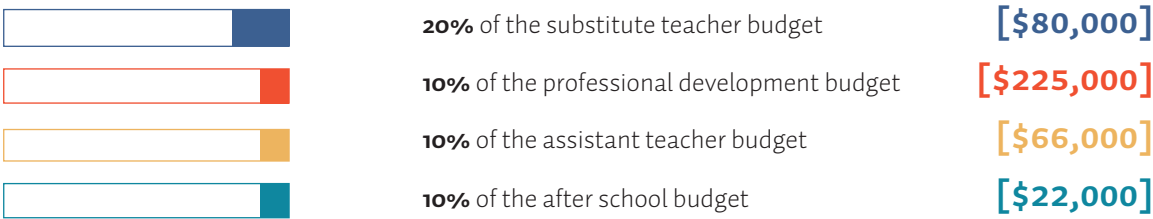
REALLOCATING RESOURCES TO SUSTAINABLY FUND A RESIDENCY

A very small percentage of instructional budgets that are not tied to classroom teacher salaries could result in significant dollars to support residents in well-designed partnership programs.

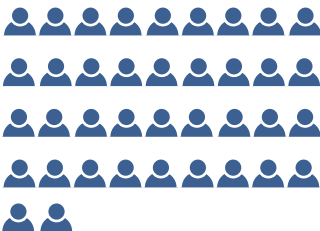
AN AVERAGE-SIZE DISTRICT OF ABOUT 190 TEACHERS SPENDS APPROXIMATELY...



REALLOCATING SMALL PORTIONS IN EACH OF THE ABOVE AREAS CAN CONTRIBUTE TO A FUNDING POOL FOR A RESIDENCY. IN AN AVERAGE-SIZED DISTRICT OF 190 TEACHERS



TOTALS \$393,000 THAT COULD BE USED TO FUND 26 RESIDENTS AT \$15,000 EACH.



THE ADDED BONUS: SAVINGS FROM REDUCED TURNOVER

Thanks partly to the increasing capacity to track their human resources data, more and more districts are documenting that better teacher preparation is likely to reduce turnover of early career teachers. That, in turn, can save money that over time can be reallocated towards residencies.

Turnover costs can squeeze district budgets in any of the following ways:⁴¹

Recruitment: Website design and maintenance, communications with prospective candidates to sustain their interest, advertising, and travel (including in many cases international travel) all cost districts money.

One-time hiring package costs: Signing bonuses, relocation packages, housing subsidies, loan forgiveness, and costs of reduced teaching loads for first year teachers are part of new hire contracts across the country.

Administrative: General procedures for hiring, transfers, and separation require staff, obliging salaried employees to dedicate their time to turnover activities. As part of the hiring process, application reviews, interview processes that include scheduling site visits and arranging sample teaching lessons, background checks, and contract and benefit enrollment processing all take time. Teachers transferring within districts require many of the same resources. Teachers who leave often have separation protocols including exit interviews, benefits counseling, and contractual agreements that require human resources efforts.

Orientation: New hires, whether new teachers or individuals who are moving within the district, all require orientation to their new communities, facilities, and expected procedures.

Induction: First-time teachers across the nation increasingly have induction programs with mentoring, which can include costs of stipends for mentors and teachers, reduced teaching loads or paid extended days, substitute teacher costs

during training sessions, and travel costs.

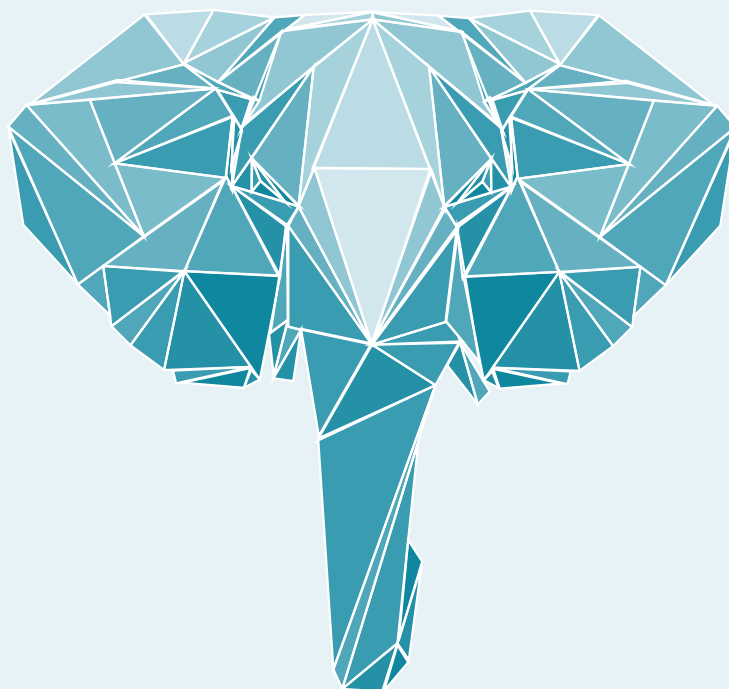
Professional development: All districts offer professional development, and when teachers leave, they take the benefits of that learning with them. Costs for professional development can include workshop leader fees, tuition, materials costs, travel, and substitute teacher salaries to cover classes while teachers are out.

Lost learning: Teachers continue to gain strength every year they are in the profession,⁴² so early career teachers—especially those in their first year—are generally less effective supporting their students' growth. As a result, costs to student learning can require tutoring and extended learning opportunities both during the school year and in the summer.

Because better preparation can increase teacher retention, significant, relatively quick cost-savings can be realized by using residencies to develop stronger labor market linkages between preparation programs and districts. The United States spends billions of dollars a year in teacher turnover costs.⁴³ Some significant portion of those dollars is directly attributable to poor retention of early career teachers. New teachers, in particular those who are underprepared, leave the profession quickly: between 8% and 10% of brand new teachers leave the classroom before their second year.

Many districts hire hundreds of teachers: Oakland hires 400; Dallas hires 2,000; New York hires 6,000. Losing 8% of those new hires can represent a huge cost. Per teacher turnover costs are roughly \$20,000 in urban areas,⁴⁴ so in a system that hires 300 teachers a year, nearly half a million dollars annually are spent on recurring costs for the revolving door of new hires who leave. No benefits to students or to the district result from those lost dollars. With strong, aligned residency programs, those recurring costs could be reduced and the savings could be reinvested to support additional candidates.

Some districts find that certification routes where new teachers can be hired on provisional or "internship" licenses create a particularly vicious cost cycle. Because of staffing shortages, candidates who are not fully certified can get jobs, but they



require expensive induction supports to help them learn to teach. Once they receive their full teacher preparation credentials, these alternatively certified teachers often leave the district, moving to sites that are less challenging.⁴⁵ Their presence may have helped with a short-term hiring need, but because they leave within a year or two, districts' investments in these new teachers is lost, and students are virtually guaranteed a revolving door of underprepared teachers.

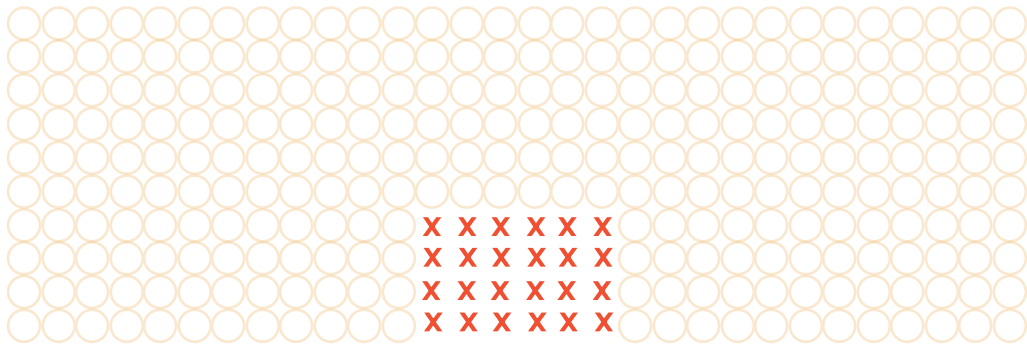
Sub-par teacher preparation exacts other, less apparent, human and economic costs. Underprepared teachers are most likely to teach in schools with high proportions of children from low-income backgrounds. As a result, their students disproportionately lack excellent teachers to help them succeed in school and life.⁴⁶ They end up needing tutoring and summer school to catch up—creating additional costs for districts, at least some of which are directly attributable to underprepared teachers who were unable to support their students' learning. Ineffective teachers can also contribute to

students floundering and dropping out, costing society roughly a quarter of a million dollars for each dropout over a lifetime.⁴⁷

Underprepared teachers, despite all their commitment and hard work, can end up depriving students of their opportunities to thrive. They cost billions in public taxpayer support for education. We can shift that reality by upgrading our teacher preparation systems through reinvestments to support high-quality teacher residencies. Although up-front costs for program development exist, districts can realize savings relatively quickly—by the second or third year of a residency program. In the long-term, decreased recurring costs for new teachers, for student remediation and retention, and for expensive cohorts of teachers for high-needs areas can continue to grow the funding pool. The resulting stable, well-prepared teaching force would ensure that every classroom has an effective teacher and every student has the opportunity to succeed—creating conditions for systemic school and district improvement.

IMMEDIATE COST SAVINGS THROUGH BETTER TEACHER PREPARATION

IF A DISTRICT HIRES 300 NEW TEACHERS PER YEAR...



national urban averages indicate that **24 of these hires** will resign in their first year of teaching.

24 X \$20,000

\$480,000 ANNUAL COST

According to national urban averages, each resigning teacher costs \$20,000 to replace, totalling \$480,000 in annual costs to the district.

WE CAN SAVE THAT \$480,000.

Well-prepared teachers stay in the classroom longer, creating a stable staffing environment within the system. Residency programs graduate teachers who are more likely to remain in the district. With high-quality residency programs, the district will see that the costs of turnover decrease, especially in the case of early career teachers.

REDUCED TEACHER TURNOVER CONTRIBUTES TO OTHER IMPORTANT COST-SAVINGS:



Less spending on student supports like tutoring and retention due to a more effective and experienced teaching force.

In low-income schools, large numbers of new teachers are employed and turnover rates are high, contributing to students' needs for additional learning supports.



More cost-efficient preparation programs due to recruitment incentives that attract larger cohorts of candidates.

Preparation programs are able to enroll larger numbers of candidates when residents are financially supported. When there are more students in a class, the program can save on instruction and supervision.



Less spending in multiple areas on recurring costs related to recruitment, hiring, and training for new teachers in the district.

By stopping the revolving door of early-career teachers, districts establish more efficient systems and save real dollars across departments.

PRINCIPLES FOR STRONG PARTNERSHIPS FOR A SOLID PATH

An essential ingredient to clearing the path for quality, sustainably funded residency programs is a strong and cohesive partnership between school districts and teacher preparation programs. Successful partnerships reflect the contexts and challenges of both P-12 and higher education, enabling resources to be pooled and redirected to maximize effectiveness of new program models.

In addition to key concepts of mutuality necessary for any strong residency program,⁴⁸ five principles can help make partnerships financially stable:

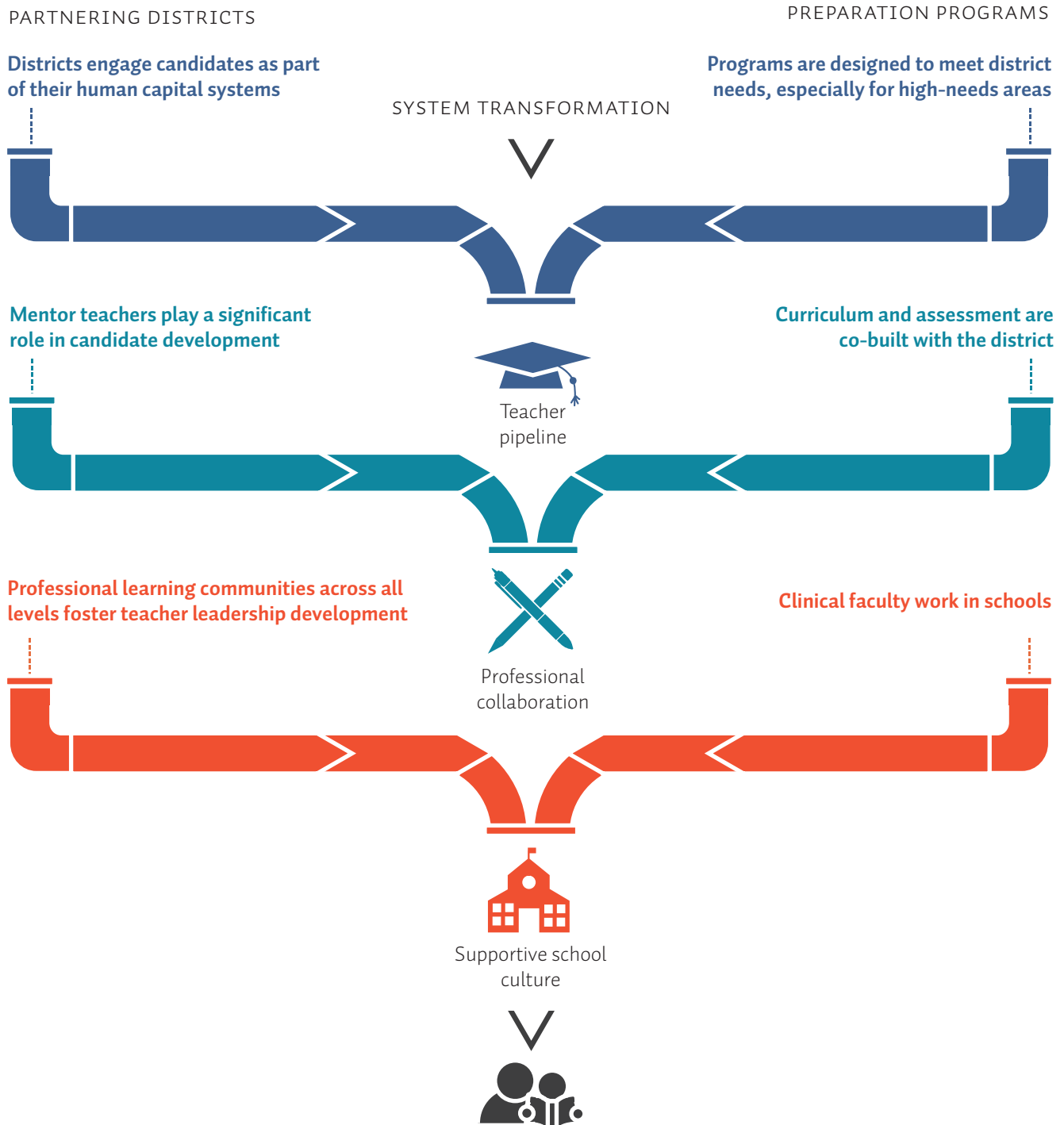
- Maximizing** preparation program strengths and resources,
- Balancing** school and district supports for candidates,
- Separating** start-up costs and sustainability,
- Building** broad commitments for financially viable program designs, and
- Seeing** challenges as labor market misalignments, not personnel issues.

MAXIMIZING PREPARATION PROGRAM STRENGTHS AND RESOURCES

Preparation programs can use a range of strategies to redirect existing resources to support new residency preparation models. Some approaches provide direct fiscal support for candidates, while others create value for schools and promise both immediate and long-term cost savings.

BUILDING STRONG PARTNERSHIPS FOR PREPARATION

When districts and preparation programs establish strong partnerships, both can make changes to the way they work *and* the way they work together. The result is a system transformation through the kinds of shifts illustrated below. These partnerships enable programs and districts to bring existing resources to bear on work in new, mutually beneficial ways.



FISCAL MODELS THAT SUPPORT CANDIDATES

Programs can have the biggest impact on residents' financial needs by reducing direct costs and debt burden. Some programs have embraced a commitment to help candidates graduate with as little debt as possible—ideally debt-free. They work with their institutions to recalculate candidates' financial aid packages during residency placements to reflect the higher level of financial need resulting from their inability to work during the residency. They institute loan counseling and financial literacy efforts so students can make informed decisions about which loans are and are not eligible for deferment from state and federal loan forgiveness programs. They also fundraise specifically for scholarships for education majors with financial need so that students never have to forego the dream of being teachers because they can't afford to participate in residency placements.

Sometimes programs also reduce tuition costs when residency partnerships provide incentives for cohorts of candidates. The efficiencies of cohort models can result in cost savings, which can then be passed along to candidates. For example, because in current models candidates pay for their own degree and certification programs, some licensure areas are far more popular than others—elementary education majors are especially plentiful compared to aspiring secondary science and math teachers in our current system. As a result, courses in the elementary education sequence may be full, but less popular majors may have only a few students enrolled in required courses. Running those small classes is expensive, but programs do it to support districts' hiring needs.

Instead of allowing the tuition of popular majors to effectively subsidize the costs of other, smaller programs, paid residencies with strong recruitment efforts can attract more candidates into undersubscribed programs. Larger cohorts bring in more revenue than programs were generating before. Depending on local financial realities, cost savings from the increased revenue from larger class sizes could be passed along to candidates in the form of reduced tuition for specialized cohorts.

Another approach to reducing costs for candidates is to streamline program coursework. Some residencies have been able to trim overall course requirements by analyzing syllabi with the goal of reducing content duplication. Linkages between content and clinical practice also provide opportunities for programs to rethink course structures. For example, some sites have experimented with adding one-hour field placement credits to their traditional three-hour courses so that candidates gain additional credits through tightly aligned clinical experiences. Other institutions have lower tuition rates for experiential credits, directly saving candidates dollars. In other places, school and district personnel work together to co-instruct classes or district personnel supervise parts of clinical practice and their formal cost arrangements pass savings along to students.

Some of these direct cost reduction approaches may be unavailable to programs given regulations at the state level and requirements at different institutions. At a minimum, however, every program can ensure its coursework is sequenced and offered so that all candidates are able to graduate in a timely fashion so they can begin to earn salaries as fully certified teachers.

PROGRAM MODELS THAT SUPPORT SCHOOLS

By embracing a mindset shift toward viewing residency-style preparation as both an immediate and a long-term school improvement approach, programs can consciously design their work to build in cost savings for schools and districts.

As a starting point, preparation programs should explore possibilities for maximizing resources currently dedicated to clinical supervision. Two possibilities exist in most traditional programs. First, programs often have staffed offices that match candidates with schools and teachers to fulfill hundreds of hours per candidate of field experiences and student teaching requirements. Institutions that have flipped all their programs to residencies have re-designed and re-staffed these positions to allocate resources towards residency supervisors. By linking supervisors to a more defined set of partner schools, they have found that many functions of field placement offices are no longer needed, since

supervisors are regularly on site and know what the possibilities and constraints of their partner schools are on any given day. They are thus able to address placement needs within their designated schools without the support of a field placement office.

Second, in traditional student teaching, clinical supervisors might visit a number of different schools once a month to observe teacher candidates. Programs often pay per-candidate fees to supervisors, and they often also reimburse travel expenses. By concentrating candidate placements in fewer schools and shifting supervision structures to formal coursework for the entire cohort, some programs have found cost savings that can be reinvested in supports for schools.

The actual dollar amounts saved from these approaches is, based on our current scan of programs, quite small. But the potential impact of the additional dedicated person in a school can be profound. Having a university-based colleague working with schools can transform professional learning at sites. They can co-lead professional development for teachers in the building and their residents at the same time. Coursework for residents can be designed around inquiry groups assessing student work and performance, with their mentors participating alongside them. Faculty expertise can be brought in to address specific professional development needs, like differentiating instruction or working with new mathematics pedagogies. Through the deeper partnerships that residencies enable, a range of human resource supports can meet schools' immediate professional development needs for no cost and can help with long-term cost savings through sustained instructional improvements that reduce remediation needs for students. Program faculty also benefit by learning from expert teachers.

In addition to the benefits that schools can reap, these kinds of residency partnership models help programs meet accreditation requirements and provide faculty with meaningful opportunities to lead research efforts to understand how their partnerships facilitate teacher, faculty, and student development. Everyone wins.

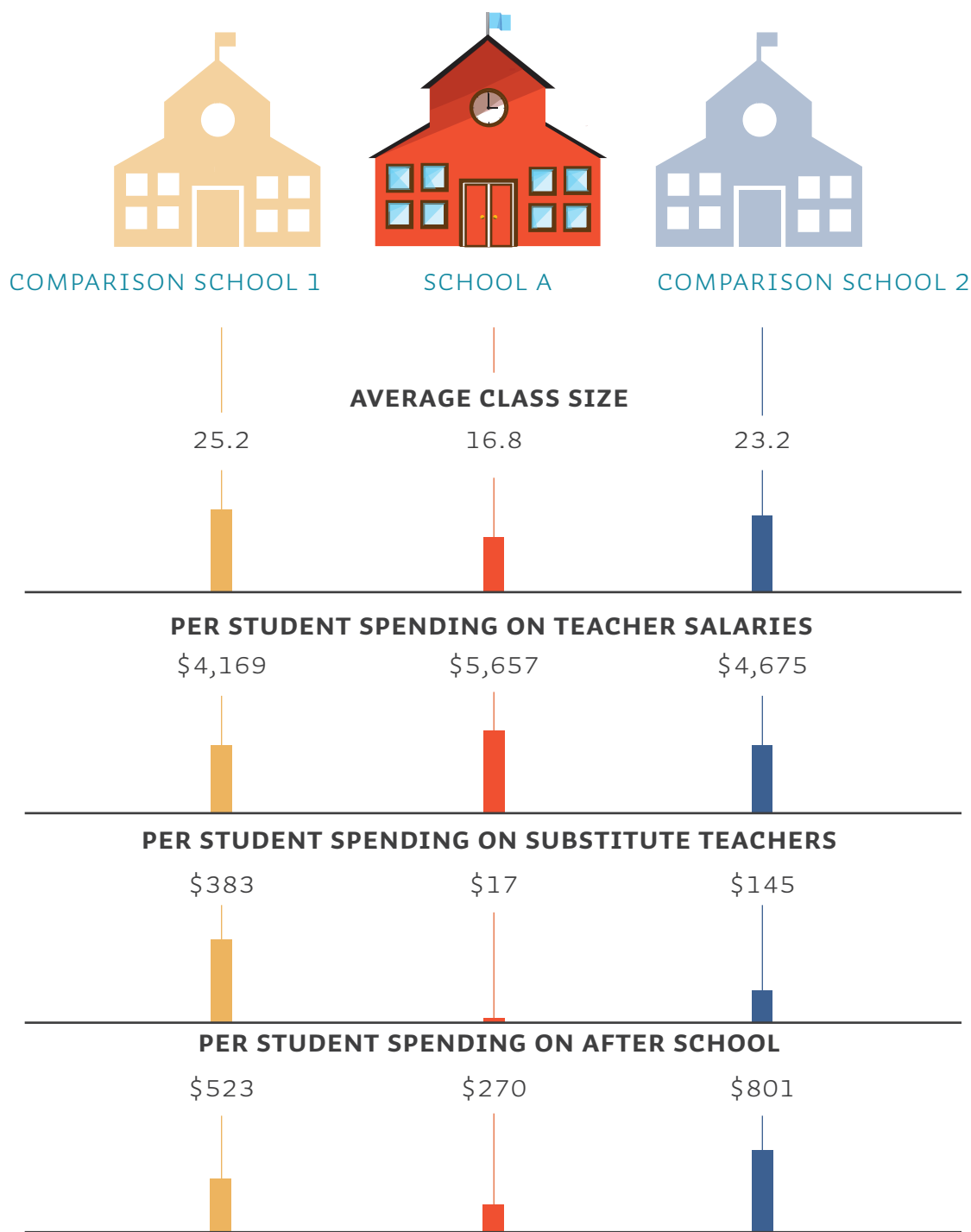
BALANCING SCHOOL AND DISTRICT SUPPORTS FOR CANDIDATES

Education leaders have choices when determining how to direct resources. Districts decide which resources and leadership functions remain at central office and which flow to schools. At the school level, principals decide how funds are allocated to instructional positions and administrative needs. Thinking about teacher residencies as a long-term investment in a strong teacher pipeline that also provides immediate instructional support in classrooms frames resource discussions in new ways, with implications for both district and school allocations towards candidates.

Principals can and do think strategically about their resources, maximizing dollars towards quality instruction. Residents are strong resources. Depending on their programs, they may have had anywhere from months to years of focused preparation for teaching. They reduce student-teacher ratios, offering P-12 students more personalized instruction and reducing the need for remediation. Their presence can also save schools money on substitute teaching and tutoring costs, since they can serve in these roles as part of their program requirements. Schools that receive federal funds can allocate targeted dollars, such as Perkins, Individuals with Disabilities Education Act (IDEA), and Every Student Succeeds Act (ESSA), to support residents working in STEM, special education, and disadvantaged settings, respectively. When schools qualify for Schoolwide Title I dollars, principals can pool resources across all these federal funds to support residency candidates who contribute to their schoolwide instructional programs. In addition, if schools receive Title II dollars directly, both mentor and resident stipends are allowable uses of funds.⁴⁹

The example on page 27 from New York City illustrates how individual schools can make local decisions to maximize and sustain resources for residents. The three schools highlighted are similar in size, economic need, geography, and student demographics. All receive similar budget allocations of just over \$10,000 per student.⁵⁰ School A, though, strategically allocates resources towards

MAXIMIZING RESOURCES FOR INSTRUCTION



The above calculations separate general education and special education students to make apples-to-apples comparisons.

instructional positions, as demonstrated through the strikingly smaller average class size and dramatically lower spending on substitute teachers. Fewer administrative lines and more creative staffing allow for coverage of after school and classroom needs. As a Title I Schoolwide site, dollars across funding sources also are pooled to facilitate the increase in staffing positions for classrooms. Comparison schools 1 and 2 represent more traditional staffing choices. When residency programs promise high-quality instructional partnerships with schools, principals may find ample reason to dedicate budgets towards resident stipends.

Districts also have options for supporting residencies. Targeted pools of dollars for diversity, school improvement, professional development, and teacher recruitment and mentoring are among the top sources of funding districts use for residency programs. These funds are viable ways to incentivize residency development, but they seldom allow for enough dollars to scale residencies within districts. Unless districts partner with principals to design school-based models that meet school improvement needs, program growth at a level that will meet all the hiring needs a district will be unlikely. Residencies will need strategic reallocation of scarce resources from both districts and schools in order to create a large enough pool of dollars to scale.

SEPARATING START-UP COSTS AND SUSTAINABILITY

Upfront costs to develop residencies are real. Residency partnership site preparation, curriculum development, establishment of co-teaching approaches and assessment processes, and coordination efforts across districts and preparation programs all require resources. Funding for initial work to develop residencies might come from private philanthropy, competitive funding opportunities, or redeployment of existing district and state resources such as a portion of Title II(A) funds targeted to improve teacher preparation partnerships and support career ladder development.

Programs that have shifted towards yearlong models, such as those at Arizona State University and University of South Dakota, all utilized supplemental funding sources to develop their programs. These costs are different from the costs required to sustain residency-style preparation programs, especially programs that financially support candidates in their residency roles with stipends. Once programs are functional, start-up costs no longer are an issue, and costs to sustain the model can, with strategic advanced planning, be at least partially supported through the reallocation of existing resources.

BUILDING BROAD COMMITMENTS FOR FINANCIALLY VIABLE PROGRAM DESIGNS

Strengthening teacher preparedness is an adaptive challenge.⁵¹ The enormous variation across the nation in teacher preparation pathways and regulations, coupled with a similarly vast variation in the geographies, demographics, and needs in P-12 schools, means that no single approach to improvement will meet all needs. Local solutions need to be built from the ground up to transform education systems.

Adaptive challenges require an openness to different views on the problem. Districts, principals, unions, tenured faculty, university leaders, legislators, policy makers, parents, and students all are likely to have valuable perspectives about possibilities and barriers for moving forward with residency-style preparation programs. The more inclusive planning processes are for developing new programs and their funding models, the more likely it is the efforts will succeed.

A collaborative approach to building programs can pave the way to broader adoption of residencies, too. Within states, across higher education systems, and inside districts and teacher preparation programs, seed dollars to develop deep partnerships have paved the way for broader system change. These innovators for teacher preparation transformation have a commitment to being open to new ways of thinking and regular discussions across partner sites to share learning. By engaging all stakeholders, including unions, school

PROGRAM COSTS TO CONSIDER

ESTABLISHING NEW PROGRAMS

CAPACITY BUILDING

- + Shared learning efforts around educational philosophies and expectations
- + Mentor development
- + Establishing mentor/school site/candidate selection processes
- + Residency placement site development

NEW WORKSTREAMS

- + Recruiting initial cohort
- + Coordinating operations during transition to new program structures
- + Development of the co-teaching model and shared assessment approaches
- + Revision of curriculum sequencing and coursework to align with fieldwork and clinical practice
- + Redesigning program and district faculty/staff roles

MAINTAINING QUALITY PROGRAMS

RECURRING

PROPORTIONAL TO THE SIZE OF THE RESIDENCY

- + Resident stipends
- + Mentor stipends
- + Candidate selection and assessment
- + New mentor selection

RECURRING

ECONOMIES OF SCALE POSSIBLE

- + District/program facilitators and support staff
- + Recruiting cohorts for hard-to-staff areas
- + New mentor development

ADDITIONAL FEATURES

AMENABLE TO FUNDING THROUGH RESOURCE/STAFF REALLOCATION
AND/OR COHORT MODELING TO REDUCE PROGRAM COSTS

- Mentor training stipends +
- Release time for mentor teachers +
- Candidate debt load/tuition +
- Professional learning communities/PD +

SUSTAINABLE PRACTICES

Yearlong placements integrate candidates into the school community as additional staff members who contribute valuable support and are paid for it.

Residents receive stipends rather than salaries (just like medical interns do).

Candidates are placed in schools as cohorts, creating efficiencies in supervision and deepening partnerships between programs and schools.

Preparation programs recruit diverse, committed teachers and fill cohorts that receive tuition remission to support district hiring needs in shortage areas.

Institutes of higher education are able to recruit diverse, committed teachers and fill cohorts who will receive tuition remission in high-needs areas to support district hiring needs.

Schoolwide Title I sites pool resources across all federal programs (IDEA, ESSA, Perkins) to create comprehensive, cost effective models of school improvement.

leadership, faculty, and residents themselves, their collaborative efforts are transforming teacher preparation, developing robust pathways that attract and retain diverse, qualified candidates, and influencing how partners dedicate their resources towards teacher preparation.⁵²

Strong partnerships also incorporate structures to make sure that collaboration continues over time. Shared governance councils, regularly scheduled meetings to discuss program strengths and areas for improvement, and periodic planning sessions to tackle strategic challenges all support a successful shift towards residency-style preparation.

SEEING CHALLENGES AS LABOR MARKET MISALIGNMENTS, NOT PERSONNEL ISSUES

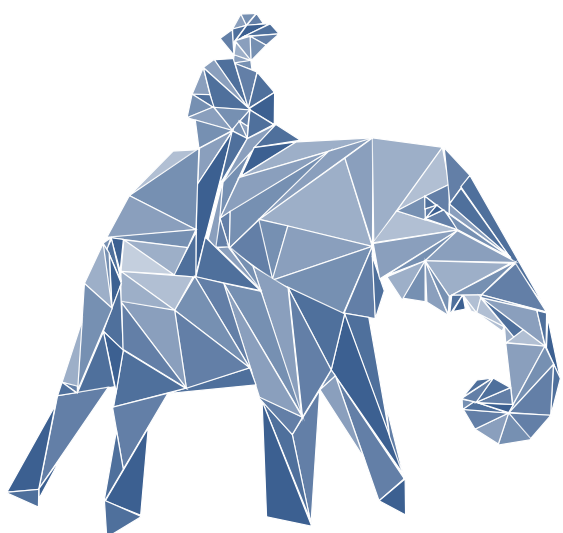
An under-acknowledged factor that drives the difficulty of improving pre-service preparation is the fact that the teacher preparation labor market is so loosely coupled.⁵³ Teacher certification historically has been conferred through academic routes that often are disconnected from district labor market needs. Because candidates pay for their own degrees, preparation programs have largely been built around student demand rather than district demand. Candidates, for their part, often want certification in fields with few hiring needs.⁵⁴

District-supported programs like Teach for America, the New York City Teaching Fellows, and Urban Teacher Residencies, along with dozens of other

small grant-funded programs, have designed pathways that address that core mismatch. They incentivize individuals to pursue other certification areas and to commit to teaching in hard-to-staff schools. These programs contract with districts to address teacher shortage areas, garnering funding to pay tuition and support candidates with living stipends or wages while they pursue certification.

Unfortunately, neither student-driven degree programs nor expensive alternative pathways begin to produce enough candidates in the right certification areas with commitments to teach in hard-to-staff schools. Specialized programs also often are forced to close when costs become impossible to sustain, the funding period ends, or changes in personnel on one or both sides of the partnership allow programs to fizzle out. Short-lived, expensive programs can, in turn, increase hesitancy to commit to a sweeping redesign of teacher preparation. As a result, moving forward can seem impossible without large infusions of external funding.

If partnerships reframe the core improvement challenge as tightening linkages between pre-service preparation and district labor needs, resource allocation decisions such as those described in this report can go a long way towards supporting candidates in high-quality residencies. Tighter linkages between districts and programs create a virtuous cycle in our educational ecosystem. Strong clinical programs where candidates pursue certification in shortage areas address hiring needs. Even in markets without teacher shortages, programs can design residencies that support schools in their core responsibility of ensuring all students have quality educational experiences. By addressing district staffing and school improvement needs, preparation pathways create incentives for schools and districts to invest in candidates. When candidates can afford to seek certification through these higher quality pathways, schools improve.



THE RIGHT DIRECTION

ENSURING FUNDED PATHS LEAD IN THE RIGHT DIRECTION

Clearing the path for every candidate to be able to afford to practice for a full year before entering the profession would be a giant leap forward for teacher preparation. Alone, though, it would not be sufficient to transform our systems. Dollars for residencies should support quality, rigorous programs that build a strong, committed, diverse teaching profession that ensures all students experience the power of engaging, meaningful learning. Important foundational knowledge about teaching and learning exists. Broad agreement on what high-quality preparation programs should offer candidates also exists.⁵⁵ What we know should inform all our teacher preparation pathways. Other countries have chosen this route to improve their educational outcomes; we can too.⁵⁶

In America, though, ensuring every aspiring teacher graduates from a high-quality program has long been a challenge. The nation's largest single preparation program offers a case in point. An online quick-entry program in Texas that prepares thousands of teachers each year, Texas Teachers of Tomorrow advertises that becoming a teacher is "quick, easy, and affordable." Entry requirements boast, "All you need is a four year bachelor's degree in any major and a 2.5 GPA." With a one-page "EasyApp," 15 hours of field experience, and 15 hours of video-based field experience, a person with any degree could land a full-time job teaching.⁵⁷ Most parents would wonder about the wisdom of that preparation model if their children were going to be in those teachers' classrooms.

Texas Teachers of Tomorrow is not alone in proliferating quick-entry options that downplay the complexities of teaching; they simply happen to be the largest program. Sub-par preparation exists across the nation for a variety of reasons, entangled with the history of the country. For one, the occupational prestige of the teaching profession has always ranked below other helping professions such as medicine and law. We have never held teaching in high esteem compared to

other nations.⁵⁸ As early adopters of universal public education, our systems developed in another era, where young females dedicated themselves to their charges until becoming engaged to marry, at which time they were released from their duties. When teacher preparation became part of the nation's higher education systems, programs operated with low status and inferior resourcing. Though higher education has largely been successful in raising the standards, status, and support for their teacher preparation programs, remnants of feminized, unprofessional conceptions of teaching remain, both within and outside of the academy.⁵⁹

The local nature of our approach to educating the nation's youth also has important impacts on efforts to improve teacher education.⁶⁰ In fact, organizationally, one would be hard pressed to say the country even has a teacher preparation system. Every state regulates its own certification processes, with varied guidelines for preparation pathways. Within states, the loosely coupled nature of the teacher labor market means that individual programs serve a huge range of district hiring needs, with some programs training teachers for upwards of 60 different school districts and some districts having nearly as many preparation programs involved in preparing their teachers.⁶¹

A large portion of our population is also unfortunately persuaded by the misguided notion that good teachers are born, not made.⁶² Such popular conceptions effectively excuse the lackluster performance of the country's first year teachers. Learning to teach, in this mindset, is presumed to come through experience for those who are "naturals." The result is an implicit acceptance of less effective teachers having to fail in order for the nation to know whether or not they can teach. This faulty public perception remains a hurdle for strengthening our political will to invest in quality teacher preparation.

Because education policies encompass everything from segregation, property tax redistribution, ideological orientations, and the role of government, no single voice can effectively counter that misperception to help build the political will for a widespread movement towards improved teacher

preparation.⁶³ We will need broad, cross-sector collaboration to embrace the challenge of transforming teacher preparation based on what we know about teaching, learning, and learning to teach so that every teacher can be effective from the first day in the classroom.⁶⁴

WHAT WE KNOW ABOUT QUALITY PREPARATION

How can we know, then, if we are moving down the path that will ensure all aspiring teachers are prepared for their work from day one? Questions of how different teacher preparation programs impact their candidates remain largely unanswered to date for several reasons. First, data systems lack important indicators, often cannot link pre-service and in-service experiences, and are not comparable across preparation programs and districts.⁶⁵ Compounding that basic data problem, selection issues confound both traditional and alternative route analyses. Undergraduate program candidates are limited to those who enroll in the larger institution, creating an implicit set of recruitment and selection processes even before program selectivity occurs. Alternative options like Teach for America, whose programs are premised largely on a robust recruitment and selection processes, have quasi-experimental research studies that concede selection is a root cause of any program impacts.⁶⁶

Further, there is neither clear agreement on definitions of nor high-quality data on all the features we might look for in a quality teacher. Most agree that teachers' retention, evaluation scores, and impacts on student learning are important indicators, but broader questions are less universally pursued. For example, how might we come to understand whether teachers support students' resilience, especially in the face of trauma? Do teachers foster growth mindset and persistence?⁶⁷ What kinds of impact do teachers have on students' development of tolerance, respect, and civic engagement?

Finally, isolating causal effects for the complex process of learning to teach is not a clear-cut science. We have no means for data collection that would allow reliable analyses of whether certain

techniques or experiences translate into improved teacher performance several years after a candidate enters the class. Causal inferences are, by and large, unwarranted.⁶⁸

The direct research base on residency programs also is limited. A few quasi-experimental evaluations exist, with largely positive but some inconsistent findings.ⁱⁱⁱ A larger number of case studies and program evaluations, though, point directionally towards teacher residencies being a better approach to preparing teachers and can provide a starting point for thinking about effective model design.⁶⁹ Strong programs have selection and assessment processes to ensure diverse, committed, effective candidates enter the teaching field. They place cohorts of candidates in schools for a full academic year, working alongside experienced mentors who are not only effective instructors but also have strong adult leadership capacities. Coursework provides opportunities to develop deep knowledge of child development, content expertise, and content- and culturally-responsive pedagogy. Faculty are closely connected to schools, providing structured support to candidates to link theory with practice. Strong programs establish deep, authentic partnerships between the teacher preparation program and schools and districts. They include opportunities for ongoing input and collaboration around course curriculum, candidate performance, recruitment needs, and continuous improvement efforts.⁷⁰ The converging evidence pointing towards these key features of quality programs provides a strong basis to build on moving forward.

WHAT WE KNOW ABOUT TEACHER EFFECTIVENESS

Importantly, how we measure and define teacher effectiveness will influence how we come to think about program quality. For nearly two decades, research efforts have focused on studying teacher effectiveness through student achievement. It is now widely accepted that teachers account for the largest proportion of in-school variance in achievement scores. Two important new analyses should broaden our understanding of these findings.

ⁱⁱⁱ A summary of the findings, strengths, and limitations of these studies are detailed in Appendix 2.

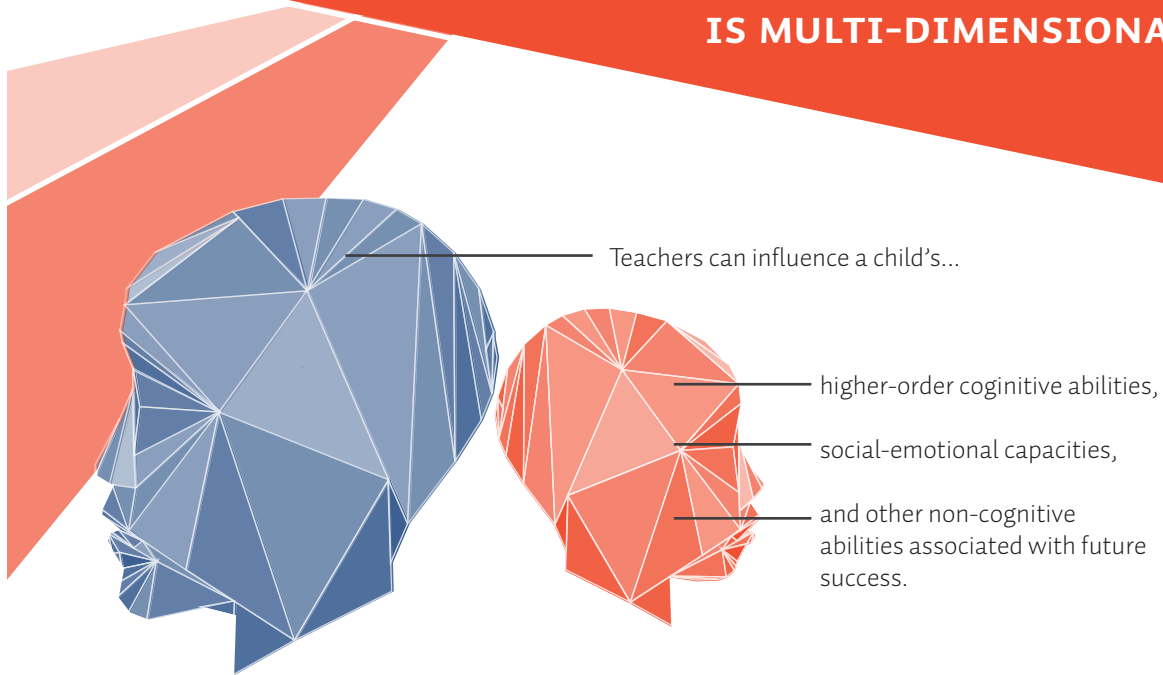
As many have both admitted and critiqued, the standardized tests on which our research base has built our understanding of teacher effectiveness provides a limited picture of student development. Teachers also impact students' higher order cognitive abilities, social-emotional capacities, and non-cognitive abilities like persistence, collaboration, and learning orientations. All these human development domains are associated with future success in careers and life.

Thanks to the design of the Measures of Effective Teaching (MET) study, the nation now has a more comprehensive and nationally representative data set on teaching and learning.⁷¹ Thousands of teachers and their students were videotaped, surveyed, tested, and evaluated, allowing researchers to explore a range of classroom factors that impact student growth and learning. In addition to student achievement measures, the MET data also include indicators such as student persistence and growth mindset scales—outcomes that could be more important than test scores to future employers and to individuals' own success in life.

Research now confirms that teaching is a “multi-dimensional profession,” meaning teachers can affect a range of student outcomes. In these new analyses, teachers who were good at moving test scores up the scale were not as good as other teachers at supporting students' development of domains such as growth mindset, a learning orientation strongly associated with success.⁷² The opposite is also true, as teachers who promote growth mindset may not improve achievement scores as readily as their achievement-focused counterparts.⁷³ Other studies also are exploring multidimensionality, confirming that teachers have differential impacts on important student qualities such as motivation and attendance.⁷⁴ As we transform our teacher preparation partnerships, programs should surface and be accountable for these more nuanced but crucial aspects of teacher effectiveness.

Another new set of research challenges the conventional wisdom about teachers' effectiveness over time. Prior work has offered two persistent

A TEACHER'S IMPACT IS MULTI-DIMENSIONAL



conclusions: that all new teachers have a steep learning curve in their first and second years, and by their fifth to eighth year, teachers' improvements in their effectiveness plateau. The historic analyses are now under serious question, since they lacked longitudinal data on individual teachers' professional development. New research using more reliable methods shows that rather than reaching a plateau after their first few years of teaching, teachers continue to become more effective over time.⁷⁵ The degree of professionalism and support in their schools also interacts with their longevity, indicating the need for teachers to have strong, positive learning environments in order to continuously grow.⁷⁶ As professionals in a complex, "clinical practice" profession, teachers' knowledge and skills can develop over time, just as doctors', nurses', and lawyers' do.⁷⁷

Looking ahead, teacher preparation will need to find ways to more tightly align certification systems to labor needs, to professionalize the field through increased rigor and supports, and to attract, prepare, and retain quality candidates in their new

work, just as the country did with medical preparation years ago.⁷⁸ Thanks to transformations in medical education, we no longer can imagine taking a child to a doctor who completed a sub-par program for pediatric medicine, though people are probably still alive today who could share frightful tales about such experiences. The impact of underprepared teachers on the well-being and future success of children in schools can be equally devastating. Educational leaders and lawmakers across the country need to embrace a strong vision for, and support the development of, committed district/preparation program partnerships that address our historic challenges with high-quality options that candidates can afford. Our nation, its teachers, and our students deserve no less.

APPENDIX I

APPENDIX 1: SUBSTITUTE TEACHING REGULATIONS BY STATE

Note: Where there appear to be state-level requirements for substitute teachers, the source documents are hyperlinked in the title information below. Source documents include, but are not limited to, state department of education websites, application documents and forms, state FAQ documents, state teacher manuals. Where there appear to be no state-level requirements for substitute teachers, the requirements are set by individual schools districts and therefore may vary across the state.^{iv}

Alabama

High school diploma or equivalent required to obtain a substitute license.

Alaska

Districts set requirements for substitute teachers; all require a bachelor's degree.

Arizona

Bachelor's degree required for a substitute certificate.

Arkansas

No license or permit is required, but substitutes must have a GED or high school diploma.

California

Bachelor's degree required for a substitute teaching permit. Currently enrolled students who have completed 90 credits or more towards a bachelor's degree may apply for the prospective teacher license.

Colorado

Bachelor's degree required for a 5- or 3- year substitute authorization. High school diploma or equivalent required for a 1-year authorization.

Connecticut

Bachelor's degree required; districts set application

^{iv} The National Council on Teacher Quality (NCTQ) was helpful in providing citations that informed the initial research for this appendix.

process & requirements. Waivers may be granted to high school graduates or GED holders who have experience with school-age children.

Delaware

Substitute requirements are set by individual districts, but all applicants must have a high school diploma or equivalent.

Florida

Substitute teachers must hold a high school diploma or equivalent.

Georgia

Districts set requirements for substitute teachers; all require a high school diploma or equivalent.

Hawaii

Bachelor's degree is required for a Class II license or above. Class I licenses do not require a degree, but applicants must meet requirements set by the Department of Education.

Idaho

Districts set requirements; substitutes are required to have a high school diploma or equivalent.

Illinois

Bachelor's degree required for a substitute license.

Indiana

High school diploma is required for a substitute permit. Districts may have additional requirements. Bachelor's degree required for a substitute teaching authorization.

Iowa

Bachelor's degree & completion of a teacher preparation program required for a standard substitute license. Those with a bachelor's degree but no teacher preparation are eligible for a substitute authorization.

Kansas

Emergency substitute licenses are available for those who have completed 60 or more credit hours.

Kentucky

Current/expired teaching certificate required for a

substitute teaching certificate. Emergency certifications are granted to those with a bachelor's degree and who meet GPA requirements.

Louisiana

High school diploma required to substitute teach; if applicants are not working towards a degree, they must fulfill proficiency test requirements.

Maine

High school diploma is required to substitute, with restrictions on number of days served. Those enrolled in a degree program can substitute for up to 60 days per school year.

Maryland

Districts set requirements; all require a high school diploma at a minimum.

Massachusetts

Varies by school district, no state-wide licensing of substitute teachers. A bachelor's degree is necessary to substitute teach in most subjects. A combination of education and work experience, however, may be accepted in certain fields.

Michigan

To receive a substitute permit, individuals must have completed at least 90 semester hours of college credit with at least a 2.0 GPA at a four-year, regionally accredited institution.

Minnesota

Bachelor's degree from a regionally accredited college/university required.

Mississippi

Each school district regulates its own substitutes and ensures that they meet the requirements.

Missouri

Minimum of 60 semester hours of credit from a regionally accredited, academic degree-granting, college or university.

Montana

Substitute teachers need not hold a teacher license

but preference is given to those who are licensed. Non-licensed substitute teachers must have received a high school diploma or have attained a passing score on the general education development assessment and complete a minimum of three hours of training.

Nebraska

Local Substitute Teaching Permit: requires a minimum of sixty (60) semester credit hours of college coursework with at least one (1) course in professional education.

Nevada

Substitute License Grade 1-12: Have earned a minimum of sixty (60) semester credits, or an associate's degree or higher, from a regionally accredited college or university, as reflected on an official transcript. Emergency Substitute License: High school diploma or its equivalent. (Only allowable for Districts with enrollment of more than 9000 students)

New Hampshire

Substitute teacher requirements are determined by School Administrative Units (SAUs). Basic requirement to substitute teach: high school diploma or GED.

New Jersey

Substitute credential can be obtained with 60 semester hour credits at a regionally accredited college or university.

New Mexico

All substitute teachers are required to obtain a substitute teacher license or a valid teaching certificate. A substitute license may be obtained in various ways included but not limited to: have observed 3 hours or more of teaching in a school system and at the grade level of students in which the substitute will serve; completed at least 60 hours of college-credit courses in a regionally accredited college.

New York

Does not require a specific license to substitute teach. All substitute teachers must either hold a

valid New York State teaching certificate or must be working toward certification (completing six semester hours per year). To substitute teach fewer than 40 days in a given school district in a school year there are no specific requirements. Local school districts may impose additional requirements on individuals hired as substitute teachers in their district.

North Carolina

Each Local Education Agency (LEA) sets its own educational requirements for substitute teachers. Most require that substitutes have at least a high school diploma and attend in-service training for substitute teachers.

North Dakota

To qualify for an interim substitute license substitute teachers must have 48 semester hours of college coursework.

Ohio

Short term substitute license: Individuals must hold a bachelor's degree from an accredited institution of higher education.

Oklahoma

Oklahoma has no statewide requirements for becoming a substitute teacher. Standards are set by the individual school or school district. Most require at least a bachelor's degree. Some districts require mandatory substitute teacher training for all substitutes.

Oregon

Minimum requirement of a bachelor's degree. Holders of this license may substitute for an unlimited number of days in a school year, but may not substitute in any one assignment for more than 10 consecutive days.

Pennsylvania

The state offers a Substitute Permit for Prospective Teachers. This is for candidates enrolled in teacher preparation programs who have completed more than 60 hours of coursework but are not yet certified.

Rhode Island

To be issued a Substitute Teacher permit an applicant must hold a bachelor's degree from a regionally accredited institution.

South Carolina

South Carolina has no state policy regarding license or other requirements for substitute teachers. Individual schools/districts determine standards/requirements for substitute teachers in their schools. All schools require a minimum of a high school diploma – some schools need an associate's degree or higher, some schools require all substitute teachers to undergo training prior to substitute teaching.

South Dakota

South Dakota does not appear to have a state-wide policy regarding license or other requirements for substitute teachers. Individual schools/districts determine standards/requirements for substitute teachers in their schools.

Tennessee

Varies by school district, no state-wide licensing of substitute teachers. Most school districts require that you have a minimum of a bachelor's degree before being allowed to apply to become a substitute teacher.

Texas

Varies by school district, no state-wide licensing of substitute teachers. Most Texas school districts require that you have a minimum of a bachelor's degree before being allowed to apply to become a substitute teacher.

Utah

Varies by school district, no state-wide licensing of substitute teachers.

Vermont

In Vermont, substitute teaching is handled on a local school district level, and varies from location to location. Ranges from high school diplomas to bachelor's degrees, depending on the school district.

Virginia

Bachelor's degree from a regionally accredited college or university required except in cases where an individual is assigned to a technical professional (occupational) area that does not require a bachelor's degree (i.e., Technical Professional License).

Washington

The Substitute Certificate requires the same level of preparation as a regular teaching certificate. Bachelor's degree or higher from any accredited college/university required. Individuals may have completed any state's approved teacher preparation program—either an approved program through an accredited college or university or an approved alternative route program.

West Virginia

Bachelor's degree, a 2.0 GPA, 18 hours of in-service training and a superintendent's recommendation.

Wisconsin

Minimum of a bachelor's degree required. In addition, some districts provide their own training.

Wyoming

Completion of at least 60 semester hours or an associate's degree from a regionally accredited college/university required. Successful completion of the U.S. and Wyoming Constitution exams.

Alternative Path: Hold a high school diploma or GED, complete at least 24 hours of school district in-service training, complete at least 30 hours of classroom observation (10 hours must be completed at EACH level: elementary, junior high/middle, and high school.)

APPENDIX 2

APPENDIX 2: REVIEW OF ACHIEVEMENT RESEARCH ON RESIDENCIES

New, rigorous studies of teacher residency effectiveness consistently demonstrate strong, positive differences in candidate diversity, their initial entry into the profession, and their retention.

Because residency programs are typically small, studies face methodological challenges regarding standardized achievement scores. The small numbers of graduates with achievement scores make for unstable findings and/or findings with weak significance levels. In essence, one or two teachers whose students perform particularly well or poorly can influence study findings. All achievement score findings, whether positive or not, should be considered in light of that reality.

Studies generally do find that residency-prepared teachers' students perform well on standardized tests, though findings around mathematics scores are less consistent. Since content and content pedagogic knowledge is particularly important for early career teachers' student achievement gains in mathematics,⁷⁹ such findings might continue to be expected if residency programs do not attract math teachers with traditional content background.

The Denver Teacher Residency⁸⁰

Findings: American Institutes for Research studied the Denver Teacher Residency's first seven cohorts (N=360), comparing graduates to other new hires in the Denver Public Schools (DPS) and comparing mentors to other experienced teachers in the DPS. Residents were significantly more likely to stay in their roles, including their roles in high-needs schools, than comparison teachers. They were slightly less effective at raising achievement in math and equally effective in reading. They were scored significantly higher on the DPS LEAP observation framework.⁸¹ Mentors showed no difference in growth on their LEAP observation scores.

Strengths: The study includes longitudinal state achievement data for three cohorts of residents and retention data for six. Student achievement scores are controlled for with two prior years of achievement data, in addition to other usual controls. LEAP is a research-based, multiple measures teacher evaluation system that includes student perception surveys, observation, professionalism assessments, and student learning—including for teachers in non- state-tested grades and subjects. The system explicitly captures cultural competence, effectiveness serving diverse students, and technology integration, and Common Core shifts towards rigorous instruction for all around three domains: Instruction, Learning Environment, and Professionalism.

Limitations: (1) The program prepares teachers for levels from elementary through high school, and the numbers of graduates in the achievement section is small, meaning findings are unstable and potentially affected by outliers; in fact, significance levels for the mathematics outcomes are at the very weak $p \leq .10$. (2) We know that mathematics content knowledge is positively related to mathematics test score improvement, and candidates are not required to have math background, indicating a possible selection, not preparation, effect. (3) Comparison teachers for residents include all teachers new to the DPS, including transfer teachers from other systems. (4) School culture indicators, such as principal effectiveness, teacher absenteeism and turnover, and trust, are not included in the comparison models.

Retention from Teacher Quality Partnership (TQP) Grants⁸²

Findings: Mathematica used district administrative data to explore retention across the largest 12 of the 30 TQP programs in 2009 and 2012, accounting for 60% of TQP-trained teachers in those years. Candidates trained through the TQP programs were more likely to stay teaching in the district, including in high-needs schools, two years after completing their programs.

Strengths: Cross-district analyses using the same indicators allows for strong evidence that graduates stay in their districts longer than individuals trained through other routes.

Limitations: (1) School culture indicators, such as principal effectiveness, teacher absenteeism and turnover, and trust, are not included in the comparison models. (2) No information on other outcomes exists.

The Boston Teacher Residency⁸³

Findings: Residency graduates are more diverse and more likely to stay in the district longer than other novice teachers. Using two statistical models, graduates in early years underperform their comparison group teachers in raising mathematics scores and no different in raising ELA scores. They improve in their years as novices in math and outperform even veteran teachers by their fourth or fifth years.

Strengths: Authors offer four different statistical models for their analyses. Student growth data modeling uses very high standards of data inclusion.

Limitations: (1) Although contrary information is included in the article, summary conclusions favor an interpretation that their findings hold across statistical models when in fact the student fixed effects model shows no difference for graduates and other teachers. This is an important model that controls for systematic sorting of students into different performance levels, which, in mathematics, is a common practice. This may account fully for the statistical finding of negative impacts on math scores in early years. (2) The numbers of graduates in the study is small (between 11 and 52, depending on the cohort) meaning findings are unstable and potentially affected by outliers. (3) We know that mathematics content knowledge is positively related to mathematics test score improvement, and candidates are not required to have math background, indicating a possible selection, not preparation, effect. (4) School culture indicators, such as principal effectiveness, teacher absenteeism and turnover, and trust, are not included in the comparison models. (5) Information about educational experiences of comparison teachers (whether they were first initial certificate candidates or transferred in with experience) is missing.

New Visions/Hunter College Urban Teacher Residency⁸⁴

Findings: Across 5 cohorts of residents, the program recruited more diverse candidates who stay longer than others in District schools. Graduates have a strong sense of self-efficacy. Graduates have a positive impact on student outcomes, most especially Regents' scores in most subject areas and course grades. In Living Environments and ELA, graduates reduce gaps between general education and special education students.

Strengths: Study attends to cohort differences, demonstrating that both program and recruitment/selection processes vary somewhat year to year. Data set includes measures on performance during the year of residency.

Limitations: (1) The numbers of graduates in the study is small (between 24 and 40, depending on the cohort) meaning findings are unstable and potentially affected by outliers. (2) Statistical modeling of value-added scores is not part of the study.

Memphis Teacher Residency⁸⁵

Findings: The State Education Department's annual public Report Card on teacher preparation programs notes that the two cohorts of graduates (N=45 and N=57) are more likely to be hired, more likely to perform above or significantly above expectations on observations, and more likely to improve value-added test scores in both ELA and math.

Strengths: The State has access to program, teacher evaluation, and student achievement data for all its preparation pathways, so the comparisons across programs have policy relevance and use standard measures.

Limitations: (1) The system does not explore interactions between teacher qualities and student performance.

ENDNOTES

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⁶ Donald J. Boyd et al., “Teacher Preparation and Student Achievement,” *Educational Evaluation and Policy Analysis* 31, no. 4 (2009): 416–40; Matthew Ronfeldt, “Where Should Student Teachers Learn to Teach? Effects of Field Placement School Characteristics on Teacher Retention and Effectiveness,” *Educational Evaluation and Policy Analysis* 34, no. 1 (2012): 3–26.

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⁸ Lauren M. Anderson and Jamy A. Stillman, “Student Teaching’s Contribution to Preservice Teacher Development: A Review of Research Focused on the Preparation of Teachers for Urban and High-Needs Contexts,” *Review of Educational Research* 83, no. 1 (March 1, 2013): 3–69; Kay Sloan and Juliane Blazevski, “New Visions Hunter College Urban Teacher Residency: Measures of Success” (San Francisco, CA: Rockman et al, March 2015).

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ABOUT BANK STREET

Bank Street College is a leader in progressive education, a pioneer in improving the quality of classroom practice, and a national advocate for children and their families.

Since its beginnings in 1916, Bank Street has been at the forefront of understanding how children learn and grow. In early childhood centers and schools, in hospitals and museums, Bank Street has built a national reputation on the simple fact that our graduates know how to do the work that is right for children and youth.

Through Bank Street's Graduate School of Education, Children's Programs, and Division of Innovation, Policy and Research, the College has helped to transform the way teachers and children engage in learning. At the Graduate School, students are trained in a model we have honed for a century by combining the study of human development and learning theory with sustained clinical practice that promotes significant development as a teacher prior to graduation. At Bank Street's School for Children, Family Center, Head Start, and Liberty LEADS, the College fosters children's development in the broadest sense by providing diverse opportunities for physical, social, emotional, and cognitive growth. The College further supports and influences positive outcomes for children, educators, and families through professional development programs, research projects, and other key efforts at the district, state, and federal levels.

In 2015, Bank Street launched the Sustainable Funding Project under the leadership of President Shael Polakow-Suransky and Dean of Innovation, Policy and Research Josh Thomases. Led by Director Karen DeMoss, the project's mission is to address a significant problem in public education: how to ensure all aspiring teachers matriculate through affordable, high-quality programs so that every teacher enters the profession prepared for the demands of 21st century classrooms. For the past 100 years, Bank Street has been deeply committed to teacher preparation, professional development, and education reform. This commitment, coupled with the new administration's deep experience in public education, has helped the College identify sustainable funding for quality teacher preparation as a major challenge worthy of our focused attention.

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