

Investing in Residencies, Improving Schools:

How Principals Can Fund Better Teaching and Learning



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FOREWORD: HOW THIS PROJECT DEVELOPED

In July of 2016, the Sustainable Funding Project (SFP) published an opinion piece in the *New York Times* about the need for the nation to invest in residency-style teacher preparation, where teacher candidates work alongside an accomplished teacher for a full year before they are placed into their own classes. That piece was a companion to a longer report, *For the Public Good: Quality Preparation for Every Teacher*. *For the Public Good* enjoyed wide circulation among teacher preparation programs, policymakers, and districts with strong teacher preparation partnerships. Readers also reacted positively to the opinion piece, as we had both hoped and anticipated.

What we did not anticipate was an enthusiastic outreach from Wanny Hersey, the founding superintendent of Bullis Charter School (BCS), an award-winning school serving students from kindergarten through 8th grade in Los Altos, California. BCS wasn't reaching out to figure out how to do residencies; Ms. Hersey already had a co-teaching model. She had trained to become a teacher in Vancouver, Canada, where clinical experiences are much more extensive than the semester-long student teaching or summer training programs that are so common in the United States. Her extended clinical practice had allowed her and her fellow aspiring teachers to develop the expertise necessary to build their professional identity and succeed in the classroom. For Ms. Hersey, it only made sense for aspiring teachers to benefit from such opportunities, so that they, too, could build a solid foundation before taking over their own classrooms.

However, because so few candidates have a year of co-teaching as part of their pre-service preparation in the United States, most of the teachers applying to teach at BCS would lack the kind of extended clinical learning opportunities she knew they needed to be effective educators. So, from the beginning, Ms. Hersey built in a year of co-teaching for every newly certified teacher in her building. She found ways to manage her staffing models and budgets to support these novice teachers' development, and she thought her models might help others see some new possibilities. The SFP team still recalls the passion of her offer: "If our school can help others find ways to support residencies, the education system in our country will be better for it. Let us know how we can help."

This report is the result of her invitation. We hope that the strategies we documented at BCS can help districts, schools, preparation providers, and states understand how to support more year-long co-teaching residencies with an effective mentor teacher. Providing aspiring teachers with residency-style preparation will not only make a huge difference for new teachers, but ultimately could transform our entire educational system.

EXECUTIVE SUMMARY

What if co-teaching were the norm inside the K-12 school system, and students progressed through their educational experiences with the kind of targeted support and individualized instruction made possible by having two instructors in the classroom? What if, instead of trial by fire, new teachers had the opportunity to practice with and benefit from the expertise of a more experienced mentor for an entire year? Sound like a pipedream? Hardly. It turns out such models are far more feasible than they first appear, especially when designed in partnership with teacher preparation programs.

In our work across the country, the Sustainable Funding Project (SFP) at Bank Street College has found many examples of efforts to improve teacher preparation for aspiring teachers by creating year-long co-teaching opportunities, referred to here as residencies. Conversations with leaders from districts and from teacher preparation programs, as well as with teachers themselves, reveal a widely shared recognition that extended, supported clinical practice is key to ensuring new teachers enter the classroom ready to meet the complex challenges of the job. Yet despite such widespread agreement, year-long residencies are not the norm. Many residency programs have been developed around the country, but their longevity is typically tied to the availability of external funding sources, such as public or private grants. When grants end, partnerships have been challenged to fund their innovative and promising models in sustainable ways. As a result, one of the best approaches to improving teachers' knowledge and skills has an almost endless list of once strong, now closed programs. Programs that have ongoing funding are typically small, boutique-style options that do not reach the vast majority of aspiring teachers.

Perhaps the most challenging component of a residency program for district-provider partnerships to fund is the financial stipend or other form of support for aspiring teachers during their full-time clinical practice experience. As we explored in *For the Public Good: Quality Preparation for Every Teacher*, providing support to

aspiring teachers is essential in order to ensure strong, diverse candidates are able to dedicate themselves to learning and development. This report examines the potential for K-12 schools to fund these committed co-teachers through creative resource reallocation, and shares one example of how doing so contributes to a strong, collaborative school culture with wide-ranging benefits.

A year-long co-teaching model offers great promise for developing strong, well-prepared teachers, as well as positively impacting student learning. Bullis Charter School (BCS), an innovative charter school in California, has found ways to support a co-teaching model inside its classrooms for well over a decade. Upon hearing about the work of the SFP, BCS invited us into their classrooms to learn about their Associate Teacher (AT) program, a co-teaching position for novice teachers. Though the school hires fully credentialed teachers into AT positions, the structures in place that enable it to do so also apply to pre-service, residency-style positions, and the staffing strategies they've adopted offer ideas for other school leaders to explore. Of course, our education system is driven by local contexts, and there are often key contextual differences between public charter schools and traditional district public schools. So while we do not assume that what works at BCS will necessarily work in every other school, the model offers lessons that may be applicable to other traditional public school contexts.

To explore how the fiscal and staffing models inside BCS might translate to other schools, we analyzed public school finance and staff data in California. California has a wealth of transparent funding data from which we imputed school-level budget estimates for two hypothetical district public schools. Both of our hypothetical schools were imagined to enroll the same number of students as does Bullis Charter School, in kindergarten through the eighth grade; one of these hypothetical schools was assumed to serve relatively low-need students, aligned with the demographics of students at BCS. The other hypothetical school was assumed to enroll a much higher proportion of disadvantaged students. Our goal was to examine the relative feasibility of funding co-teaching positions through dollars one might expect inside traditional public schools serving different student populations.

It turns out, finding resources to support co-teaching is probably more feasible than commonly believed. Whether considering the total portion of a school's budget that could be reallocated towards co-teaching after essential classroom teachers are taken into account, or by using the portion of the budget that typically funds instructional support or instructional supervision functions, our analyses indicate that traditional public schools could conceivably support pre-service residency positions by reallocating a relatively small portion of their budgets. Such reallocation could be facilitated through creative staffing strategies, such as those employed inside BCS and described in this report.

Efforts to grow residency programs will require additional shifts in approach and resource decisions from teacher preparation providers and district central offices, but we hope the analyses and staffing descriptions provided here might spur a sense of possibility for this core element of teacher residencies – compensation for candidates during their full-time co-teaching year. If school and district

leaders and their teacher preparation partners have an understanding of school-level funding strategies to support residents, they can focus their conversations on how their partnerships can ensure high quality experiences throughout programs' trajectories, potentially growing numbers of funded pre-service residencies for our nation's aspiring teachers.



THE OPPORTUNITY

DEVELOPING NEW TEACHERS THROUGH CO-TEACHING

Teacher residencies – where aspiring teachers spend a full year co-teaching at the side of an effective, experienced mentor teacher – are a promising lever for supporting improvements in districts’ human capital pipelines, and ultimately in enhancing the quality of teaching and learning inside districts’ classrooms. There is a growing body of evidence that residency partnerships between preparation providers and districts offer wide-reaching benefits.ⁱ As a profession, teachers commonly point to their clinical practice as the most important component of their preparation experiences.ⁱⁱ Research has shown that deeper clinical experiences are associated with stronger senses of preparedness and efficacy among new teachers,ⁱⁱⁱ contributing to improved retention, especially when compared with quick-entry alternative pathways.^{iv} Evaluations of individual residency programs have also shown positive impacts on student learning, not only once their graduates enter classrooms of their own but also during the year in which they are co-teaching as residents.^v

Not all teacher residencies look the same. They can be designed inside preparation programs at the undergraduate or graduate level, housed inside institutes of higher education or housed outside as alternative pathways to certification. Residency-style preparation models do, however, share common characteristics. For example, residents have the opportunity to work as a co-teacher alongside an effective mentor teacher for a full year before becoming the teacher of record, making connections between the theories covered in their preparation coursework and their on the ground experiences inside the classroom as they collaborate with their mentors to plan, deliver, and assess the effectiveness of instruction. A growing number of useful roadmaps and resources exist to help partnerships design effective, quality residency models,^{vi} but for preparation providers and their district partners, a major challenge has limited the growth of residency-style preparation: how to fund pre-service residencies in sufficient and sustainable ways. Promising examples for funding residency-style preparation do, though, exist across the country. This report shares one example of school-level resource reallocation strategies that other educational leaders might explore in order to reap the benefits of funded, co-teaching residencies.

BULLIS CHARTER SCHOOL: A MODEL FOR SCHOOL-LEVEL FUNDING FOR CO-TEACHING

“School leaders at BCS prioritize the AT program because it bridges the gap between beginner teachers’ skills and the expectations for rigorous, individualized learning experiences inside classrooms.”

During the 2016-17 school year, the Sustainable Funding Project (SFP) was invited to visit Bullis Charter School (BCS), an innovative public charter school in California serving students in kindergarten through the eighth grade. Founding superintendent Wanny Hersey designed her staffing model from the start to include co-teaching positions for Associate Teachers, a role for fully certified novice teachers. Over two days, the SFP team conducted interviews with classroom teachers, Associate Teachers, administrators, and parents to learn about the AT program and why the school has continued to invest in it. The team at BCS also provided documents that we reviewed in order to understand the nuances of the school’s structures that enable funding for co-teaching positions. What we learned allowed us to consider ways in which their strategies might inform efforts in other schools.

BCS demonstrates the power of a co-teaching model for both students and novice teachers. Ms. Hersey’s belief was that new teachers too often complete their preparation program without sufficient clinical experiences to effectively lead their own classrooms from day one. She also felt that students would benefit from having more than one trained, dedicated adult inside the classroom. The AT program was designed with both of these beliefs in mind. Associate Teachers gain experience and expertise as they co-teach alongside more veteran colleagues. They also provide students with the increased attention and individualized support that a second teacher brings to a classroom. School leaders at BCS prioritize the AT program because it bridges the gap between beginner teachers’ skills and the expectations for rigorous, individualized learning experiences inside classrooms. The success of the AT program renders it a strategic investment for the school, and resource allocation decisions have ensured continued funding for these co-teaching positions year after year.

Parallels exist between the AT program and pre-service residencies. Both allow aspiring or novice teachers to practice teaching and learn alongside experienced, effective teachers. Residents and ATs build skills through supported practice inside classrooms, receiving targeted feedback that helps them improve over the course of the year. They are a part of the arc of the entire school year, planning with their co-teachers before students arrive at school, establishing expectations and routines inside the classroom, seeing curricular units build upon one another, and supporting end of year transitions. Residents and ATs also support important work that takes place outside of class time, like maintaining communication with parents and tracking grades for report cards. Such opportunities typically are not part of student teaching, so new teachers often enter the role never having had a chance to be a part of the full array of responsibilities they face.

One of the benefits of co-teaching positions, whether for novice or aspiring teachers, is the opportunity to engage in this expanded set of work in a supported environment before becoming fully responsible as the teacher of record. The fact that individuals, certified to teach in California public schools, choose to take their first positions as Associate Teachers reinforces the idea that additional practice in an integrated, supported position for a full-school year is incredibly valuable to future teachers. In fact, ATs forego higher salaries they could earn as classroom teachers in order to gain experience in such supported classroom environments.

WHY WOULD SCHOOL LEADERS WANT TO INVEST IN PRE-SERVICE CO-TEACHING POSITIONS?

A growing body of evidence suggests that partnering with residency programs leads to better teaching and more powerful learning.

TO BUILD A PIPELINE OF EFFECTIVE NOVICE TEACHERS



Year-long clinical experiences alleviate the challenges of “sink or swim” predicaments in which many new teachers struggle to learn the ins and outs of teaching after they are already in the job. Graduates of residency programs enter the profession further along the learning curve than their peers, which is often steepest between the first and second years of teaching.^{vii} They complete their preparation feeling more ready to enter the profession. Principals agree, reporting that graduates of residency programs are better prepared and more effective in their first years than graduates from other programs.^{viii} Residency graduates also tend to stay in the classroom longer, leading to increased staff stability necessary for improved student learning.^{ix}

TO STRENGTHEN THE EXISTING WORKFORCE



Residency programs provide opportunities to build the capacity of classroom teachers inside schools. Mentor teachers are able to take on authentic leadership roles without leaving the classroom. They support the development of residents and find their own practice often improves as a result.^x The opportunity to participate in the preparation of other adults in their field builds mentor teachers’ professional capital and strengthens their capacity to engage with their colleagues in professional learning communities.^{xi}

TO IMPACT STUDENT LEARNING



Students benefit from having two trained adults inside their classrooms. Co-teaching models increase students’ individualized attention, reducing student-teacher ratios and better supporting student learning during the residency year. Evaluations of individual residency programs show evidence of improved student performance in classrooms of residency program graduates.^{xii}



RESOURCE DECISIONS INSIDE BULLIS CHARTER SCHOOL

In 2016-17, Bullis Charter School served 826 students across kindergarten through eighth grade. The formal Associate Teacher program was implemented in grades 1-5, and BCS hired one Associate Teacher for every three experienced classroom teachers in those grades. As fully credentialed teachers, ATs receive compensation inclusive of both salary and benefits, though they are paid at a lower salary scale than classroom teachers in the school, who are called homeroom teachers.¹ In the 2016-17 school year, eight ATs served alongside homeroom teachers from grades 1-5. In total, BCS directed 11% of its spending on salary and benefits towards Associate Teachers.² Several resource allocation decisions enable the school to sustain their investment in these co-teaching positions:

- BCS minimizes spending on substitute teachers, relying on ATs to fill about 75% of substitute teaching needs in three different areas:
 - ATs provide instruction during teacher absences, offering financial savings since the school does not need to hire a substitute teacher and instructional continuity for students since ATs understand the school’s curriculum and often know the children they substitute teach
 - ATs provide instructional coverage during assessment periods, particularly for the more intensive early-grade assessments, saving additional dollars schools often spend on substitutes to support assessment processes
 - ATs support special education meetings and one-on-one testing, again saving dollars that schools would otherwise have to spend to cover classes
- ATs support individualized instruction inside the classroom that might be provided by classified salary lines in other schools, such as instructional aide or paraprofessional positions, essentially allowing BCS to reallocate those lines to ATs
- ATs serve in additional instructional capacities, leading extracurricular and special courses for students, allowing BCS to redirect resources that would have gone to other personnel costs towards AT positions

The structural and programmatic decisions BCS has made with the AT program affords instructional improvement and cost savings for the school, making it both possible and strategic to dedicate resources towards instructional salaries and benefits lines for ATs.

¹ Salaries for homeroom teachers at BCS range from \$50,000-110,000; AT salaries range from \$36,750 - \$47,300. ATs and homeroom teachers also receive additional per diem stipends for ten staff development days, and are eligible for performance-based bonuses. See: <http://bullischarterschool.com/employment/>.

² While the core of the Associate Teacher model is based on one AT working with 3 homeroom teachers from grades 1-5, the Associate Teacher title is also used in additional cases, including in kindergarten classrooms and for some specialists.

SUPPORT STRUCTURES FOR THE ASSOCIATE TEACHER PROGRAM

During our conversations with stakeholders from across the BCS community, a number of features of the AT program repeatedly surfaced as key to its success. Since the AT program is a co-teaching model with very inexperienced teachers, it is not surprising that these key features align with many residency program designs, making them useful qualities to consider when envisioning how lessons from BCS's AT program might inform pre-service residency positions.

INTEGRATION IN THE SCHOOL COMMUNITY

ATs are not perceived as aides, but as co-teachers and partners inside lead teachers' classrooms. ATs participate as full members of the teacher community. They are inside classrooms with homeroom teachers beginning on day one. In fact, ATs participate in two weeks of professional development before the start of the school year, where they have opportunities to learn about the school's norms, policies, systems, and processes before entering the classroom. ATs continue to participate as full members of teaching teams throughout the year, joining weekly planning meeting with their colleagues, participating in ongoing professional development offerings, and leading extracurricular activities and events such as field trips for students.

FORMAL SUPPORT & FEEDBACK

To ensure ATs receive the feedback necessary to maximize their growth over the course of the school year, BCS established the Associate Teacher Guide position. Each AT has one lead teacher serving in this important role to provide a dedicated source of support. AT Guides are trained in adult leadership concepts such as coaching, constructive listening, courageous conversations, and effective feedback, and they conduct monthly observation cycles with ATs to support their ongoing development. This role also provides formalized teacher leadership opportunities for veteran homeroom teachers.

OPPORTUNITIES FOR COLLABORATION

BCS administrators create schedules that ensure all teachers and ATs in the school have ample time for co-planning and collaboration. All grade level teams, including ATs, meet weekly to review and plan for upcoming instruction. As a group, ATs also have monthly meetings with a coach, where they share classroom successes and challenges with one another and collaborate on strategies to push their instructional rigor. Along with weekly meetings between ATs and their AT Guides, these extensive collaborative opportunities are seen as an important source of professional learning across the school.

GRADUAL RELEASE OF RESPONSIBILITY

Although fully certified teachers, ATs do not necessarily begin the school year leading lessons on their own. With their homeroom teachers, they plan for their role in each classroom, typically gaining increased responsibilities for instruction as the year progresses. The trajectory of ATs' roles over the course of the year can look different from classroom to classroom, because the teachers collaborate to determine how to structure the ATs' roles based on their current strengths and goals for growth. The objective, however, remains the same across classes: for ATs to spend the year learning to be strong and effective homeroom teachers.

MOTIVATIONS FOR ONGOING INVESTMENT IN THE PROGRAM

Stakeholders across the school community identified numerous benefits the AT program provides to the school. While our project did not attempt to independently assess program impacts, the benefits that BCS feels it receives from the AT program explain their continuous investment in the model for over a decade.

BENEFITS TO ASSOCIATE TEACHERS

Many current and former ATs likened their time in the role as akin to an additional year of preparation. Unlike during their student teaching experiences, described by a number of ATs as being disconnected and singularly focused on planning and delivering strong stand-alone lessons, ATs come to grasp the “big picture” of teaching. They understand how each individual lesson contributes to the arc of a curriculum across the entire year. They are able to observe and support homeroom teachers with aspects of their work that are not part of the focus of student teaching – maintaining grade books, developing report cards, engaging with parents. ATs have opportunities to experience all aspects of the teacher role in a supportive environment, without the burden of being solely responsible for student outcomes. When they transition from AT to homeroom teacher roles, they understand what to expect and are well prepared for the full responsibility of being a teacher. They also enter the profession with an orientation towards collaboration and problem solving; school administrators count on former ATs to bring that orientation to their homeroom teacher roles and deepen the collaborative culture of the school.

BENEFITS TO STUDENTS

When ATs are in the classroom, students benefit from a smaller student-to-teacher ratio. Teachers can focus on small group work, with ATs contributing to supervision and instruction across the class. Having a second adult in the room also facilitates differentiation so that lessons can more easily meet the needs of all learners. These instructional capabilities enable the school to implement an individualized, project-based learning approach. At the same time, students see the adults in their classroom collaborating and cooperating with one another, providing powerful models of these core values for their own behavior in the school. When needed, Associate Teachers also provide coverage as substitutes. Because they know the students and the school culture and curriculum, their presence minimizes disruptions to students’ learning.

BENEFITS TO THE SCHOOL COMMUNITY

The AT program reinforces BCS’s values of collaboration and continuous learning. It also strengthens the sense of community across the school. ATs who move into classroom teacher roles already have relationships with their colleagues and are prepared to continue their collaborative efforts. Once in the homeroom position, they may find themselves teaching the same students from their time as ATs, already understanding students’ strengths and needs before the school year even begins. Parents also establish trusting relationships with ATs, welcoming these existing members of the community to their new homeroom teacher roles. These benefits become mutually reinforcing, continually enhancing the schoolwide community.



THE ANALYSIS

EXAMINING THE POTENTIAL FOR SCHOOLS TO FUND RESIDENCIES

Is it possible for our nation's schools to increasingly find students learning inside classrooms with two adults supporting them, receiving more individualized attention? Bullis Charter School provides a solid example of the kind of creative resource allocation that might enable other schools to develop co-teaching models. We know, though, that charter schools often operate within different budgetary contexts than traditional public schools in terms of both funding and expenditures.^{xiii} For example, staff may be paid on salary scales that differ from their local districts', and benefits packages may not be comparable to those provided to teachers through collective bargaining agreements. For these and various other reasons, what works for a charter school may not be feasible inside district schools, even those serving identical student populations.

Given the range of differences between traditional and charter schools, we did not assume that because BCS has identified resources to fund their AT program, all schools should be able to fund similar efforts. We therefore set out to estimate what budgetary resources similar district schools might have in order to understand whether a portion of those dollars might be reallocated to support a pre-service co-teaching model, while still allowing schools to fund essential work. The exact number of residency positions any given school could fund will vary based on a range of factors, including enrollment, student need, state and district funding policies, and, of course, compensation levels for residents. Our analyses indicate that district schools likely can, in fact, support co-teaching inside their classrooms. Whether they serve a low-need or high-need population, when residents are compensated at a mid-range level it appears that it would take a relatively small portion of available revenue for school leaders to fund residency programs. Even in contexts that necessitate compensation at the high end of what residency programs typically provide, it is likely possible to fund at least a small number of co-teaching residents from within existing school budgets. Exploring these possibilities can pave the way for more schools to access the benefits of individualized attention for students, a strengthened teacher pipeline, and opportunities for leadership and development among veteran teachers.

METHODS: IMPUTING REVENUE AND SPENDING ESTIMATES FOR HYPOTHETICAL PUBLIC SCHOOLS

The state of California’s Local Control Funding Formula (LCFF), coupled with other public data on average funding levels across districts, offered an opportunity to explore whether traditional public schools might be able to institute co-teaching residencies.³ Although budget processes vary from district to district, with different levels of fiscal autonomy to schools and different financial responsibilities shouldered within the central office, public data sources offered a reasonable basis for exploring what a school-level budget for a similarly-sized traditional public school might look like in California.

We began by imputing the school-level budgets of two different hypothetical schools, both of which we assumed serve the same number of students in grades K-8 as Bullis Charter School: 826 students in 2016-17. One of these hypothetical schools, which we called Everest Elementary, also mirrored BCS in terms of student demographics; the other, Olympus Academy, was the same size as BCS but was projected to enroll a much higher proportion of disadvantaged students. We used these assumed enrollment and demographic data to impute the revenue coming from LCFF sources, as well as other state, local, and federal funding sources. Because revenue flows to schools through districts, rather than directly to school budgets, we adjusted this revenue estimate assuming the district retained 36% to fund central office functions, with the remaining 64% disbursed to the school.⁴

After estimating school-level revenue, we explored what it would take to redirect a portion of those funds towards co-teaching positions from two different sources: 1) dollars left after paying for required classroom teacher coverage and 2) dollars used for instructional support and supervision.

Approach 1: *Available funding beyond required classroom teachers.* Every school must, at minimum, staff every classroom with a qualified teacher. Beyond this required staffing floor, remaining resources fund other positions and programs, which conceivably could include pre-service residents.

Under this scenario, we first accounted for the resources schools would be required to spend to ensure their classrooms were all staffed with qualified teachers of record. Based on average class sizes at each grade level in California, we estimated that both Everest Elementary and Olympus Academy would need to employ 38 classroom teachers for their 826 students. Using average teacher salary and benefits rates across districts in California, we determined

that each school would spend approximately \$3.6 million on total compensation for these classroom teachers, including benefits. We then considered the possibilities for funding co-teaching positions with the dollars remaining in their budgets.

This exercise did not account for resources needed to fund other essential staff – such as the principal, specialists, social workers, and perhaps bilingual educators or special education teachers. Schools’ specific staffing needs, and their associated costs, vary greatly based on student populations and other contextual factors. That variation makes it difficult to estimate what our hypothetical comparison schools might spend on the entirety of their essential staff, and thus to consider whether the resources that remain after funding classroom teachers and residents would be wholly sufficient. To address this challenge, we examined the possibility of resource reallocation from a second angle.

Approach 2: *Rethinking instructional support & supervision spending.* Nationally, over 12.5% of the staff inside public school systems serve in instructional support or supervision roles.⁵ Schools and districts often fund these roles to reduce class sizes and improve the quality of teaching and learning; roughly 11% of K-12 dollars nationally go to compensation for instructional support and supervision positions.⁶ In a school with a well-designed, high-quality residency model, such positions might become less essential. Could the leaders of our hypothetical comparison schools consider resource reallocation options just from what they typically would spend on efforts to support their teachers’ instruction? To consider this possibility, we explored funding co-teaching positions from 11% of the hypothetical case study schools’ budgets.

³ All data sources used in this analysis, as well as details on the methods used to impute school-level revenue and expenditures, are presented in Appendix 1.

⁴ The proportion of funds retained centrally based on budget data obtained from a nearby school district, <http://www.losaltos.k12.ca.us/files/user/1/file/Budget%20Book%202016-17.pdf>. Central office expenditures include general administration and important programs such as preschool special education, teacher specialists shared across schools, health services, state testing, meals for students eligible for free and reduced lunch, and many others.

⁵ Data Source: U.S. Department of Education, National Center for Education Statistics, Common Core of Data (CCD), “Local Education Agency (School District) Universe Survey”, 2013-14 v.1a

⁶ Based on the Common Core of Data’s Local Education Agency (School District) Universe Survey and School District Finance Survey, as well as average spending on benefits in California; see Appendix 1 for details.

KEY ASSUMPTIONS AND CAVEATS

California's student-based Local Control Funding Formula (LCFF) provided a starting point from which to impute expected revenue for a school the size of BCS. The LCFF is not yet fully funded, but the California Department of Education (CDE) reported that districts could expect on average to receive 96% of their LCFF targets in 2016-17.⁷ Because we assumed it would take time for schools to shift resources towards pre-service residencies, and CDE estimates full implementation of LCFF by 2020-21, using LCFF full funding targets served as a reasonable basis for considering budget possibilities in our hypothetical California schools.

Still, other important caveats exist:

- Beyond the fiscal assumptions for the budget analyses in this report, the very idea of funded residencies requires an assumption that the candidates coming into a school are well-prepared to take on a significant co-teaching role in alignment with school needs and priorities.⁸
- Districts have different salary scales and differing profiles in terms of the range of teacher experience. As a result, teacher salaries in our hypothetical comparison schools were calculated

based on reported statewide average salaries. The calculations, while reasonable, might be less reflective of one district compared to another.

- Our assumptions do not presume to capture salient features that might differentially impact budgets across the range of contexts in which districts operate, such as local capacity for supplemental fundraising, large proportions of students with disabilities, or rural settings.
- Districts will experience differing gaps between their LCFF targets and actual funding until the LCFF is fully phased in.
- Methods by which districts disburse funds to schools likely differ across the state, meaning that key assumptions we have made might not translate to other districts' schools.
- These data might shed light on possibilities for schools in other states, but state variation in funding formulae mean that scenarios across state lines could look quite different.

Appendix 2 provides details on several additional analyses conducted in order to test the robustness of our methods.

ABOUT RESIDENT STIPEND LEVELS

Full-time resident co-teachers are doing real work in schools and, we believe, should ultimately be compensated accordingly, similar to the compensation received by ATs at BCS. Their salaries, while lower than starting salaries for homeroom teachers, are roughly in line with levels of compensation for assistant teachers or paraprofessionals. Ideally, our nation would value residents' work and commit, as have other nations, to appropriately supporting resident candidates.^{xiv}

However, in our system, where aspiring teachers are commonly treated as students rather than professionals and thus typically receive no compensation, it will take time for our teacher preparation processes to develop towards that kind of system. Accordingly, our analyses assume stipends for residents of \$15,000 (Appendix 2 provides an exploration of how our analyses would change if residents were assumed to receive stipends comparable to the base salary for ATs at BCS). While not the ideal, and likely not enough to attract the

strongest, most diverse set of teacher candidates into the profession, this level of compensation approximates the current mid-range of stipends based on our experience with programs across the country, which range from no compensation for aspiring candidates to stipends or salaries equivalent to those of assistant teachers. It is also roughly in line with the annual stipends provided for full-time AmeriCorps programs.

Ultimately, appropriate compensation levels would be determined based on local contexts and goals. An undergraduate program may be able to attract diverse, high quality teacher candidates with a different level of compensation than a master's program targeting STEM professionals, for instance. Also, programs in geographies with lower costs of living may appropriately offer lower compensation than those in areas with higher costs of living. Our selection of \$15,000 as the dollar amount is intended for illustrative, not policy purposes.

⁷ See Figure 2, <http://www.cde.ca.gov/fg/aa/lc/lcffoverview.asp>

⁸ For a discussion of the conceptual arguments for building residency partnerships between teacher preparation programs and P-12 schools to meet that assumption, see *For the Public Good*, https://www.bankstreet.edu/innovation-policy-and-research/sustainable-funding-project/resources_home/publications/

CASE 1: EVEREST ELEMENTARY—OPPORTUNITIES IN A LOW-NEED PUBLIC SCHOOL

“If the leader of Everest Elementary wanted to expand the residency program, each resident position added would require an additional 1% of the total remaining budget after funding required teacher compensation.”

Everest Elementary, our hypothetical traditional public school that, like BCS, enrolls 826 students in grades K – 8, also serves a student population that mirrors BCS’s in terms of student demographics, with 11% of students having targeted disadvantaged classifications.⁹ Based on expectations for per-pupil funding for this population and the assumption that 36% of total revenue was reserved for central office functions, we calculated that leadership at Everest could expect about \$5 million to fund its programs.

Exploring Approach 1 in Everest Elementary. How much of that \$5 million would Everest Elementary need to spend to ensure all of its classrooms were staffed with teachers of record, before exploring how it might allocate any remaining funds? Using California averages for teacher compensation and class-size, we estimated that Everest would spend approximately \$3.6 million on salary and benefits for required classroom teachers, leaving the school with almost \$1.5 million in its budget to fund other staff and programs, including co-teaching. While many other programmatic needs would have to be funded with these dollars, including crucial expenditures like administration and student support services, the cost savings and instructional improvements the BCS staffing model demonstrates make it highly likely that directing some portion of the \$1.5 million towards residencies would be a wise investment.

For Everest Elementary to create one residency position in each grade level, funded at \$15,000 each, it would need to find \$135,000 to fund nine residents. This staffing decision would only require a relatively small portion of the school’s remaining budget—about 9%. More than \$1.3 million would remain to fund the school’s traditional staffing and programming strategies. If the leader of Everest Elementary wanted to expand the residency program, each resident position added would require an additional 1% of the total remaining budget after funding required teacher compensation, on top of that initial 9%.

Exploring Approach 2 in Everest Elementary. What if the leader of Everest Elementary only wanted to consider rethinking the school’s spending on instructional support and supervision strategies? In this second approach, if the school mirrored the national average, it would spend just over \$550,000 in this area, approximately 11% of its total budget. If the principal decided to redirect a portion of these resources towards stipends for one pre-service resident in each grade, the school would need to reallocate less than 25% of the dollars it typically spends on instructional support and supervision to provide stipends of \$15,000 for each of 9 residents. These residents could offer cost savings from the substitute teacher pool. In addition, well over \$400,000 would remain to go towards other forms of classroom support and supervision. Increasing the number of residents would only require an additional 2.7% of the budget for instructional support and supervision for each position added.

⁹ Defined as students classified as English learners, eligible for free or reduced lunch programs, and/or foster youth; these are the targeted classifications considered as part of the supplemental and concentration grant allocations under California’s LCFF.




826
enrollment


807
attendance


11%
disadvantaged

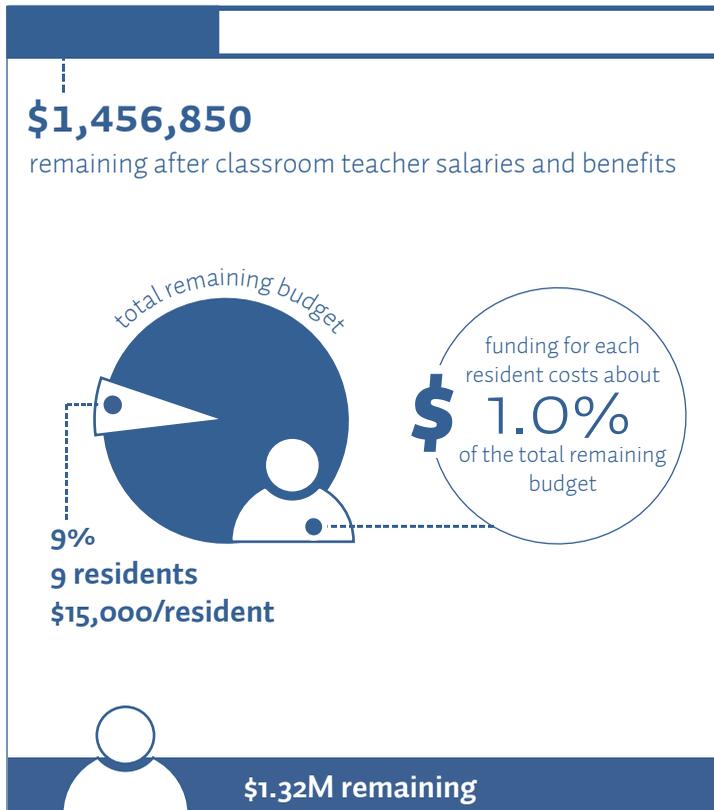

38
classroom teachers

\$5,032,259 total estimated funds allocated to school

SUPPORTING RESIDENTS

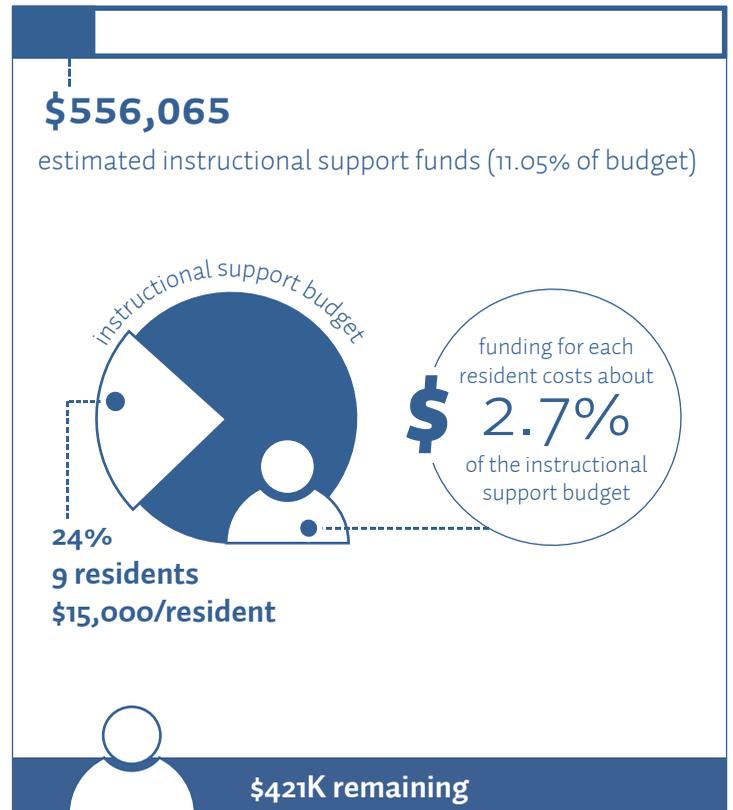
APPROACH 1

WHAT PORTION OF THE FUNDS **REMAINING AFTER PAYING CLASSROOM TEACHERS** COULD BE USED TO SUPPORT RESIDENT STIPENDS?



APPROACH 2

WHAT PORTION OF **INSTRUCTIONAL SUPPORT FUNDS** COULD BE USED TO SUPPORT RESIDENT STIPENDS?



CASE 2: OLYMPUS ACADEMY—OPPORTUNITIES IN HIGH-NEED PUBLIC SCHOOL

“To grow the program, the school leader would need to identify just 0.6% of the school’s remaining budget to fund each additional resident position.”

While our Everest Elementary analysis used funding based on demographics that mirrored students at BCS, BCS is relatively low-need in the California context, with only 11% of students designated as English learners, eligible for free or reduced lunch, or foster youth. What kinds of resources might be available to reallocate towards residencies if a school served a higher population of disadvantaged students?

At our hypothetical Olympus Academy, enrollment and attendance paralleled that of BCS and Everest, but 75% of students were classified as targeted disadvantaged. These students require additional services, therefore generating additional revenue in the California funding formula. The additional dollars are intended to support effective practices that will help identified students succeed in school, a benefit residencies offer. Olympus Academy could use the federal flexibility for directing funds from a range of federal sources towards residencies, as allowable within a Title I schoolwide program.^{xv}

With the same LCFF base grant as Everest Elementary, but additional supplemental and concentration grants reflecting its higher-need student body, the revenue estimate for Olympus Academy would be almost \$6 million, nearly a million dollars more than Everest, offering Olympus even more school-based opportunities for providing residency stipends.

Exploring Approach 1 in Olympus Academy. As with Everest Elementary, Olympus Academy would need to hire a base of 38 classroom teachers to support its 826 students. Based on the same statewide teacher salary and benefit averages, the school would also spend approximately \$3.6 million in total compensation on these core classroom teachers, leaving Olympus with more than \$2.3 million to fund the rest of its staffing and program needs. It would take just under 6% of the remaining budget to fund nine residents, one per grade, with \$15,000 stipends. More than \$2.2 million would remain to fund other essential staff and services. To grow the program, the school leader would only need to identify 0.6% of the school’s available budget after funding classroom teachers for each additional resident position.

Exploring Approach 2 in Olympus Academy. Many of the students at Olympus Academy have a range of needs that must be supported, and the school’s leader might not feel funds should be shifted from many essential student services that Approach 1 explored. If, however, the school considered the benefits that having a pre-service co-teacher offers students, the possibilities of having strong future hires once residents graduate, and the teacher professional development benefits to classroom mentors, the leader may see some wisdom in reallocating spending on other instructional support and supervision strategies. Based on the national average, just over 11% of resources would be dedicated to instructional support roles, providing a pot of \$650,000 to consider for reallocation. To fund one co-teaching position per grade would require 21% of those dollars; Olympus Academy would still have access to over \$500 thousand for traditional instructional support and supervision roles. If the school expanded the program over time, the school leader would need to find just 2.3% of the typical budget for instructional support and supervision for each additional position.

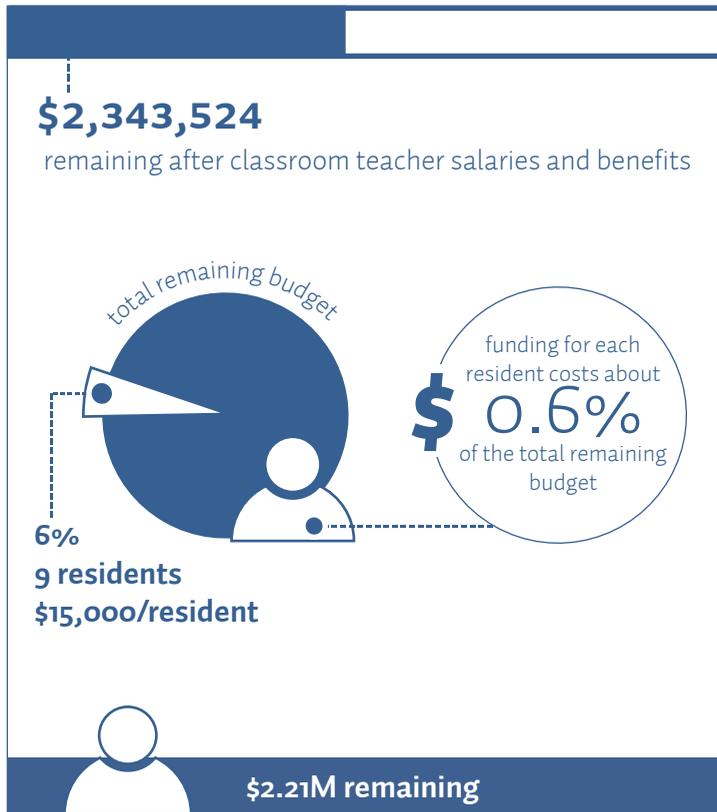


\$5,918,933 total estimated funds allocated to school

SUPPORTING RESIDENTS

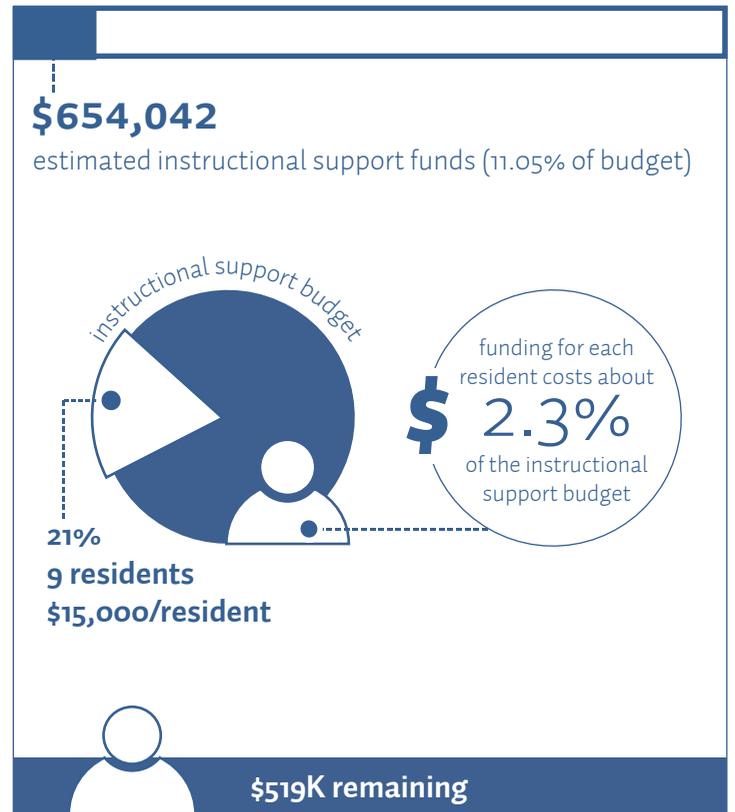
APPROACH 1

WHAT PORTION OF THE FUNDS **REMAINING AFTER PAYING CLASSROOM TEACHERS** COULD BE USED TO SUPPORT RESIDENT STIPENDS?



APPROACH 2

WHAT PORTION OF **INSTRUCTIONAL SUPPORT FUNDS** COULD BE USED TO SUPPORT RESIDENT STIPENDS?





THE CONCLUSION

MORE SCHOOLS CAN FUND RESIDENCIES TO IMPROVE TEACHING AND LEARNING

There is no question that schools are incredibly complex organizations, and there is no one-size-fits-all strategy that can be implemented without accounting for the particulars of a given school's context. We acknowledge that reality and do not claim that our hypothetical schools are reflective of any individual school, in California or elsewhere. Still, examining potential approaches for these hypothetical schools to find room in their budgets for pre-service residencies allowed us to consider whether it was likely that the BCS model of funding co-teachers through a local school budget might be a feasible option for some, if not all, schools.

Based on our analyses, the answer appears to be **yes**.

Traditional public schools likely could redirect portions of their budgets to support at least some residency positions, regardless of the demographics of the students they serve. While the number of resident stipends that could be absorbed into a school's budget would vary, as would the level and type of compensation offered to residents, strategic reallocation options that can support quality residency partnerships appear to be broadly available.

Bullis Charter School provides an example of how creative staffing structures can free up existing resources to reallocate towards residency stipends. Schools can design models in which residents meet school needs for occasional substitute teaching and other classroom coverage demands and help provide individualized instruction to students inside the classroom.¹⁰ Additional flexibility may be realized by structuring residency positions to support before and after-school programming and summer school needs, and by forging strong partnerships with teacher preparation programs that support the development of the broader instructional staff. Through such creative staffing models and resource decisions, more schools can reap the benefits that quality co-teaching and residency-style teacher preparation can provide.

¹⁰ Well-designed residencies are careful to ensure that residents' time working with their mentor teachers is not compromised by frequent requests to "cover" classes. High-quality programs we know seem to guard four days a week as sacred for residents to co-teach in their assigned classes, leaving one day a week for other work in the school.

LOOKING AHEAD TO SYSTEMS SHIFTS

“...Residency partnerships are particularly strong leverage points to support school improvement, strengthen pre-service and in-service teachers’ instructional practice, and improve teacher preparation.”

This report focuses on the possibility of providing financial support for residents through school-level resourcing decisions. BCS offers one of many examples nationwide of how strategic use of resources makes it possible to fund co-teaching positions. Other schools, districts, and charter networks have also found ways to reallocate dollars to residency programs, but they are far from the norm. When Superintendent Hersey invited the SFP to visit BCS, part of her goal was to contribute to our efforts to shift systems so that funded, sustainable, high quality preparation experiences could be available for all aspiring teachers.

At BCS, the AT role was part of the school staffing model from its inception. Most other school leaders, in contrast, will have to re-conceptualize their budgeting strategies to identify resources to support co-teaching residency positions. Responsible budget reallocation would require leaders to spend dollars in ways that maximize student learning and development, and a key part of any school leader’s consideration for shifting dollars to residencies would be ensuring that new residents are well-prepared to step into the role. At BCS, ATs have already completed their certification programs, including student teaching and associated performance evaluations, offering evidence of their competence. Residents, however, would not yet have earned teaching certificates.

Addressing the issue of residents’ readiness to take on their new roles requires deeper partnerships with teacher preparation providers than most schools or districts currently have. As we reported in *For the Public Good: Quality Preparation for Every Teacher*, closer articulation between teacher preparation programs and schools is key to addressing the core challenges of teacher quality; residency partnerships are particularly strong leverage points to support school improvement, strengthen pre-service and in-service teachers’ instructional practice, and improve teacher preparation.^{xvi}

In addition to schools themselves, districts, teacher preparation providers, and policy makers all can play important roles to incentivize, develop, and grow quality, sustainable residency programs. In our forthcoming reports, we will detail how sites across the nation are managing these shifts. Here, we offer an initial look at how different players can productively conceptualize their roles in making residencies more universally available to aspiring teachers.

STATES: INCENTIVIZE CHANGE AND REMOVE ROAD BLOCKS

States can play an indispensable role in the development of sustainable residency programs. To successfully launch a residency program, schools and districts partner with preparation programs, clarifying the roles and responsibilities of each partner, creating alignment between coursework and the needs and priorities of the school or district, and developing processes to assess candidates’ readiness for a residency placement and shared measures for successful completion. Partners also need to identify and train mentor teachers, and, depending on the instructional strengths of the school, may need to dedicate time towards developing the capacity of teachers to step into the mentor role. During this development period, schools, districts, and preparation programs almost certainly need additional financial resources to accomplish their work.

States can play a major role in supporting these transitions by incentivizing teacher preparation providers and K-12 schools and districts to form

residency partnerships. A particularly effective strategy for states is to design competitive grant opportunities that outline high-quality residency partnership expectations and sustainable funding goals. These opportunities can come through legislative initiatives or the actions of state education agencies, and can be funded with state or federal dollars. Federal Title II, Part A funds from the Elementary and Secondary Education Act (ESEA), as enacted in the Every Student Succeeds Act (ESSA), offers one ready source of dollars. Incentivizing districts to use their portion of federal Title dollars towards school-improvement focused residencies could be another approach. States that see the value of these extended co-teaching preparation models would also do well to ensure that leaders understand the possibility of using federal and state funding streams for residency-style preparation as part of an integrated school improvement strategy.^{xvii}

In addition, states may need to review current regulatory frameworks to ensure preparation program approval processes are designed and managed in ways that facilitate the development of strong, high-quality partnerships and discourage proliferation of low-quality teacher preparation alternatives. Often, teacher preparation program approval requirements are not aligned with the sort of design that forefronts clinical practice linked to rigorous coursework; states could both make the path smoother for those new programs and signal a desired shift for the field by reworking their regulatory frameworks.

TEACHER PREPARATION PROGRAMS: REDESIGN STAFFING, SHARE RESPONSIBILITY, AND ENSURE ACCESS

School-level staffing strategies that free up resources to support resident co-teachers, such as those described throughout this report, are a key element of a quality, sustainable residency program. Higher education can bring significant resources to support both residents and school improvement generally by redesigning their staffing models. For example, shifting university field placement staff lines to school liaison positions that work with cohorts of residents has actually been documented to save some institutions dollars—and allowed for clinical faculty to spend their time in schools with residents and mentors. Staffing for student teaching supervision likewise might be ripe for redesign. Professors' course loads could also be reassessed, using models that account for teaching in schools where mentors also benefit, doing research aligned with district needs, or coordinating residency efforts. Enabling these shifts make the workload sustainable—and can save schools and districts professional development and other dollars.

A deep cultural shift that values classroom teachers and university faculty equally is essential to a long-term partnership. Both P-12 and higher education have knowledge and experiences that, if pooled, can help our education system improve. Building a bridge between pre-service and in-service educators enables those with deep knowledge about theory and research to benefit from those who have expertise about practice in a very specific context—and vice versa. In practical ways, bringing classroom teachers into the mentoring and assessment of teacher candidates strengthens the feedback loop to teacher preparation programs and could help schools and districts identify domains for professional development that schools might need.

Finally, teacher preparation providers must work diligently and, perhaps, creatively to find ways to ensure that any aspiring teacher who is well

“Higher education can bring significant resources to support both residents and school improvement generally by redesigning their staffing models.”

“...Districts have one of the most important roles in the furthering of this vision: Leading the way.”

qualified can afford to matriculate through the programs that are offered. Programs across the nation have found ways to minimize tuition expenses using cohort models, establish graduate or research assistantship roles for specialized cohorts, and work with financial aid offices to ensure living expenses are met and candidates graduate debt-free. Coupling these sorts of efforts with strategic recruitment efforts can attract strong, diverse candidates into the profession.

DISTRICTS: REASSESS SPENDING AND LEAD THE VISION

District budgets can be anything but transparent across the many different offices that need to exist to make a system run. For example, recruiting dollars are often disconnected from curriculum alignment efforts; similarly, the portion of human resources staff dedicated to finding, staffing, and paying substitutes would be invisible to teacher quality offices seeking to build residency programs. To realize cost-savings, districts will need to open conversations across budget centers in order to assess the value-add of how different dollars are spent.

Rather than relying solely on the initiative of individual schools to determine how existing resources could be brought to bear on co-teaching residencies, districts can conduct system-wide analyses of resource decisions and support school leaders in identifying opportunities to maximize the impact of their dollars. They can also supplement resources made available through school-level reallocation by similarly exploring the impact of central office dollars, such as recruitment, professional development, and instructional support dollars, and begin discussions about the most strategic ways to design teacher development and support programs that incorporate residencies.

Finally, districts have one of the most important roles in the furthering of this vision: Leading the way. Teacher preparation programs are more likely to shift their work when central offices indicate they want to prioritize hiring from programs with tightly aligned residencies. Teacher candidates will be more likely to select programs that meet districts' expectations for quality partnerships. States are likely to respond to districts' united calls for residency-style preparation when considering competitive grant proposals and regulatory changes. Bullis Charter School itself has both district and school roles; their unified commitment to co-teaching permeates their work. Districts are in the perfect position to help residencies take hold across their schools.

APPENDIX 1 – COMPARISON SCHOOL BUDGET IMPUTATIONS

REVENUE STREAMS

The bulk of school funding inside California comes through the Local Control Funding Formula (LCFF), which, according to the California Department of Education (CDE), provides to districts a uniform base grant based on average daily attendance within set grade spans of students. LCFF funding data for 2016-17 enabled us to estimate the revenue that would go to a district based on the average daily attendance (ADA) and student demographics within our two hypothetical comparison schools. In addition, CDE has reported statewide average revenue per ADA from other state sources, federal sources, and local sources. We used these data to estimate the additional revenue that would be received on the basis of our comparison schools' assumed enrollment and attendance data.

LCFF - Overview

The key elements of LCFF used in our revenue estimates are described on the Local Control Funding Formula Overview website as follows:

School District and Charter School LCFF Funding

- Provides a uniform base grant for each school district and charter school per unit of average daily attendance (ADA), based on the grade span of the pupils, i.e., kindergarten through grade 3 (K-3), grades 4-6, grades 7-8, and grades 9-12.
- Provides an adjustment of 10.4 percent on the base grant amount for K-3. As a condition of receiving these funds, school districts are required to make progress toward an average class enrollment of no more than 24 pupils in K-3 classes, unless the district has collectively bargained an annual alternative average class enrollment in those grades for each school site. Charter schools do not have to comply with this condition.
- Provides an adjustment of 2.6 percent on the base grant amount for grades 9-12; there are no compliance requirements associated with this adjustment.
- Provides a supplemental grant equal to 20 percent of the adjusted base grant multiplied by ADA and the unduplicated percentage of targeted disadvantaged pupils. Targeted pupils are those classified as English learners (EL), meet income requirements to receive a free or reduced-price meal (FRPM), foster youth, or any combination of these factors (unduplicated count).
- Provides a concentration grant equal to 50 percent of the adjusted base grant multiplied by ADA and the percentage of targeted pupils exceeding 55 percent of a local educational agency's (LEA) enrollment.¹¹

The LCFF is not yet fully funded, and actual funding levels for LCFF targets varies from district to district based on how far they were from their targets when LCFF implementation began. We could not estimate current funding gaps for our hypothetical schools, since no baseline funding data exists for them. However, on average districts received 96% of their LCFF targets in 2016-17.¹² While not a perfect estimate, the LCFF and other average per pupil revenue estimates allowed for a reasonable approximation of the funding that would be expected for a particular composition of students within a school.

We imputed budgets for two different hypothetical comparison schools. Both were set up to mirror BCS in terms of the grade levels served, preliminary student enrollment, and average daily attendance at BCS during the 2016-17 school year. The first comparison school, which we called Everest Elementary, also mirrored BCS in terms of its unduplicated percentage of targeted disadvantaged pupils (UPP), as defined by LCFF – which at BCS was 11%. The second comparison school, which we called Olympus Academy, was intended to reflect

¹¹ Data source: <http://www.cde.ca.gov/fg/aa/lc/lcffoverview.asp>

¹² Data source: Figure 2, <http://www.cde.ca.gov/fg/aa/lc/lcffoverview.asp>

a school serving a higher proportion of disadvantaged students, with 75% of students falling in one or more of the LCFF targeted disadvantaged categories.

LCFF – Base Grant Estimates

To determine estimated LCFF revenues for our hypothetical district schools, we first calculated LCFF base grants for both, based on the preliminary enrollment and average daily attendance data (ADA) at BCS. Because our two comparison schools, Olympus Academy and Everest Elementary, shared the same enrollment and average daily attendance assumptions, their LCFF Base Grant estimates were the same.

Table 1 shows the Base Grant Funding provided to districts in 2016-17 for each grade span, including adjustments for grades K-3 and 9-12.¹³ Because we assumed classrooms in our comparison schools were no bigger than the average grade-specific class-size, our comparison schools qualified for the grade span adjustment for grades K-3 described in the LCFF Overview above. Table 1 also includes the average daily attendance (ADA) for both hypothetical comparison schools, based on BCS’s preliminary ADA in 2016-17, and the calculated LCFF Base Grant estimates, which were \$6,076,435 for each school.

Table 1. LCFF Base Grant Revenue Estimates

Grade Span	Base Grant/Adjusted Base Grant per ADA	ADA at Everest Elementary & Olympus Academy	Estimated Base Grant for Everest Elementary and Olympus Academy
K-3	\$7,820	392.28	\$3,067,630
4-6	\$7,189	301.29	\$2,165,974
7-8	\$7,403	113.85	\$842,832
9-12	\$8,801	--	--
Total	--	807.42	\$6,076,435

LCFF – Supplemental and Concentration Grant Estimates

Next, we calculated the expected supplemental and concentration grant revenue as defined by LCFF based on the unduplicated pupil percentages for Everest Elementary and Olympus Academy. Olympus Academy served a higher-need student population, so it received larger supplemental and concentration grants than Everest Elementary, as indicated in Table 2.

Table 2. LCFF Supplemental and Concentration Grant Estimates

	Everest Elementary	Olympus Academy
LCFF Base Grant	\$6,076,435	\$6,076,435
Average Daily Attendance	807.42	807.42
Unduplicated Pupil Percentage	11%	75%
Supplemental Grant (20% of LCFF Base Grant per ADA x ADA x UPP)	\$133,682	\$911,465
Concentration Grant (50% of LCFF Base Grant per ADA x ADA x portion of UPP>55%)	--	\$607,643
Additional LCFF Revenue	\$133,682	\$1,519,109

Other Revenue Streams

Finally, we estimated additional revenue streams for both schools based on data from the California Department of Education on average statewide local, federal, and other (non-LCFF) state sources for elementary districts.

¹³ Data source: Funding Rates and Information, Fiscal Year 2016-17: School District and Charter School LCFF Target Entitlement, <http://www.cde.ca.gov/fg/aa/pa/pa1617rates.asp>

Table 3 shows the reported average funding per ADA and the calculated revenue, which is equivalent for both hypothetical comparison schools given the assumed equivalent ADA of 807.42 in each.¹⁴

Table 3: Additional Revenue Estimates based on ADA for Both Schools

Average Revenue Statewide	Funding per ADA (807.42)	2016-17 Estimates
Other State Sources	\$623	\$503,023
Federal Sources	\$571	\$461,037
Local Sources	\$853	\$688,729
Total Additional Revenue		\$1,652,789

Total Estimated Revenue

Taken together, these estimates provided our total expected revenue for both comparison schools, before accounting for the portion of revenue funding central office expenditures (Table 4).

Table 4: Total Estimated Revenue

	Everest Elementary	Olympus Academy
LCFF Base Grant	\$6,076,435	\$6,076,435
LCFF Supplemental and Concentration Grants	\$133,682	\$1,519,109
Additional Revenue	\$1,652,789	\$1,652,789
Total Revenue	\$7,862,905	\$9,248,332

School-level Revenue Estimates

Revenues for our hypothetical schools were estimated according to each school’s enrollment and demographic assumptions. Funding, however, occurs at the district level, and school districts do not disburse funds to schools in uniform ways; also, school-level budget data is not often publicly available. Thus, we based our estimates of the school-level budgets for our comparison schools on data from a nearby elementary school district in California that provides significant transparency into its central office and school-level budgets.¹⁵ In 2016-17, this district directed 36% of its total revenue towards central office functions such as administration, preschool special education, teacher specialists shared across schools, health services, state testing, and meals for students eligible for free and reduced lunch. We therefore reduced the initial estimated school-level revenue by 36% for both of our comparison schools, and assumed that only 64% remained to fund school-based functions (Table 5). Based on these calculations, we determined Everest Elementary would have a budget of \$5,032,259, and Olympus Academy would have \$5,918,933 to fund personnel and programs.

Table 5: Estimated School-level Revenue

	Everest Elementary	Olympus Academy
Total Estimated Revenue	\$7,862,905	\$9,248,332
Portion Funding Central Office Functions (36%)	\$2,830,646	\$3,329,400
Portion Flowing to School (64%)	\$5,032,259	\$5,918,933

¹⁴ Data source: General Fund Revenue by Object Code 2014-15, <http://www.ed-data.org/state/CA>

¹⁵ Data source: 2016-17 Los Altos School District budget, <http://www.losaltos.k12.ca.us/files/user/1/file/Budget%20Book%202016-17.pdf>

REALLOCATION METHOD 1 – FIRST FUND CLASSROOM TEACHERS

Our first method for considering the possibility of reallocating resources towards pre-service residencies approached the question by looking at the portion of a school’s budget that would be required for funding essential classroom teacher positions. The portion of the school’s budget that remained was the pool from which resources might be reallocated for resident stipends.

Classroom Teacher Estimates

We first needed to determine how much our hypothetical schools might be required to pay in salaries for classroom teachers. As detailed in Table 6, the number of classroom teachers these schools would need to hire across each grade was calculated based on grade-specific enrollment data and reported average class sizes by grade inside California.¹⁶ As with our revenue estimates, grade-level enrollment data for both comparison schools was based on the reported 2016-17 enrollment data for BCS. We rounded up when determining the number of teachers the comparison schools would need to hire so that class sizes would be at or below the statewide average, and we estimated that both comparison schools would need to employ 38 classroom teachers across grades K-8.

Table 6: Number of Classroom Teachers in Comparison Schools

	Statewide Average Class Size in CA (reported by CDE)	Comparison School Enrollment (based on BCS)	Teachers needed (calculated)
Kindergarten	22.55	105	5
Grade 1	23.64	105	5
Grade 2	23.96	105	5
Grade 3	24.2	85	4
Grade 4	27.92	104	4
Grade 5	28.05	104	4
Grade 6	26.86	100	4
Grade 7	19.1	69	4
Grade 8	18	49	3
Total	--	826	38

Classroom Teacher Salary and Benefits

Next, spending on teacher salaries was estimated based on the mid-range teacher annual salary for medium-sized elementary school districts: \$68,910.¹⁷ That school district type aligns with the grade level and the district type of the school district in which BCS is located. This average salary level resulted in total salary spending for 38 classroom teachers of \$2,618,580.

Finally, we looked at reported expenditures for salaries and benefits across elementary school districts in California and found an average benefit rate of 36.54%.¹⁸ Using this average rate, we estimated our comparison schools would have required benefits spending for these classroom teachers of \$956,829. Total compensation for classroom teachers was therefore calculated to be \$3,575,409 (Table 7). These estimates were consistent for both of our comparison schools, since Everest Elementary and Olympus Academy were assumed to serve the same numbers of students in each grade level.

¹⁶ Data source: Average Class Size by Grade for 2014-15, <http://www.ed-data.org/state/CA>

¹⁷ Data source: 2014-15 statewide average salaries for medium-sized elementary school district, <http://www.cde.ca.gov/fg/fr/sa/cefavg salaries.asp>

¹⁸ Data source: District comparison data, <http://www.ed-data.org/Comparisons?compType=districts>; our benefits rates were calculated based on reported general fund expenditures for certificated salaries, classified salaries, and employee benefits.

Table 7: Classroom Teacher Compensation and Benefits for 38 Teachers

	Statewide Average per Teacher	Estimated Comparison School Spending
Teacher salary	\$68,910	\$2,618,580
Benefits (36.54%)	\$25,180	\$956,829
Total Compensation	\$94,090	\$3,575,409

*Note: Discrepancies between per teacher data and estimated spending for comparison schools is due to rounding in the data in Table 7.

To examine what portion of our comparison schools’ budgets would be available to fund residency stipends under this first reallocation method, we calculated the remaining dollars after accounting for this \$3,575,409 in compensation for classroom teachers. As Table 8 shows, Everest Elementary would have over \$1.4 million to fund its remaining needs, a portion of which could include residency stipends; Olympus Academy would still have almost \$1 million more than that - over \$2.3 million.

Table 8: Remaining funds after paying classroom teachers

	Everest Elementary	Olympus Academy
Initial Budget	\$5,032,259	\$5,918,933
Teacher Compensation	\$3,575,409	\$3,575,409
Remaining funds	\$1,456,850	\$2,343,524

REALLOCATION METHOD 2 – ROLLING OVER INSTRUCTIONAL SUPPORT DOLLARS

A second approach for looking at the feasibility of funding pre-service resident positions took a more limited view of reallocation possibilities, considering only the portion of a school’s budget that typically pays for instructional support and supervisory roles. The data on which we based this approach came from the National Center for Education Statistics (NCES) Common Core of Data from 2013-14, the most recent year in which both staffing and finance data were available.

Using raw data from the Local Education Agency (School District) Universe Survey, which provides data on both the students and staff of local education agencies across the country, we found that on average 12.6% of public school system staff across the country work in instructional support or supervision roles, with 11.5% in instructional support positions, such as instructional aides or paraprofessionals, and 1.1% in instructional supervisor positions.¹⁹ To calculate these percentages, we first converted to “missing” any numeric data in the source file that was missing, nonapplicable, or suppressed, which are represented by values of “-1”, “-2”, and “-9”, respectively, inside the data file. We then aggregated across districts to determine the total number of staff working in each of twelve categories of staffing:

- Total teachers
- Instructional aides/paraprofessionals
- Instructional coordinators & supervisors
- Total guidance counselors
- Librarians/media specialists
- Library /media support staff
- LEA administrators
- LEA administrative support staff
- School administrators
- School administrative support staff
- Student support services staff
- All other support services staff

Finally, we aggregated across the total numbers of staff in each of these categories to determine the cumulative number of staff working in the public school system, as indicated in Table 9. We found that out of more than 6.1 million total staff working in the public school system, over 700,000 were in instructional support roles and almost 70,000 were in instructional supervision roles. These roles comprised over 12.5% of total public school system staff (Table 9).

Table 9: Public School System Staff in Instructional Support or Supervision Roles

	Count	Percent
Total Staff	6,107,727	100%
Instructional support roles	700,482	11.5%
Instructional supervision	69,953	1.1%
Instructional support & supervision (combined)	770,435	12.6%

The Common Core of Data does not collect discrete data on salary expenditures for these positions, and we were unable to estimate spending on instructional supervision roles. We were able to reach a reasonable estimate of salary spending on instructional support roles, however, using data from the School District Finance Survey. This survey provides revenue and expenditure data for all school districts in the country. To process data from the survey we first converted to “missing” any numeric data in the source file that was missing, nonapplicable, or suppressed, which are represented by values of “-1”, “-2”, and “-9”, respectively, inside the data file. We then dropped cases with no reported current expenditures.

With this constructed data set, we calculated expenditures for instructional support staff salaries using the following reported variables:

- Salaries – Instruction: This includes salaries for teachers as well as instructional aides or assistants
- Teacher Salaries: Including each of the subcategories below, these data include base salaries paid to certified teachers and certified substitute teachers, but do NOT include salaries paid to instructional aides or assistants
 - Teacher Salaries – Regular education programs
 - Teacher Salaries – Special education programs
 - Teacher Salaries – Vocational education programs
 - Teacher Salaries – Other education programs

With these data, we were able to calculate the total dollar amount spent on teacher salaries across reported program types. We then determined the amount spent on instructional support salaries by subtracting teacher salaries from total reported instructional salaries.

As Table 10 details, we summed the reported teacher salary data for regular education, special education, vocational education, and other education programs, which include salaries for certified and substitute teachers but not for instructional support roles, and determined that districts spent over \$171 billion on salaries for certified teachers. Because the reported total spending on instructional salaries includes both certified teachers and instructional support staff, we then subtracted our calculated teacher salary spending from the total instructional salary spending, and found a difference of over \$44 billion, which became our estimated spending on salaries for instructional support staff.

Table 10: Calculated Salaries for Instructional Support Staff

Salaries – Instruction (Reported)	\$215,246,161,000
Teacher Salaries – Total (Calculated)	\$171,143,203,000
Teacher Salaries – Regular education programs (reported)	\$128,973,400,000
Teacher Salaries – Special education programs (reported)	\$28,699,079,000
Teacher Salaries – Vocational education programs (reported)	\$5,290,128,000
Teacher Salaries – Other education programs (reported)	\$8,180,596,000
Instructional Support Salaries (Calculated)	\$44,102,958,000

¹⁹ Data Source: U.S. Department of Education, National Center for Education Statistics, Common Core of Data (CCD), “Local Education Agency (School District) Universe Survey”, 2013-14 v.1a

The School District Finance Survey data does not include disaggregated information on expenditures for benefits by staff role. We therefore estimated the benefits for these instructional staff using the same average benefits rate in California of 36.54% that we used to compute benefits for teachers in the first reallocation method, described above, resulting in an estimated total national spending on compensation for instructional aides of \$60,218,178,853.

The School District Finance Survey data indicated that districts across the country spent over \$544 billion in total current expenditures, including salary and non-salary expenditures. As Table 11 shows, we calculated the proportion of this total district spending going to estimated compensation for instructional support roles – 11.05% on average.²⁰

Table 11: Proportion of Total Expenditures Going to Compensation for Instructional Support Staff

Total Current Expenditures - Elementary/Secondary Education (reported)	\$544,772,912,000.00
Estimated Expenditures – Instructional Support Salaries	\$44,102,958,000
Estimated Expenditures – Instructional Support Benefits	\$16,115,220,853
Estimated Expenditures – Instructional Aide Total Compensation	\$60,218,178,853
% Expenditures – Instructional Aide Salary and Benefits	11.05%

Our second approach to examine resource reallocation possibilities was based on only these dollars spent on instructional support positions; limitations in the data precluded the inclusion of estimated dollars spent on instructional supervision. We therefore expect this approach underestimates the possibility to reallocate resources from instructional support and supervision functions towards residency positions, though the much larger number of staff in instructional support roles compared to instructional supervisory roles – 11.5% and 1.1%, respectively – led us to consider the estimated spending a reasonable stand-in for spending on both instructional support and supervision. As Table 12 details, if Everest Elementary and Olympus Academy mirrored the national average, and spent about 11% of their dollars on instructional support and supervision staff, Everest would have a bucket of funds from which to reallocate resources to residency stipends of \$556,065 and Olympus would have \$654,042.

Table 12: Instructional Support Reallocation Opportunities

	Everest Elementary	Olympus Academy
Total Budget	\$5,032,259	\$5,918,933
Average Spending on Instructional Support & Supervision (11.05%)	\$556,065	\$654,042

²⁰ Data Source: U.S. Department of Education, National Center for Education Statistics, Common Core of Data (CCD), “School District Finance Survey (F-33)”, 2013-14 (FY 2014) v.1a.

APPENDIX 2 – ANALYSES TO TEST THE ROBUSTNESS OF OUR IMPUTATIONS

A number of assumptions were made in our school revenue and expenditure imputations, which aim to result in a reasonable model of school-level budget possibilities but certainly do not capture all of the specific budget contexts of any individual district or school. Because of this inherent limitation, we engaged in several additional analyses to test the reasonableness of the results we obtained using our assumptions and methodological choices. We share these additional analyses below.

Per pupil spending tests

We conducted a test on our total estimated revenues for both the low-need and high-need comparison schools, before removing the 36% that reflected funding for central office functions. We considered these total revenue imputations reflective of “district” level budgets.

Per pupil funding is reported by the California Department of Education (CDE) based on average daily attendance (ADA). Both schools were assumed to have an average daily attendance of 807.42, based on interim data provided by Bullis Charter School for 2016-17. Using this ADA data, and the total estimated revenue for both schools (see Table 4, above), we calculated the per pupil spending for both Everest Elementary and Olympus Academy, as shown in Table 13.

Table 13: Per pupil Spending

	Everest Elementary	Olympus Academy
Total Estimated Revenue	\$7,862,905	\$9,248,332
ADA	807.42	807.42
Per pupil spending	\$9,738	\$11,454

The most recent data available from the CDE reported per pupil spending in elementary districts, based on ADA, of \$10,183.²¹ Considering this is a statewide average, our “district” level estimates based on ADA of \$9,738 for the low-need school and \$11,454 for the high-need school appear reasonable, as the range can be assumed to reflect the differences in supplemental and concentration grants for low- and high-need schools under the LCFF.

Teacher salary tests

Spending on teacher salaries varies widely based on specific teacher salary schedules and the experience levels of teachers within a school building, and both of these variances are often related to the socioeconomic status of the students and community in which a school is located. We considered two different scenarios when estimating the salaries for the teachers in our hypothetical schools. First, we took teacher experience into account in order to estimate teacher salaries. We presumed the teachers in our hypothetical schools had the same experience levels as do the teachers who participate in BCS’s AT program: 35% of teachers have 1-3 years of experience, 43% have 4-9 years of experience, and 22% have 10 or more years of experience.

²¹ Data source: Current Expense of Education, “2015-16 Current Cost of Education”, <http://www.cde.ca.gov/ds/fd/ec/currentexpense.asp>

Because district-specific salary schedules differ significantly from one location to another, we based salary estimates on the statewide averages for beginning, midrange, and highest teacher salaries in comparably-sized elementary school districts reported by CDE.²² As Table 14 demonstrates, this resulted in estimated salary spending of \$2,456,701 for the 38 teachers in our hypothetical schools.

Table 14: Experienced-based Salary Estimates

	Statewide Average Salary	% of Teachers	# of Teachers	Total
Beginning Teacher Salary (1-3 years)	\$44,573	35%	13	\$578,591
Midrange Teacher Salary (4-9 years)	\$68,910	43%	17	\$1,171,470
Highest Teacher Salary (10+ years)	\$88,330	22%	8	\$706,640
Total	--	100%	38	\$2,456,701

BCS has been growing and adding new grades and classes since it opened, requiring it to staff up new classes as well as replace teachers who might leave the school. We recognized, therefore, that the teachers at BCS might represent a less experienced workforce than exists in many other schools. While we did not find reported data on the average experience level of teachers across the state of California, the district in which BCS is located reports that 72% of its teachers have more than 6 years of experience, reflecting a more experienced teaching force than would exist in our imputed comparison schools.²³

To consider the potential of skewing towards a less experienced teaching staff, we also calculated expected salary spending based simply on the reported statewide midrange of \$68,910, resulting in an estimated \$2,618,580 for salaries for 38 teachers. As Table 15 shows, using the experience profile of BCS teachers did decrease our resulting salary estimate compared to using a statewide midrange, leading to a difference of about 6% between the two estimates. In order not to underestimate probable spending on teacher compensation, the analysis included in the report based compensation on the statewide midrange salary alone.

Table 15: Comparing Salary Estimates

	Estimated Teacher Salary Spending
Salary estimates using experience levels comparable to BCS	\$2,456,462
Salary estimates using statewide midrange salary	<u>\$2,618,580</u>
Difference	- \$162,118

Resident compensation levels

There is no definitive research base on which to determine the appropriate level of compensation for aspiring teacher residents. Across the country, in traditional higher education-based preparation programs as well as alternative preparation programs and programs developed by charter management organizations, full-time residents are compensated at levels that range from no formal stipend (though in such cases teacher candidates often still receive financial assistance or scholarships to support their tuition expenses) to salaries with benefits equivalent to those offered to assistant teachers or starting teachers of record. For the purposes of this report, our analyses assumed a stipend level of \$15,000 for a year of full-time co-teaching. Such a stipend approximates a mid-range level of compensation from across the nation that we are aware of and is in line with stipends for full-time AmeriCorps volunteers. Of course, this figure may not be appropriate in all contexts, including, as many across the country note, for programs that seek to recruit career changers from high need STEM fields.

Our analyses use stipends, not salaries, because stipends are exempt from benefit costs to the employer and

²² Data source: 2014-15 statewide average salaries for medium-sized elementary school districts, <http://www.cde.ca.gov/fg/fr/sa/cefavg salaries.asp>

²³ Data Source: "2016-17 LASD Budget Complete Document": <http://www.losaltos.k12.ca.us/District/5274-District-Budget.html>

are exempt from FICA (Social Security and Medicare) taxes to the individual. Many residency programs take advantage of these implicit cost savings in order to fund their residents. Very often, because residents are enrolled in higher education programs, their health and other benefits are available through their universities. Accordingly, we opted to assume stipends, which would not have benefits costs, as the payment method for residents.

To test the degree of difference higher stipends would make in our calculations, we asked the question: How would our analyses have differed if we assumed residents in our hypothetical schools received compensation comparable to the midrange salary level for Associate Teachers at BCS, which approximates common salaries for assistant teachers or paraprofessional positions?

ATs at BCS earn base salaries between \$36,750 and \$47,300, with \$42,025 as the midpoint. We re-ran the analyses for our two hypothetical schools using this salary as the presumed stipend level for residents. Tables 16 and 17 compare reallocation possibilities in our initial analysis and our reanalysis for both Approach 1 and Approach 2. Because the average salary for beginning teachers is about three times higher than our original assumed stipend of \$15,000, it would cost schools almost three times as much to fund the same number of residents at this higher stipend level.

In our first approach to understanding resource reallocation opportunities, we determined that after setting aside \$3,575,409 to fund salaries and benefits for classroom teachers, Everest Elementary would have \$1,456,850 remaining for other staff and programmatic needs. Olympus Academy would have \$2,343,524 left. As Table 16 shows, funding three residents \$42,025 each would require reallocation of 8.7% of Everest Elementary’s remaining resources. In Olympus Academy, about 5.4% of the school’s remaining resources would need to go towards funding for three residents. It might be a challenge for the school leader at Everest Elementary to reallocate resources for 9 residents, which would require 26% of the school’s remaining budget; however, even in this case over \$1 million would remain to fund other programs and personnel. The school leader at Olympus Academy could expect to have almost \$2 million remaining after funding 9 resident stipends at \$42,025 each (Table 16).

Table 16: Comparison of Total Spending and Remaining Funds under Approach 1

	Everest Elementary			Olympus Academy		
	Original Analysis	Reanalysis		Original Analysis	Reanalysis	
# Residents	9	3	9	9	3	9
Cost for Residents	\$135,000	\$126,075	\$378,225	\$135,000	\$126,075	\$378,225
% of funds used for residents	9.3%	8.7%	26.0%	5.8%	5.4%	16.1%
Funds remaining for all else	\$1,321,850	\$1,330,775	\$1,078,625	\$2,208,524	\$2,217,449	\$1,965,299

Our second approach to examining resource reallocation possibilities was to consider only the portion of the comparison schools’ budgets that typically fund instructional support and supervision. In Everest, we determined this would be about \$556,065, and in Olympus it would be about \$654,042. Again, to keep overall spending on resident compensation at a similar funding level to our original analysis, our comparison schools would have to decrease the number of residents from 9 to 3 to account for the higher individual stipends. However, if the schools continue to fund 9 residents at \$42,025 each, Everest Elementary would still have over \$175,000 for other instructional support and supervision strategies, and Olympus Academy would still have over \$275,000. In either case it is likely that the schools would be able to fund one or more additional positions focused on instructional support and supervision on top of funding nine residents (Table 17).

Table 17: Comparison of Total Spending and Remaining Funds under Approach 2

	Everest Elementary			Olympus Academy		
	Original Analysis	Reanalysis		Original Analysis	Reanalysis	
# Residents	9	3	9	9	3	9
Cost for Residents	\$135,000	\$126,075	\$378,225	\$135,000	\$126,075	\$378,225
% of funds used for residents	24.3%	22.7%	68.0%	20.6%	19.3%	57.8%
Funds remaining for instructional support/supervision	\$421,065	\$429,990	\$177,840	\$519,042	\$527,967	\$275,817

Of course, higher compensation for resident co-teachers would require schools to direct larger portions of their resources to these positions. It appears, though, that many schools still would have flexibility to fund residents at a range of compensation levels.

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