

For the Public Good:

Quality Preparation for Every Teacher



ACKNOWLEDGEMENTS

The Sustainable Funding Project (SFP) extends our thanks to countless colleagues across the nation who have informed this document: professional and reform groups, researchers, teachers, preparation provider faculty and leaders, district human resources departments and superintendents, and state and federal policymakers. The time they took to discuss ideas, read drafts, and offer comments—often on multiple iterations of our thinking—helped us grapple with complex issues across the educator preparation sector in ways we could not have done alone. Their insights and feedback were invaluable. We hope we have done justice to their ideas in ways that can continue to move these conversations forward.

The report was authored by the SFP team. Josh Thomases, Sophia Williams, and Karen DeMoss conceptualized the early work. Brigid Fallon, joining mid-project, led research refinements. Katherine Connelly provided editorial support. Karen DeMoss led the writing.

Design: Chris Kyriakou, Sophia Williams, and Shara Benison

Suggested citation: The Sustainable Funding Project. “For the Public Good: Quality Preparation for Every Teacher.” New York, NY: Bank Street College of Education, June 2016.



This publication was made possible in part by grants from the Bill & Melinda Gates Foundation and Carnegie Corporation of New York. The statements made and views expressed are solely the responsibility of the authors.

TABLE OF CONTENTS

4 | FOREWORD

5 | EXECUTIVE SUMMARY

9 | STARTING WITH QUALITY

RISING EXPECTATIONS FOR TEACHERS AND STUDENTS
FINANCIAL BARRIERS TO QUALITY TEACHER PREPARATION
LESSONS FROM THE TRANSFORMATION OF MEDICINE
OUR PATCHWORK OF TEACHER PREPARATION
THE RESEARCH DEBATE

19 | FINANCING RESIDENT STIPENDS

PREPARATION AS A PUBLIC GOOD
DISTRICT BENEFITS FROM PAID RESIDENCIES
REALLOCATING EXISTING FUNDS FOR RESIDENCIES
TRANSFORMING QUICK ENTRY PROGRAMS
LOCAL RESPONSIVENESS AND A COMMITMENT TO QUALITY

27 | MAKING IT HAPPEN

ALIGNED INCENTIVES OF YEARLONG TEACHING RESIDENCIES
WORKING TOWARDS CHANGE
ENCOURAGING ACTION
LEARNING FROM LOCAL EFFORTS

32 | FOR THE PUBLIC GOOD

MARKETS AND ECOSYSTEMS
MOVING FORWARD

34 | END NOTES

36 | DEFINING QUALITY TEACHER PREPARATION

38 | KEY TERMS

40 | WORKS CITED

FOREWORD

The Sustainable Funding Project at Bank Street College of Education was established to address a significant problem in public education: how to ensure that all aspiring teachers are prepared through affordable, high-quality programs so that every teacher enters the profession ready for the demands of 21st century classrooms. This report tackles quality sustained clinical practice as one part of the affordability question.

A financially supported, yearlong clinical co-teaching experience in an effective learning environment would offer teacher candidates an excellent pathway into teaching. This report draws on the success of the many programs that have already created these kinds of opportunities. Their results offer convincing evidence of an effective vision for teacher preparation.

Our work supports districts, states, teacher preparation providers, and others in the education sector to make it possible for more new teachers to enter the profession through yearlong residencies. We are exploring ways to carve out sustainable funding streams, building coalitions to promote policies that will ensure strong clinical preparation for all new teachers, and, in collaboration with others, developing a learning agenda to document the processes, impact, cost effectiveness, and cost benefit of these new models.

In response to requests from colleagues and partners across the nation, we created this framework to introduce the rationale for and pathways towards yearlong co-teaching residencies as an aspirational norm for quality teacher preparation. This document is primarily designed as a resource to support partnerships between districts and preparation providers, both of whom stand to benefit from such models. Acknowledging the role that federal and state policymakers play, we have also included a discussion of the regulatory and policy environments that impact the work of preparation programs and school districts. Because terminology varies vastly between contexts, we have included a glossary at the end of this document to facilitate a common understanding of the terms used throughout the report.

We recognize, of course, that financial support for other components of teachers' development is also critical. Since clinical preparation provides the foundation for teachers' practice, we have chosen to focus here for our first report. As our work proceeds, we will share resources on other aspects of teacher preparation financing, such as aligning preparation programs with the most pressing hiring needs across the country; providing mentoring for co-teachers; and developing induction processes that continue to build new teachers' skills.

As with any endeavor, we know we have much to learn from others and can best improve our work through collaboration. We welcome your feedback and invite you to join our network of individuals and groups committed to strengthening teacher preparation over the next few years. Please sign up for our releases at www.bankstreet.edu/sfp or email us at sfp@bankstreet.edu.

EXECUTIVE SUMMARY

New teachers want and deserve to be well prepared to take on the duties of their profession before becoming the teacher of record for a class. Across the country, teacher preparation providers have strengthened their programs for aspiring teachers, but many new teachers continue to report being less prepared than they would like to be.¹ Expectations for students and teachers have continued to rise, but we have not yet committed the additional time and resources necessary for all teacher candidates to learn and practice sufficiently before becoming responsible for their own classes. Aspiring teachers need sustained clinical experiences, working alongside expert practitioners, to build links between educational theory and hands-on classroom practice so that they are ready for the rigors of the job on the first day of school.

When teachers are not well prepared, student achievement suffers. Turnover rates are high, costing billions and requiring districts to hire more new, underprepared teachers the following year. In particular, high-needs schools, where new teachers disproportionately get their first jobs, often face a revolving door of staff, which thwarts the development of a stable environment necessary for school improvement efforts and places an additional demand on established teachers who must compensate for the needs of their new and underprepared colleagues.² For teachers who remain in the profession, a foundational year of teaching without quality support can entrench unproductive survival habits and undermine confidence.³

Too many of the nation's new teachers are not set up for success in our current preparation systems. Although they arrive with many skills and work extremely hard—often heroically—the vast majority are denied the time and resources necessary for the clinical preparation that would give them the strongest possible start as professionals.

Fortunately, this is a problem we can address. When aspiring teachers experience a year of clinical practice under the daily guidance of expert practitioners, they learn to translate the best of educational theory into effective practice. By teaching in a well-functioning classroom alongside an effective educator, they gain a deeper understanding of techniques and strategies that are proven to help children learn. By becoming part of a school community, experiencing professional collaboration, and participating in a school's improvement efforts for an entire year, candidates emerge with a solid professional foundation.⁴ If we want an educational system where all teachers are effective, such models—generally called “residencies”—should become the norm, an integral part of teacher preparation programs and a preferred qualification in districts' hiring decisionsⁱ

In countries where school systems have improved dramatically, such as Finland and Singapore, one of the shifts their nations embraced was to integrate teacher preparation with K-12 school systems. Aspiring teachers are paid to practice under the guidance of an effective classroom teacher for a full year before seeking certification.⁵ Increasingly, evidence from the United States also indicates that such a model is an effective way of addressing persistent challenges facing schools and districts including

- *Attracting* a diverse group of promising candidates into the profession,⁶
- *Ensuring* all teachers have the skills they need to promote student growth and learning,⁷
- *Retaining* effective teachers, especially in schools serving low-income and diverse families, and⁸
- *Creating* a teacher development continuum that offers meaningful leadership and learning opportunities for all teachers⁹

However, scaling these high-quality programs is an ongoing challenge. Most programs with a yearlong clinical practice for aspiring teachers are funded through grants, making them difficult to sustain and grow. A few programs have designed ways to embed *unfunded* residencies, but in those cases, aspiring teachers do not receive a stipend or other payment for their work and must rely on family resources, take out loans, or work additional jobs on top of their full-time residency in order to cover daily living expenses.

ⁱ Because terminology varies vastly between contexts, we have also included a glossary at the end of this document to facilitate a common understanding of the terms used throughout the report.

“If we want an educational system where all teachers are effective, such models—generally called “residencies”—should become the norm, an integral part of teacher preparation programs and a preferred qualification in districts' hiring decisions.”

Many programs avoid establishing residency requirements because they can increase financial barriers for entry into the profession and make it more challenging to attract and retain a diverse pool of strong teacher candidates.

Ensuring all aspiring teachers have access to quality preparation programs that include a year of residency will require finding the dollars to provide financial support for candidates. Doing so would improve the diversity, efficacy, and retention of new teachers—and, in turn, improve our educational system.

States, districts, the federal government, and foundations have all recognized the power of this approach, providing tens of millions of dollars over time to support residencies throughout the nation. But most programs are small, short-lived, and not sustained beyond initial grant funding. The result is a paucity of stable, quality residency programs across the nation—and a plethora of new teachers who have had less preparation than the most effective practices would prescribe.

It is time for the nation to recognize teaching as a “clinical practice profession,” ensuring that candidates successfully complete rigorous academic and clinical training before being approved to practice.¹⁰ In years past, detractors of the profession may have seen teaching as little more than babysitting or a career of convenience; today, though, education is recognized as a key responsibility of every government in the world and, ultimately, a public service that grows a nation’s economy and well-being.¹¹

We could show our commitment to ensuring every child has access to good schools in the same way we have offered governmental support for medical preparation. Because having well-prepared physicians is in the public interest, the federal government guarantees funds to support every doctor we prepare, providing stipends for individuals and subsidies for medical teaching hospitals. States also support these medical education efforts. We could make a similar investment in teacher residencies, helping us achieve our national goal of providing a quality education for every child and youth. Realistically, though, we do not yet have the structures, research, or political will necessary to do this at scale. This is the work that the Sustainable Funding Project—along with our partners—seeks to take on.

“It is time for the nation to recognize teaching as ‘clinical practice profession,’ ensuring that candidates successfully complete rigorous academic and clinical training before being approved to practice.”

We believe that districts and teacher preparation providers, working together, can help to build the momentum we need to move towards the professionalization of teaching by creating more publicly funded, sustainable residency programs. Across the nation, preparation providers and districts have begun to reallocate existing resources to fund teacher resident positions that address student and district needs. They have developed creative staffing configurations, redirected professional development and recruitment dollars, and created closer ties with preparation providers to create “exchange of services” models, where programs offer supports to districts in exchange for resources that support candidates in their programs. Districts that currently fund quick-entry programs—programs that enable candidates to enter classrooms as teachers of record with minimal clinical practice—have a special opportunity to help build political will for this sector shift. They could develop a plan to transition the funding spent on quick-entry programs to support high-quality residencies.

Districts stand to benefit significantly from funding residencies and establishing this type of preparation as the desired norm for their new hires. Residency stipends can increase the diversity of the teaching pool, helping attract and retain strong candidates who reflect the backgrounds of the students they serve.¹² These yearlong placements also provide districts and schools with an opportunity to gather detailed, performance-based information that can inform later hiring decisions and, by preparing teachers who stay in the profession longer, they can lead to long-term staff stability that would improve schools.¹³ Residencies also have the potential to impact student achievement in other critical ways. As co-teachers, residents effectively reduce class size, providing students with access to well-prepared, relatively inexpensive instructional staff. Residency programs also

enhance broader school improvement efforts by providing mentor teachers with leadership roles that develop their “professional capital.”¹⁴ Residencies can also incentivize teacher preparation providers to design programs in the fields and geographic locations where districts have the highest need.

We can make a very good start on this effort by more efficiently using existing district funds. For example, substitutes and teacher assistants make up 18% of the instructional staff in the nation,¹⁵ positions that residents could effectively fill. Annual professional development expenses are estimated to be \$6,000-\$18,000 per teacher¹⁶—some portion of those dollars could also be redirected to support the residency model.

Improving teacher quality by providing high-quality preparation for aspiring teachers also offers potential long-term cost savings. It could reduce supplemental student support costs—from tutoring to summer school—that are attributable to poor instruction. Administrators could spend less time providing on-the-job training for under-prepared teachers. Ultimately, districts could also save some of the \$2.2 billion a year that is currently spent on teacher turnover, since graduates from quality residency programs tend to stay in their positions longer—with research documenting retention rates as high as 93% after 4 years.¹⁷

Aspiring teachers need access to quality preparation that includes sustained clinical practice. We have every reason to believe this key investment would be a productive step in our nation’s effort to transform schooling from the industrial models we inherited to a professionalized system where every school consistently develops the intellectual, practical, social, and emotional skills our youth deserve.

RISING EXPECTATIONS FOR TEACHERS AND STUDENTS

Since 2001, when the federal No Child Left Behind Act required educators to be “highly qualified,” teacher quality legislation has proliferated. All states now have federally approved plans to ensure every child has equitable access to effective educators.¹⁸ In the past two years alone, some 350 new laws to promote good teaching have been enacted.¹⁹ Perhaps no educational issue elicits more agreement or policy activity than the idea that all classrooms need good teachers.

We would argue that these policies also need to address teacher quality *before* individuals are certified classroom teachers, ensuring that aspiring teachers enter the classroom with the best foundation possible. This isn’t to say that new teachers are ineffective; they just aren’t as effective as they could be. People are not born knowing how to teach any more than they are born knowing how to practice medicine or dentistry, architecture or aviation. As with other professions, aspiring teachers need extended, guided practice at the side of skilled practitioners. They need an opportunity to learn from experts who can demonstrate and explain the nuances of applying a large knowledge base to the needs of individual students, making sense of patterns and addressing unique needs in an everyday context.ⁱⁱ

In fact, teacher candidates need more time than ever before to master the growing body of content knowledge and skills that research shows they need to support student learning. Teachers are now expected to understand diverse patterns of human development, including how children with exceptionalities and from different backgrounds learn. They have to plan and deliver

ⁱⁱIdentifying effective teachers to serve as co-teaching mentors is a complex yet critical factor in successful residency models. Many partnerships have been able to establish locally-appropriate processes to both identify and support mentor teachers and placement sites. While approaches vary widely, we have found these partnerships to generally embrace shared selection of sites and training of mentors. In some contexts, it can be challenging, though, to find quality placement sites and well-prepared, effective mentors. Partnerships may benefit from developing strong mentors and school settings as a first step in their work to establish sustainable residencies.

Defining Quality Teacher Preparation

Although current research doesn't offer uncontested conclusions on what quality preparation looks like, findings suggest that quality teacher preparation embraces the following features:

- 1. Processes for selecting and assessing candidates to ensure a diverse, committed, effective pool of teachers*
- 2. Expertise in child development, content and pedagogy—including content- and culturally-relevant pedagogical knowledge*
- 3. Sustained clinical practice in a supportive environment with experienced teachers and leaders who promote reflection and improvement*
- 4. Deep partnerships with schools and districts to promote alignment across the educational system*

Defining Quality Teacher Preparation, page 36

lessons that go well beyond lectures, applying a growing knowledge base about how people learn to create engaging environments that motivate all students to explore and master disciplinary and interdisciplinary content—both independently and with their peers. Teachers are also expected to have the expertise to design and interpret assessments that capture not only whether students know particular facts or algorithms, but also where they have conceptual misunderstandings, what patterns of performance exist across different populations, and how individuals are progressing over time. In addition to these crucial expectations around their classroom skills, they must demonstrate mastery of more content than we have ever expected before and also be skillful collaborators with other adults in their school buildings.²⁰ If we want the estimated 1.5 million new teachers the nation will need in the next decade to meet these demanding expectations,²¹ they will need our support.

The teaching profession has embraced these standards for educators, but, given the current structures of most teacher preparation programs, few teacher candidates have sufficient time and opportunities to acquire such an extensive range of knowledge and skills. Clinical residencies that

include an aligned set of formal study, offering appropriate content and theory as well as opportunities for guided reflection, provide teacher candidates with the time and structure they need to build a grounded, applied understanding of their profession's standards of practice.

FINANCIAL BARRIERS TO QUALITY TEACHER PREPARATION

Many high-quality providers, whether in traditional higher education settings or outside of the academy, are beginning to shift their programs to provide these types of classroom-based clinical experiences. They attract promising teacher candidates, supporting them through challenging coursework and field experiences to achieve high standards during their clinical practice. The strongest programs ensure comprehensive learning opportunities in child development, pedagogy, and content; form deep partnerships with districts; and work closely with candidates during their clinical residencies.ⁱⁱⁱ Their graduates have a firm foundation of applied theory to begin their professional teaching careers.²²

Although they promise to save money in the long run, residencies can cost more upfront than

ⁱⁱⁱThe Sustainable Funding Project does not promote a particular model for quality teacher preparation, but research and professional standards do offer important principles that can help providers and districts build a shared understanding of quality teacher preparation. We have compiled a list of the kinds of features most commonly valued in the literature at the end of this report.

traditional models. Sometimes costs are covered through grants and philanthropy, but teacher candidates often bear the burden through tuition and other program costs or unpaid fieldwork experiences that offer no support for living expenses. Not everyone has the resources for those options, and many are forced to seek additional loans and extra jobs or to rely on friends and relatives while pursuing certification. These financial disincentives can mean that those with fewer economic resources or other career alternatives opt for quick, cheap programs—or choose not to enter the profession at all.

Ultimately, as a system, we can't begin to guarantee that every aspiring educator enrolls in the kinds of teacher preparation programs we all want without addressing the financial and opportunity costs incurred by candidates. We need to provide supports for all aspiring teachers to access quality clinical experiences, or we will continue to have a patchwork of pathways that doesn't add up to universal quality preparation, doesn't provide districts with the high-quality early career teachers they need, and doesn't ensure our children all have effective educators from diverse backgrounds.

LESSONS FROM THE TRANSFORMATION OF MEDICINE

We have a strong example to look towards for ideas on how to change the status quo. Healthcare also faced issues of inconsistent quality in medical preparation. In the early years of the 20th century, the “Flexner Report” documented the atrocious state of medical education in many institutions. Though some in the profession were already working to improve physician training, as a whole, preparation was unregulated, standards were low, and graduates were often characterized as “quacks.”²³

The report and its supporters ultimately contributed to significant changes in medical education, including closing low quality and for-profit providers and moving quality programs to academic institutions with traditions of rigor and research. In addition, extended clinical practice became a key component of preparation.²⁴

Given some parallel critiques of teacher preparation quality, including both program rigor and clinical requirements, many cite the Flexner Report as relevant to teacher preparation reform.²⁵ However, those discussions typically leave out the significant financial investments that enabled the reforms in medical education.²⁶ The Flexner Report and allies in the profession detailed the fiscal supports needed for change and began to rally public will to provide that support. Stipends for aspiring doctors began to rise after World War II, and funding for doctors' training became firmly embedded into the nation's healthcare system when national medical insurance in the form of Medicare was finally passed 20 years later.²⁷ These investments were instrumental in building the world's best model for medical preparation and top-end medical research institutions.

We now subsidize medical residents' salaries and the increased costs of running teaching hospitals at a rate of \$11.5 billion a year—a substantial commitment, but still less than one half of one percent of the federal budget.²⁸ On average, we make a public investment in training our future doctors that has grown to over half a million dollars per physician.²⁹

We can, with a dramatically smaller public investment, forge a similar transformation in teacher preparation—impacting our entire educational system.^{iv} Teaching residents— aspiring educators working for a year alongside an experienced, effective teacher—could also

^{iv}In medical education, additional expenses beyond stipends drive high costs, including extra staff, state-of-the-art training facilities, and financial incentives related to higher expectations in medical hospitals. For a high-quality teacher preparation system, additional resource investments—though significantly more modest—might also be required, for example, for rooms with two-way mirrors, collaboration between providers and districts, and mentor development. This report focuses primarily on the stipend for residents.



PROGRAM PROFILES

Louisiana: A Statewide Transformation of Preparation

Louisiana's Department of Education has played a leading role in bringing districts and preparation programs together. Through the Believe and Prepare pilot program, school district and preparation leaders have been able to guide the development of teacher preparation and licensure policy.

The work has been an incredibly efficient use of state dollars. Over 99% of the state's education budget goes to schools and districts, leaving less than 1% for the State Department of Education. Through careful budgeting, the Department targeted less than 2% of its budget for the Believe and Prepare partnerships to create stronger clinical preparation experiences across the State. For that small investment, more than 60% of school districts and 80% of preparation providers were incentivized to partner voluntarily to give more aspiring teachers the opportunity to practice with skilled mentor teachers before they earn an initial teaching license. Participants agree that the work has been transformational.

Believe and Prepare pilot programs' experiences have formed the basis for policy changes that would give all aspiring teachers the opportunity to participate in a yearlong teaching residency, bringing theory-based coursework into practical teaching experiences.³⁰

be compensated for teaching during clinical preparation, improving teacher quality and increasing access to the profession.

OUR PATCHWORK OF TEACHER PREPARATION

Paid residencies are not foreign to education. Independent schools, public gifted and talented programs, and many charter management organizations commonly hire new teachers as co-teachers or assistant teachers for their first year. Districts also regularly provide financial supports for interns in school counseling to study the nuances of working one-on-one with youth at the side of a skilled professional. Public school teachers would equally benefit from a yearlong residency to master the complexities of effective classroom teaching.

That's not how most of our system works, though. New teachers can legally enter classrooms through quick-entry programs—whether housed in institutions of higher education or outside the academy—with as little as 40 hours of

field experience. After summer training, these candidates become classroom teachers, with few opportunities for practice that would enable them to discern between strong and weak teaching strategies. They have little choice but to use personal experiences and intuition to make important decisions that directly affect the welfare of children. How much stronger and more confident would these hard-working individuals be if they had experienced a yearlong residency?

Of course, most new teachers graduate from programs that require many more hours of classroom observation, followed by a semester of student teaching.³¹ Those requirements are a substantive improvement over the clinical expectations for quick-entry programs, but candidates are not guaranteed significant instructional responsibilities over the entirety of their student teaching placements. In addition, many traditional programs enroll students who are working in other jobs in order to afford their tuition. Candidates must either forego earnings during their student teaching semester or struggle to focus on the full-time teaching



PROGRAM PROFILES

U.S. PREP: Jointly Planning Curriculum with Districts

Texas Tech University hosts U.S. PREP—University-School Partnerships for the Renewal of Educator Preparation. The name captures the work: institutions of higher education across the nation, including Texas Tech University, University of Houston, Southeastern Louisiana University, Jackson State University, and University of Memphis, have committed to incubating new ways to prepare classroom-ready teachers and to advance learning and innovation in teacher preparation. U.S. PREP builds on successes of the TechTeach program, which has a 100% pass rate on initial certification exams, a 92% job placement rate, and a 90% retention rate for teachers over their first 5 years—outcomes all at the top of the scale for teacher preparation programs.³²

A critical component of U.S. PREP is a commitment to strong partnerships with school districts. The vision is for school and university leaders “to come together regularly to discuss data, to tackle challenges, to celebrate and learn from successes, and to jointly shape future programming,” says Scott Ridley, Dean of the College. U.S. PREP has brought together superintendents and K-12 personnel to develop clarity around important district needs that providers can help to meet. “We believe this type of partnership, where institutions of higher education embrace the role of meeting district needs, is critical to effectively preparing new teachers,” says Ridley.

experience and associated coursework while also working to support themselves. As a result, many of these candidates are not as prepared as they could be to make the constant, complex instructional and management decisions every classroom teacher faces.

At the other end of the spectrum are quality residency models, such as The Boston Teacher Residency, and others in the National Center for Teacher Residencies network, the U.S. PREP partnerships led from Texas Tech University, Arizona State University’s iTeachAZ, Louisiana’s Believe and Prepare program, Relay’s Teacher Residency option, Ohio University’s professional development school model, Bank Street College’s own clinical model with conference group supports—and many others.^y They provide aspiring educators with extended practice in supportive school contexts under the guidance of accomplished educators. Research has begun to establish that such programs improve student

achievement and teacher satisfaction, boost school morale, and reduce teacher turnover.³³ They also mirror approaches other countries have used to transform their educational systems, creating strong linkages between preparation programs and schools—including funding stipends for extended clinical preparation.³⁴

THE RESEARCH DEBATE

Researchers caution that we need more information before we will be able say with certainty which features of teacher preparation will improve education in the United States.³⁵ Studies comparing effects of various preparation methods are inconclusive, largely because comparable and reliable data on the kinds of experiences that candidates have is unavailable. We have more than 26,000 different certification programs in the United States, in licensure fields that cover everything from preschool special education to computer science. These

^yNot all of these program models have been able to secure the additional resources to offer stipends for residents, which means that some candidates face barriers to entry that could compromise their ability to engage the residency experience. Still, their models offer examples of robust partnerships that could greatly improve our educational systems.



PROGRAM PROFILES

New Visions for Public Schools: A Residency Model with Outcomes

In 2009, New Visions for Public Schools partnered with Hunter College and the New York City Department of Education to launch the Urban Teacher Residency (UTR) to prepare effective teachers for the City's high-need schools. To date, 325 novice teachers have been trained in an 18-month program that integrates clinical experiences in the classroom with graduate coursework at Hunter College. Working in a host school for a full year, UTR residents are supervised by an experienced mentor around all aspects of teaching and learning. Following the residency, candidates receive induction support in their first year as full-time teachers. Mentors also benefit from ongoing professional development that enhances their skills and contributes to their retention.

Independent evaluations confirm the program's impact on teacher retention and student outcomes: UTR residents have a higher 4-year retention rate than teachers prepared through other programs, and students taught by UTR graduates have better standardized assessment outcomes and credit accumulation than their peers. Experienced residency host schools now support other schools in the development of novice teachers to spread these practices across the city. The model has such promise that UTR was selected by the National Center for Teacher Residencies as a National Demonstration Site.

programs are administered through more than 2,100 providers, including institutions of higher education, states, districts, and alternative groups.³⁶ Some programs serve undergraduates, while others cater to college graduates. Some only accept candidates who already hold certifications, meaning they bring prior experience with them to the program; others only accept aspiring teachers who are new to the profession. Some, within the same program, accept both. Getting reliable, comparable data about candidates' experiences from this patchwork is challenging, so most studies are limited in scope, and they often rely on surveys and self-reports to gather their data.³⁷ Cautions about causal links between programs and outcomes are, indeed, merited.

At the same time, we have strong reasons to believe that moving towards more universal support for residencies would make a positive difference in our schools. International systems that transformed their educational

outcomes—including leaders like Finland and Singapore—shifted to funded, yearlong preparation for their aspiring teachers, offering one source of compelling evidence for longer clinical practice.³⁸ Most new teachers also report being underprepared, and districts have had to design induction supports to address gaps left by a lack of clinical practice, including how to establish a culture in a classroom that minimizes classroom management issues, how to conceptualize the arc of a curriculum over the course of the full school year, and how to communicate with parents in ways that build strong partnerships.³⁹ Teacher preparation providers have recognized the same needs for at least thirty years.⁴⁰

Traditional student teaching was designed to fit within the educational silos inherited from the industrial era, meaning that teachers stayed behind individual classroom doors—and expertise was located outside.⁴² Cooperating teachers still often serve in roles that are disconnected from preparation programs.



PROGRAM PROFILES

TeachOregon in Salem-Keizer Schools: With Co-Teaching Everybody Wins

Western Oregon University and Corban University, working closely with Salem-Keizer School District, have designed a teacher preparation approach based on a clinical practice model that benefits schools, aspiring teachers, and ultimately, their graduates' future students. With support from the Chalkboard Project, the partners have piloted a residency model that creates learning opportunities across the system. Co-teachers are placed in schools in "clusters"—together with other aspiring teachers—from the first day of in-service to the end of the school year. Professional development, curriculum planning, teaching—they experience everything in their co-teaching role. Clinical teachers also receive days of intensive professional development to support their mentoring efforts, along with ongoing supports to explore how best to guide their co-teachers. Clinical faculty from the colleges spend a day every week in the school, learning deeply about schools' particular needs and building bridges between clinical practice and coursework.

Teachers in the district find that the support they receive through the partnership strengthens their capacity to engage with their professional learning communities and enhance school improvement efforts. District personnel recognize the impact on their long-term human resources system that the co-teaching structures have created, including by allowing the district to vet future teacher candidates during their yearlong placements. Initial data indicate that teachers who graduate from the co-teaching program have outscored traditionally prepared teachers on nearly every observation standard their districts use.⁴¹

Their contributions to candidates' growth is undeniable, but their expertise rarely informs improvements in the preparation system. These structural realities contribute to a larger problem in the profession: the lack of leadership opportunities for practicing teachers. Without meaningful roles to play in their profession beyond work with their students, teachers can find themselves retreating into their classrooms, seeking growth opportunities outside of the school and district, or leaving the profession altogether.

The lack of connection between pre-service and in-service teacher development can also perpetuate teacher quality issues. Preparation providers, who traditionally have had little say in where student teachers are placed, note that student teachers sometimes serve under ineffective educators, providing a kind of triage support in struggling classrooms. As a result, aspiring teachers' ability to learn from

their clinical experiences is diminished, their preparedness for their careers compromised. At the same time, struggling teachers' needs in such situations are masked by the addition of a helping hand in the classroom, enabling a delay in needed supports and interventions.

Although empirical research that tracks student learning outcomes does not currently have the capacity to evaluate these kinds of systemic concerns, research has documented strong outcomes from evaluations of individual residency programs. Their graduates have been shown to positively impact student learning compared to other new teachers in similar schools.⁴³ They are sought after by employers and known for their ability to promote meaningful learning experiences that help youth master the kinds of 21st century skills that we hold up so often as hallmarks of excellent education.⁴⁴



PROGRAM PROFILES

The Minneapolis Residency Program: Growing Your Own

In an effort to invest in those mostly likely to stay in the district, Minneapolis' Grow Your Own Program supports a pool of qualified and diverse non-licensed staff within Minneapolis Public Schools- behavior specialists, substitute teachers, and employees in other support roles- towards earning their teacher license.

This collaborative program, organized by the University of Minnesota – Twin Cities, the Minneapolis Public Schools, the Minneapolis Federation of Teachers, and the Minneapolis Federation of Educational Assistants Local 59, provides residents with both the theory underlying effective teaching and in-school practice honing their skills in a high-need classroom.

Building on the medical residency model, residents receive a \$25,000 stipend along with a reduced tuition rate of \$15,000. Residents spend four days a week co-teaching with a cooperating, master teacher, and one day a week taking graduate-level coursework. This model has attracted an eclectic mix of aspiring teachers who not only reflect the diverse students that they serve but also commit to teaching in their district for three or more years beyond the residency.

Teachers who were trained through residency programs have also remained in the profession, including in high-needs schools, at rates above 90% after four years, compared to turnover rates of 40-50% nationwide in the first five years.⁴⁵ In itself, if residencies help reduce teacher turnover, districts would benefit, since building expertise in clinical professions like teaching, dentistry, and medicine takes time.⁴⁶ As early practitioners log the hours required to become experts, they improve.

Admittedly, as with so much of the research in education, these studies only evaluate individual programs, so other unmeasured features related to selection and curriculum might also influence the findings. For example, in other research literature, programs' academic selectivity has been credited as the reason that their graduates can positively influence student achievement. However, other characteristics not measured in these studies, such as persistence and hard work, might also account for the results.⁴⁷ Similarly,

we can't say with certainty that the clinical placements themselves are the determinate factor leading to the positive outcomes for residency programs.⁴⁸

Even so, research has found a positive relationship between the quality of a clinical placement—for example, being in a supportive school environment with an accomplished teacher—and future teacher effectiveness.⁴⁹ Mandatory student teaching, oversight of the student teaching experience, and the similarity between one's clinical experiences and eventual teaching position are all positively associated with test score gains.⁵⁰ Teachers with more extensive clinical experiences feel better prepared and are more likely to stay in teaching.⁵¹ Teachers who feel more prepared have more confidence in their abilities in the classroom, and these traits are associated with longevity in the profession.⁵²

Residencies offer these kinds of benefits and provide a significantly enhanced learning



PROGRAM PROFILES

Relay Graduate School of Education: Sold on the Power of Practice

When Relay Graduate School of Education was founded in 2007, its focus was on preparing novice teachers for urban public schools. Through the Relay Teaching Residency, launched in 2014, participants work full-time in school-based roles under the guidance of a master teacher while pursuing graduate coursework at Relay during their first year of the program.

One of the more unique components of the residency is its focus on “deliberate practice.” For three hours each week, residents rehearse specific teaching skills in low-stakes settings. After each round of practice, residents receive targeted feedback from Relay faculty experts and peers, and then practice implementing the same skill again, building up their ability to perform key teacher actions, such as checking for understanding or introducing new material. By receiving immediate, real-time feedback, residents can quickly adjust course and develop productive, ingrained procedural habits—“muscle memory”—that effective educators rely on every day. For the residents, deliberate practice also makes them more aware of their own teaching and helps to build their confidence. They can walk into their classrooms the next day ready to implement the strategies they’ve rehearsed at Relay to better support students’ learning. Through the program, residents strengthen their classroom skills consistently and efficiently, supporting the idea that practice is the biggest lever to get new teachers better, faster.

opportunity for teacher candidates in other ways as well. Traditional student teachers aren’t integral members of school teams because they come in after the start of the year and leave before it ends. Their cooperating teachers often don’t fully integrate candidates into the daily life of a class, first because candidates don’t know enough about the students and curriculum to effectively engage their learners and later because they will soon leave, potentially disrupting continuity for student learning. Understandably, teachers are hesitant to risk jeopardizing the long-term goals of their classes by allowing student teachers to experience extended, full-time control over the class. As a result, student teachers often find their defining experiences are stand-alone lessons rather than regular engagement in the full range of responsibilities they will have as teachers.

A yearlong placement, on the other hand, fundamentally shifts the nature of teacher

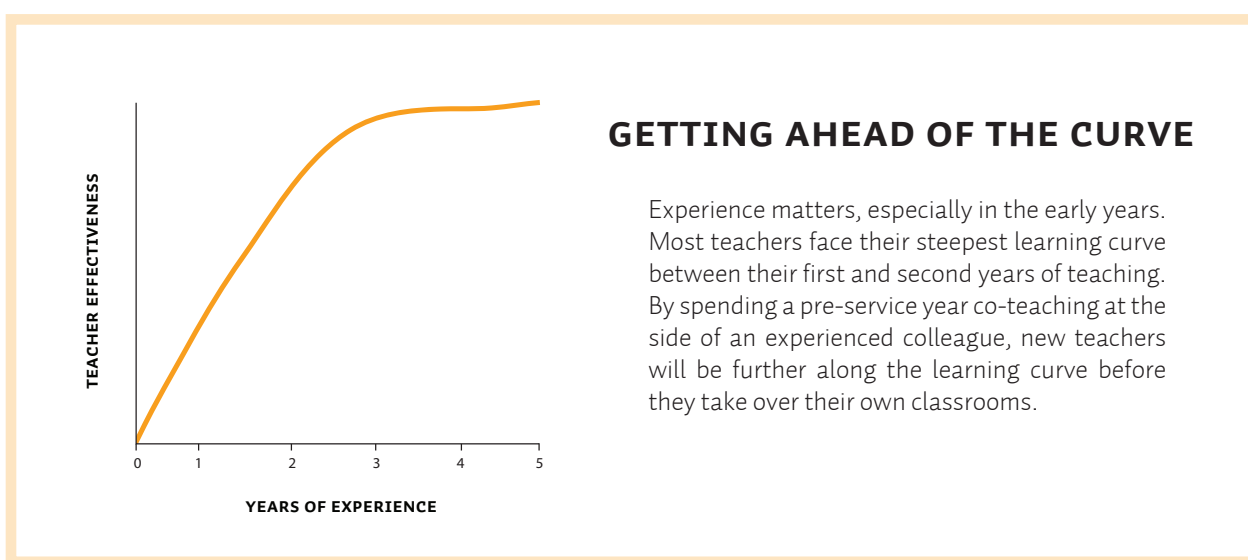
candidates’ relationships to their schools. They become integrated into the life of both school and classroom, learning more as a result of their authentic experiences and getting deeper mentoring from their co-teachers, who have ample opportunities over the course of a year to understand where candidates might need more support and practice. By working in one classroom over the course of a full school year, residents have the opportunity to experience firsthand, with expert guidance, the complex interplay of curricular progression, classroom culture, and individual student strengths, needs, and personalities that marks a year in the life of a school.

Finally, studies consistently document that experience is the most important factor in a new teacher’s effectiveness, and the steepest learning curve for teachers occurs between the first and second year of teaching.⁵³ In teaching, experience matters, especially in the early years, but for most teachers the first

year of extended experience happens alone in their classrooms. If we want well-prepared teachers for all our students—teachers who have the kinds of experiences that encourage them to stay in the profession—we need a system that moves educators further along the learning curve *before* they are leading their own classrooms.

As Tony Bryk has argued, we still have a lot to learn about how best to scale or replicate program specifics in ways that ensure better

outcomes across the nation.⁵⁴ Standards for practice will evolve as we are able to learn more about the intricacies of the many variables that influence teacher preparation and its relationship to teacher quality. In the meantime, though, our children deserve our commitment to work from the best benchmarks for quality that are available.



FINANCING TEACHER RESIDENCIES

PREPARATION AS A PUBLIC GOOD

In other industrialized countries, quality teacher preparation programs are part of higher education systems that provide subsidized degrees across a range of disciplines. Frequently, this means that citizens do not pay tuition; even foreign nationals often pay less tuition than the average college student pays in the U.S. In many cases, the nations whose educational outcomes frequently lead the world also provide living stipends for students pursuing teaching careers.⁵⁵ In general, education is seen as a public good, and individuals are supported and even incentivized to pursue teaching as a lifetime profession.

In the United States, access to higher education, including teacher preparation programs, relies heavily on individual tuition. In some cases, these costs are subsidized through dedicated funding. For example, if candidates have qualifying loans and choose to teach in high-needs areas or underserved communities, loan forgiveness packages can reduce debt over time. In addition, some preparation providers have been able to design programs that allow candidates access to AmeriCorps or other funds designed to support public service, providing living wages during their training. However, the existing cost structures for teacher preparation in the United States overall can make it challenging for preparation providers to offer opportunities for strong clinical practice through residencies without placing the cost burden on the aspiring teachers themselves.

United States policymakers are beginning to rethink our overall approach to funding higher education participation, which could reduce some of the challenges current programs face in providing quality teacher preparation. In the meantime, we can work within the existing framework in a targeted way to reduce cost barriers for entering teachers to enroll in quality programs. While we don't anticipate we can fully fund residencies for all aspiring teachers out of current budgets, districts and providers could support a significant number of residencies by working in close partnership to reallocate resources and redesign staffing structures in ways that free up dollars to

dedicate to residencies. This would be an important first step in building a nationwide commitment to sustainable funding for high-quality teacher preparation. Such shifts would serve the public well and help us research the benefits of stronger preparation, building the case for additional public funding.

DISTRICT BENEFITS FROM PAID RESIDENCIES

Yearlong teaching residencies offer clear immediate benefits to districts. As in other professions that fund residency-type experiences, teacher residents work as part of teams to meet real needs of those they serve. Although not yet licensed, pre-service teacher candidates typically have the foundational preparation needed to provide many forms of direct service within the profession's standards of practice. Well-designed residency programs offer candidates mentored learning experiences and also provide increased instructional support in the classroom—directly benefitting their students and helping support schools' broader improvement goals.

Residencies also offer employers in-depth knowledge of their future applicants; in effect, candidates experience extended job interviews. Other industries have long recognized the value of getting to know candidates before offering them permanent positions. For example, college cooperative programs in competitive business fields pay interns an average of \$17 an hour, affording companies the opportunity to get to know how potential hires might fit their organizations' needs.⁵⁶ Districts similarly can gain in-depth knowledge of potential future hires' performance through residencies.

Even though benefits to districts are clear, tight education budgets can make it challenging to consider investing in residencies—but it's

critical to note that they *are* more an investment than a cost. They offer district leadership a clear path to address costly systemic issues, including the following:

- Residency programs have been shown to reduce teacher turnover. High attrition rates are estimated to cost \$2.2 billion annually across the United States.⁵⁷ Lower attrition rates would reduce “finder fees” for quick entry candidates, which are estimated at more than \$1 million for every 200 recruits,⁵⁸ as well as other recurring hiring costs such as personnel processing and certification tracking.
- Students taught by effective teachers are more likely to stay on grade level, potentially reducing costs associated with summer school, grade retention, and tutoring— itself a multi-billion dollar industry, paid for both by parents and school districts.⁵⁹
- The better prepared teachers are, the better schools can become. Strong schools help students develop in ways that ensure their future success. Quality education is associated with fewer dropouts, better health, less dependence on social services—all of which reduce taxpayer costs in the long run.⁶⁰ In addition, states whose populations are better educated have stronger economies and larger tax bases.⁶¹

REALLOCATING EXISTING FUNDS FOR RESIDENCIES

As districts begin planning to reallocate resources toward teacher residencies, two major considerations emerge: What funding streams can be used to pay for certain costs? And which existing budget line items might address specific instructional needs residents could also fulfill while pursuing their studies?

Funding streams carry with them different requirements and allocation rules. Local and state funding often have fewer regulatory constraints than federal dollars, so districts can generally reallocate dollars from these sources to fund residencies without many restrictions on how that funding is used. In some cases, residency programs are also aligned to federal priorities. For example, reauthorizations of the 1965 Elementary and Secondary Education Act (ESEA) have allowed funding for student supports and school improvement. Both Title I and Title II of the 2015 reauthorization, the Every Student Succeeds Act (ESSA), would allow dollars to be allocated for stipends if programs met federal goals. Similarly, funding in the Individuals with Disabilities Education Act (IDEA) could be used to support residencies that serve students with disabilities, which could also develop a strong pipeline of quality teachers in this high-need area. Supplemental service provision and class size reductions using co-teachers or classroom assistants are already standard expenditures in both ESEA and IDEA. Residents in well-designed preparation programs could effectively meet both of those needs as part of a comprehensive district staffing strategy.

Existing district budget line items offer several resource reallocation possibilities since residents can serve in many roles that are currently paid in schools. Reallocated dollars from these funding streams could be used flexibly—providing monies for the entire residency effort, not necessarily going exclusively or directly to residents' stipends. As full-time students, residents can be paid through internship stipends, which rarely carry benefits and are not subject to Social Security and Medicare withholding, reducing traditional staffing costs for entry-level assistant positions by as much as 45%. Districts that pursue these options can realize significant staffing benefits, increasing the number of individuals supporting students in their schools.

Below are three relatively large budget areas for most districts—staffing, professional development, and recruitment—that offer possibilities to embed more residency funding into standard budget lines.

Current Staffing Dollars

Only 3% of the nation's teaching force each year are new teacher hires who have just graduated from certification programs.⁶² Districts typically allocate 70% to 80% of their budgets to personnel; using even a small portion of these staffing dollars to support residents who are likely future hires is a smart investment.

Reallocation of staffing dollars will, though, require attention to three issues. The first is fairness—no one should be let go so that aspiring teachers can have paid residencies. Rather, as natural attrition occurs—retirements, transfers, career changes—districts could explore slowly growing the funds for residencies.

The second is equity. Often, individuals in non-teacher staffing lines are often members of historically underrepresented communities. They are powerful role models, provide bridges between social, emotional, and academic worlds, and build school-community relations. Rather than losing these important contributors to student development, districts might explore “grow your own” programs, supporting aspiring teachers from the local community through college and residency programs.⁶³

The third is size of the stipend. Ultimately, stipend levels will depend on the interplay between local markets and district needs. The right level would make the residency both attractive and viable for candidates.

Residents can work with small groups, tutor, serve in delimited substitute roles, and co-teach, receiving stipends from some of the

savings their residency positions offer in these line item areas.⁶⁴ In all cases, questions of quality—both of residents’ learning experience and students’ classroom learning—should be part of program models.

The examples below come from budgeting strategies that districts and providers across the nation have shared. They have used these approaches to address overall cost challenges in their partnerships. Broadening such strategies could grow the dollars available for residencies.

Assistant teacher lines. The nation spends \$25 billion dollars a year to pay a million assistant teachers—12% of the overall teaching force—at a cost of approximately \$32,000 per employee.⁶⁵ Assistant teachers help lower class sizes by providing individualized attention for students in need of additional supports. Residents are not only qualified to fill such roles, but would be strongly motivated to do so effectively, since they are likely to want a future position in the district.

Substitute teacher lines. The nation hires more than half a million substitute teachers a year—nearly 7% of the teaching force—at an average cost of \$30,000 a year per full-time equivalent teacher.⁶⁶ Residents could be placed in clusters—5-10 in a school—engaging their clinical practice four days a week and available to substitute as needed one day a week. As members of the school, they would understand its culture and norms, minimizing instructional disruption for students. At the same time, they would gain important experience as teachers. The dollars saved in substitute salaries could go towards overall program costs, and the broader exposure residents would get to educational needs across classrooms

would provide opportunity for reflective learning during the residency.

Supplemental school programming.

Residents could work in before- and after-school programs, summer school, and other supplemental school programming. For example, after school programs cost an average of over \$600 a week per teacher; by restructuring staffing to incorporate resident supports, some of these dollars might be saved and reallocated.⁶⁷ Working in supplemental programs with the students they are learning to teach is a far better way to fund residents’ living expenses than external employment in unrelated fields.

Professional Development Dollars

In most cases, research has found that it is challenging to show the links between professional development and improved outcomes for students. Some studies have shown positive impacts in math and science, and intensive, sustained trainings are more likely to offer improvements in teachers’ effectiveness.⁶⁸ But in general, the money we spend on in-service training—estimated between \$6,000 and \$18,000 per teacher per year—appears not to offer much return on investment.⁶⁹ Some of these funds could be redirected towards professional development efforts that strengthen both beginning resident and mentor supports, enhancing the effectiveness of these important district dollars. Preparation providers could design professional development models that not only support their residents but also enhance overall school or district teacher development efforts, potentially adding cost savings. Additionally, the need for intensive new teacher supports might, over time, be reduced, allowing for even more dollars to be allocated towards residencies.

Repurposing Recruitment Dollars

Increasingly, district budgets include a range of expenditures focused on teacher recruitment efforts for high-needs areas.⁷⁰ Districts allocate resources for signing bonuses, pay salary differentials for teachers matriculating through quick entry routes and into hard-to-staff fields, hire staff and pay travel expenses for out-of-state and overseas recruitment, create advertising campaigns, and pay expenses for induction programs and relocation supports for non-local recruits. Refocusing dollars on residencies for high-needs fields could meet the same staffing goals and, by building a more stable teaching force, also ultimately reduce the recurring costs associated with teacher turnover.

TRANSFORMING QUICK-ENTRY PROGRAMS INTO RESIDENCIES

In some places, districts already have funding dedicated to teacher certification through quick-entry programs that ensure that there are enough teachers available each fall to teach in high-needs areas and hard-to-staff schools. Often, district costs over and above the first-year teacher salaries for these programs range from \$10,000 to \$25,000 a year. By strategically supplementing the quick-entry budget, perhaps through philanthropic dollars, and better projecting long-term staffing needs, a district could add a few additional candidates to their summer quick-entry program each year—but place them in quality co-teaching residencies rather than alone in classrooms. The following year, those additional candidates would be well prepared to staff high-needs classrooms, reducing the numbers of teachers needed through the quick-entry program.

For example, if a district currently trains and hires 100 quick entry teachers, supplemental funding for a cohort of 20 people each year

would reduce the need for quick-entry teachers by 20 teachers the following year, since those residents would be ready for their own classrooms the following year. Within 5 years, the dollars that had been used for the quick-entry program would be available for 100 yearlong residency stipends, bringing future savings and benefits to the district through increased retention and improved teacher effectiveness.

LOCAL RESPONSIVENESS AND A COMMITMENT TO QUALITY

Each of these financial models offers different possibilities for meeting local needs, and the viability for different combinations of models will vary across the country. For example, in districts where the assistant teacher lines and IDEA funding streams are effectively tied to meeting the needs of special education students, it would not make sense to shift those dollars towards residencies. On the other hand, in districts where teachers and principals have given feedback that professional development is less than helpful, providers and school leaders could design new systems that coordinate staff development with resident training and free up dollars for resident stipends. In districts where schools currently staff large numbers of individuals to provide supplemental services for students, using those dollars to support residents could prove beneficial for all.

Residency focus areas also can vary. Large districts might develop cohorts of residents in high-need areas or hard-to-staff schools, while rural areas might be able to create opportunities for local aspiring teachers—building from the strengths of “grow-your-own” programs—by developing hybrid models that offer virtual supports for portions of the residency experience.

Local contexts can also determine the range of structural possibilities for residents' co-teaching experiences. In some places, residents might serve in co-teaching roles four days a week and engage in coursework and residency reflection the fifth. In others, programs might offer coursework and reflection during the evenings or weekends so that residents have the opportunity to experience substitute teaching or tutoring on the fifth day. Other residents might provide early morning, after school, or summer school supports.

Whatever structures are most appropriate for local contexts, partners should ensure residents' placements are in effective settings, carefully guard their co-teaching time with their mentors, and design coursework and reflective opportunities that maximize candidate learning. Kenneth Ludmerer, perhaps the nation's foremost historian on the transformation of medical education in the last century, captured the kinds of features that make for quality medical residencies in his recent book about the history of the medical residency education:

... the quality of the house officers and faculty, the characteristics of the teaching, giving residents the opportunity to assume responsibility in patient management, the availability of time to reflect and wonder, the opportunity for residents to establish meaningful personal relationships with faculty, patients, and each other, the provision of manageable patient loads, freeing residents from too many extraneous chores, holding high expectations of residents, and conducting residency training in an atmosphere of professional excitement.⁷¹

Similar considerations should be part of district/provider partnerships for teacher residencies. If we restructure programs and fund residencies without attention to these key quality issues, we can't expect the kind of impressive results that well-designed programs have seen.

“Whatever structures are most appropriate for local contexts, partners should ensure residents' placements are in effective settings, carefully guard their co-teaching time with their mentors, and design coursework and reflective opportunities that maximize candidate learning.”

PROBLEM #1

We have too many barriers for promising, diverse candidates to enter teaching through quality pathways.

Quality programs develop excellent teachers, but often have high real and opportunity costs. As a result, high-potential candidates with other opportunities are unlikely to enroll unless they are supported with outside funding. Candidates with limited resources are unlikely to opt for teaching as a career, especially if unfunded residencies are required. As a result, teachers are less likely to reflect the demographics of students in the public school system. It also means that there are typically not enough graduates from high-quality programs to meet district needs.

PROMISE #1

Financial incentives attract promising, diverse candidates into teaching.

Programs with financial incentives for participation have shown that well-qualified candidates from diverse backgrounds can be attracted into teaching⁷²—and, as the Albert Shanker Institute recently documented, diversifying the teaching force is not only a civil rights issue but also a win for everyone. In fact, increasing teacher diversity helps diminish the achievement gap since students perform better academically when taught by teachers who share their demographic backgrounds.⁷³ More broadly, exposure to racially and ethnically diverse teachers for all children can help reduce stereotypes and promote social cohesion across all groups.⁷⁴

PROBLEM #2

Insufficient and under-funded preparation is a catch-22 for novice teachers and their students.

In exchange for filling district staffing needs, quick-entry options that offer inadequate clinical practice are typically the only pathway to teaching where candidates can receive tuition support and salaries while they are training. Other new teachers find that the certification areas they pursued in college do not qualify them for available jobs, so they seek quick supplemental licensure in high-need fields. Both routes require very little clinical preparation, meaning these teachers are technically qualified, but underprepared to serve their students as well as they could.⁷⁵ They can't afford more clinically-rich training, yet they aren't fully prepared to meet the full range of student needs they will find in their classrooms.

PROMISE #2

Residencies develop well-prepared new teachers who are confident in their abilities to support student achievement and social-emotional well-being.

When aspiring teachers are supported with the hands-on experiences needed to become good teachers of the students they are likely to serve, they enter classrooms ready to succeed.⁷⁶ They have experienced the full range of teachers' responsibilities over the course of the year, so they have the perspective needed to manage their duties. They also have a familiarity with district curriculum, skill promoting student motivation and achievement, experience working with families and communities, and a sense of the continuous need for growth through collegial collaboration that the profession demands.⁷⁷ Their students are well-supported in their learning. Funding residencies in districts' high-needs areas also incentivize providers to develop programs that help meet district staffing needs, reducing the need for quick-entry programs.

PROBLEM #3

We have revolving doors of underprepared teachers serving in high-needs areas. Too few candidates are willing and qualified to teach where districts have the most need. Districts are often forced to dedicate significant funding to attract candidates to fill staffing shortfalls in historically underserved schools and in high-needs areas such as special education, English as a Second Language, and STEM (science, technology, engineering, and math) fields.⁷⁸ The financial incentives they offer ensure a steady pool of candidates who enter classrooms underprepared. Once teachers have received their subsidized teacher certification credentials, they are also more likely to leave the high-needs schools they were recruited to serve, perpetuating the need for more quick entry teachers.⁷⁹

PROMISE #3

Residents stay in teaching, reducing teacher turnover rates. The extended clinical practice residents receive in high-functioning schools makes them better able to meet the learning needs of all students. They both feel more effective and are more effective as teachers. Teachers who are well prepared are more likely to remain and be effective even when they end up being hired in schools that do not exhibit all the qualities of an effective school. Districts thus face less turnaround among staff across the system, including in high-needs schools.⁸⁰

PROBLEM #4

Schools often lack the professional culture necessary for school improvement. The collection of these problems makes it difficult for schools to improve—especially high-needs schools, which disproportionately have underprepared teachers. High turnover rates preclude schools from building a strong, stable teaching force, lowering educational outcomes. New replacement teachers are also underprepared, resulting in lower student performance and continued turnover. Both turnover and low performance are associated with hard-to-staff schools, perpetuating the cycle. Because these schools are unable to build the kind of professional culture that supports improvement, their students remain trapped in untenable schools.⁸¹

PROMISE #4

Residency programs build and reinforce schools' professional cultures, ultimately improving student achievement. Diverse candidates who experience residencies learn firsthand about the power of professionalism and collegiality to improve teaching. They bring this knowledge to their schools, remain committed to their schools' improvement, and help develop the professional cultures needed to improve student achievement. The schools hosting residents also benefit from the additional staff and professional development support that teacher preparation providers can offer.⁸² Further, mentor teachers find their professional lives are enriched, providing them teacher leadership opportunities in a field that historically has had limited career ladder advancements. They develop deeper “professional capital” that helps the profession consolidate a stronger knowledge base, building expertise and efficacy among partners.⁸³

ALIGNED INCENTIVES OF YEARLONG TEACHING RESIDENCIES

Whether people embrace change depends on how they interpret what change will mean to their own lives.⁸⁴ In this case, funding yearlong, co-teaching residencies benefits everyone involved—including aspiring teachers, mentor teacher candidates, teacher preparation providers, schools, and districts.⁸⁵ As we begin to move toward preparing more teachers in this way, we could begin a virtuous cycle that incentivizes positive shifts across the entire educational ecosystem.

ASPIRING TEACHERS BENEFIT BECAUSE THEY...

- Access quality preparation for their chosen profession without undue financial strain.
- Avoid the “sink or swim” phenomenon of first year teaching.
- Develop confidence and competence as teachers.
- Learn from guided, hands-on practice with expert practitioners.
- Build a network of professional supports before facing their first year in the classroom alone.
- Make a sound investment in their futures, maximizing opportunities for being hired and experiencing success over their careers.

MENTOR TEACHERS BENEFIT BECAUSE THEY...

- Are recognized for their expertise.
- Access leadership opportunities and support to develop skills as teacher leaders that can support their schools’ professional improvement efforts—without leaving their classrooms.
- Have support in their classrooms all year long from a committed novice co-teacher.
- Avoid drawbacks of short-term student teaching placements, where candidates are not always aligned with curricular and pedagogic approaches.
- Influence and benefit from preparation providers’ support for teacher candidates.

PREPARATION PROVIDERS BENEFIT BECAUSE THEY...

- Stabilize enrollment through increased numbers of cohort programs.

- Have access to sustainable residency stipends as a recruiting tool, incentivizing diverse candidates to apply for programs.
- Meet national accreditation demands for close connections between providers and districts.
- Gain important opportunities for applied research partnerships.
- Bring expertise to school improvement efforts.
- Better understand candidates' lived experiences in schools, supporting continuous program improvement.

SCHOOLS AND DISTRICTS BENEFIT BECAUSE THEY ...

- Learn about future applicants to the district through yearlong “interviews” with residents.
- Reduce teacher turnover.
- Improve schools through increased teacher leadership.
- Provide students with additional supports from residents, who enter classrooms with foundational training.
- Raise student achievement in classrooms with early career teachers.
- Reduce the need to provide extensive induction supports for new teachers to address gaps typically left by a lack of clinical practice.
- Influence teacher preparation curricula.
- Realize long-term cost savings.

These incentives are meaningful and real. They could reduce impediments to change we have known about for years, leading the way to a series of shifts that address persistent problems in education.

WORKING TOWARDS CHANGE

Ultimately, finding funding to support yearlong, co-teaching residencies requires a foundational cultural shift in our understanding of teacher preparation and its relationship to educational

quality. Districts and preparation providers will need to see preparation as integrated with teachers' career trajectories, co-constructing residency and mentorship supports as part of the teacher development continuum instead of operating with a pre-service/in-service divide.

To be successful, both districts and providers will need to change their approach to the work, including partnering in the following ways:

- Districts and providers will need to collaborate closely on program design, enabling districts to benefit from providers' expertise around disciplinary knowledge, educational theory, and adult-learning systems and for providers to learn from schools and districts about local strengths and challenges.
- Districts and providers will need to identify high-quality placement sites for residents to ensure candidates learn under effective teachers in schools with strong professional norms. These sites need to see their roles as developing the next generation of professional teachers, and their residents need to be placed in classrooms that maximize their learning with positive role models.
- Instead of simply being seen or functioning as “pipelines” for teachers, preparation providers should help establish robust supports for schools that serve as resident-placement sites, becoming more fully integrated into districts' and schools' improvement efforts.
- Mentor teachers will need to develop the capacity to support aspiring teachers well, learning to translate their experience to first year practice.
- To ensure a strong, stable cadre of effective mentors for aspiring educators, districts should design teaching career ladders that value teacher leadership development, and preparation providers should provide training and support for mentor teachers.



THOUGHTS FROM MENTOR TEACHERS

A Model to Build Confidence

Whether we've been teaching 2 years or 20 years, when someone asks us about our first year in the classroom, teachers have a rush of mixed emotions. We all had so many expectations and anxious moments that we often respond now with words like "If I had only known..." or "I never expected..."

My resident is experiencing her first year of in a classroom as an integral part of a supportive environment rather than as a lone teacher in front of a class. Six months ago, she was unsure of implementing effective classroom management and lesson delivery. She is now confident and much more effective. She has experience connecting with students to meet their emotional and academic needs. She has developed a physical and mental endurance that will benefit her as she walks into her own classroom. Our class achievement results attest that she now knows how to create a productive learning environment.

In our co-teaching model, confidence grows, ineffective practices get rooted out quickly, and linkages between theory and practice develop on a daily basis rather than over the course of years. My resident will enter her first year in the classroom with more understanding and less uncertainty because she was surrounded by a support system of experienced professionals—me, my colleagues, our university partners.

She will reflect optimistically on her preparation, knowing she was part of a team providing high-quality instruction. And she will enter the classroom better prepared to educate our children for the future rather than with the anxious "If I had only known..."

—Lisa Allen

Believe and Prepare Mentor Teacher
Ruston Elementary School, LA

- Where districts have particular staffing needs, providers should establish programs and recruit candidates into certification areas that meet staffing projections. Providers should also establish recruitment practices that attract candidates who reflect school demographics.

For these partnerships to be successful, schools, districts, and preparation providers will also need to make changes within their own organizations.

- Districts will need to work cross-functionally and collaborate across teams as diverse as recruitment, professional development, and federal and state grants to find ways to reallocate dollars to support a holistic teacher development model.
- Preparation programs will need to engage

in open discussions with districts and embrace curricular shifts that embed this work more deeply and collaboratively into candidates' experiences, including creating more practicum courses, sharing supervisory responsibilities with district partners, and embracing curricular co-development.

- In order to ensure equitable access to quality preparation pathways, providers will also need to adjust their programs so that the number of credit hours and total program costs continue to be reasonable with the addition of a yearlong residency.
- Schools will need to embrace residents as novice educators who are learning their craft and as members of their communities who can offer valuable contributions.
- Districts will need to develop the capacity to project future staffing needs in order to coordinate with preparation providers.



THOUGHTS FROM MENTOR TEACHERS

Teacher Career Pathways: Mentors as Professionals

My family is filled with teachers, teachers who see their work as a calling. Yet, as I pursued my dream of becoming a teacher, my beloved role models sometimes discouraged me from entering the field because it lacked professional opportunities. When my early experiences as a teacher afforded me few leadership opportunities, my family's hesitations became very real to me. I grew frustrated and disillusioned. I knew the role of principal was not the right path for my leadership development; it was too far from the children I wanted to serve. I seriously considered leaving the profession.

We need to keep our best teachers as close as we can to students to help them reach their goals for college and careers, but we also need to provide those teachers with multiple pathways to leadership. Partnerships that embed pre-service preparation programs in schools and rely on excellent teachers to mentor aspiring teachers do just that. Our teachers now have new training opportunities, a platform to share ideas, and a voice—at the local level where we can truly have the most significant impact.

The Believe and Prepare program is breathing new life into its most valuable asset—teachers. It is opening up pathways to leadership that teachers have never considered before. It is saying to our very best teachers: we recognize your talent, we value your perspective, and you've earned a place in our leadership structure.

—Mallory Wall
Believe and Prepare Mentor Teacher
LaGrange High School, LA

ENCOURAGING ACTION

Through conversations with programs that have built residencies, we have identified a number of ways that districts, states, and preparation providers could better align incentives for actors across the system to move toward yearlong residencies, encourage collaboration across sectors, and build a strong cadre of schools and mentor teachers prepared for residency placements.

- Districts could give preference to applicants with residency-style preparation, incentivizing aspiring teachers to enroll in quality preparation programs instead of opting for quick pathways that might save dollars in the short term but won't give them a job advantage.

- States could offer scholarships for individuals entering residency programs that are aligned to districts' high-needs certification areas.
- To support districts and providers in moving toward residency programs, states could establish a policy review committee to identify current policies that might run counter to the goals of yearlong residencies, closing undesirable loopholes for low-quality preparation pathways.^{vi}
- To support districts in reallocating funding streams, states could explicitly incorporate language in their ESSA applications that highlights the acceptable uses of federal funds to support residencies.
- States could provide grants for districts to help cover program costs during the time needed to design new approaches that responsibly reallocate other funding.

^{vi} For example, recent policies raise the bar for entry and exit from traditional teacher preparation programs. It is true that countries that transformed their educational systems embraced increased selectivity, and strong evidence exists that academic skills are requisite for effective teaching. However, it is also true that undergraduate education GPAs in general college coursework—the two years before becoming education majors—already averages 3.25. Also, GPAs and test scores are neither consistently nor sufficiently predictive of whether a teacher will be effective or will remain in the field. Even more importantly, strict academic selectivity often produces racial and cultural mismatch between teachers and students, further hampering teacher retention and dampening student achievement. It can also result in serious teacher shortages, returning the nation to an era when we lowered teacher standards in order to staff classrooms.

- States could ensure that all providers operate under similar regulations so that all pathways towards certification offer quality preparation and sustained clinical practice. In this work, states should make sure that program approval processes strike a balance between establishing strong certification requirements and providing flexibility to design programs that address district needs.
- States could support restrictions on program costs that do not directly affect teacher quality, such as unreasonable overhead charges on resident stipends if funds come through grants.
- States could encourage deeper collaboration by requiring providers to seek district feedback as an integral part of new program development and overall improvement efforts.
- States could support the development of a cadre of strong mentor teachers by reconsidering licensing and evaluation policies in order to formalize and appropriately reward the mentor teacher role.
- States could incentivize districts to create residency sites in strong schools that serve struggling students to ensure future teachers learn from the best models.
- Preparation providers could encourage and support faculty in collaborating with school and district partners and becoming more deeply involved in clinical preparation work by better aligning reward systems such as promotion and tenure where applicable.

These kinds of shifts will require cooperation and partnership across sectors, including among some players who may have experienced their agendas as misaligned. We believe that working toward a shared vision that can provide benefits and resources for everyone will help carve out space for productive discussions to build the trust and commitments we need for genuine, mutually productive partnerships. By forging alliances that tap into strengths across the system, we can begin to create a more virtuous cycle of interdependence and improvement. Doing so will serve our future teachers and their future students well.

LEARNING FROM LOCAL EFFORTS

In this work, we have a lot to learn from the variety of programs that exist, from both traditional and alternative providers, as we move towards new models that embrace and financially support stronger, longer clinical practice. How providers and districts envision their programs will doubtless vary widely in response to local needs. These local models will carry with them different strengths and challenges, partly related to existing program structures.

Forexample, colleges historically designed degree requirements with the assumption that students attend classes full-time during the academic year. Although many college-goers don't fit these traditional assumptions,⁸⁶ some undergraduate programs have redesigned degree requirements to enable full-year co-teaching placements during the senior year. In these programs, candidates with financial aid packages can cover residency living costs as part of their overall college expenses. However, this model reduces time for academic study and can make it difficult for some candidates to master their subjects—especially for secondary levels.

Other programs have experimented with a 5th year residency requirement, as The Holmes Group promoted 30 years ago,⁸⁷ offering more time for mastery of both content and practice. But candidates usually have to forego a year of full-time salary and benefits in such models, and the recent focus on completing college degrees in four years has led some programs to drop their 5th year post-bac requirements.

Graduate programs, which are often designed for specific kinds of candidates—new graduates, career changers, working adults—require anywhere from nine months to three years of coursework for completion and have a range of clinical practice requirements, from quick entry to residency. Similarly, alternative certification programs embrace a wide range of model features.⁸⁸ As noted earlier in this report, many of these programs have developed residencies, and the variations across these more differentiated programs also have different benefits and drawbacks in terms of cost, preparation quality, and ease of access.

MARKETS AND ECOSYSTEMS

In 2011, the Organization for Economic Cooperation and Development (OECD) wrote a special report for the United States, pointing out that teaching in other countries was better supported and held in higher esteem.⁸⁹ They suggested our nation build a more respectful, professional culture around teaching. Since then, discussions about the profession have taken on a more nuanced tone, and over the past few years both the public and policymakers have seemed more attuned to the interconnectedness of teacher professionalism, teacher quality and diversity, teacher preparation, and school improvement.⁹⁰ Funded teacher residencies can influence quality across these kinds of educational arenas—and promote deeper connections among them.

Building these connections matters. Our country’s educational system is so loosely coupled as to have been called a “non-system,”⁹¹ making it difficult to influence change through policy alone.⁹² Unlike other nations, we have virtually no shared curriculum across states and districts. Legislative and statutory processes to design policy vary widely, as do the actual policies that officials pass. Funding sources and levels, both within and between districts and states, are unequal. Requirements for student assessment, promotion, and graduation bear little resemblance across geographies. Multiple certification pathways into teaching exist in every state, and portability of certifications across states is limited. All these variations and more exemplify the deeply local nature of schooling in the United States.

The kinds of structural shifts and professional connections that funded residencies require will benefit everyone in the local educational ecosystems where schools exist. Myriad factors are at play in these ecosystems, including district budgeting, local implementation of state and federal policies, curriculum selection, professional development,

and leadership, to name just a few. By bringing teacher preparation providers more fully into this ecosystem, schools and providers will have more and better opportunities to strengthen their core work of improving teaching and learning in meaningful ways.

Realizing these important goals, though, requires attention to larger market forces. The current fragmented market for teachers has strong incentives that promote fast and cheap options for teacher certification. These pathways might

be expedient, but they do not set teachers or their students up for success. The kind of success we are talking about is not trivial; it is the foundation for a strong economy, a robust democracy, and a just society. Funding a critical mass of high-quality options can shift the market in transformational ways, creating positive incentives for everyone to dedicate the time and effort needed to improve our schools. It's an investment worth making—for us all.

MOVING FORWARD:

THE WORK OF THE SUSTAINABLE FUNDING PROJECT

Funded residencies are currently far from the norm for teacher preparation. To support efforts to make concrete shifts towards funded residencies with deeper district/provider partnerships, the Sustainable Funding Project is developing additional resources for states, districts, and providers. One of our upcoming reports will look more closely at different residency funding models across the country, providing a concrete sense of how programs and districts have been supporting this work. We will also be creating case studies describing the structures and key features of existing quality preparation programs and exploring the costs of these models for other locations that might be looking to adopt them. To support for those embarking on the road towards residencies, we will be creating a roadmap of steps that district/provider partnerships might take.

In addition, we have found a need for resources that address specific situations related to quality teacher preparation. For example, the recently passed Every Student Succeeds Act (ESSA) offers a unique opportunity to support districts and providers interested in partnering to support funded residencies. The increased flexibility in the new law allows states to create a much wider range of programs than those conceived under No Child Left Behind. Doing so would enable districts to design meaningful residency partnerships with providers, opening doors that could facilitate the kinds of changes we have described in this report. We are working with states to craft ESSA applications that create these opportunities and to target remaining No Child Left Behind Title II funds towards supports for mentor and school site development that will set the stage for new residency programs.

END NOTES

- ¹ American Association of Colleges for Teacher Education, “The Changing Teacher Preparation Profession”; Levine, “Educating School Teachers.”
- ² National Commission on Teaching & America’s Future, “No Dream Denied.”
- ³ Berry et al., “Urban Teacher Residency Models”; Haynes, Maddock, and Goldrick, “On the Path to Equity”; Rice, “The Impact of Teacher Experience”; DeMonte and Hanna, “The Best Teachers and Who They Teach”; Clotfelter et al., “High-Poverty Schools, Teachers and Principals”; Darling-Hammond, Chung, and Frelow, “Variation in Teacher Preparation.”
- ⁴ Darling-Hammond, *Powerful Teacher Education*; “Transforming Teacher Education”; Berry et al., “Urban Teacher Residency Models”; Sloan and Blazevski, “New Visions Hunter College”; Staub and Frank, “Clinically Oriented Teacher Preparation.”
- ⁵ Tucker and Darling-Hammond, *Surpassing Shanghai*; Singapore Ministry of Education, “Salary & Benefits.”
- ⁶ Sloan and Blazevski, “New Visions Hunter College”; Berry et al., “Urban Teacher Residency Models.”
- ⁷ Council of Chief State School Officers Task Force on Educator Preparation and Entry into the Profession Members, “Our Responsibility, Our Promise”; Tucker and Darling-Hammond, *Surpassing Shanghai*; United States Department of Education, “National Teacher Preparation Data”; Sloan and Blazevski, “New Visions Hunter College”; Staub and Frank, “Clinically Oriented Teacher Preparation.”
- ⁸ Ronfeldt, Schwartz, and Jacob, “Does Preservice Preparation Matter?”; Haynes, Maddock, and Goldrick, “On the Path to Equity”; Sloan and Blazevski, “New Visions Hunter College”; Staub and Frank, “Clinically Oriented Teacher Preparation.”
- ⁹ Boettcher Teacher Residency Handbook, 2015.
- ¹⁰ Alter and Coggshall, “Teaching as Clinical Practice Profession.”
- ¹¹ United Nations General Assembly, “Convention on the Rights of the Child”; Darling-Hammond, *The Flat World and Education*.
- ¹² Berry et al., “Urban Teacher Residency Models.”
- ¹³ Sloan and Blazevski, “New Visions Hunter College”; Kraft, Marinell, and Yee, “Schools as Organizations: Examining School Climate, Teacher Turnover, and Student Achievement in NYC”; Papay et al., “Does an Urban Teacher Residency Increase Student Achievement?”
- ¹⁴ Hargreaves and Fullan, “The Power of Professional Capital.”
- ¹⁵ United States Bureau of Labor Statistics, “Elementary and Secondary Schools (Including Private, State, and Local Government Schools) - May 2015 OES Industry-Specific Occupational Employment and Wage Estimates.”
- ¹⁶ Sawchuk, “Cost of Professional Development”; Jacob, McGovern, and Hasiotis, “The Mirage.”
- ¹⁷ Haynes, “On the Path to Equity: Improving the Effectiveness of Beginning Teachers”; Clark et al., “Teach for America Investing in Innovation Scale-Up”; Sloan and Blazevski, “New Visions Hunter College.”
- ¹⁸ United States Department of Education, “Equitable Access to Excellent Educators.”
- ¹⁹ Education Commission of the States, “State Legislation.”
- ²⁰ Council of Chief State School Officers, “Interstate Teacher Assessment and Support Consortium (InTASC) Model Core Teaching Standards: A Resource for State Dialogue”; CAEP, “CAEP Accreditation Standards.”
- ²¹ DeMonte, “A Million New Teachers Are Coming: Will They Be Ready to Teach?”
- ²² For a description of Bank Street’s externally evaluated programs, see Eileen Horng et al., “The Preparation, Professional Pathways, and Effectiveness of Bank Street Graduates.”
- ²³ Flexner, *Medical Education*.
- ²⁴ Starr, *The Social Transformation of Medicine*.
- ²⁵ Kane, “A Flexner Report on Teacher Preparation.”
- ²⁶ Asera, “Another Flexner Report?”
- ²⁷ Ludmerer, *Training Young Doctors: The Current Crisis*; Ludmerer, *Learning to Heal*.
- ²⁸ Dower et al., “Graduate Medical Education”; “Budget.”
- ²⁹ Dower et al., “Graduate Medical Education.”
- ³⁰ Louisiana Department of Education, “Believe and Prepare.”
- ³¹ American Association of Colleges for Teacher Education, “The Changing Teacher Preparation Profession”; United States Department of Education, “Pathways to Teaching.”
- ³² “TechTeach at a Glance.”
- ³³ National Center for Teacher Residencies, “The Residency Model”; Sloan and Blazevski, “New Visions Hunter College”; Darling-Hammond, *Powerful Teacher Education*.
- ³⁴ Tucker and Darling-Hammond, *Surpassing Shanghai*; Singapore Ministry of Education, “Salary & Benefits”; OECD, “Teachers Matter: Attracting, Developing and Retaining Effective Teachers: Pointers for Policy Development”; OECD, “Lessons from PISA.”
- ³⁵ National Research Council, *Preparing Teachers*.
- ³⁶ United States Department of Education, “Title II Reporting System.”
- ³⁷ Levin, “Empirical Puzzles on Effective Teachers: U.S. Research.”
- ³⁸ Tucker and Darling-Hammond, *Surpassing Shanghai*; Sahlberg, *Finnish Lessons*; Sclafani, “Rethinking Human Capital in Education.”
- ³⁹ Levine, “Educating School Teachers.”
- ⁴⁰ Farkas, Johnson, and Folen, “A Sense of Calling”; Holmes Group, Inc., “Tomorrow’s Teachers: A Report of The Holmes Group”; Zimpher and Howey, “21st-Century Centers of Pedagogy”; National Commission on Teaching & America’s Future, “What Matters Most.”
- ⁴¹ Western Oregon University College of Education, “Innovations in Clinical Practice.”
- ⁴² Tyack, *The One Best System*.
- ⁴³ Sloan and Blazevski, “New Visions Hunter College.”
- ⁴⁴ Lit, Ira and Darling-Hammond, Linda, “The Threads They Follow: Bank Street Teachers in a Changing World”; Levine, “Educating School Teachers.”
- ⁴⁵ Ingersoll, Merrill, and Stuckey, “Seven Trends”; Sloan and Blazevski, “New Visions Hunter College.”
- ⁴⁶ Alter and Coggshall, “Teaching as Clinical Practice Profession”; Gladwell, *Outliers*; Papay et al., “Does an Urban Teacher Residency Increase Student Achievement?”
- ⁴⁷ Heilig and Jez, “Teach for America: Evidence”; Clark et al., “Teach for America Investing in Innovation Scale-Up.”
- ⁴⁸ Bryk, “Accelerating How We Learn to Improve.”
- ⁴⁹ Ronfeldt, “Field Placement Schools and Instructional Effectiveness.”
- ⁵⁰ Boyd et al., “Teacher Preparation and Student Achievement.”
- ⁵¹ Ingersoll, Merrill, and May, “Teacher Preparation and Attrition”; Ronfeldt, Schwartz, and Jacob, “Does Preservice Preparation Matter?”
- ⁵² Darling-Hammond, Chung, and Frelow, “Variation in Teacher Preparation.”
- ⁵³ Boyd et al., “The Narrowing Gap in New York City Teacher Qualifications”; Rice, “The Impact of Teacher Experience”; Kraft and Papay, “Can Professional Environments in Schools Promote Teacher Development? Explaining Heterogeneity in Returns to Teaching Experience.”
- ⁵⁴ Bryk et al., *Learning to Improve*; Bryk, “Accelerating How We Learn to Improve.”
- ⁵⁵ “Compare Tuition Fees Schemes in Europe - StudyinEurope.eu”; Singapore Ministry of Education, “Salary & Benefits.”

- ⁵⁶ National Association of Colleges and Employers, “Internship & Co-Op Survey.”
- ⁵⁷ Haynes, “On the Path to Equity: Improving the Effectiveness of Beginning Teachers”; Clark et al., “Teach for America Investing in Innovation Scale-Up.”
- ⁵⁸ Heilig and Jez, “Teach for America: Evidence.”
- ⁵⁹ “Tutoring & Driving Schools in the US Market Research | IBISWorld.”
- ⁶⁰ Belfield and Levin, *The Price We Pay*.
- ⁶¹ “Economic Impact.”
- ⁶² Provasnik and Dorfman, “Mobility In The Teacher Workforce: Findings From The Condition Of Education 2005.”
- ⁶³ Garcia, “Growing Their Own.”
- ⁶⁴ Friend and Cook, *Interactions*.
- ⁶⁵ United States Bureau of Labor Statistics, “Wages: Teacher Assistants” (estimates include 30% for benefits in addition to the \$26,310 average annual salary); Kena et al., “The Condition of Education 2016.”
- ⁶⁶ United States Bureau of Labor Statistics, “Wages: Substitute Teachers.”
- ⁶⁷ Calculations from “The Cost of Quality Out-of-School-Time & After School Learning Programs - The-Cost-of-Quality-of-Out-of-School-Time-Programs.pdf”. Assumptions include average costs of \$13.5 per instructor per student slot, average number of students at 12, and a 4-day-a week program for 30 weeks.
- ⁶⁸ Yoon et al., “How Teacher Professional Development Affects Achievement.”
- ⁶⁹ Jacob, McGovern, and Hasiotis, “The Mirage”; Sawchuk, “Cost of Professional Development”; Fertig and Garland, “Millions Spent on Improving Teachers”; Blank, de la Alas, and Smith, “Does Professional Development Have Affect Teaching and Learning?”; Yoon et al., “How Teacher Professional Development Affects Achievement.”
- ⁷⁰ “Teacher-Recruitment Challenges.”
- ⁷¹ Ludmerer, *Training Young Doctors: The Current Crisis*, xi.
- ⁷² Anderson and Stillman, “Student Teaching and Teacher Development”; Sloan and Blazeviski, “New Visions Hunter College”; Berry et al., “Urban Teacher Residency Models.”
- ⁷³ Egalite, Kisida, and Winters, “Representation in the Classroom.”
- ⁷⁴ Albert Shanker Institute, “The State of Teacher Diversity.”
- ⁷⁵ Staub and Frank, “Clinically Oriented Teacher Preparation”; Darling-Hammond, *Powerful Teacher Education*; Grossman and Loeb, *Alternative Routes to Teaching*; Ronfeldt, Schwartz, and Jacob, “Does Preservice Preparation Matter?”
- ⁷⁶ Berry et al., “Urban Teacher Residency Models.”
- ⁷⁷ OECD, “Supporting Teacher Professionalism.”
- ⁷⁸ United States Department of Education, “National Teacher Preparation Data.”
- ⁷⁹ Cochran-Smith et al., “Teachers’ Education, Teaching Practice, and Retention”; Ronfeldt, Schwartz, and Jacob, “Does Preservice Preparation Matter?”; Grossman and Loeb, *Alternative Routes to Teaching*; Ingersoll, Merrill, and May, “Teacher Preparation and Attrition.”
- ⁸⁰ Staub and Frank, “Clinically Oriented Teacher Preparation”; Berry et al., “Urban Teacher Residency Models.”
- ⁸¹ Haynes, Maddock, and Goldrick, “On the Path to Equity”; Daly et al., “Accessing Capital Resources”; Heilig and Jez, “Teach for America: Evidence”; Johnson, Kraft, and Papay, “How Context Matters in High-Need Schools: The Effects of Teachers’ Working Conditions on Their Professional Satisfaction and Their Students’ Achievement.”
- ⁸² Egalite, Kisida, and Winters, “Representation in the Classroom”; Cochran-Smith et al., “Teachers’ Education, Teaching Practice, and Retention”; Sloan and Blazeviski, “New Visions Hunter College”; Berry et al., “Urban Teacher Residency Models.”
- ⁸³ Hargreaves and Fullan, “The Power of Professional Capital.”
- ⁸⁴ Evans, *Seven Secrets*.
- ⁸⁵ Heath and Heath, *Switch*.
- ⁸⁶ Kena et al., “The Condition of Education 2016.”
- ⁸⁷ Holmes Group, Inc., “Tomorrow’s Teachers: A Report of The Holmes Group.”
- ⁸⁸ Grossman and Loeb, *Alternative Routes to Teaching*.
- ⁸⁹ OECD, “Lessons from PISA.”
- ⁹⁰ “The Path to Modernizing and Elevating Teaching.”; Haynes, “One Year Later.”
- ⁹¹ Mehta et al., “From Quicksand to Solid Ground”; Mehta, *The Allure of Order*; Weick, “Educational Organizations as Loosely Coupled Systems.”; Weiss, “The Inter face between Evaluation and Public Policy.”
- ⁹² Lipsky, *Street-Level Bureaucracy: Dilemmas of the Individual in Public Services*.
- ⁹³ Alter and Coggsball, “Teaching as Clinical Practice Profession.”
- ⁹⁴ See, for example, “Academy for Co-Teaching and Collaboration | St. Cloud State University.”
- ⁹⁵ See, for example, “Trellis.”

DEFINING QUALITY TEACHER PREPARATION

The goal of the Sustainable Funding Project (SFP) is to establish sustainable funding streams for high-quality teacher preparation. Resources, whether new or reallocated, should always, we believe, be connected to quality considerations. Accordingly, we offer some beginning guidance for what district/provider partnerships might consider when planning quality residencies.

These principles have been developed over the course of several months' research on teacher preparation, drawn from a combination of theoretical, international, case study, and large-scale empirical research. Although current research doesn't offer uncontested conclusions on what quality preparation looks like, findings suggest that quality teacher preparation embraces the following features:

1. Processes for selecting and assessing candidates to ensure a diverse, committed, effective pool of teachers

- **Entry**
 - Academic standards that reflect a capacity to successfully engage with complex ideas
 - Indicators of commitment to serving the diverse range of students in today's schools
 - Dispositional orientation towards collaboration, resiliency, and persistence
 - Processes to recruit a diverse set of candidates reflective of students in the nation's schools and, to the extent possible, in the particular districts where programs partner
- **Progression**
 - Evidence of willingness to learn and improve
 - Consistent progress towards the program's exit standards
- **Exit**
 - Success meeting program standards, inclusive of entry and progression indicators
 - Success meeting licensure requirements for the district/state

2. Expertise in child development, content, and pedagogy—including content- and culturally-relevant pedagogical knowledge

- **Child and Human Development**
 - Deep knowledge of principles of human development, including the roles of language and culture in development
 - Understanding of developmental variation and learning characteristics
 - Ability to apply the cognitive, social, and cultural aspects of the psychological foundations of human learning to create productive learning environments
- **Pedagogy**
 - Broad understandings of various pedagogical approaches, their strengths and applicability, and their connection to content and diverse student populations
 - Ability to make pedagogical decisions that support diverse learners to reach educational goals

- Ability to apply the cognitive, social, and cultural aspects of the psychological foundations of human learning to create productive learning environments.
- **Content Areas**
 - Understanding of disciplinary and interdisciplinary thinking
 - Deep knowledge of content areas related to licensure area, including advanced expertise for secondary licensure
- **Professional Dispositions**
 - Candidates understand how and are willing to advocate for and with children, adolescents, and families
 - Candidates use reflective skills for ongoing development of practice and understanding of children and adolescents

3. Sustained clinical practice in a supportive environment with experienced teachers and leaders who promote reflection and improvement

- **Sustained Clinical Practice**
 - Early field experiences, integrated with course-based aspects of preparation, to provide the foundational framework for an effective residency
 - A yearlong placement inclusive of the beginning and ending of a school year
 - Placement settings reflective of district demographic and achievement realities
- **Supportive School Environment**
 - Placement sites with school climates that promote professional trust and learning
 - Leadership supportive of adult learning and attentive to aspiring teachers' learning needs
 - Collaborative relationships between and among community, staff, and parents
- **Master Teachers and Mentors Who Promote Reflection and Improvement**
 - Placements under full-time supervision of cooperating teachers with demonstrated teaching excellence
 - Cooperating teachers are given time, support, and inclination to serve as mentors
 - Structured opportunities to reflect on clinical experiences in ways that link theory with practice and support candidates' development of their professional identities

4. Deep partnerships with schools and districts to promote alignment across the educational system

- **Deep Partnerships with Schools and Districts**
 - Programs meet the existing and anticipated needs of the district in terms of content and grade level certifications
 - Programs develop close relationships with clinical placement sites
- **Alignment Across the Educational System**
 - Program designs create mutually beneficial learning opportunities for both providers and schools to share and benefit from existing expertise
 - Program and placement decisions maximize long-term system goals, ensuring quality learning for candidates rather than short-term needs of providers or schools

KEY TERMS

Because terminology across educational contexts differs widely, we offer this glossary to ground readers in the ways terms are used in this report.

- **Alternative certification:** Teacher preparation pathways approved by state statutes that allow individuals to enter teaching by meeting a different set of standards compared to those who go through traditional programs. Alternative program requirements vary widely, and they can be housed in non-academic contexts, districts, states, and institutions of higher education.

- **Aspiring teacher:** An individual studying or intending to become certified to teach in Pre-K through grade 12 schools.

- **Candidate:** An aspiring teacher progressing through a preparation program, often at the stage of clinical practice.

- **Clinical practice:** Intensive field-based placements where candidates who have a foundation of content and pedagogical knowledge are supported in observation, reflection, and practice and have the opportunity to hone their craft through gradually increased responsibility for full-time, full-class instruction.

- **Clinical practice professions:** Professions that involve a complex knowledge base, rely on professional judgment for effective decision-making, have clients that are central in the professional's work, and establish both standards for practice and requirements of clinical practice for entry.⁹³

- **Co-teaching:** Clinical practice placements where candidates are integral members of the classroom instructional team and have the opportunity to move well beyond extended observation and teaching of individual lessons. Although resident co-teachers are novices, their instructional roles are designed so they participate fully in all class activities, gradually increasing their responsibilities for leading instruction. Many residencies embrace formal co-teaching models,⁹⁴ which are aligned with our use of the term “co-teaching” but do not necessarily describe exactly the same structure.

- **Cooperating teachers:** Educators who accept student teachers in their classrooms as part of clinical practice requirements for certification. Historically, these roles have not necessarily carried any formal responsibility for candidates' professional development or assessment.

- **Field experiences:** Recommended or required hours of practice with students that aspiring teachers must complete during early phases of a preparation program. These experiences often occur across a range of educational settings, with aspiring teachers observing and assisting in their host sites before moving on to clinical practice placements.

- **High-quality teacher preparation program:** A teacher preparation program that ensures all aspiring teachers experience and are held to the standards of preparation that research indicates are important for future teachers' success. *Defining Quality Teacher Preparation* offers one way to conceptualize high-quality teacher preparation programs based on this project's review of the research and educators' professional feedback.

- **Mentor teachers:** Educators who serve as co-teacher hosts for residents. They play key roles in supporting candidates' professional growth and serve as partners with the preparation program in assessing their co-teacher's progress. In an integrated teacher development system, mentor teachers also provide supports for early career teachers through induction mentoring.⁹⁵

- **Preparation provider:** Institutions of higher education, districts, and alternative groups that offer programs and pathways for educators to become certified teachers.

- **Pedagogy:** Methods and practices for achieving learning goals that incorporate understandings of individual and cultural differences, knowledge of how people learn and what motivates them, and expertise in discipline-based methods to impart content.

- **Quick-entry:** Pathways aspiring teachers can take that require little or no clinical practice before becoming a teacher.

- **Residencies:** Year-long, co-teaching placements in a supportive school context under the daily guidance of effective practitioners, with continued, aligned learning opportunities facilitated by the preparation provider. The blend of research, theory, reflection, feedback, and practice provides candidates the opportunity to ground their conceptual learning in effective practice.

- **Stipends:** Funds that aspiring teachers are provided during their co-teaching residency to support their basic living costs so they can focus on their learning.

- **Student teaching:** Clinical practice, usually a semester long, that traditional programs require for certification.

- **Supplemental Services:** Additional instructional opportunities that students receive, such as tutoring and one-on-one assistance, to promote learning. These supports can occur within classrooms, but are often provided before or after school.

- **Sustainable funding:** Funding streams that 1) provide adequate supports for quality programs and residents, and 2) are embedded in annual recurring budget lines so that quality programs and their candidates are ensured the resources needed to provide excellent preparation and so that aspiring teachers, regardless of their means, are incentivized to pursue preparation through quality pathways.

- **Teacher development trajectory:** A unified conceptualization of the way that educators develop incrementally over time, reflecting the realities of teaching as a clinical practice profession. In such a conception, aspiring and early career teachers experience structured, well-mentored supports as part of a unified career pathway.

- **Teaching residents:** Teacher candidates who co-teach for a year alongside an experienced, effective co-teacher or mentor teacher.

- **Traditional programs:** Teacher preparation programs in institutions of higher education that require uniform coursework and student teaching placements according to state guidelines.

WORKS CITED

- "Academy for Co-Teaching and Collaboration | St. Cloud State University." Accessed June 10, 2016. <http://www.stcloudstate.edu/soe/coteaching/>.
- Albert Shanker Institute. "The State of Teacher Diversity." Washington, DC: Albert Shanker Institute, September 2015.
- Alter, Jamie, and Jane G Coggshall. "Teaching as a Clinical Practice Profession: Implications for Teacher Preparation and State Policy. Issue Brief." National Comprehensive Center for Teacher Quality, March 2009. <http://files.eric.ed.gov/fulltext/ED543819.pdf>.
- American Association of Colleges for Teacher Education. "The Changing Teacher Preparation Profession." Washington, DC: American Association of Colleges for Teacher Education, 2013.
- Anderson, Lauren M., 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.
- Asera, Rose. "Another Flexner Report? Pondering Flexner's Role in Reforming Education." Evaluation. Washington, DC: American Association of Colleges for Teacher Education, 2003.
- Belfield, C. R., and Henry M. Levin. *The Price We Pay: Economic and Social Consequences of Inadequate Education*. Washington, DC: Brookings Institution Press, 2007.
- Berry, Barnett, Diana Montgomery, Jon Snyder, and Center for Teaching Quality. "Urban Teacher Residency Models and Institutes of Higher Education: Implications for Teacher Preparation." Chapel Hill, NC: Center for Teaching Quality, January 1, 2008.
- Blank, Rolf K, Nina de la Alas, and Carlise Smith. "Does Teacher Professional Development Have Effects on Teaching and Learning? Analysis of Evaluation Findings from Programs for Mathematics and Science Teachers in 14 States." Washington, DC: Council of Chief State School Officers, 2008.
- Boyd, Don, Hamp Lankford, Susanna Loeb, Jonah Rockoff, Jim Wyckoff, and Urban Institute. "The Narrowing Gap in New York City Teacher Qualifications and Implications for Student Achievement in High-Poverty Schools." Stanford, CA: National Center for Analysis of Longitudinal Data in Education Research, November 1, 2008.
- Boyd, Donald J., Pamela L. Grossman, Hamilton Lankford, Susanna Loeb, and James Wyckoff. "Teacher Preparation and Student Achievement." *Educational Evaluation and Policy Analysis*, no. 4 (2009): 416.
- Bryk, Anthony S. "Accelerating How We Learn to Improve: 2014 AREA Distinguished Lecture." *Educational Researcher* 44, no. 9 (December 2015): 467–77.
- Bryk, Anthony S, Louis M Gomez, Alicia Grunow, and Paul G LeMahieu. *Learning to Improve: How America's Schools Can Get Better at Getting Better*, 2015.
- "Budget." *Congressional Budget Office*. Accessed May 26, 2016. <https://www.cbo.gov/topics/budget>.
- CAEP. "CAEP Accreditation Standards." Washington, D.C.: Council for the Accreditation of Teacher Preparation, 2015.
- Council of Chief State School Officers Task Force on Educator Preparation and Entry into the Profession Members. "Our Responsibility, Our Promise: Transforming Educator Preparation and Entry into the Profession." Washington, DC: Council of Chief State School Officers, January 1, 2012.
- Clark, Melissa A., Eric Isenberg, Albert Y. Liu, Libby Makowsky, and Marykate Zukiewicz. "Impacts of the Teach for America Investing in Innovation Scale-Up." Princeton, NJ: Mathematica Policy Research, March 4, 2015.
- Clotfelter, Charles, Helen F. Ladd, Jacob Vigdor, and Justin Wheeler. "High-Poverty Schools and the Distribution of Teachers and Principals." National Center for the Analysis of Longitudinal Data in Education Research, December 2006.
- Cochran-Smith, Marilyn, Matthew Cannady, Kirstin Pesola Mceachern, Peter Piazza, Christine Power, and Amy Ryan. "Teachers' Education, Teaching Practice, and Retention: A Cross-Genre Review of Recent Research." *Journal of Education* 191, no. 2 (2010/2011): 19–31.
- "Compare Tuition Fees Schemes in Europe - StudyinEurope.eu." Accessed April 15, 2016. <http://www.studyineurope.eu/tuition-fees>.
- Council of Chief State School Officers. "Interstate Teacher Assessment and Support Consortium (InTASC) Model Core Teaching Standards: A Resource for State Dialogue." Washington, D.C.: Council of Chief State School Officers, April 2011.
- Daly, Alan J., Nienke M. Moolenaar, Claudia Der-Martirosian, and Yi-Hwa Liou. "Accessing Capital Resources: Investigating the Effects of Teacher Human and Social Capital on Student Achievement." *Teachers College Record* 116, no. 7 (2014): 1–42.
- Darling-Hammond, Linda. *Powerful Teacher Education: Lessons from Exemplary Programs*. New York, NY: Jossey-Bass, 2006.
- Darling-Hammond. *The Flat World and Education: How America's Commitment to Equity Will Determine Our Future*. New York: Teachers College Press, 2010.
- Darling-Hammond, Linda, Ruth Chung, and Fred Frelow. "Variation in Teacher Preparation: How Well Do Different Pathways Prepare Teachers to Teach?" *Journal of Teacher Education* 53, no. 4 (October 9, 2002): 286–302.
- DeMonte, Jenny. "A Million New Teachers Are Coming: Will They Be Ready to Teach?" Washington, D.C.: American Institutes for Research, May 2015. <http://educationpolicy.air.org/publications/start-finish-look-teacher-preparation>.
- DeMonte, Jenny, and Robert Hanna. "Looking at the Best Teachers and Who They Teach: Poor Students and Students of Color Are Less Likely to Get Highly Effective Teaching." Washington, DC: Center for American Progress, April 2014.

- Dower, Catherine, John K. Iglehart, Ted Agres, Anne Schwartz, and Susan Dentzer. "Health Policy Brief: Graduate Medical Education." *Health Affairs*, August 16, 2012.
- "Economic Impact of Student Performance Improvement 2016." *Education Next*. Accessed April 26, 2016. <http://educationnext.org/economic-impact-student-performance-improvement-map-2016/>.
- Education Commission of the States. "State Legislation: By State," 2015. <http://www.ecs.org/state-legislation-by-state/>.
- Egalite, Anna J., Brian Kisida, and Marcus A. Winters. "Representation in the Classroom: The Effect of Own-Race Teachers on Student Achievement." *Economics of Education Review* 45 (April 2015): 44–52.
- Eileen Horng, Xinhua Zheng, Ira Lit, and Linda Darling-Hammond. "The Preparation, Professional Pathways, and Effectiveness of Bank Street Graduates." Stanford, CA: Stanford Center for Opportunity in Education, 2015.
- Evans, Robert. *Seven Secrets of the Savvy School Leader: A Guide to Surviving and Thriving*. Wiley, 2010.
- Farkas, Steve, Jean Johnson, and Tony Foleno. "A Sense of Calling: Who Teaches and Why." New York, NY: Public Agenda Foundation, January 1, 2000.
- Fertig, Beth, and Sarah Garland. "Millions Spent on Improving Teachers, but Little Done to Make Sure It's Working." *The Hechinger Report*, June 1, 2012. <http://hechingerreport.org/millions-spent-on-improving-teachers-but-little-done-to-make-sure-its-working/>.
- Flexner, Abraham. *Medical Education in the United States and Canada: A Report to The Carnegie Foundation for the Advancement of Teaching*. New York City: The Carnegie Foundation for the Advancement of Teaching, 1910.
- Friend, Marilyn, and Lynne Cook. *Interactions: Collaboration Skills for School Professionals*. 7th edition. Boston: Pearson, 2012.
- Garcia, Amaya. "Growing Their Own in Minneapolis: Building a Diverse Teacher Workforce from the Ground Up." *EdCentral*, February 2, 2016. <http://www.edcentral.org/minneapolis-grow-your-own/>.
- Gladwell, Malcolm. *Outliers: The Story of Success*. New York: Little, Brown and Co., 2008.
- Grossman, Jean B., Christianne Lind, Jennifer McMaken, and Andrew Gersick. "The Cost of Quality out-of-School-Time Programs." The Wallace Foundation, January 2009. <http://www.wallacefoundation.org/knowledge-center/after-school/key-research/Documents/The-Cost-of-Quality-of-Out-of-School-Time-Programs.pdf>.
- Grossman, Pam, and Susanna Loeb. *Alternative Routes to Teaching: Mapping the New Landscape of Teacher Education*. Harvard Education Press, 2008.
- Hargreaves, Andrew, and Michael Fullan. "The Power of Professional Capital." *Journal of Staff Development* 34, no. 3 (2013): 36–39.
- Haynes, Mariana. "On the Path to Equity: Improving the Effectiveness of Beginning Teachers." Alliance for Excellent Education, July 2014. <http://all4ed.org/wp-content/uploads/2014/07/PathToEquity.pdf>.
- Haynes, Mariana. "One Year Later: Can State Equity Plans Improve Access to Great Teaching?" Washington, D.C.: Alliance for Excellent Education, May 2016. <http://all4ed.org/reports-factsheets/teacherequityplans/>.
- Haynes, Mariana, Ann Maddock, and Liam Goldrick. "On the Path to Equity: Improving the Effectiveness of Beginning Teachers." Washington, DC: Alliance for Excellent Education, July 2014.
- Heath, Chip, and Dan Heath. *Switch: How to Change Things When Change Is Hard*. 1st edition. New York: Random House, 2010.
- Heilig, Julian Vasquez, and Su Jin Jez. "Teach for America: A Return to the Evidence." Boulder, CO: National Education Policy Center, January 2014.
- Holmes Group, Inc. "Tomorrow's Teachers: A Report of The Holmes Group." East Lansing, MI: The Holmes Group, 1986.
- Ingersoll, Richard, Lisa Merrill, and Henry May. "What Are the Effects of Teacher Education and Preparation on Beginning Teacher Attrition?" Philadelphia, PA: Consortium for Policy Research in Education, July 2014. http://www.cpre.org/sites/default/files/researchreport/2018_prepeffects2014.pdf.
- Ingersoll, Richard, Lisa Merrill, and Daniel Stuckey. "Seven Trends: The Transformation of the Teaching Force." Philadelphia, PA: Consortium for Policy Research in Education, April 2014. http://www.cpre.org/sites/default/files/workingpapers/1506_7trendsapril2014.pdf.
- Jacob, Andy, Kate McGovern, and Dina Hasiotis. "The Mirage: Confronting the Hard Truth about Our Quest for Teacher Development." TNTP, 2015.
- Johnson, Susan Moore, Matthew A. Kraft, and John P. Papay. "How Context Matters in High-Need Schools: The Effects of Teachers' Working Conditions on Their Professional Satisfaction and Their Students' Achievement." *Teachers College Record* 114, no. 10 (January 1, 2012).
- Kane, Thomas. "A Flexner Report on Teacher Preparation." *Education Next*, April 10, 2014. <http://educationnext.org/flexner-report-teacher-preparation/>.
- Kena, Grace, William Hussar, Joel McFarland, Cristobal de Brey, Lauren Musu-Gillette, Xiaolei Wang, Jijun Zhang, et al. "The Condition of Education 2016." Washington, DC: United States Department of Education, National Center for Education Statistics, May 2016. <http://nces.ed.gov/pubs2016/2016144.pdf>.
- Kraft, Matthew A., and John P. Papay. "Can Professional Environments in Schools Promote Teacher Development? Explaining Heterogeneity in Returns to Teaching Experience." *Educational Evaluation and Policy Analysis* 36, no. 4 (December 1, 2014): 476–500.
- Levin, Henry M. "Empirical Puzzles on Effective Teachers: U.S. Research." Royal Academy of Sciences & Werner-Gren Foundations, September 10–13, 2014. Revised for publication in volume by Springer, 2016.
- Levine, Arthur. "Educating School Teachers." Education Schools Project, September 1, 2006.
- Lipsky, Michael. *Street-Level Bureaucracy: Dilemmas of the Individual in Public Services*. 30th anniversary expanded ed. New York: Russell Sage Foundation, 2010.

Lit, Ira, and Darling-Hammond, Linda. "The Threads They Follow: Bank Street Teachers in a Changing World." Stanford, CA: Stanford Center for Opportunity in Education, 2015. <https://edpolicy.stanford.edu/sites/default/files/publications/scope-report-threads-they-follow.pdf>.

Louisiana Department of Education. "Believe and Prepare." Accessed March 8, 2016. <http://www.louisianabelieves.com/teaching/believe-and-prepare>.

Ludmerer, Kenneth M. *Learning to Heal: The Development of American Medical Education*. Reprint edition. Baltimore: Johns Hopkins University Press, 1996.

Ludmerer, Kenneth M. *Let Me Heal: The Opportunity to Preserve Excellence in American Medicine*. New York: Oxford University Press, 2014.

Mehta, Jal. *The Allure of Order: High Hopes, Dashed Expectations, and the Troubled Quest to Remake American Schooling*. New York, NY: Oxford University Press, 2013.

Mehta, Jal, Victoria Theisen-Homer, David Braslow, and Adina Lopatin. "From Quicksand to Solid Ground: Building a Foundation to Support Quality Teaching." *Transforming Teaching*, 2015.

National Association of Colleges and Employers. "2015 Internship & Co-Op Survey: Executive Summary." Bethlehem, PA: National Association of Colleges and Employers, 2015.

National Center for Teacher Residencies. "The Residency Model." *National Center for Teacher Residencies*. Accessed March 16, 2016. <http://nctresidencies.org/about/residency-model/>.

National Commission on Teaching & America's Future. "No Dream Denied: A Pledge to America's Children." Washington, DC: National Commission on Teaching & America's Future, January 2003. <http://www.teo-education.com/teophotos/albums/userpics/no-dream-denied-full-report.pdf>.

National Commission on Teaching & America's Future. "What Matters Most: Teaching for America's Future: Report of the National Commission on Teaching & America's Future." New York, N.Y.: National Commission on Teaching & America's Future, September 1996.

National Research Council. *Preparing Teachers: Building Evidence for Sound Policy*. Washington, DC: National Academies Press, 2010.

OECD. "Lessons from PISA for the United States." *Strong Performers and Successful Reformers in Education*. OECD Publishing, 2011. <http://www.oecd.org/pisa/46623978.pdf>.

OECD. "Supporting Teacher Professionalism: Insights from TALIS 2013." Paris: TALIS, OECD Publishing, February 2016. <http://dx.doi.org/10.1787/9789264248607-en>.

OECD. "Teachers Matter: Attracting, Developing and Retaining Effective Teachers: Pointers for Policy Development." Paris: OECD, September 2011. <http://www.oecd.org/edu/school/48627229.pdf>.

Provasnik, Stephen, and Scott Dorfman. "Mobility in The Teacher Workforce: Findings from The Condition Of Education 2005." Washington, DC: United States Department of Education, National Center for Education Statistics, June 2005. <http://eric.ed.gov/?id=ED485860>.

Rice, Jennifer King. "The Impact of Teacher Experience: Examining the Evidence and Policy Implications." Urban Institute National Center for Analysis of Longitudinal Data in Education Research, August 1, 2010.

Ronfeldt, Matthew. "Field Placement Schools and Instructional Effectiveness." *Journal of Teacher Education* 66, no. 4 (October 2015):304–20.

Ronfeldt, Matthew, Nathaniel Schwartz, and Brian Jacob. "Does Preservice Preparation Matter? Examining an Old Question in New Ways." *Teachers College Record* 116, no. 10 (October 2014): 1–46.

Sahlberg, Pasi. *Finnish Lessons: What Can the World Learn from Educational Change in Finland?* Teachers College Press, 2011.

Sawchuk, Stephen. "Full Cost of Professional Development Hidden." *Education Week*, November 10, 2010. <http://www.edweek.org/ew/articles/2010/11/10/11pd.costs.h30.html>.

Sclafani, Susan. "Rethinking Human Capital in Education: Singapore as a Model for Teacher Development." Aspen Institute, 2008.

Singapore Ministry of Education. "Salary & Benefits." Accessed April 15, 2016. <https://www.moe.gov.sg/careers/teach/salary-benefits>.

Sloan, Kay, and Juliane Blazevski. "New Visions Hunter College Urban Teacher Residency: Measures of Success." San Francisco, CA: Rockman et al, March 2015.

Starr, Paul. *The Social Transformation of American Medicine*. New York, NY: Basic Books, 1983.

Staub, Shari Dickstein, and Sarah Scott Frank. "Clinically Oriented Teacher Preparation: What Do We Know about Effective Practices?" Urban Teacher Residency United, June 2015.

"Teacher-Recruitment Challenges: A Special Report." Accessed February 17, 2016. <http://www.edweek.org/ew/collections/teacher-recruitment-challenges-2016/index.html>.

"TechTeach At A Glance | Undergraduate | College of Education | TTU." Accessed April 26, 2016. <https://www.depts.ttu.edu/education/undergraduate/tech-teach-at-a-glance.php>.

The College of Education, Western Oregon University. "Innovations in Clinical Practice," Fall 2015. <https://www.wou.edu/education/Licensure/WOU%20COE%20Innovations%20Fall%202015.pdf>.

"The Path to Modernizing and Elevating Teaching." *TeachStrong*. Accessed May 31, 2016. <http://teachstrong.org/>.

"Transforming Teacher Education through Clinical Practice: A National Strategy to Prepare Effective Teachers." *Education Digest: Essential Readings Condensed for Quick Review* 76, no. 7 (March 1, 2011): 9–13.

"Trellis." *Trellis Education*. Accessed June 12, 2016. <http://www.trelliseducation.org/>.

Tucker, Marc S. and Linda Darling-Hammond. *Surpassing Shanghai: An Agenda for American Education Built on the World's Leading Systems*. Cambridge, MA: Harvard Education Press, 2011.

"Tutoring & Driving Schools in the US Market Research | IBISWorld." Accessed May 25, 2016. <http://www.ibisworld.com/industry>

/default.aspx?indid=1544&partnerid=ValuationResources.

Tyack, David B. *The One Best System: A History of American Urban Education*. Cambridge, Mass.: Harvard University Press, 1974.

United Nations General Assembly. "Convention on the Rights of the Child," November 20, 1989. <http://www.ohchr.org/EN/ProfessionalInterest/Pages/CRC.aspx>.

United States Bureau of Labor Statistics. "Elementary and Secondary Schools (Including Private, State, and Local Government Schools) - May 2015 OES Industry-Specific Occupational Employment and Wage Estimates." *United States Bureau of Labor Statistics*, May 2015. http://www.bls.gov/oes/current/naics4_611100.htm#25-0000.

United States Bureau of Labor Statistics. "Occupational Employment and Wages: Substitute Teachers." *United States Bureau of Labor Statistics*, May 2015. <http://www.bls.gov/oes/current/oes253098.htm>.

United States Bureau of Labor Statistics. "Occupational Employment and Wages: Teacher Assistants." *United States Bureau of Labor Statistics*, May 2015. <http://www.bls.gov/oes/current/oes259041.htm>.

United States Department of Education. "Equitable Access to Excellent Educators." *United States Department of Education*, September 10, 2015. <http://www2.ed.gov/programs/titleiparta/resources.html>.

United States Department of Education. "Higher Education Act Title II Reporting System - 2015 Title II Reports." *United States Department of Education*, 2015. <https://title2.ed.gov/Public/Home.aspx>.

United States Department of Education. "National Teacher Preparation Data at-a-Glance." *United States Department of Education*, October 2015. <https://title2.ed.gov/Public/SecReport.aspx>.

United States Department of Education. "Pathways to Teaching: Higher Education Act Title II Reporting System (2015)." U.S. Department of Education, Office of Postsecondary Education, 2015.

Weick, Karl E. "Educational Organizations as Loosely Coupled Systems." *Administrative Science Quarterly* 21, no. 1 (March 1976): 1–19.

Weiss, Carol H. "The Interface between Evaluation and Public Policy." *Evaluation* 5, no. 4 (October 1999): 468.

Yoon, Kwang Suk, Teresa Duncan, Silvia Wen-Yu Lee, Beth Scarloss, and Kathy L. Shapley. "Reviewing the Evidence on How Teacher Professional Development Affects Student Achievement." Washington, D.C.: U.S. Department of Education, Institute of Education Sciences, National Center for Education Evaluation and Regional Assistance, Regional Educational Laboratory Southwest, 2007.

Zimpher, Nancy, and Kenneth Howey. "Creating 21st-Century Centers of Pedagogy: Explicating Key Laboratory and Clinical Elements of Teacher Preparation." *Education* 133, no. 4 (2013): 409–21.

ABOUT BANK STREET

Bank Street College is a leader in 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. From early childhood centers and schools to 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.

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.

For more information, please visit www.bankstreet.edu.

