What Is Resource Equity?

A working paper that explores the dimensions of resource equity that support academic excellence

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Executive Summary

"Resource equity" is the allocation *and* use of resources – people, time, and money – to create student experiences that enable all children to reach empowering, rigorous learning outcomes, no matter their race or income. When we say "equitable," we do not mean that every individual student gets the same thing. Instead, we mean that we must provide all students with the resources required to create the kind of experiences they need to meet rigorous academic expectations and succeed in our fast-changing information- and technology-based society, so that race, income, and zip code no longer predict success in school and beyond. This means spending more on students who face greater learning challenges *and* organizing resources (people, time and money) in ways that accelerate learning. Today, there may be widespread and persistent achievement gaps between students of color and white students and between students who are and are not from low-income families, but there are also schools and districts defying these odds. Raising achievement for all, and closing those gaps, is clearly possible with the equitable allocation and smart use of resources.

Based on research and practical experience with districts across the nation, we propose eleven "dimensions of resource equity" that represent the key resource levers that system and school leaders can pull to create equitable learning experiences for all students. These dimensions include factors that directly impact the student experience, such as teaching quality, empowering, rigorous content, instructional time and attention, early intervention, early learning, a whole child approach, and family academic engagement, and factors that impact the student experience more indirectly, such as school funding, school leadership quality, diverse and inclusive schools, and learning-ready facilities (see the framework on page 4). There is no top-down "formula" or magic combination of these resources that will work in every context to achieve meaningful resource equity and ultimately improve student achievement. Instead, the dimensions represent a framework to guide state and district policymakers and practitioners – and the advocates who influence them – through an assessment of the status quo in their particular context: how these resources are allocated and how they might need to be re-allocated in order to more equitably and effectively use those resources based on student need.

Dimensions of Resource Equity

The following table incorporates brief definitions of each dimension of resource equity. In the pages to come, we take a deeper dive into the dimensions with references to key research, examples of actions leading districts are taking to promote equity, and sample diagnostic questions for system leaders and advocates.

Factors that directly impact the student experience	
Teaching Quality	Research and experience tells us that consistent access to effective teaching has a dramatic effect on student achievement. However, too often districts have difficulty attracting and retaining their best teachers in high-need schools. Any definition of resource equity must ensure that students with greater needs have at least as much access to excellent teaching, if not more.
Empowering, Rigorous Content	Research has shown a relationship between the level of expectations that systems, schools, or teachers set for their students and their students' subsequent levels of achievement. Those expectations play out in richness and rigor of curriculum material, the way instruction is delivered, what assignments students receive and the rigor with which they are graded, and access to advanced course material. Though we typically find much lower rigor in high-need schools, high-performing schools and systems actively manage the level of intellectual rigor that teachers demand of all students.
Instructional Time & Attention	We typically see very little variation in total student instructional hours. Using time well means differentiating instruction to meet students and then accelerating progress to help students with diverse learning needs learn rigorous, grade-level content. In addition, when time is used effectively, adding instructional hours to the school year can be a powerful lever for improving student outcomes.
Early Intervention	Intervening early to keep students on track is much more effective than trying to "catch" students back up once they have fallen behind. This suggests that ensuring access to academic interventions (e.g., early warning systems and Response to Intervention programs designed to quickly identify specific student needs and address them before they become major problems) for all students is critical to ensuring resource equity.
Early Learning	Research on early childhood education suggest that access to high-quality pre-K programs are among the highest impact ways to improve outcomes for students. Providing access to early learning opportunities particularly for students coming from families living in poverty or who have special learning needs is critical to ensure that they can achieve at the same levels as their peers later in life.
Whole Child Approach	Research demonstrates that students need certain social, emotional, and academic development (SEAD) skills and competencies in order to participate in rigorous learning. And, students who arrive at school with unmet health, social, or emotional needs are at greater risk of poor performance. Schools that strategically organize resources focus on proactively supporting SEAD skills and competencies for all students and also integrate more intensive supports for students with greater social, emotional, or health needs. Schools that have higher concentrations of students with more intensive needs will need more resources to provide effective support.

Family Academic Engagement	Parent/caregiver interest and involvement in their child's academic work can have profound effects on behavioral and academic outcomes. However, some parents face physical, linguistic, emotional, and cultural barriers that disproportionately impact the parents of students who already face additional challenges at school. School and system leaders can organize and invest to lower these barriers to better engage with parents.
Factors that indirectly impact the student experience	
School Funding	While the relationship between school funding levels and outcomes is complex, recent studies point to a positive correlation between increased resources and the achievement of low-income students over time. But, we know that extra spending does not necessarily lead to accelerated learning because the dollars aren't always used on strategies likely to accelerate learning. Extra dollars only matter when they are used well.
School Leadership Quality	Strong leaders raise the overall effectiveness of their entire teaching staff by organizing to attract, retain, and develop strong teachers and teams. We consistently find that schools with higher needs have less-experienced leaders and fewer effective teachers to play leadership roles.
Diverse & Inclusive Schools	While it may seem odd to suggest that "who" students attend schools with is a "resource," the literature on the "peer effect" on student performance suggests that a student's classmates/schoolmates are an important driver of outcomes. When students have the opportunity to attend a school that enrolls a mix of races and backgrounds, it can promote greater understanding and effectiveness in working with others. Districts and communities can seek to increase school diversity through student assignment and choice or magnet policies, though these practices vary greatly in different communities and contexts.
Learning-Ready Facilities	Capital investments represent a large share of education spending, and inequities can have dramatic impacts on students, including school closings due to lack of heat or dangerous levels of lead in the water supply. However, the research suggests that not all investments in facilities have an equal impact on students. Leaders must weigh investing in new facilities alongside the other dimensions of resource equity to determine which actions will be most impactful for student learning.

Introduction

The notion that all students will succeed is both pervasive and elusive. It's pervasive in aspiration—appearing in the names of federal legislation, the mission statements of almost all districts and schools, the signage on walls in classrooms across the country. Yet it's elusive in practice; despite our stated goals, vast differences in outcomes persist.

Why is success here so elusive? The reasons are numerous, of course. But we believe that one of the factors is what we call "resource equity." **Resource equity refers to the allocation and use of resources (people, time, and money) to create student experiences that enable all children to reach empowering, rigorous learning outcomes—no matter their race or income.** We believe that measuring and discussing the dimensions of resource equity can push us past illusory aspirations and instead focus leaders on *how* to design schools and set system-level policies that enable all children to succeed.

When we say "equitable," we do not mean that all students reach the same mediocre level of learning. Educational equity focuses on whether all students—regardless of race, gender, ethnicity, language, ability, sexual orientation, family background, family income, or other characteristics—attain rigorous learning outcomes that will prepare them for the fast-changing information- and technology-based world of the future. Resource equity helps us understand *why* some students or schools may not be succeeding, by looking at whether all students have an equitable student experience.

We know that equitable does not mean equal; students who come to school with greater needs require greater resources to reach the same high learning outcomes. And just providing more funding is incomplete—we also must organize resources in strategic ways that accelerate student learning. If we can identify when students are denied the resources they need to succeed, then school and systems leaders, advocates, and policymakers can have a clear, fact-based discussion about what needs to change to provide the resource equity.

Over the last year, we've reviewed the research, reflected on our experience working with large systems, and studied the ways that systems are tracking equity in their own schools. Through this analysis, we've identified the following dimensions that are fundamental to ensuring all students have the learning experiences they need to reach empowering, rigorous learning outcomes.

The dimensions on the inside circle of the framework represent factors that directly impact the student experience, and those on the outside circle represent conditions that, while important, contribute to the student experience more indirectly. The dimensions included here focus only on resources that school system leaders can directly control through policy or practice. Neighborhood safety and parents' educational attainment, for example, do link to outcomes, but are not included here. The dimensions relate to each other and shouldn't be viewed in isolation; some clearly take precedence over others.
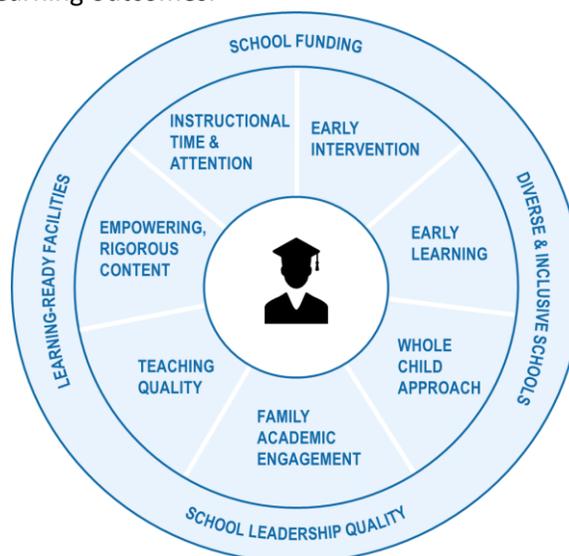
Nor do they represent a set "recipe" for great school systems or a scorecard where each component should be checked off.

Rather, we see these dimensions as a point of entry that helps stakeholders see more clearly the ways school systems can provide every student the resources he or she needs to thrive. The level and strategy for distributing these resources will vary by district; there is no universal metric. Every system will need to assess its current strengths, weaknesses, and constraints—and if it proves difficult to provide more of one resource, they may need to compensate by increasing another.

Though this concept applies at the school, district, community, state, and national level, in this paper we present the dimensions from the perspective of a school system. We start here because we believe that a system-wide approach is the most powerful way to ensure equity. Some individual schools beat the odds by "doing school" in new ways. But for every school and every child to thrive, we need to *change* the odds by redesigning school systems to enable schools to organize in strategic ways that accelerate learning for all students. An equity-focused school system can allocate resources on the basis of student need, and support strategically designed schools in using those resources equitably. It is, after all, at the school level that the student experience comes to life.[*]

In this working paper, we explain how each dimension links to student outcomes, identify typical sources of inequities within systems, share ways that schools and systems have organized resources to create greater equity, and provide sample diagnostic questions to help systems begin to self-assess.

We are at a unique moment—with more data than ever before on how resources are allocated and used, and great urgency for tackling educational equity head-on. If we intend outcomes to be equal, resources cannot be. Our hope is that as systems engage with this conception of resource equity, we will learn a lot more about these dimensions—how they interact, which are easiest to adjust, which have the most impact, and which we may have left out. We invite system and school leaders to contribute to this learning by sharing their experiences.

Dimensions of Resource Equity

1) Teaching Quality

Research and experience tell us that consistent access to effective teaching has a dramatic effect on student achievement.[1] We see this reflected in higher test scores, but also in college attainment, average salaries, and retirement savings later in life.[2]

Thus, any definition of resource equity must ensure that students with greater needs have at least as much exposure to excellent teaching, if not more. However, too often districts find it hard to attract and retain their best teachers in high-need schools. This can create a vicious cycle of new teachers being assigned to higher-needs schools and students and turning over at higher rates. New teachers often improve most rapidly early in their careers,[3] so losing these teachers before they have found their footing

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[*] More information on the concept of the Strategic System and Strategic School Design is in the appendix.

is doubly detrimental to students and creates even greater demands on school resources for mentorship and support for novice teachers.

While paying highly effective teachers more to work in high-need schools can be a piece of the answer, we find that a) districts often cannot afford to pay substantially more, to enough people, to place all the teachers they need, and b) teachers value other aspects of their workplace as much or more than salary (e.g., strong adult culture, a highly effective school leader, and opportunities for strong collaboration and professional growth). Systems with inequitable access to excellent teaching for higher-need students may use staffing policies and processes that treat all schools the same, or may have negotiated bargaining agreements that make differential staffing policies more difficult. That said, we recognize that teachers are not equally effective across all schools and contexts. Systems can work to better understand the characteristics of excellent teachers of higher-needs populations and work with principals to recruit and select accordingly.

Ultimately, enabling students with the greatest needs to access excellent teaching also requires investments in collaboration and professional growth. Our recent profile of four systems engaged in redesigning professional learning for the age of high academic standards provides examples of the kind of "connected" professional learning needed to ensure equitable access to high-quality instruction. We found that high-performing school systems support their teachers through providing rigorous, coherent curricula and assessments; content-focused, expert-led collaboration; and frequent, growth-oriented feedback. This illustrates just how interrelated teaching quality is with academic rigor and instructional time.[4]

Sample Diagnostic Questions:

a. Does my system have a reliable way to measure teaching effectiveness? If so, how are highly effective teachers distributed across schools and students of different need levels? Is access to excellent teaching constrained across the system, or just to students in a subset of schools?
b. How are novice teachers distributed across schools and students of different need levels?
c. What additional resources do schools with high concentrations of novice teachers receive?

2) Empowering, Rigorous Content

Research has shown a relationship between the level of expectation that systems, schools, or teachers set for their students and their students' subsequent levels of achievement.[5] Even when teachers adopt low expectations with the good intention to "meet students where they are," they can have a deleterious effect on student outcomes. Those expectations play out in richness and rigor of curriculum material, the way instruction is delivered, what assignments students receive and the rigor with which they are graded, and access to advanced course material.

Very much intertwined with teaching effectiveness, equity in curriculum and instructional rigor means that the work that students do—in class responding to teacher questioning, through homework, etc.— works backwards from the desired outcomes.[6] Students are unlikely to develop higher-order thinking skills if they are asked only factual recall questions; nor are they likely to develop effective writing skills if they answer only multiple-choice questions and rarely receive feedback on their written work.

Grading practices can also be an important source of evidence related to rigor: if high-need schools are typically awarding A's to students who are then scoring as below proficient on state summative assessments, then unless the summative assessments are deeply flawed, the differences in grading practices across schools would appear to indicate some sort of inequity in expectation.

Finally, course offerings are also a part of this dimension of resource equity. Higher-achieving students in schools with large numbers of lower-achieving students may not have access to AP or advanced courses simply because the school doesn't offer them. Or students of color in schools that do offer them may not be pushed to take them due to faculty misperceptions about their readiness and interest. Access to AP classes is a good illustration as it is typically well documented and varies significantly between high- and low-need secondary schools. In addition, one relatively straightforward indicator here is the relationship of 8th grade math performance to 9th grade math course placement (as 9th grade math course offerings can often vary in level of rigor). In one district we worked with, we observed that African-American and Latino students were less likely to be placed in advanced/honors math classes than white and Asian students with similar prior-year test scores. While it's not the case in every context, the analysis showed that the difference was driven by differences in course offerings across schools (rather than different treatment of students of different races within schools) since several of the schools that served large numbers of African-American and Latino students just didn't offer any advanced/honors sections.

Sample Diagnostic Questions:

a. Are student assignments in equivalent courses equally challenging across high- and low-need schools? Do students have access to curriculum aligned with empowering, grade-level standards?[†]
b. Do the relationships between student grades and state assessment outcomes indicate that all students are held to a high standard?
c. Do schools with higher-need students offer AP and advanced coursework at similar levels as schools with lower-need students? Do students with similar performance levels within and across schools get placed into advanced or AP classes at the same rates regardless of race or income?

3) Instructional Time & Attention

Student learning requires both sufficient instructional time and that the time be used well to meet the individual needs of students. Research shows that adding instructional hours to the school year can be a powerful lever for improving student outcomes.[7] Teachers report wanting more time than is often available to effectively teach to rigorous standards, and intuitively, students who fall behind likely need to spend even more time learning in order to catch up.[8] And we know that families with more means extend the learning time of their children after school through a variety of after-hours and summer activities. Yet we typically see very little variation in total student instructional hours across schools in a district or across districts in a state. Leading charter systems that serve high-need school communities (e.g., KIPP, Achievement First, Edward Brooke) generally have school calendars that provide more instructional time than the districts within which they operate. While summer and after-school programs

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[†] Tools like the SAP Instructional Practice Guide, the TNTP Core Teaching Rubric, Webb's Depth of Knowledge, or the Education Trust's Literacy Assignment Analysis Framework can help assess this.

can provide additional instructional time for students who fall behind and some individual districts have enabled schools to differentiate time as part of a turnaround or innovation zone kind of approach, for the most part, overall time is unvaried across schools in a system.[9]

Within the school day, the total amount of instructional time can vary greatly across students, schools, and systems. At the secondary level, some schools are better than others at fully scheduling all students into classes consistent with graduation expectations and student needs. We routinely find that students are assigned to non-academic classes that don't help them meet graduation requirements or, even worse, they do not have full course loads—requiring them to take more than four years to meet graduation requirements. Instead, schools should prioritize scheduling secondary students in classes consistent with their career and college readiness aspirations. For example, Oakland Unified School District recently restructured master schedules in several of its high schools to better ensure that students could complete high school in four years, either having met California's A-G college readiness requirements or having fully completed a defined career pathway.

To help students with diverse learning needs learn rigorous, grade-level content, schools need to differentiate instruction to meet them where they enter and find ways to accelerate progress.[10] For students who are far behind expectations, this differentiation can be particularly intensive—it must both meet them where they are (even if that's several years behind grade level) and provide a pathway to meeting expectations. Too often in these instances, "personalization" takes the form of placing students who are behind in segregated, less-challenging classes with no path to getting back on track. Creating effective personalization requires having schoolwide systems that enable teachers to routinely assess student progress and data to inform more targeted and flexible use of resources—tailoring instruction, schedules, class sizes, teacher loads, and time.

> ### *Sample Diagnostic Questions:*
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> a. Do students who have greater needs spend more time in school than students with lower needs? Does this vary across schools or across students within schools? How much time do schools give their struggling students in areas where they are behind? Do schools spend more instructional time in areas of high priority?
> b. Are students' class schedules fully utilized? How much of their schedules is free time or inefficient time? Does this vary across schools or across students within schools?
> c. To what extent do schools differentiate class and student group sizes and teacher loads to provide greater individual attention to students with greater needs in academic areas?

4) Early Intervention

Research shows that intervening early to keep students on track is much more effective than trying to "catch" students back up once they have fallen behind. Freshmen who are on track academically are nearly four times more likely to graduate.[11] Children who are not reading-proficient by the end of 3rd grade are four times more likely not to graduate high school on time than their reading-proficient peers.[12]

Many families with greater means have access to interventions outside the public system by paying for ongoing tutoring and remediation support (particularly in math) from a variety of private providers

outside the regular school day. But if we are committed to improving student outcomes, particularly for students coming from families living in poverty, speaking languages other than English, or who have special learning needs, then ensuring access to academic interventions (e.g., early warning systems and Response to Intervention programs designed to quickly identify specific student needs and address them before they become major problems) for all students is critical to ensuring resource equity.

The emphasis on Response to Intervention—and ensuring that high-need schools have robust strategies to serve students who are falling behind outside of special education—is important for systems committed to resource equity. In fact, often the disproportionate identification of African-American boys in the upper elementary and middle grades is a consequence of not having provided effective early intervention resources (which would have cost less than the subsequent special education supports and would have enabled a more inclusive educational experience).[13] Another promising practice is the early warning system in Chicago, which is designed to identify 9th grade students who are "off-track" and provide them with tailored supports. This system has been shown to improve on-track rates for high school students and increase graduation rates.[14]

Sample Diagnostic Questions:

a. What percentage of students in high-need schools who fall behind academically have access to RTI and other intervention supports (without having to rely on referral to special education as the means to provide supplemental support), as compared to students in low-need schools?
b. Do interventionists and teachers collaborate regularly to ensure intervention supports for students who fall behind academically are integrated into and aligned with core instruction?

5) Early Learning

Research on early childhood interventions suggest that access to high-quality pre-K programs are among the most impactful strategies to improve student outcomes. The Perry Preschool, Head Start, and other more recent early childhood programs have demonstrated impact that last into adulthood, with economically disadvantaged students and English language learners in particular benefiting from quality pre-K programs.[15] A recent study of the Tennessee Voluntary Pre-K Program showed that these benefits could reverse if pre-K programs are not implemented well, suggesting that it is important to determine the key beneficial elements of these programs so that they do not lead to harmful student experiences later in a student's academic career (e.g., pre-K participants receiving special education designations that persist through later years even when they are no longer appropriate).[16]

Many families with greater means can pay tuition for high-quality private preschools outside the public system and/or have greater resources to provide early childhood development opportunities at home. It is critical to provide access to early childhood interventions, particularly for students coming from families living in poverty or who have special learning needs, to ensure that they can achieve at the same levels as their peers later in life.

Charlotte-Mecklenburg Schools and Oakland Unified School District are among a number of districts that have prioritized additional investments in pre-K programs beyond the funds typically designated for that purpose or have income-based tuition structures for district-run pre-K programs. The New York City

Department of Education has extended the guarantee for free, full-day pre-K to all 3-year-olds in addition to all 4-year-olds in the city.

Sample Diagnostic Question:

a. What percentage of kindergartners in high-need schools attended high-quality pre-K programs, as compared to kindergartners in low-need schools? How does this differ by student race or income?

6) Whole Child Approach

Students who have unmet health, social, or emotional needs or who don't feel physically or psychologically safe are at greater risk of poor performance, and research has linked improving student social-emotional competencies to both immediate and long-term benefits.[17] As we move toward more rigorous learning environments across the country, it is critical that all students have the social, emotional, and academic development (SEAD) skills and competencies they need to participate in rigorous learning. For example, students must be able to persevere when they encounter content they don't understand, regulate emotions they experience during school or bring with them to school, and cooperate and work on a team.[18] Resources in this dimension span a range of needs—starting with basic physical needs like nutrition, eyeglasses, and safety; moving to investments in the development of SEAD skills and competencies and meaningful relationships between students and adults who care about them; and ending with more targeted, specialized counseling and therapeutic services.

The distribution of students who need more intensive support and student and staff capacity with respect to SEAD skills and competencies can vary greatly across schools, while levels of social and emotional supports often do not vary to match that need. Systems typically rely on student-to-staff ratios to direct additional resources. For example, traditional approaches to providing direct counseling or therapeutic services typically involve allocating social workers or counselors based on an allocation ratio of 1 counselor for every 250 students, as recommended by the American School Counselor Association.[19] While the science is clear that all young people need learning environments that attend to their social and emotional needs, straight allocation ratios like these are equitable (aligned with need) only if the need for these services is spread evenly across student populations. A school with a larger concentration of students experiencing trauma in need of social-emotional supports will be less capable of meeting the needs of their students than a similar-sized school with fewer students in need of support.

Moreover, meeting the social, emotional, and academic development needs of students is not just about or maybe not even primarily about adding staff members with particular skills in this area. While it is critical to integrate more intensive support services for students who need them, relying on this as the primary social, emotional and academic development and support strategy can set up a false choice between investing in rigorous learning (lower teacher loads, professional learning) and investing in supporting the whole child.

Effective support for social, emotional, and academic development needs is mutually reinforcing with rigorous teaching and learning. Not only does rigorous learning require SEAD competencies, but it also creates the space for their intentional development. In this context, schools that invest strategically in

whole child approaches focus first on embedding teaching and learning around skills and competencies for social, emotional, and academic development (SEAD) embedded within rigorous, CCR-aligned instruction. This means investing in a rigorous curriculum that includes a focus on SEAD within daily lesson plans, and integrating support for the delivery of SEAD components of those lessons into ongoing teacher professional learning and support. At the same time, strategic schools reinforce embedded SEAD approaches by also creating time in the student day to focus on explicit teaching and learning around SEAD skills and competencies.[20]

Strong school cultures with strong adult-to-adult, adult-to-student, and student-to-student relationships create a context in which social, emotional, and academic development can be accomplished. Emerging thinking on social-emotional learning points to the power of these relationships and embedding strong social-emotional practices into ongoing interactions.[21] Lower student loads and class sizes especially in academic subjects or in advisory programs can facilitate deep engagement with students around content in ways that incorporate social and emotional development and needs.

In addition, we include school discipline practices as part of this dimension. Race disparities in disciplinary actions are well documented and an important barrier to equitable student outcomes.[22] Creating school cultures in which teachers and students know and trust each other is critical to ensuring that discipline practices are experienced equitably across students and contribute to supporting the whole child.[23]

Sample Diagnostic Questions:

a. Do higher-need students have access to meaningful relationships with adults who know them and to whom they feel accountable? As compared to lower-need students?
b. To what extent do higher-need students have access to targeted social and emotional services, programs, and resources (e.g., counselors, social workers, or other mental health resources)?
c. Do higher-need students demonstrate SEAD skills and competencies? As compared to lower-need students?
d. Does the curriculum higher-need students experience create opportunities to practice SEAD competencies? As compared to lower-need students?
e. Do students and schools with higher needs have access to a consistent and fair disciplinary process and strong school cultures? How does this access compare to that of lower-need students?

7) Family Academic Engagement

Research shows that parent/caregiver interest and involvement in their child's academic work can have profound effects, including impacts on attendance, behavior, achievement levels, and graduation rates. Programs designed to enable effective parental involvement have been shown to improve these outcomes.[24] In our analysis, we often see that family engagement varies significantly across schools and neighborhoods. Often, some parents face physical, linguistic, emotional, and cultural barriers to attending school events and helping students with their homework. For example, parents might not be able to take time off work or might lack access to transportation to meet with teachers. Cultural or linguistic differences might make parents feel less welcome in the school or prevent them from knowing what is happening in the academic lives of their children.

There are many things that schools and systems can do to more fully engage parents in ways that foster improved student outcomes. Strategies include home visits at the beginning of the school year that help parents understand the school's academic expectations and how they can support their children in reaching them; thoughtful parent communication around student progress conducted in their native language or with interpretation services; providing transportation and child care during school events and activities; allowing parents to choose from a wider variety of times when scheduling meetings with teachers; and providing teachers with additional support in overcoming cultural differences.

Sample Diagnostic Questions:

a. How does my district and its schools engage parents in their students' learning goals?
b. What percentage of parents receive student progress reports in their native language or can otherwise communicate with teachers through interpreters?
c. What percentage of parents report feeling welcome at their child's school? Do they report being consulted and informed about the academic lives of their children?

8) School Funding

The relationship between school funding equity and outcomes is complex. After a generation of research by Eric Hanushek and others that questioned the relationship between spending and student outcomes,[25] more recent studies point to a positive correlation between increased resources over time and the achievement of low-income students.[26] Fundamentally, it's difficult to find the link between spending and outcomes because it matters *how* dollars are used. And the best way to use resources will depend on the school and students' specific context—making it even harder to analyze.

Equitable school funding can enable equitable access to many of the other resources described below. For example, systems that want to extend the school day or school year in some schools or for some students will likely incur additional costs. The challenge is that, too often, the impact of supplemental resources invested in strategic practices is offset by inequitable access to others. Or the extra dollars get invested in areas unlikely to materially change the student experience. For example, systems typically spend 20 to 25 percent more per pupil in unintentionally small, under-enrolled schools. In these subscale schools, extra dollars pay for fixed costs, operations, and other things that have little to do with improving student outcomes. In part because the efficacy of supplemental need-based funding varies so much based on context and use, there's little agreement in research on how much extra must be invested in students or schools with specific need profiles, though recent studies suggest the size of the difference is larger than previously understood.[27]

That said, systems that differentiate funding levels across schools based on need can do so through funding weights that allocate more funds to students with greater needs or they can allocate extra staff. Through "Student-Based Budgeting," systems can weight economic disadvantage, prior academic performance, and other student need factors to more equitably differentiate funding levels based on need. Alternatively, systems that use more traditional models like staffing ratios to allocate teachers and other resources to schools can differentiate by giving more and/or different staff to schools with higher concentrations of need.

a. How does my system intend to allocate resources based on need? How is need defined? How much extra do we invest in high need students?
b. Do schools with higher need levels spend more on a per-pupil basis? If so, how much more?
c. How are the drivers of higher spending in higher needs schools linked to greater resource equity? To what extent is the extra spending invested in creating student experiences aligned with need?

9) School Leadership Quality

Research shows that students enrolled in schools with highly effective leaders perform better.[28] These dimensions interact through the school culture and working conditions for teachers that these school leaders help create, which in turn has an impact on the quality of teaching.[29] While their impact on an *individual student* might be less than that of a teacher, strong school leaders impact the *entire school*.

Unfortunately, systems often struggle to attract and retain outstanding school leaders in their highest-need schools. In many cases, the level of work and stress necessary to run an effective high-need school is unsustainable for more than a few years. In two large districts in the Southeast, we observed that principals who were successful in high-need schools were more quickly promoted to positions of greater responsibility, contributing to higher turnover rates in high-need schools.

Ultimately, the most successful solutions combine elements such as compensation, prestige, autonomy, and supports.[‡] Other systems may try to reduce the size of the challenge—for example, by breaking up large failing secondary schools into smaller themed academies—or otherwise change the leadership task by creating more diverse, less racially and socioeconomically segregated schools.

Sample Diagnostic Questions:

a. Does my system have a reliable way to measure school leader effectiveness? If so, how are highly effective school leaders distributed across schools and students of different need levels?
b. How many different principals have high-need schools had over the past five years compared with lower-need schools?
c. How are central supports (i.e., school supervisor spans of control) allocated across schools and students of different need levels?

10) Diverse & Inclusive Schools

While it may seem odd to suggest that "who" students attend schools with is a "resource," the literature on the "peer effect" on student performance suggests that a student's classmates/schoolmates are an important resource that drives outcomes.[30] So, the demographic composition of schools becomes a resource in the sense that systems have a set of policy choices that influence the mix of students enrolled in each classroom and school. ERS analysis across multiple districts shows that economically disadvantaged students who attend schools with more-affluent peers typically outperform non-

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[‡] For more on these elements, see Strategic Staffing for Successful Schools: Breaking the Cycle of Failure in the Charlotte-Mecklenburg Schools.

disadvantaged students who attend schools with high concentrations of economically disadvantaged students. This finding suggests the power of peer effect works both positively and negatively. In many systems, economically disadvantaged students are disproportionately African-American and Latino, so issues of race are often deeply intertwined. As a consequence, policies that try to create more economically diverse schools can enable racial diversity as well (and vice versa).

While research suggests that socioeconomic and racial integration can be a powerful lever for equity,[31] policymaking in this area is particularly challenging—especially in communities with long-entrenched housing segregation. Districts and communities can seek to increase school diversity through student assignment and choice or magnet policies, though these practices vary greatly in different communities and contexts. Communities committed to equitable outcomes and that still struggle with highly segregated schools will likely need to invest even more deeply in the other dimensions of resource equity to achieve high outcomes for all students.

Sample Diagnostic Questions:

a. What percentage of economically disadvantaged students attend schools or classes with non-disadvantaged students?
b. What percentage of African-American and Latino students attend schools or classes with white and Asian students?
c. What percentage of low-performing elementary students attend middle schools with higher-performing classmates? How does this compare to the experience of high-performing elementary students? How does this compare to the transition from middle school to high school for both groups?

11) Learning-Ready Facilities

Capital investments represent a large share of education spending, and inequities can have dramatic impacts on students, especially when schools are closed due to unsafe building conditions such as insufficient heating or dangerous levels of lead in the water supply. But facilities expenditures encompass a broad range of potential investments, and the research suggests that not all these investments have an equal impact on students. While a physically safe environment and availability of instructional space and equipment are critical conditions for students to succeed academically, aesthetic aspects of facilities may have little impact on student learning.[32] Poor facilities are associated with increased teacher turnover and student behavioral challenges, supporting the notion that the quality of facilities may contribute to the value proposition for teachers and the perceived value placed on a student's education.[33]

High-need students are more likely to attend schools with less adequate facilities than their peers. While there was a period of large growth in school facility construction from the late 1990's to the 2000's, this growth was concentrated in lower-need communities. During this period of growth, schools in the worst conditions received the smallest investment in their facilities, further exacerbating inequities between high- and low-need students.[34]

Systems must be deliberate about investing in facilities and focus scarce resources and attention on the investments that will matter the most. Ensuring appropriate air and water quality and sufficient

instructional space and equipment to provide rigorous instruction are important investments. However, it can be tempting and politically salient to make cosmetic changes without addressing the more challenging inequities across other dimensions of student experience. Leaders must weigh investing in new facilities alongside the other dimensions of resource equity to determine which actions will be most impactful for student learning.

Sample Diagnostic Questions:

a. Are high-need schools equally likely as low-need schools to have the space and equipment necessary to enable rigorous instruction?
b. Are high-need schools equally likely as low-need schools to be physically safe spaces for students?

Recommendations: How System Leaders and Advocates Can Use the Dimensions of Resource Equity

The Every Student Succeeds Act (ESSA) requires states and districts to conduct reviews of resource allocation in the lowest performing schools. Importantly, the law also opens a window for meaningful involvement from local community stakeholders in that process. These required resource reviews provide an opportunity to use the dimensions framework to engage in a diagnostic of resource equity across schools in a district to inform a school improvement planning strategy. In this context, we propose two ways in which system leaders and advocates can use this framework to advance resource equity in a way that fits the system's unique conditions.

1) Point of Entry for Discussion

System leaders and advocates can use the dimensions of resource equity as a discussion starter to create a common language and to facilitate a meaningful discussion of what it means to provide all students with the opportunity to achieve educational excellence. If leaders determine that the dimensions resonate, a district leadership team or school board could adapt the dimensions as a framework for evaluating budget reallocations or strategic planning.

Suggested Starting-Point Discussion Questions:

a. How do the dimensions of resource equity compare to our own experiences and beliefs about what it takes to achieve equity of outcomes?
b. For our system:
    i. How are the dimensions interrelated?
    ii. What are our hypotheses about the sources of greatest resource equity and inequity in our system?
    iii. What are our hypotheses about the effective use of financial resources in our system—particularly in support of high-need schools and students?
c. What next steps would advance a productive and fact-based discussion of resource equity in our system?

2) Resource Equity Mapping

System leaders can use the framework and its diagnostic questions to perform a school-level analysis across the dimensions of resource equity, including to help conduct an ESSA resource allocation review. By understanding the distribution of each resource across each school, system leaders can paint a clear and detailed picture of resource equity in their systems. This will identify specific actions that school and system leaders can take to manage the equitable distribution and effective use of resources and will help frame for other system stakeholders the relationship between system strategy, resource use, and desired outcomes.

Our resource allocation review tool provides a series of principles — framed as questions that advocates can ask of state, district, and school leaders — to make ESSA's resource allocation reviews meaningful and help address inequities in access to critical education resources. In particular, the tool guides advocates

to make the case for why resource allocation reviews must identify 1) how much is allocated to schools *and* how well those resources are used, 2) whether those resources are targeted to students who need more, and 3) realistic ways to secure more resources.

Appendix

The Strategic System Framework

The Strategic System is a vision for school system success, a series of assessments, and a review process that allows districts to measure and monitor their structure and policy, as well their resource use—including people, time, and money—to support excellent instruction. This framework is based on our years of experience working with a diverse array of school systems, our extensive collection of data from those districts, and published research on what works best for students.

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Strategic School Design Framework
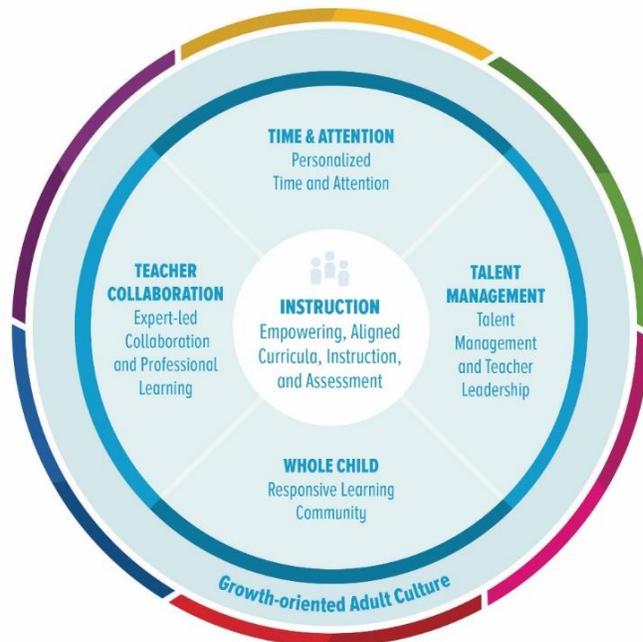
Through over a decade of research and practice in the area of strategic resource use, ERS has found that strategic schools start with a strong vision around what it will take for students and teachers to be successful, and then they reorganize resources—people, time, technology, and money—around that vision. We call this Strategic School Design.

www.erstrategies.org/tap/designing_school s_that_work

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