

THE RESIDENCY REVOLUTION

FUNDING HIGH-QUALITY TEACHER PREPARATION

SUSTAINABILITY PROJECT CASE STUDY: REINVESTMENT

ONE OF THREE CASES ON SUSTAINABLY FUNDING TEACHER RESIDENCY PARTNERSHIPS



ABOUT THE RESIDENCY REVOLUTION AND ITS COMPANION REPORTS

This report is part of a suite of materials created by *Prepared To Teach* and WestEd during our shared research effort, the Sustainability Project.¹ The work explores sustainability challenges in teacher preparation—and, importantly, promising practices to overcome those challenges (see **Appendix** for more about the project).

Three of the reports, including this one, are designed to help teacher preparation programs and their district partners envision new ways to sustainably fund affordable, high-quality preparation programs. *Prepared To Teach* has developed a framework for thinking about the financial aspects of sustainability, which we call the "3 Rs":

Reallocation helps *partnerships* redesign work roles to better support preparation efforts and to allow candidates to earn compensation during their clinical practice (see *Simple Shifts: Paying Aspiring Teachers with Existing Resources*).

Reduction helps *universities* maximize access to financial aid sources and minimize costs associated with quality programs (see *The Affordability Imperative: Creating Equitable Access to Quality Teacher Preparation*).

(Re)Investment—the focus of this report—helps *districts* find ways to make shifts that can permanently embed residency funding into local budgets.

In addition to describing financial goals (compensation for roles, reduced costs, and long-term systemic shifts to fund residencies), each of the 3 Rs reports highlights examples of practice from programs and districts. Some examples, unsurprisingly, blend aspects of the 3 Rs. In such instances, we include the examples where they might most support shifts in thinking for a report's major target audience—partnerships, universities, or districts, respectively, for each of the 3 Rs—and we cross-reference the examples in other cases.

All the reports are available on the **Prepared To Teach** website. In addition, associated resources and tools, including guidance documents, budget calculators, and presentation materials, can be accessed there. All *Prepared To Teach* materials are licensed under the Creative Commons license **CC BY-NC-SA**; we hope they prove useful to our colleagues everywhere.

Suggested Citation: Dennis, H., & DeMoss, K. (2021). The residency revolution: Funding high-quality teacher preparation. *Prepared To Teach*.





This report is based on research funded by the Bill & Melinda Gates Foundation. The findings and conclusions contained within are those of the authors and do not necessarily reflect positions or policies of the Bill & Melinda Gates Foundation.



TABLE OF CONTENTS

1	RECOGNIZING FISCAL INEFFICIENCIES AND INVESTMENT OPPORTUNITIES
	By the Numbers: Teacher Turnover
	By the Numbers: Fast-Track Preparation Programs
	By the Numbers: Teacher Residency Pathways
6	IDENTIFYING DOLLARS TO CREATE DISTRICT-ALIGNED RESIDENCIES
	Human Resource Cost Centers
	Teaching and Learning Cost Centers
	Resource: P-12 Residency Funding Tool
	Resource: School- and System-Level Shifts
12	TOWARD FUNDING COMPETITIVE RESIDENT STIPENDS
17	FUNDING OTHER RESIDENCY INVESTMENTS
	Mentor Teachers
	Site Coordinators and Faculty Liaisons
19	CONCLUSION
20	APPENDIX: ABOUT THE SUSTAINABILITY PROJECT
	Our Process for the Case Studies
	What We Mean by "High-Quality" Teacher Preparation
22	ACKNOWLEDGEMENTS

List of Participants

ENDNOTES

24

RECOGNIZING FISCAL INEFFICIENCIES AND INVESTMENT OPPORTUNITIES

Imagine a home with drafty doors and windows. Every winter, the household budget would include recurring costs for heat lost to the outdoors—yet the dollars spent on heating the outside would be invisible, hidden in overall utility costs. Insulating the house, while requiring some planning, commitment and new expenditures, would save money in the long run.

Leaky doors and windows are an apt analogy for the financial side of school districts' teacher turnover challenges. When teachers quit, the costs of finding, onboarding, and supporting their replacements get absorbed into local budgets. When a district's teaching force is not strong and stable, hidden costs also accrue related to student learning needs. These costs are so embedded within a host of general operating functions that it's hard for a district to isolate them and assess their ultimate drain on the budget. This report puts a spotlight on hidden spending in an effort to help districts move towards financial investments that support long-term human capital goals. To draw the analogy out just a bit, districts can, with planning, commitment and new investments, "insulate" their human capital systems from wasteful teacher turnover expenditures by working with teacher preparation partners to create high-quality, more aligned teacher residencies.

This case, more than the others in this series, draws on a language of economics—budgetary efficiencies, returns on investments, cost-savings, hidden costs, human capital, and the like (see the **Appendix** for more on the suite of resources in this series). The report begins by reviewing key literature on costs and benefits associated with turnover and preparation pathways, establishing a financial case for residencies as the desired norm. An exploration of how districts can rethink expenses in human resources and teaching and learning departments then points the way towards sustainable funding streams for residencies. Vignettes from districts and programs across the nation offer examples of how localities have begun to shift funding towards residencies. Finally, we discuss the need for permanent investments in mentor teachers and district-program liaisons.

We believe firmly that equity and quality are more important concepts in teacher preparation than cost efficiencies. At the same time, we have learned from the field that a focus on the "bottom line" can sometimes help partnerships create new spaces to embrace financial commitments to aspiring teachers as part of the broader equity and quality goals they are charged to realize through the funding streams they receive from state, local, federal, and tuition sources. Because the language of economics can be compelling for policymakers, we have prioritized that language here.

Equity and quality are, of course, worth pursuing for their own sake. Ensuring the nation has a strong pool of diverse, highly effective teachers is the right thing to do; every child deserves

We invite and encourage those inspired by the economic-based arguments in this case study to complement local conversations with the kinds of resource considerations based in quality and equity that the companion cases, *Simple Shifts*, *The Affordability Imperative*, and *Going Further Together* (May 2021) explore. The **Appendix** has more information on the suite of resources from this study.

teachers who can help them succeed in life. In addition, quality teaching produces enormous economic returns. On average, teachers in the 69th-percentile of effectiveness increase each of their students' lifetime earnings by \$10,600 compared to teachers at the 50th percentile. Over a 30-year career, these teachers would increase students' lifetime earnings by \$6,360,000.² And for every student that a teacher helps to graduate from high school rather than dropping out, the nation saves a quarter of a million dollars over the course of that individual's life through increased tax revenues and decreased needs for services such as healthcare and public supports.³ When schools invest in quality teachers, their communities thrive and their public coffers have more dollars to support educational investments. It's a virtuous cycle. In places with high teacher turnover, the cycle is the opposite. Because schools with the highest teacher turnover are frequently staffed with underprepared teachers who are dramatically less effective than teachers at the midpoint of effectiveness rankings, the human and economic costs to districts, states, and the nation are exponentially higher.⁴

It's time to address our leaky doors and windows by investing in the kinds of systems that will ensure teachers are prepared to serve their students well. This report makes the bold case for districts to reconceptualize their human capital and instructional systems, making residency preparation integral to how districts staff and teach. The following facts and figures help frame the economic case for making this pivotal shift towards teacher residencies.

BY THE NUMBERS: TEACHER TURNOVER

Nationally, estimates of the costs for annual teacher turnover range from about \$3 billion on the conservative side to \$8 billion when a wider range of hidden costs are included. Per-teacher

turnover cost estimates range from \$10,000 in rural areas to more than \$20,000 for urban teachers.⁵

Among the data that inform these estimates are site-specific budget analyses, including tiny rural areas in New Mexico and large urban districts like Chicago and Minneapolis, helping the field establish not so much an average as an understanding of the magnitude of the range of costs—and where the "leaky windows" are—in districts facing high turnover. In the data from these studies, key cost areas, which were often hidden within other general budgets, included recruitment, hiring processes, administrative needs, induction training, new hire training, supports for new teachers' learning curves, and transfer and separation costs. While specific line items for costs varied by district, costs for first-year teachers' professional development and mentoring investments drove turnover cost estimates, with per-person costs as high as \$15,000 per teacher. Recruitment costs per teacher generally ranged in the hundreds per teacher, and administrative costs to address turnover needs cost thousands per teacher.6 Whether aggregated across a system or considered for each individual teacher, whether discrete or absorbed in staff responsibilities that are difficult to tease out, the costs of turnover are undeniably significant and create a drain on the system.⁷

Of course, some teacher attrition is natural—just as some airflow between the inside and outside of a home is to be expected when people need to come and go. The overall rate of people leaving the profession in education is 8%—twice that of most nations we might want to be compared to, but not necessarily alarming.⁸ Still, with 8% of newly hired teachers leaving

annually, a school district with a recurring need for 300 new teachers per year would invest over half a million dollars each year on hiring and separation costs.⁹

The 8% average rate also masks the toll of extraordinarily high turnover in some contexts. Title I schools and schools serving high proportions of students of color have dramatically higher rates of turnover from people leaving the profession before retirement, and they also experience churn from individuals moving between schools and districts. Turnover in Title I schools is 50% higher than in non-Title I schools, and turnover in the top quartile of schools serving students of color is nearly twice that of turnover in schools in the bottom quartile.¹⁰

Turnover among early career teachers is particularly draining for district budgets. When new teachers leave, the system reaps no long-term return on their hiring investment; those dollars essentially just walk out the door. Early career attrition in schools serving historically marginalized students in urban areas can have turnover exceeding 60% among teachers within the first five years in the profession. Considering only the largest 100 districts in the nation, this high rate of early career turnover costs taxpayers \$1.6 billion a year—in recurring annual expenditures.

BY THE NUMBERS: FAST-TRACK PREPARATION PROGRAMS

Fast-track teacher preparation pathways, which allow an individual to be paid to teach before completing a preparation program, are a driving force in teacher turnover. Teachers who matriculate through pathways that offer little pre-service clinical practice are

underprepared, less effective, and leave their positions at rates 25% higher than fully prepared teachers. ¹³ In Title I schools and schools serving the greatest proportions of students of color, where fast-track certified teachers are most likely to have positions, they leave at even higher rates than their peers—30% higher in Title I sites and 60% higher in sites in the bottom quartile of schools serving high proportions of students of color. ¹⁴

Intertwined with turnover challenges is the persistent reality that the teaching force does not reflect the demographics of the students they teach. Evidence increasingly demonstrates the positive value of a teaching force that reflects the diversity of its students. While all students benefit from teachers with different backgrounds, students of color in particular realize stronger outcomes when they have teachers who look like them. Having even one Black teacher between pre-K and fifth grade increases the chance that Black students will attend college by 13%. With two Black teachers, they are 32% more likely to attend college. These gains are most pronounced for Black boys from low socioeconomic backgrounds. He fact that half of the nation's public school enrollment is comprised of students of color, teachers of color only account for 18% of the teaching force.

[&]quot;This report series uses the terms "fast-track" and "fully prepared" rather than "alternative" and "traditional" because some programs that are registered as "alternatives" are actually residency programs and some "traditional" programs may themselves exhibit features that underprepare candidates. While the research literature clearly has established that the group of programs classified as "alternatives" have, on average, less desirable outcomes than those classified as "traditional," important variability within these categories also clearly exists. The purpose of this report is to encourage investment in fully prepared novice teachers, regardless of how the program is technically classified.

The number of teachers of color entering the profession has increased over the past 20 years, but teachers of color also leave the profession at higher rates than their white counterparts. Departure rates for teachers of color are correlated with their teacher preparation pathways. More teachers of color enter through pathways that leave them underprepared; in turn, they leave their positions at even higher rates than their white counterparts from these same programs. The result of reliance on pathways that offer quick entry into the profession is a constant churn of novice teachers who lack the preparation to teach students well—in addition to a depletion of the nation's potential pool of teachers of color.

The existence of these fast-track pathways is deeply intertwined with labor market supply issues since teaching positions cannot be left open. Someone must lead students in the classroom. Over the past two decades, enrollment in teacher preparation programs has dropped precipitously. ¹⁹ To address the exigencies of teacher shortages, fast-track teacher certification pipelines have become embedded in many rural and urban districts, where staffing is more difficult. As an immediate solution for labor needs, these pathways have been successful, but as a human capital development approach, there is little to recommend their long-term benefits.

For individuals, though, the economic case for fast-track pathways is strong. By offering a full salary and benefits after as little as a week of preparation, these programs provide almost immediate financial security to aspiring teachers who cannot afford or do not want to pay for higher-quality, more expensive routes into teaching. In addition, many fast-track programs offer additional incentives, such as subsidizing master's degrees that will advance graduates on districts' pay scales. Often, it's the district that foots the bill for these subsidies, in addition to paying "finders' fees" for program recruits, currently estimated to total \$1 million dollars for every 200 fast-track candidates.

BY THE NUMBERS: TEACHER RESIDENCY PATHWAYS

It doesn't have to be this way.

New teachers who graduate from high-quality teacher residency programs, where they spend a full year in clinical placements alongside accomplished teachers before being hired as teachers

of record, have retention rates after four years as high as 93% in programs that were specifically designed to recruit, prepare, and support new teachers for district hiring needs. Average retention rates across different program models, including those that are not directly aligned to particular district needs, range from the mid-70% to the low-90% across studies that have tracked programs from three to five or more years. Funded residencies also attract and retain teachers of color at high rates.²²

Again, considering only the largest 100 districts in the nation, if all their new hires could come through high-quality, district-aligned residency programs, even if turnover rates were higher than current well-aligned residencies—say, 20% over five years—the human capital investment of creating and supporting residencies would save \$1 billion per year in recurring turnover costs that provide no return on the investment those districts must currently make.²³•

A WORKING DEFINITION OF RESIDENCY²⁴

Based on extant research and our own study of programs across the nation, *Prepared To Teach* has developed the following three-part description of common features in high-quality residency programs:²⁵

PROGRAM CURRICULUM

- Foundational knowledge in content, educational theory, and pedagogy are tightly integrated into residents' placement experiences and are designed to support student learning in residents' classrooms.
- Residents' instructional practice is grounded in research-based principles based in the science of learning and development, 26 not simply in mastery of techniques.
- Residents study and practice culturally responsive and sustaining practices and explore personal and systemic biases to develop capacities to disrupt systemic inequities.

STRUCTURAL PRINCIPLES

- Responsibility for residents' development as novice professionals who support student learning is shared by school, district, and program partners.
- Residents do not serve as teachers of record. Rather, they work as co-teachers with an accomplished teacher who has strong mentoring capacities.
- Residents follow the P-12 calendar, engaging in full-time instructional placements, experiencing the arc of the school year with a consistent mentor and set of students.
- Residents' roles in their classrooms are substantive. They help plan, deliver, assess, and reflect on their and their co-teachers' impacts on student growth and learning.
- When additional duties, such as occasional substitute teaching or tutoring, are part of the model, these paid instructional experiences are carefully designed to ensure residents' learning experiences are not compromised.

CO-DESIGN APPROACHES TO MEET SPECIFIC LOCAL NEEDS

- Partnerships make concerted efforts, often including strong incentive packages, to recruit residents from underrepresented backgrounds and to prepare them for specific district hiring needs, especially in shortage areas.
- Partnerships find ways to support candidates financially during the residency year, often in exchange for a commitment to teach in the district for a minimum number of years.
- Once hired in the district, residency graduates often receive ongoing mentoring and support through the partnership, beyond districts' general induction supports.

IDENTIFYING DOLLARS TO CREATE DISTRICT-ALIGNED RESIDENCIES

Realizing long-term savings through high-quality residencies will require investments in two areas that do not currently have line items in either district or preparation program budgets.

First, partnerships will need the resources to engage in redesign efforts that retain the integrity and strengths of current preparation programs while simultaneously retooling models so they can

center more work in districts and schools. Redesign costs largely require investments in time, including building shared visions and expectations between districts and programs, rethinking recruitment processes, pursuing program curricular revisions, designing shared assessment processes, and envisioning and delivering mentors' professional learning opportunities.

Costs for such efforts vary. Some district and program leaders take the work on as part of their roles, and faculty often engage as part of their research agendas or sabbatical work. Resources for school-based personnel participation are crucial if residencies are to become integrated into schools. Summer stipends are often necessary. Depending on current program features, the depth of the partnership, and the scope of the program transformation, these redesign efforts generally take a year or two to complete. Designs for most, if not all, new program structures can be built into existing teacher preparation and district professional development and compensation models if the initial redesign costs are supported. Program redesign efforts probably can, within a few years, become cost-neutral, as *Prepared To Teach*'s work on federal grant planning has demonstrated.²⁷

By following principles in the companion reports on cost reduction and reallocation, some partnerships may find they can improve quality and realize cost efficiencies while increasing access to residencies for candidates from under-represented backgrounds. *Simple Shifts* details how current recurring costs associated with personnel roles can be reallocated to support both instructional improvements and candidates' need for earnings, and *The Affordability Imperative* explores how programs can reduce costs to become more financially accessible.

Second, and most crucially, these new pathways ultimately need to compete with the financial incentives of receiving a full-time salary plus benefits that fast-track pathways offer to aspiring teachers. As the vignettes later in this report show, progress towards this goal is happening across the country. But as long as fast-track programs are readily available to potential teacher candidates and pay twice as much as residencies do, human capital efforts face a dilemma: If financial packages for residency programs are unattractive, many candidates will not be able to afford the programs, so fast-track pipelines will continue to be seen as necessary to fill teaching slots. As a result, the cycle of underprepared teachers will perpetuate itself until viable long-term budgetary shifts across multiple district cost centers helps institutionalize competitive financial packages for aspiring teachers.²⁸

Superintendents, school boards, and mayors are adept at making the case for investments in important programs; residencies can and should be part of their advocacy. In making these cases, they can point to how potential savings in the cost centers below can help fund a long-term investment that will—to return to our metaphor—"insulate" their human capital systems.

HUMAN RESOURCE COST CENTERS

HR officers see the impact of churn on their budgets. Because they are directly responsible for hiring individuals and they know residents have low rates of attrition, they value residencies. As the

examples later in this report attest, their efforts to invest in and support shifts towards residencies are inspiring.

Everything in this project reaffirmed the research team's experience of a pervasive reality: Residency funding is largely seen as an HR function, in isolation from other budget centers in a district.²⁹ In the following sections, we discuss HR-related costs that can be reinvested into residencies over time as turnover wanes. With broader district budget investments to spur more residency development, HR departments could reinvest even more dollars than they currently do from several of their cost centers to support residencies.

Finders' fees, tuition, signing bonuses, housing relocation costs, coordinators, administrative costs such as testing and background check fees—all these and more have become fixed parts of many district budgets to maintain fast-track program pathways. The scale of a particular district's fast-track programs and the benefits packages that have been negotiated will determine how many dollars per resident could be reinvested to support residencies. Conversations with people familiar with district-based costs for fast-track programs indicate that \$15,000-\$20,000 per candidate is a reasonable estimate.³⁰

To help partnerships explore costs and savings that different investment levels in residencies might yield for their particular context, *Prepared To Teach* has created a **web-based budgeting tool** that allows users to input and adjust projections for funding reallocations and cost savings for their desired residency cohort size and stipend levels (see **page 9**).

Without doubt, the core functions of HR offices are critical for a system to thrive; they should be well funded. The argument here is that much of the work required to address *excessive* turnover would not be needed if the system had district-aligned residencies that met hiring needs. Costs related to excessive turnover could then be reinvested elsewhere. With high turnover, human resources costs increase, both to cover activities associated with more recruitment, hiring, and training, and because of the need for increased personnel to accomplish the work (see Table 1). In our current system, these efforts are needed in order to staff schools, but, in strict economic terms, they offer little return on taxpayers' investments.

A related phenomenon has existed in universities that serve large numbers of teacher candidates. Managing field placements requires finding placements sites, documenting candidate eligibility for and progress through different placements, communicating with office staff who serve as intermediaries with teachers, troubleshooting emergencies, and coordinating with field supervisors. Often, large universities have field placement offices with several staff and dozens of part-time field supervisors who travel to visit candidates during their student teaching practice. These are budgeted as necessary costs because, as discussed in the companion report **Dollars and Sense** (May 2021), the system itself does not have natural linkages to ensure schools and districts can readily address higher education's need for placement sites for clinical experiences.

Shifting to partnership-based residencies where faculty liaisons work with cohorts of students in partner schools can create those linkages and use dollars more efficiently and effectively. As Texas Tech University documented when it transformed its programs to field-based residencies, the new system with faculty liaison roles cost less than the former system and improved instructional supports for candidates (see *Simple Shifts* companion report). Similarly, developing systems of strong, residency-based preparation programs that are linked to districts' human capital needs can allow districts to reinvest low-return expenses into residencies themselves.

Table 1: Sources of Potential Savings in HR Budgets Resulting from Reduced Turnover

All cost categories below also require HR staff time to manage workload from excessive turnover. Staffing includes entry-level and leadership-level investments, with both salaries and benefits. The larger the district and higher the turnover, the higher the costs and more potential savings a "residency revolution" could realize.

HR Cost Category	Sample Costs	
Recruitment:	Hiring fair fees Advertising Travel Special	
Identifying and encouraging candidates to apply	recruitment efforts (diversity, STEM)	
Hiring and Onboarding:	Incentives Administrative costs (paperwork,	
Processes for new hires	background checks)	
New Teacher Induction:	Induction mentor stipends Release time	
Mentorship and other programs specific to new teachers	Speakers	
Training:	 Materials Release time	
Getting new hires up to speed on administrative systems	Materials Nelease time	
Termination: Termination/separation for non-retirement leavers	Severance Offboarding HR staffing	

TEACHING AND LEARNING COST CENTERS

Human resource departments would not, from their own budgets, be able to create competitive salary packages for enough residents to establish the scale of district-aligned programs needed to fill all their hiring needs. HR can reallocate dollars currently dedicated to fast-track program delivery, but fast-track program candidates' financial packages

also include salaries and benefits that are paid through districts' teaching and learning budgets. To create a large enough scale to fill all hiring positions through residencies, districts will need to tap into instructional budgets in order to create an attractive compensation package for residents. The economic arguments to do so offer leaders an opportunity to augment the equity and quality imperatives for investing in residencies.

Inexperienced and underprepared teachers—despite hard work and good intentions—compromise students' learning. When taught by underprepared and inexperienced teachers, students' academic outcomes are worse, as are other outcomes, such as attendance and behavior.³¹ Conversely, new teachers who have had quality preparation experiences enter the field with the knowledge and skills they need to succeed. They report higher levels of self-efficacy, receive higher evaluation scores, and anticipate remaining in the profession at higher

To make fully funded residencies the norm for teacher preparation across the nation will likely also require state and federal investments; see **Dollars and Sense** (May 2021).

P-12 RESIDENCY FUNDING TOOL

This web-based interface allows a user to input assumptions for role reallocations, direct resource investments, and cost savings due to reduced turnover. Users can see their inputs reflected in graphics, tables, and summaries to identify what funding opportunities are available to support a program.

STEP ONE: ABOUT YOUR PROGRAM

Users input estimated enrollment for residents over five years, placing them in either a substitute teaching model or a paraprofessional model. For this example, residents are split between the models. The tool relies on a one-to-one match for mentors and residents, so the number of mentor teachers is the same as the number of residents in each year.

Users also enter stipend amounts for both residents and mentors. The graph at right shows the total funding amounts needed to support these stipends in each year.

STEP TWO: REALLOCATED ROLES & BUDGET SHIFTS

The tool has two sections that calculate total potential funding based on different formulas and timelines. The first begins with changes that can be made in the first year, based on roles for residents and program structures. Users enter basic information about their current spending and planned schedules for residents, which result in potential funding shown in the category-specific graphs (at right, for substitute teaching).

STEP THREE: SAVINGS FROM REDUCED TURNOVER

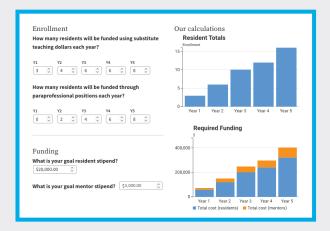
The second section identifies potential savings over time as graduates enter teaching positions. Because residency-trained teachers stay in the classroom longer, districts can expect decreased costs for recruitment, hiring, and training. The tool estimates these savings based on the users' current budgets.

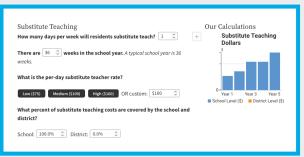
STEP FOUR: FUNDING SUMMARIES

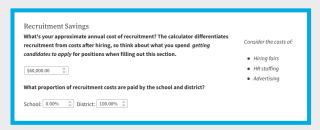
Following each funding section, users can see a summary of the potential funding available each year in both graph and table form, broken down by category. The tool also displays overall funding status in each year to show the degree to which mentor and resident stipends are funded.

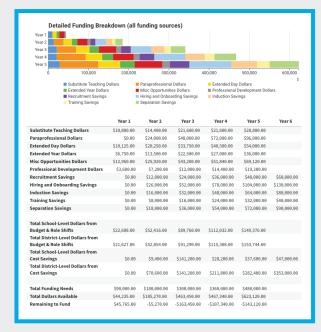
The final part of the tool (seen at right) summarizes all funding categories from both sections in graph and table form. Similar to the summaries at the end of each section, this summary includes funding status and reflects any savings that a program might expect as the residency scales and districts/schools incur savings.

Users can save a PDF of their inputs and estimates or download an excel file version of the tool if they want to collaborate with others.









rates than their underprepared counterparts.³² These differential outcomes make sense. Residency preparation programs have the time to support the consolidation of a complex set of knowledge that teachers need to be effective in the classroom.

Specific approaches for supporting residencies beyond savings from reduced attrition will likely vary by district. (See the inset on **page 11** in this report for analyses by ERS—Education Resource Strategies—on the possibilities and limitations of using different district expenditure lines for residency supports.³³) Residency pathways can translate into district instructional savings through a range of mechanisms. To our knowledge, none of these has been empirically validated in ways that link directly to budgetary savings, but cost savings are likely to accrue if residencies were the norm, and those savings could be reinvested into residencies.

- Improving outcomes in P-12 classrooms while serving as resident co-teachers during preservice: When programs are designed using co-teaching models, student achievement improves, potentially reducing the need for remedial instruction.³⁴
- Reducing the need for supplemental supports for students taught by underprepared novice teachers: Summer school, tutoring, and grade retention have multi-billion-dollar industries associated with them, with costs paid by parents and districts.³⁵ Some of these costs could be reduced by increasing novice teachers' instructional effectiveness, which could reduce the amount of supplemental support students need throughout the year.³⁶
- Improving graduation rates through stronger instruction across all classrooms: Having more experienced teachers in every class will improve effectiveness in the system, which can improve graduation—adding up to a quarter of a million dollars to the public coffers over the lifetime of each additional high school graduate.³⁷
- Reduced costs of on-the-job training for new teachers: Schools and districts provide induction supports to address knowledge gaps fueled by a lack of clinical practice, including classroom management, how to create a yearlong arc of curriculum, and communication with parents.³⁸ Integrating these topics into aligned pre-service experiences would eliminate the need for such trainings.
- Reduction in inappropriate referrals to special education: Providing the kind of rich, supportive educational environment that ensures all children can thrive takes knowledge, skill, and experience. Well-prepared teachers can provide such learning experiences more readily than underprepared teachers, potentially minimizing inappropriate referrals to special education.

What the true cost savings might be across instructional domains is unclear, but overall public benefits in the long term have been estimated. If the nation were to address just the lowest tenth of teacher quality issues, the financial impact would add trillions to the economy over time.³⁹

District leaders will need to create locally tailored proposals, likely subject to school board approval, to invest substantially in residencies as part of their overall human capital management and instructional improvement plans. Each district's case for where the system

SCHOOL- AND SYSTEM-LEVEL SHIFTS

The concepts in the 3 Rs series of case studies in this report series—Reallocation, Reduction, and (Re)Investment—offer partnerships a strong framework for rethinking how to sustainably fund teacher residencies. By taking a strategic approach to both school- and system-level resource use, most districts can free up resources to fund investments in residencies and other critical early career supports for teachers—if leaders are willing to make the tradeoffs.

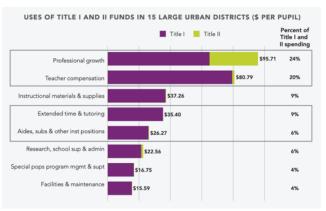
Education Resource Strategies (ERS) is a national non-profit that partners with district, school, and state leaders to transform how they use resources (people, time, and money) so that every school prepares every child for tomorrow, no matter their race or income. Their work offers insight into how districts invest resources and how leaders can reallocate those resources to best align with their most crucial priorities. ERS' report, **Growing Great Teachers**, outlines opportunities to sustainably support new teachers through residencies.

District leaders can look at both the school- and system-level for potential resource shifts to support sustainable teacher residencies. At the school level, this typically means optimizing teacher schedules, staffing residents to responsibilities assigned to other staff, and/or reducing lower-impact non-personnel investments. At the system-level, this involves looking closely at the full suite of investments in teacher professional development, including through use of Title I and Title II funds.

SCHOOL-LEVEL: An optimized school schedule can make it possible to reduce the number of teaching positions required to educate all students, freeing up additional resources for teacher leadership stipends and other resident support. In many schools, teachers' instructional time is limited by non-instructional responsibilities, such as lunch, recess or dismissal duties; school schedules often feature unbalanced staffing models where some teachers support relatively few students; and overall class sizes are far below district or state guidelines, with minimal positive impact on student performance. Non-personnel investments in supplies, instructional materials and certain extracurriculars, that are sometimes left unspent, could be proactively repurposed to fund new teacher residencies.

SYSTEM-LEVEL: Large urban districts spend an average of 2.5% of total operating expense on teacher professional development, a portion of which comes from Title I and II. In addition to considering reallocation of system-level PD paid for out of the general fund, leaders in districts where residencies are part of a strategy for reducing resource inequities may be able to reallocate Title I dollars for this purpose. Title II funds may be used for teacher recruitment and retention efforts, "particularly in low-income schools with high percentages of ineffective teachers"—precisely the contexts in which teacher residents may have the greatest impact. Title II funds can also be used to "recruit qualified individuals from other fields to become teachers," enabling districts to leverage residencies to attract mid-career professionals to teaching.

Strategic Shift	Reallocate	Pays for residents
Refocus coaching investment on new teacher support	One instructional coach position	****
Optimize class schedules and assignments	One teaching position	8881
Reduce or reassign administrative responsibilities	One clerk position	8 8
Reassign paraprofessional responsi- bilities to residents	One paraprofessional	8.1
Reduce non-personnel spending	10 percent reduction in one school	8
Reduce teacher time in district- provided workshops	One day of PD stipends for teachers in one school	å
Assign substitute or after-school teaching to residents	Two substitute days per week	1



Note: Dollar-per-pupil (\$pp) is calculated by multiplying median percentage of Title I/II dollars applied to each function to the median \$ps pend on Title I (\$363 pp) and Title II (\$43 pp). Source: District financial and HR files. ERS analysis.

These federal guidelines are designed to encourage district leaders to rethink use of Title I and II resources, which can account for as much as eight percent of a district's operating expense. Title I and II spending on PD and related staffing across 15 large urban districts ERS has studied exceeds \$400 per student. In a system of 50,000 students, that median expenditure level would total more than \$20 million annually. Even assuming the highest-cost model for a district, freeing up 10 percent of Title funds for strategic teacher residencies could support anywhere from 65 to 80 residents annually.

This content was adapted with permission from *Growing Great Teachers*, published by Education Resource Strategies. For more information on the work of ERS and their work on aligning resources to initiatives that improve outcomes, see https://www.erstrategies.org/.

needs "insulation," to again return to our metaphor, would differ based on the root causes of any high-cost, low-return expenses they currently fund, as the following examples suggest.

- Oversized supplemental support budgets could be a signal that novice teachers are underprepared. Streamlining after-school budgets in favor of bringing more in-school supports through residencies could be a merited investment, as could using Title I dollars differently to fund residencies.
- If costs of triaging underprepared teachers do little to improve retention or instruction, diverting dollars from those efforts to support residencies—which perhaps could offer professional learning opportunities to current teachers alongside residents—might make sense.
- Some districts have integrated special educators' roles into co-teaching classrooms to better meet their goals of providing education for all students in the least restrictive environments. Similarly, districts with many assistant teacher roles might explore how some of those positions could be re-designed to become residency co-teaching pathways to meet instructional and hiring needs.
- Where longstanding critiques of budget inefficiencies exist, taxpayers might be willing to invest in residencies through bonds or other means with a plan to track HR and instructional savings that will get reinvested into residencies.

All these examples share the common feature of identifying root causes of high-cost, low-return investments and finding funding streams to create residencies in their place. Initially, as with home insulation, there would be additional costs for maintaining prior investments while building up a residency system that would reduce or eliminate inefficiencies. In the end, though, districts would be using their existing public funds much more effectively and with much more positive impact on student outcomes than they can today under the current teacher preparation system. •

TOWARD FUNDING COMPETITIVE RESIDENT STIPENDS

Offering a stipend so that teacher candidates can afford to focus on learning how to teach is a non-negotiable requirement if a district wants to attract enough candidates from diverse backgrounds into residency programs. Living expenses compose up to 60% of candidates' expenses during preparation

programs—costs not addressed by tuition scholarships and reductions.⁴⁰ The **Dollars and Sense** (May 2021) and **Beyond Tuition, Costs of Teacher Preparation** (May 2021) reports in this series, as well as a separate *Prepared To Teach* publication, **#MoreLearningLessDebt: Aspiring Teachers' Voices on Why Money Matters**,⁴¹all address how financial burdens affect aspiring teachers.

Across the nation, partnerships are finding ways to invest in candidates during a residency year, often also including funding for overall program and partnership costs. The programs highlighted below illustrate the range of approaches and models surfaced during this study that partnerships use to provide candidates with stipends. While stipend levels may not yet be at a

living wage level or able to compete with the full salary and benefits that fast-track programs offer, these examples demonstrate the field can make progress towards sustainable stipends.

In addition to these vignettes, additional approaches, such as The Chicago Public Schools' residency, which provides residents a \$35,000 stipend, \$15,000 of which is a no-interest loan, are highlighted in **The Affordability Imperative**. •

FROM THE FIELD 1: SIX STORIES OF FUNDED RESIDENCIES

Albuquerque Teacher Residency Partnership Supporting the District's Highest Needs

Teacher turnover in Albuquerque Public Schools (APS) has long been a challenge, especially in schools serving high proportions of students from low-income backgrounds and students of color. In partnership with the University of New Mexico (UNM) College of Education & Human Sciences and the Albuquerque Teachers Federation, the district created a residency program focused on preparing teachers for high-needs schools. The Albuquerque Teacher Residency Partnership (ATRP) currently works with six Title I community schools where 100% of students are eligible for free and reduced-priced lunches, reading proficiency scores range from 15% to 20%, and math scores range from 6% to 18%. The schools have been chosen based on their leadership, commitment to their communities and the partnership, and the quality of their master teachers who work with residents. The University provides faculty who work with and in the partnership to ensure coursework is aligned, supervision is consistent and high-quality, and goals of the work are aligned.

APS invests up to \$500,000 per year into ATRP, drawing largely from surplus personnel dollars from retirements and open teacher positions. As a result of their investment, APS has hired 12 to 16 residency-prepared new teachers per year. Part of this investment supports partnership coordination and administrator and principal and mentor stipends, which are \$2,000 each. Other dollars go directly to paying teacher candidates. In exchange for a \$15,000 stipend during their residency year to offset both tuition and living expenses, teacher candidates commit to working in the district for at least two years after graduation. For residents who successfully complete the program, APS guarantees to hire them for a full-time teaching position. During their first two years in the classroom, the new teachers continue to receive mentoring support provided by the Albuquerque Teachers Federation with the hopes that they will continue teaching and the district will realize savings in the long run by reducing turnover.

California State University, Bakersfield's Comprehensive Cohort Program Package

California State University, Bakersfield (CSUB) created a cohort-based model six years ago that, with investments from both the University and the district, can sustainably fund cohorts of 20 to 25 residents in district-aligned residencies. Districts provide a half-time or more administrator, resident stipends of \$15,000+, mentor stipends of \$3,000, and instructional

specialists who co-teach credential program coursework. CSUB provides a residency coordinator who teaches the cohort and provides supervision, absorbs the costs of the comparatively smaller class sizes, and offers in-kind supports for leadership, planning, and logistics. The program and district work together to tailor coursework and experiences to meet mutual needs and to select both mentors and residents. This model has been running for four years, and four districts currently have cohorts.

The Syracuse City School District's Investment in Diversity and Retention

The Syracuse City School District has a deep commitment to finding, supporting, and retaining teachers from underrepresented backgrounds to meet the district's instructional needs and goals. The district currently has **several different programs** to support diversity and retention that receive direct district investments from human resources and district general operating dollars. For example, a partnership with SUNY Oswego allocates \$10,000 during a two-semester clinical practice placement from district funds to support underrepresented candidates and those from low-income backgrounds into the teaching profession; these individuals also have substitute teaching opportunities (see *Simple Shifts*) and some support for tuition, books, and travel expenses from state Teacher Opportunity Corps grant funds, which support candidates of color. All these programs are deeply integrated into the human resources department's work, with staff and leadership dedicating significant time to partnership development to ensure program success.

San Francisco Teacher Residency Aligning Clinical Practice with Hiring Needs

The San Francisco Teacher Residency has been in operation for over a decade and is deeply embedded in the district's overall human capital strategy (see *Going Further Together*, May 2021). The residency strategically aligns clinical practice placements with districts' instructional and hiring needs. Residents receive \$15,000 plus benefits and are clustered at sites that tend later to hire them as full-time teachers, giving residents the opportunity to experience a full year in the school where they may work after graduation. Additionally, the program allows graduates, once they are new teachers, to continue their relationship with their residency mentor through their induction. These clinical placement strategies, coupled with other aspects of the program design, are broadly agreed to have helped increase retention, a focus that the San Francisco Unified School District has effectively used to address the teacher shortage.

US PREP's Coalition Spreading Sustainable Funding Models

As a result of the successful transformation of its teacher preparation programs into residency partnerships, Texas Tech University won a grant in 2015 from Bill & Melinda Gates Foundation to establish a national technical assistance center to support other colleges of education. The **University-School Partnerships for the Renewal of Educator Preparation** (US PREP) has been influential in helping other universities implement programming across the nation similar to Texas Tech's program; their coalition of providers produces one in every 20 teachers annually certified in the country.

Educator preparation programs in US PREP are in the process of scaling and sustaining residency pathways. These programs are working closely with their school district partners to design new ways to staff their schools. By creating teacher leader roles that work with teams of residents staffing slightly larger classes, schools with open staff lines can use school vacancy dollars to pay resident stipends from permanent school budget lines.

An early example of the approach exists at the University of Texas Permian Basin and two partner districts, Ector County ISD and Midland ISD. In the 2020-21 school year, teacher candidate residents received sustainably funded stipends of about \$24,000 plus benefits, while completing a full-year residency under a highly effective mentor teacher. This structure met immediate personnel needs of the school districts, ensured high-quality development of novice teacher candidates, and established a sustainable, scalable staffing model that can positively impact student achievement.

Building on the work in UT Permian Basin, five other colleges of education in US PREP are working together with their school district partners to redesign school staffing structures to include residents. This work is currently in the design stage and will officially launch with nearly 200 new paid residents in the 2021 school year with the goal of doubling each year thereafter (See Table 2).

Table 2: Number of Newly Identified, Sustainably Funded Resident Stipends in Texas

University	District(s)	Number of District-Supported Residency Positions Available	Per-Resident Stipend
The University of Texas Permian Basin	Midland ISD Ector County ISD	24 in 20-21 50 in 21-22	\$24k + benefits
	Aldine ISD	20	\$15k
University of Houston	Spring Branch ISD	31	\$17k
Sam Houston State	Aldine ISD	12	\$15k
University	Klein ISD	24	\$20k
Taulatau Chata	Waco ISD	22	\$18k
Tarleton State University	La Vega ISD	22	\$18k
Offiversity	Fort Worth ISD	20	\$18k
Tayaa Ta ah I laiyaasity	Waco ISD	12	\$18k
Texas Tech University	La Vega ISD	12	\$18k
The University of Texas	El Paso ISD	30	\$11k
at El Paso	Socorro ISD	30	\$11k

Although some districts have small grants that help fund these efforts, most dollars are sustainably sourced, allowing districts to continue funding residents. In addition to this work, US PREP has a forthcoming report on sustainability work in three preparation partnerships; see *Scaling the Site Coordinator* for more details.

Classroom Academy's Co-Constructed Residency Model

One of the **BOCES Contracts for Shared Service** (CoSER) approved in New York State was specifically designed to support a two-year residency program framed around the common language of the National Board for Professional Teaching Standards foundational documents. Classroom Academy, working under this CoSER, is a collaborative residency partnership design that has forged a collective efficacy, shared responsibility, and **ownership** between BOCES, P-12 school districts, union leadership, practitioners, and institutions of higher education around teacher preparation. Roles and responsibilities were co-constructed, and residency preparation is delivered by all parties. The work required from mentor teachers--who are called Attending Teachers in the partnership--residents, and building leaders are recognized through stipends that are paid by districts under the CoSER, **establishing a revenue stream through the BOCES aid reimbursement process.**

Residents complete their master's degree program while working with their Attending Teachers full-time under a Residency Certificate NY state created for the initial pilot in order to facilitate pre-service teachers, enrolled in the program, being able to be paid by the district for instructional services. Residents receive a yearly stipend of \$22,000 and one year of service credit on their timeline for pursuing their professional certification in the state. Attending teachers receive \$4,500 per year for their integral roles in the partnership. Their participation includes a commitment, if they are not either National Board Certified Teachers or previous National Board candidates, to complete Component 2 of the National Board certification process, **Differentiating Instruction**. Building leaders receive a stipend of up to \$1,500 per year for their role setting the tone, establishing the resident as a member of the school community, and contributing their calibrated expertise during individual evaluations for research and practice purposes.

Graphic 1: BOCES funding model in use by Classroom Academy

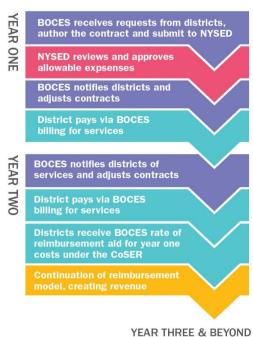
BOCES funding model

In 1948, the New York State legislature created Boards of Cooperative Educational Services (BOCES) to provide shared educational programs and services to school districts within the state. Today there are 37 BOCES that are partnering with nearly all of the state's school districts to help meet students' evolving educational needs through cost-effective and relevant programs.

New York State gives a finanial incentive to encourage participation in shared services by offering BOCES state aid for BOCES shared services.

This is how BOCES state aid works:

Each district's board of education selects BOCES services for the current year. In the following school year, a portion of the cost of BOCES services is reimbursed to the district by the State of New York. The amount returned to eah district depends on which services the district buys and is based on a state aid formula that takes into account the district financial resources. Money returned to the districts is used as revenue.



BOCES membership is not currently available to the "Big Five" city school districts: New York City, Buffalo, Rochester, Yonkers, and Syracuse

FUNDING OTHER RESIDENCY INVESTMENTS

While resident stipends are the biggest cost center needing new long-term funding streams, two other aspects of a quality system will require dollars, too: Mentors and site coordinators. As districts explore ways to more efficiently and effectively use their resources, these two areas for investment should be part of long-term financial planning.

MENTOR TEACHERS

Of all the people involved in a residency partnership, mentors spend the most time with residents and have a profound impact

on their learning. The stronger their own personal professional capacities—to promote equitable, quality learning, to work with adults, to reflect, and to guide instructional improvements—the better prepared residency graduates will be. Developing these skills requires time and supports. Mentors need to be compensated for their work preparing new teachers, through release time, remuneration, or both. As residencies become more embedded in districts' general human capital development plans, mentor teachers' work can become an integral part of districts' professional development plans, incorporating mentoring into teacher leadership descriptions and career ladder pay structures.

SITE COORDINATORS AND FACULTY LIAISONS

Nearly every well-established district/preparation program partnership interviewed for this study invested in a site coordinator or faculty liaison. In addition to serving as a

bridge between different members of the partnership, individuals in these roles can match teacher candidates and mentors and help plan continuous learning opportunities for residents, mentors, and even the whole school staff.

This role can be filled by a faculty member at the university, a veteran teacher, or a district staff member. Sometimes districts pay for the roles, sometimes preparation programs do. A district might reassign a central staff person to the work, effectively making the choice to invest human resources in the residency instead of in other domains. A university might similarly decide to shift instructional investments to field-based work. Regardless of the source of funding, the wisdom of the investment is undeniable. These roles ensure continuity and quality, and they help build ownership of and engagement in the residency, as is detailed in the companion report *Going Further Together* (May 2021).

FROM THE FIELD 2: THREE MODELS FOR FUNDING SITE COORDINATOR SALARIES

Alder Graduate School of Education (Alder GSE)

Alder Graduate School of Education's theory of action is based on building trusting, collaborative, resourced relationships with P-12 school system partners. Alder GSE contributes roughly \$100,000 to each P-12 school system partner to support a full-time program director. The financial contribution to districts comes from the tuition generated by Alder GSE's economically viable cohort-based enrollments (see *The Affordability Imperative* for more on cohorts). Tuition is set at about \$19,000 for a master's degree and teaching credential. A cohort generates roughly \$400,000 in tuition, and Alder GSE pays for the program director from those funds. In return, the district supports a cohort of about 21 candidates, with stipends that range from \$10,000 to \$20,000 for the academic year. Candidates are recruited directly from school communities, and they choose the district where they would like to learn to teach and ultimately work, which generally is within their own communities. Most often, districts pay stipends from general operating funds instead of grants to ensure a sustainable source of funding each year. In addition to their stipends, residents receive federal student aid and scholarships to help support them during the residency year.

University of Houston

In the Houston area, after learning about the benefits of having University of Houston teaching residents, schools across several local districts sought to be considered as placement schools; it was clear to them that residents were a valuable asset. Demand for residents exceeded the University's ability to partner deeply with all of the sites requesting residents. Of the 35 districts in the Houston metro area, University of Houston intentionally selected 13 partner districts for residency placements so they could ensure quality in their programming. Some districts have begun to pay the site coordinator's salary, which was traditionally paid by the University, in acknowledgement of the powerful instructional benefits of having residents. This shift in budgetary responsibility enables the University to sustainably fund work in their districts, and the districts, in turn, gain access to quality novice teachers and classroom supports.

Western Washington University and Ferndale School District

In the partnership between Ferndale School District and Western Washington University, a full-time faculty member serves as the field supervisor overseeing clinical placements for a cohort of students. This faculty member provides specific support to both residents and mentor teachers. Having a full-time faculty member on the ground throughout the year supports consistent communication, fosters deeper relationships between the University and the district, and leads to continuous improvement of the program. Importantly, the field supervisor is seen within the program as serving in a critical instructional role that can also inform a meaningful research agenda. This conceptualization of the role elevates the work of coaching candidates during clinical practice and incentivizes faculty engagement.

CONCLUSION The ideas in this report are premised on a commitment to good stewardship of the public dollars that are invested in education. If expenditures offer little or no instructional value-add, if investments provide little or no positive return, then something needs to change. Chief among such expenditures are the wasted billions across the nation resulting from early career teacher attrition.

If rampant teacher attrition were inevitable, then the expenses incurred would be necessary. But it is not inevitable; we know how to increase retention. High-quality programs that bring the strength of their preparation models into alignment with districts' instructional and hiring needs can transform teacher turnover into teacher retention. If every preparation program were deeply partnered with districts in such efforts, the nation could completely remake the teacher labor market.

Districts have significant leverage to nudge programs towards that goal. In addition to shifting investments in fast-track subsidies to high-quality pathways, they can explore their budgets to identify their "drafty windows and doors," consciously planning for interventions, new investments, and remodeled partnerships. By identifying inefficient uses of current dollars and committing to long-term funding shifts to support high-quality preparation pathways, districts can incentivize the creation of the tightly aligned programs that can bring strong novice teachers from diverse backgrounds into their classrooms. As with insulating a house, these shifts will require planning, commitment, and new expenditures, but in the long run everyone will benefit from more efficient use of public resources and better, more equitable outcomes for students. •

APPENDIX: ABOUT THE SUSTAINABILITY PROJECT

The Sustainability Project team, composed of WestEd and *Prepared To Teach* worked for the past year to create this suite of resources associated with our work on sustainability in quality teacher preparation. In this joint effort, WestEd brought valuable thought partnership and quantitative research expertise and *Prepared To Teach* leveraged its five years' worth of work leading sustainability efforts across the nation.

While Prepared To Teach is known for a focus on creating more sustainably funded teacher residency partnerships, where candidates work alongside an accomplished teacher of record for a year, these reports are not focused specifically on residencies. Here, we highlight a range of clinically rich teacher preparation models that have found ways to be more sustainable. For this reason, we generally use the terms "teacher candidate" and "aspiring teacher" to describe those learning to teach, reserving the terms "resident" "and "residency" for when programs describe themselves as residencies and meet basic definitional requirements of being yearlong and not using teacher-of-record, fast-track approaches. As we hope our suite of resources affirms, there are a variety of different ways that strong programs can be thoughtfully and sustainably designed.

The project includes six reports and a set of web-based analytic tools and guidance documents:

- **Dollars and Sense: Federal Investments in Our Educator Workforce:** a May 2021 report that documents current barriers to shifting the field to high-quality, affordable, sustainable teacher preparation models.
- Three case studies on what *Prepared To Teach* calls the "3 Rs" of sustainable teacher preparation":
 - Reallocation: Simple Shifts: Paying Aspiring Teachers with Existing Resources
 - Reduction: The Affordability Imperative: Creating Equitable Access to Quality Teacher Preparation
 - (Re)Investment: The Residency Revolution: Funding High-Quality Teacher Preparation
- Going Further Together: Building Ownership and Engagement for Sustainable, Quality Teacher Preparation: a May 2021 case study on ways to build the kind of ownership and engagement that can create the public and political will needed to have a sustainable system of high-quality teacher preparation.
- Beyond Tuition, Costs of Teacher Preparation: Descriptive Analytics from the Aspiring Teachers' Financial Burden Survey: analyses of income sources, expenses, debt, and work realities from Prepared To Teach's national survey of teacher candidates, forthcoming in May 2021.
- Release of a **suite of web-based**, **user-friendly resources** including university and district budgeting tools, communications supports to share the ideas from the project with audiences new to the ideas, and guidance documents that can support partnerships as they engage different aspects of sustainability for their programs.

What We Mean by "High-Quality" Teacher Preparation

Although our purpose in this project was not to define or assess teacher preparation quality, we recognize that sustainability efforts must have an associated value proposition: Growing a stronger, more diverse, better prepared, and more supported educator workforce.

Many frameworks for quality teacher preparation exist, developed by different groups for different purposes. This project was supported to research teacher preparation sustainability as part of a **specific set of quality principles**. The nation also has two accrediting bodies with standards for teacher preparation—**AAQEP** and **CAEP**—while individual certification subject areas have their own professional frameworks. What's more, each of the 50 states articulates its expectations for programs, and programs themselves define their own visions for quality.

Teacher preparation quality frameworks share many features, even as aspects of how to define and measure quality remain contested. For *Prepared To Teach*, we conceptualize quality around four non-negotiable tenets that should be present in addition to commonly accepted principles, such as continuous improvement and alignment with standards:

- 1 High-quality programs focus on equity for candidates. Equitable access for all aspiring teachers, from every background, is a centerpiece of program designs, with concerted efforts to develop pathways for candidates of color. Programs ensure a quality, supported experience for all candidates, with dedicated efforts to improve experiences for candidates from underrepresented populations.
- 2 High-quality programs focus on equity for P-12 students. Unless programs elevate the need for aspiring teachers to be aware of and to know how to work against institutional racism and other systemic inequities, not every P-12 student will have access to a good education. Quality programs provide both curricular study and clinical practice experiences that develop teachers who can disrupt inequities and help all students thrive.
- 3 High-quality programs are based in research on learning and development and its applications to teaching. 42 Teachers must be able to form deep, caring relationships that help students construct knowledge. Quality programs embrace the need to engage candidates deeply in content knowledge and pedagogy that support authentic learning, and they do so within a framework of human development centered in culturally responsive and sustaining approaches to teaching and learning.
- 4 High-quality programs integrate extended clinical practice experiences with coursework. Learning to teach well requires both study and application, and no one can master the complexities of teaching well enough to lead a classroom without opportunities to put theory into practice. Quality programs work in deep partnership with schools and districts to design learning opportunities with mutual benefits for candidates and P-12 students in mind and ensure that graduates are ready for the complex work of being a teacher.

Our Process for the Case Studies

The research team conducted protocol-based interviews of 30 to 60 minutes with over 40 individuals across programs that represented urban, rural, and suburban teacher preparation efforts.

We invited participants we knew from our five years of work in the field; a thought partner group that informed the project, including over 80 individuals, suggested other innovative programs to include.

The interviews were intended to gather insights on different approaches to sustainability, not to evaluate programs or to provide comprehensive pictures of the complex set of work related to teacher preparation. Rather, we focused on capturing insights that could help support the field more broadly in moving the work of sustainability forward. •

ACKNOWLEDGMENTS

To inform our work, we engaged a broad national thought partner group of over 80 participants from nearly as many organizations.

These thought partners hail from 17 states and the District of Columbia. They are educational leaders from districts, universities, philanthropies, professional organizations, state education departments, and more. They informed the framing of the reports, recommended people to connect with to learn about their work, reviewed materials, and supported dissemination. In addition, as the vignettes throughout the report evidence, dozens of programs and partnerships shared their stories with us.

The input of every individual across every conversation had a huge impact on this work. Still, participation in the project does not necessarily indicate agreement with the views ultimately represented across the suite of resources the project produced. Any insights that resonate, we know these colleagues influenced; any imperfect presentations or interpretations are our own.

Some of those who supported this work have been able to share their names publicly; we are honored to name them below. Others could not sign on, but regardless of whether their names are printed, we acknowledge and thank them. Even more importantly, all those who participated demonstrate a deep commitment to education. For that, also, we thank them—even more.

The project would also like to thank team members at both WestEd and *Prepared To Teach*, who offered untold hours of support, from envisioning the research all the way through to ensuring the final documents were as strong as possible. •

LIST OF THOUGHT PARTNERS AND STUDY PARTICIPANTS

NAME	ORGANIZATION	ROLE
Adina Lopatin	_	Independent consultant
Betsy Cook	Educate Texas	Deputy Director
Bill Horwath	Education First	Partner
Brittany Lane	Colorado Department of Higher Education	Director of Educator Preparation
Bryan C. Hassel	Public Impact	Co-President
Bryan Johnson	Los Angeles Unified School District	Director, Certificated Workforce Management
Calvin J. Stocker	US PREP National Center	Senior Director, Operations & Strategic Initiatives
Carlos Villagrana	Houston Endowment	Program Officer
Cathy Yun	Learning Policy Institute	senior researcher
Chris Lozier	National Center for Teacher Residencies	COO
Christine Walsh	State University of New York, Oswego	Professional Development School (PDS) administrator
Christopher Koch	Council for the Accreditation of Educator Preparation (CAEP)	President
Ellen Behrstock Sherratt	The Teacher Salary Project	Chair, Board of Directors
Emma Espel Villarreal, Ph.D.	RMC Research Corporation	Senior Research Associate
Grace Beard	Education First	Associate Consultant
J. Cody Huie	Raise Your Hand Texas Foundation	Vice President of Programs
Jacqueline Rodriguez	American Association of Colleges for Teacher Education (AACTE)	Vice President of Research, Policy, and Advocacy
Jennifer Ramos	Relay Graduate School of Education	Dean
Jeremy Golubcow- Teglasi	Denver Jewish Day School	Upper School Faculty
Karen Riley	The University of Denver, Morgridge College of Education	Dean and Professor
Kristen Munger	SUNY Oswego	Associate Dean, School of Education
Lorrei DiCamillo, Ed.D.	Canisius College	Associate Dean, School of Education and Human Services
Marjori Krebs	University of New Mexico	Professor/Albuquerque Teacher Residency Partnership Coordinator
Mark LaCelle-Peterson	Association for Advancing Quality in Educator Preparation	President/CEO
Marquita Grenot- Scheyer	CSU Office of the Chancellor	Assistant Vice Chancellor
Melissa Tooley	New America, Education Policy Program	Director, PreK-12 Educator Quality
Nancy M. Sileo	University of Northern Colorado - School of Special Education	Professor
Nicole Bono	Louisiana Department of Education	Chief of Staff, Educator Development
Odette Clarke	New York City Department of Education/ New York City Coalition for Teacher Preparation	Senior Manager, University Partnerships/ Partnership Specialist
Pat Russo	SUNY Oswego	Professor
Phillip S. Rogers	National Association of State Directors of Teacher Education and Certification (NASDTEC)	Executive Director/CEO
Priscilla Aquino Garza	Educate Texas	Director of Policy & Advocacy
Sarah Beal	US PREP	Executive Director
Scott Muri	Ector County Independent School District	Superintendent
Shea Mosley Culpepper	University of Houston	Director of Teacher Education
Sherri Anderson	Western Colorado University	Director of Educator Preparation
Steven K. Wojcikiewicz	Learning Policy Institute	Senior Researcher and Policy Advisor
Sungti Hsu	Association for Advancing Quality in Educator	Chief Relations Officer
	Preparation	

ENDNOTES

- ¹ In addition to web-based tools and resources available on the *Prepared To Teach* website, the project produced the following reports: Karen DeMoss, "Dollars and Sense: Federal Investments in Our Educator Workforce" (New York: Bank Street College of Educa-tion, *Prepared To Teach*, May 2021); Maria Salciccioli et al., "Going Further Together: Building Ownership and Engagement for Sustainable, Quality Teacher Preparation" (New York: Bank Street College of Education, *Prepared To Teach*, May 2021); Hannah Dennis and Karen DeMoss, "Simple Shifts: Creating Paid Roles to Support Aspiring Teachers" (New York: Bank Street College of Education, *Prepared To Teach*, April 2021); Hannah Dennis, Karen DeMoss, and Divya Mansukhani, "The Affordability Imperative: Creating Equitable Access to Qual-ity Teacher Preparation" (New York: Bank Street College of Education, *Prepared To Teach*, April 2021); Hannah Dennis and Karen DeMoss, "The Residency Revolu-tion: Funding High-Quality Teacher Preparation" (New York: Bank Street College of Education, *Pre-pared To Teach*, April 2021); "Beyond Tuition, Costs of Teacher Preparation: Descriptive Analytics from The Aspiring Teachers' Financial Burden Survey" (New York: Bank Street College of Education, *Prepared To Teach*, May 2021).
- ² Eric Hanushek, "Valuing Teachers: How Much Is a Good Teacher Worth?," *Education Next* 11, no. 3 (Summer 2011): 40–45.
- ³ Henry M. Levin et al., "The Costs and Benefits of an Excellent Education for All of America's Children" (New York: Columbia University, January 2007).
- ⁴ Leib Sutcher, Linda Darling-Hammond, and Desiree Carver-Thomas, "A Coming Crisis in Teaching? Teacher Supply, Demand, and Shortages in the U.S." (Palo Alto, CA: Learning Policy Institute, September 2016), https://bit.ly/2cRmcLc; Matthew Ronfeldt, Susanna Loeb, and James Wyckoff, "How Teacher Turnover Harms Student Achievement," *American Educational Research Journal* 50, no. 1 (February 2013): 4–36; Hanushek, "Valuing Teachers: How Much Is a Good Teacher Worth?"
- ⁵ Gary Barnes and Edward: Schaefer Crowe, *The Cost of Teacher Turnover in Five School Districts*: A *Pilot Study, National Commission on Teaching and America's Future* (National Commission on Teaching and America's Future, 2007), https://eric.ed.gov/?id=ED497176; Desiree Carver-Thomas and Linda Darling-Hammond, "Teacher Turnover: Why It Matters and What We Can Do About It," 2017, 60; Mariana Haynes, Ann Maddock, and Liam Goldrick, "On the Path to Equity: Improving the Effective-ness of Beginning Teachers" (Washington, DC: Alliance for Excellent Education, July 2014).
- ⁶ Barnes and Crowe, The Cost of Teacher Turnover in Five School Districts.
- ⁷ Learning Policy Institute, "What's the Cost of Teacher Turnover?," Learning Policy Institute, September 13, 2017, http://bit.ly/2CTal6o; Haynes, Maddock, and Goldrick, "On the Path to Equity."
- ⁸ Linda Darling-Hammond et al., *Empowered Educators: How High-Performing Systems Shape Teaching Quality around the World* (San Francisco, CA: Jossey-Bass, 2017).
- ⁹ Karen DeMoss et al., "Clearing the Path: Redesigning Teacher Preparation for the Public Good" (New York: Bank Street College of Education, *Prepared To Teach*, September 2017).

- ¹⁰ Carver-Thomas and Darling-Hammond, "Teacher Turnover: Why It Matters and What We Can Do About It."
- ¹¹ Most researchers agree that estimates from Ingersoll are valid; see Richard Ingersoll, Lisa Merrill, and Henry May, "What Are the Effects of Teacher Education and Preparation on Beginning Teacher Attrition?," Research Report (Philadelphia: Consortium for Policy Research in Education, University of Pennsylvania, 2014), http://bit.ly/2CTxU4t. For a discussion of cross-district variation, see John P Papay et al., "The Challenge of Teacher Retention in Urban Schools: Evidence of Variation From a Cross-Site Analysis," *Educational Researcher* 46, no. 8 (n.d.): 434–48.
- ¹² Calculations using 2018-19 district level data from the "Common Core of Data (CCD)" (National Center for Education Statistics), accessed January 30, 2021, https://nces.ed.gov/ccd/files.asp#Fis-cal:2,LevelId:5,SchoolYearId:33,Page:1. New York subdistricts were combined into the single New York City Department of Education district. Selection of top 100 largest districts was based on number of teacher roles. Turnover was calculated at 60% of total teaching staff at a cost of \$20,000 per teacher. Annualized costs calculated by dividing by 5 years.
- ¹³ Pam Grossman and Susanna Loeb, *Alternative Routes to Teaching: Mapping the New Landscape of Teacher Education* (Harvard Education Press, 2008); Desiree Carver-Thomas and Linda Darling-Hammond, "Teacher Turnover: Why It Matters and What We Can Do about It" (Palo Alto, CA: Learning Policy Institute, August 2017), http://bit.ly/2w691jU.
- ¹⁴ Carver-Thomas and Darling-Hammond, "Teacher Turnover: Why It Matters and What We Can Do About It."
- ¹⁵ Albert Shanker Institute, "The State of Teacher Diversity" (Washington, DC: Albert Shanker Institute, September 2015), https://bit.ly/1F9uSWG.
- ¹⁶ Seth Gershenson et al., "The Long-Run Impacts of Same-Race Teachers" (Cambridge, MA: National Bureau of Economic Research, November 2018), https://doi.org/10.3386/w25254.
- ¹⁷ U.S. Department of Education, Office of Planning, Evaluation and Policy and Development, Policy and Program Studies Service, "The State of Racial Diversity in the Educator Workforce" (Washington, D.C., 2016).
- ¹⁸ Matt Barnum, "Is the Number of Teachers of Color Skyrocketing or Stagnating?," Chalkbeat, November 29, 2018, https://www.chalkbeat.org/2018/11/29/21106270/is-the-number-of-teachers-of-color-skyrocketing-or-stagnating-here-s-what-the-numbers-really-say; Carver-Thomas and Darling-Hammond, "Teacher Turnover: Why It Matters and What We Can Do About It."
- ¹⁹ Emma Garcia and Elaine Weiss, "U.S. Schools Struggle to Hire and Retain Teachers," The Perfect Storm in the Teacher Labor Market (Washington, D.C.: Economic Policy Institute, April 16, 2019), https://www.epi.org/publication/u-s-schools-struggle-to-hire-and-retain-teachers-the-second-report-in-the-perfect-storm-in-the-teacher-labor-market-series/.
- ²⁰ Office of the New York City Comptroller Scott M. Stringer 7, "Teacher Residencies: Supporting the next Generation of Teachers and Students" (New York City: New York City Comptroller Bureau of Policy and Research, June 2019).
- ²¹ Julian Vasquez Heilig and Su Jin Jez, "Teach for America: A Review of the Evidence" (Boulder, CO: National Education Policy Center, January 2014).
- ²² See Roneeta Guha, Maria E. Hyler, and Linda Darling-Hammond, "The Teacher Residency: An In-

novative Model for Preparing Teachers" (Palo Alto, CA: Learning Policy Institute, 2016), http://bit.ly/2paAlYG., for a summary of research on residency retention.

- ²³ See note 12 for calculations, with a turnover calculation shift from 60% to 20%.
- ²⁴ Updated from Zachary Paull, Karen DeMoss, and Divya Mansukhani, "Aspiring for More: Deeper Partnerships for Sustainable Residencies" (New York: *Prepared To Teach*, Bank Street College of Education, March 2021).
- ²⁵ Prepared To Teach incorporates the definitional elements of residencies from the groundbreaking report from Learning Policy Institute on largely grant-funded, graduate-level residencies, Guha, Hyler, and Darling-Hammond, "The Teacher Residency: An Innovative Model for Preparing Teachers." In addition, our own research includes a wide variety of residency models, including unfunded and undergraduate programs, which inform our working definition. For resources on *Prepared To Teach*'s research, see our website at preparedtoteach.org.
- ²⁶ Linda Darling-Hammond et al., "Implications for Educational Practice of the Science of Learning and Development," *Applied Developmental Science* 24, no. 2 (February 17, 2019): 43.
- ²⁷ DeMoss et al., "Clearing the Path: Redesigning Teacher Preparation for the Public Good."
- ²⁸ See DeMoss, "Dollars and Sense" for a discussion of the need for broader federal investment in resident stipends.
- ²⁹ These efforts are sometimes facilitated with outside grants or other resources; see Cathy Yun and Karen DeMoss, "Sustainable Strategies for Funding Teacher Residencies: Lessons From California" (Palo Alto, CA: Learning Policy Institute, 2020), https://educate.bankstreet.edu/cgi/viewcontent.cgi?article=1004&context=pt. The degree to which outside funds impact HR investments compared to how they might be changing their investment priorities from existing budget lines remains an empirical question.
- ³⁰ These costs are on top of costs for program delivery, which can be upwards of \$100,000 per candidate funded through public dollars; see Heilig and Jez, "Teach for America: Evidence."
- ³¹ For an excellent summary of the research, see Carver-Thomas and Darling-Hammond, "Teacher Turnover: Why It Matters and What We Can Do About It"; Sutcher, Darling-Hammond, and Carver-Thomas, "A Coming Crisis in Teaching? Teacher Supply, Demand, and Shortages in the U.S."; Ronfeldt, Loeb, and Wyckoff, "How Teacher Turnover Harms Student Achievement."
- ³² Ryan Eisner et al., "Examining the Impact of Denver Teacher Residency on Teacher Retention, Teacher Effectiveness, and Student Achievement" (Association for Education Finance Policy, Washington, D.C., March 16, 2017), http://bit.ly/2EaQciy; Kay Sloan et al., "A Different, More Durable Model" (San Francisco, CA: Rockman et al, September 2018); Roneeta Guha and Tara Kini, "Teacher Residencies: Building a High-Quality, Sustainable Workforce" (Palo Alto, CA: Learning Policy Institute, 2016), http://bit.ly/2phcQwi.
- ³³ David Rosenberg and Karen Hawley Miles, "Growing Great Teachers: How School System Leaders Can Use Existing Resources to Better Develop, Support, and Retain New Teachers—and Improve Student Outcomes" (Watertown, MA: Education Resource Strategies, November 2018).
- ³⁴ Nancy Bacharach and Teresa Washut Heck, "Voices from the Field: Multiple Perspectives on a Co-Teaching in Student Teaching Model," *Educational Renaissance* 1, no. 1 (2012): 49–61; Karen DeMoss and Brigid Brennan, "Making Teacher Preparation Policy Work: Lessons from and for New

York" (New York: Bank Street College of Education, Prepared To Teach, March 2020).

- ³⁵ "Tutoring & Driving Schools in the US Market Research | IBISWorld," accessed May 25, 2016, http://www.ibisworld.com/industry/default.aspx?indid=1544&partnerid=ValuationResources.
- ³⁶ Haynes, Maddock, and Goldrick, "On the Path to Equity."
- ³⁷ C. R. Belfield and Henry M. Levin, *The Price We Pay: Economic and Social Consequences of Inade-quate Education* (Washington, DC: Brookings Institution Press, 2007), http://bit.ly/2RvWey9.
- ³⁸ Arthur Levine, "Educating School Teachers" (Education Schools Project, September 1, 2006), http://bit.ly/2Sbzy63.
- ³⁹ Hanushek, "Valuing Teachers: How Much Is a Good Teacher Worth?"; Belfield and Levin, *The Price We Pay*.
- ⁴⁰ College Board, "Trends in College Pricing 2019," Trends in Higher Education (College Board, November 2019), https://research.collegeboard.org/pdf/trends-college-pricing-2019-full-report.pdf.
- ⁴¹ Divya Mansukhani and Francheska Santos, "#MoreLearningLessDebt: Voices of Aspiring Teachers on Why Money Matters" (New York: *Prepared To Teach*, Bank Street College of Education, February 2021).
- 42 Darling-Hammond et al., "Implications for Educational Practice of the Science of Learning and Development."