THE FUTURE OF AMERICAN EDUCATION

NEXT GENERATION IDEAS FOR THE NATION'S SCHOOLS AND COLLEGES

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INTRODUCTION

It is a fraught time in American education. A deadly global pandemic has left schools and colleges struggling with diminished student achievement and the substantial mental health consequences of the isolation and trauma that many students experienced. And it would be more than naïve to believe that the spasm of racial violence that swept the nation in recent years, the armed insurrection against the nation's democratic institutions in the name of a failed presidential candidate, and the fighting of cultural battles in classrooms hasn't made the day-to-day work of teaching and learning far harder.

What had been a bipartisan national commitment to teaching all students to higher standards in the name of educational equity and to the major routes to achieving that goal largely collapsed even before the onset of the pandemic.

Now, educational policies and priorities pushed by those at the extremes in the national education debate are ascendant. Conservatives and their red-state allies are seizing on public discontent with the educational disruptions of the pandemic to surge laws that allow parents to pay private school tuition with public monies. Supporters long touted vouchers, tuition tax credits and educational savings accounts as engines of educational equity, paths to better educational opportunities for low-income students.

Now, they invoke parental rights, even as the new laws provide few measures to help parents and taxpayers discern the quality of private schools. Teacher unions and others on the left, meanwhile, lament the public enabling of private education even as they attack school reform and offer scant strategies of their own to improve public education, absent more money for schools. Conversations about academic achievement are drowned out in this environment, even though parents tell pollsters they're more concerned about school quality than culture battles.

The pandemic taught some valuable lessons, including the importance of school as a place (even as some school districts and education entrepreneurs used technology creatively to get outstanding teachers in front of more students) and the reality that educators ignore the social and emotional side of learning at their peril.

And some beacons of bipartisan reform shone through the fog hanging over the education landscape: the spread of research-based reading methods; a widening commitment to high-quality tutoring systems; new, career-oriented high school pathways; and a willingness to pay teachers for expertise in the face of severe shortages. These are scalable strategies that could help strengthen the nation's education enterprise.

But the core work that leaders from every sector of public life and across the political spectrum gave public schools and colleges in recent decades—promoting greater educational equity and social mobility by teaching more students to high standards, especially the most vulnerable, most-often marginalized students—is far from completed. The moral and economic imperative to improve the quality of public education needs to remain a national North Star.

It became clear as the work to strengthen the nation's schools in recent decades evolved that high standards, steps to strengthen teaching and teaching profession, and meaningful measures of and incentives to improve institutions' performance were necessary ingredients of that work, even if they eventually came under fire from both ends of the political spectrum. But they weren't sufficient to turn schools and colleges into the robust engines of educational equity and social mobility we need them to be.

In the wake of the pandemic and the other upheavals, FutureEd asked a number of leading education thinkers, activists, and entrepreneurs to take stock of the education landscape and propose steps that would help policymakers continue the climb toward a stronger, more equitable education system. The result is a series of fresh perspectives on the future of American education, some reconceptualizing old agendas, others staking new ground.

Former Teach For America executive Josh Anderson explores why education reform alone won't promote social mobility. Delia Kimbrel, ImpactTulsa's senior director of research and policy, outlines a new strategy for bringing down barriers to equal educational opportunity. And American Council on Education President Ted Mitchell shares a new equity agenda for higher education.

Anthony Salcito, former vice president of worldwide education at Microsoft, explores how best to introduce new instructional technology resources in schools post-pandemic. Jeff Selingo, former editor of the Chronicle of Higher Education, parses the debate over the benefits of attending college. And Zahava Stadler, director of the Education Funding Equity Initiative at New America, proposes the next school finance reform agenda.

We're grateful for their contributions.

Thomas Toch
Director, FutureEd

WHEN SCHOOL REFORM IS NOT ENOUGH

BY JOSH ANDERSON

Josh Anderson worked in leadership at Teach For America for 15 years including work as the national head of recruitment and admissions and executive vice president of external affairs. He is a FutureEd senior fellow.

In 2004, I graduated college and started teaching in New York City as a Teach For America corps member. The experience challenged, changed, and inspired me. I was blown away by the magnitude of inequities present in the school where I taught and the neighborhood where my students lived, from insufficient teaching materials to an absence of grocery stores. I was amazed by my students' resilience and inspired by their progress. And I was captivated by the growing education reform movement of the time, its deep faith in the potential of all children and its commitment to making equal opportunity real. After the TFA corps, I joined TFA staff and worked for the organization for the next 15 years as a campus recruiter, Chicago-region executive director, national head of recruitment and admissions, and executive vice president of external affairs.

The reform movement that TFA helped fuel made a big impact. It raised standards for many students and led to major achievement gains in several big city districts and states. It spurred the rise of charter schools, including some incredible schools and school networks. It attracted multiple generations of talented, dedicated, and diverse leaders to the fight for educational opportunity— people who continue to lead vital work from pandemic recovery to school innovation, college persistence and workforce development.

But the movement didn't achieve its ambitious goal of closing opportunity gaps for low-income students of color. That's partly because we haven't been able to implement reforms as widely or as deeply as needed and partly because we have neglected some key problems. We still don't have clear, ambitious, shared standards for learning that we are truly committed to; teaching continues to be treated as a "weak, semi-profession," not an honored, selective, empowered, and well-compensated occupation; we haven't broadly organized schools, school districts, and state systems to be about continuous improvement in pursuit of ambitious instruction and student learning; and, the practice of organizing school attendance, funding, and governance by neighborhood means the nation's legacy of residential segregation compounds problems in schools serving predominantly low-income children and children of color.

But I have come to believe after working in public school reform for nearly two decades that to achieve the aspirations of the reform movement we need to do more than address these educational challenges. We need a larger reform agenda that extends beyond schools because the structural barriers that our students face across many domains of life and the economy are bigger than education interventions can solve.

Whether you've lived it, worked with students who are facing it, or simply have observed the patterns in the country over the last two decades, you can see that these barriers are structurally rooted and that single-system interventions are falling short. The problem is that we haven't explicitly named this, worked through the implications, and organized a next movement that is equal to this broader understanding of the problem.

Beyond the School House

Low-income children and especially low-income children of color aren't just going to schools that are, on average, under-equipped to meet their needs. They are facing systemic challenges virtually everywhere they turn and at every stage of life. Continuing patterns of acute residential segregation mean that students tend to grow up in neighborhoods with high concentrations of poverty. And as sociologists have long documented, once this concentration level surpasses a certain threshold, a set of harsh knock-on effects almost invariably follow: blight, collapse of the neighborhood retail sector (so that liquor stores and payday landers become prevalent and virtually any other kind of store is hard to find), increased loitering, and increased violence.

Contrary to long-held and still-prevalent views, the deterioration of living conditions in distressed communities is not caused by culture, but rather is the straightforward consequence of too much privation and too little opportunity in one place. The dominant policy response has been to increase policing and use the criminal justice system to increase public safety, which has reduced crime but with catastrophic long-term consequences for communities. As the historian Elizabeth Hinton notes, today "odds are 50-50 that young urban Black males are in jail, in a cell in one of the 1,821 state or federal prisons across the US, or on probation or parole."

Meanwhile, students' parents tend to be stuck in the bottom rungs of the economy. They likely work long hours for low pay, have limited job security, may need to pick up a second or third job to make ends meet, and find their work to be physically and emotionally draining. These are the realities of work for the working class and working poor due to the transformation of labor opportunities in the U.S. over many decades.

To make cash flows work, many families go to payday lenders, not because they think it's a good idea (they know it's not), but because it's their only option. In a cruel irony, low-income Americans pay an average of 10 percent of their income to access their money. Over time, the month-to-month and year-to-year struggle to make ends meet leads to limited or negative wealth accumulation. The Black/White income gap is 2:1. But the Black/White wealth gap is 13:1, reflecting what sociologists Melvin Oliver and Thomas Shapiro say is the compounding of income gaps, differences in home equity, and inequities in cross-generational inheritances.

And then there's the health-care gap. Poverty's economic and environmental stressors increase the need for healthcare. But the high cost of health care and the nation's heavy reliance on employer-sponsored health insurance means that many low-income families have no coverage or lower-quality government-funded care than their more affluent counterparts.

Combine these patterns of systemic inequality across housing, criminal justice, employment, intergenerational wealth and healthcare and consider how they play out in a child's life.

Growing up, money is tight. Parents are stretched thin. Uncertainty and stress are high. Violence in the neighborhood affects the child's daily choices (e.g. route to school, spending more time inside) and they will know classmates, friends, or family killed or injured by gun violence. They will be accustomed to a high police presence in their community and likely have classmates, friends, or family who are in prison, on probation, or on parole. It's harder to see doctors. These realities make learning more difficult.

If, against the odds, they make it to college, they will likely accumulate significant education debt and chances are they will struggle (at least at first) in an institution that's not equipped to support them sufficiently. If they graduate, they'll likely out-earn their parents significantly, but make less than White colleagues with comparable credentials, spend more of their income paying off debt, and face the challenges of navigating White-led institutions as a person of color.

Absent post-secondary learning, the odds are they'll be stuck in low-rung jobs like their parents. With or without additional education, they will likely have to play an important role supporting their parents financially rather than having their parents help them with a down payment on a first house or providing them with a meaningful inheritance—straining their ability to build wealth, leaving them less able to buy homes in communities where home values are likely to appreciate.

Looking at these patterns holistically, it's hardly surprising that even really strong education interventions aren't enough to put most low-income students of color on a path to financial success on par with their more affluent counterparts.

Reshaping Policy and Politics

The greatest strength of the education reform movement, as I experienced it, was the idealism and sense of responsibility at the movement's core. At the most fundamental level, we shared a belief that talent is equitably distributed but opportunity is not and it's our responsibility to work relentlessly to expand opportunity to all children.

But in light of the magnitude of structural inequalities in so many students' lives, we need to think about opportunity gaps more broadly.

The results of the last two decades of intensive school reform prove the proposition that if you run a large population of children in which talent is equitably distributed through an unequal set of social and economic systems, children who receive better opportunities across more systems and at more points in time will have better outcomes. There will be individual outliers. But the aggregate results will unmistakably reflect the distribution of advantage, not ability. And that's exactly what's played out in the U.S.

Grounding ourselves in a fuller understanding of what equal opportunity means has clear implications for how we think about policy and politics. First, we need to think bigger about a

long-term policy agenda. In broad strokes, this agenda needs to tackle core problems of American education, but also include strategies to build wealth for low-income families, increase incomes for low-wage workers, and invest in historically disinvested communities. The essential question is, what set of policies will be sufficient to address the depth and breadth of the barriers kids face? We need to organize our thinking around children and what they need to thrive, not the silos of government systems.

Second, we need to think differently about politics, starting with a long-term orientation to building and sustaining power to achieve change. How do we build the power needed to achieve such an ambitious long-term policy agenda? How do we cultivate the leadership and develop the organization necessary to wage such an effort? And, how do we build a coalition for a broader agenda? The challenge is to carry forward the ideals and aspirations of the past decades' reforms as the foundation for a new movement—not just an education reform movement but a broader equity movement.

A NEW STRATEGY FOR DRIVING EDUCATIONAL EQUITY

BY DELIA KIMBREL

Dr. Delia Kimbrel is senior director of research and policy at ImpactTulsa, a collective impact organization that brings together agencies and other nonprofits to improve opportunities for children, from cradle to career.

When Tulsa Public Schools leaders sought to improve student outcomes before the pandemic, they turned to an innovative local portrait of student life in school and beyond to help them identify solutions: the Tulsa Child Equity Index, a database of school and community features influencing student success that the school district, the nonprofit ImpactTulsa and other city agencies launched in early 2019.

Among other things, the data revealed a relationship between student attendance and neighborhood characteristics such as school walk distances and limited transportation options. Absences, they learned, were higher among students living in neighborhoods with long walks to school, fewer bus routes, and other transportation challenges. That led to conversations with transportation officials, school attendance teams and local community groups convened by ImpactTulsa. The result was new transportation opportunities for students and, when combined with other attendance initiatives, lower absenteeism rates at pilot sites before the pandemic closed down schools.

School attendance is one of several aspects of student success that the Tulsa community is working to improve by combining data from a range of child- and family-serving sources in what could be a model for communities nationwide.

Housed at ImpactTulsa and part of the organization's broader effort to improve cradle-to-career opportunities through citywide partnerships, the Child Equity Index was developed by experts in housing, community development and urban design working with leaders from the school district, the city's health department, and other government entities and nonprofit organizations such as Habitat for Humanity and Growing Together, a community group dedicated to improving outcomes for children through neighborhood revitalization.

The index measures student need and neighborhood conditions using nearly four dozen indicators of student success that connect students' school information to census-tract data on neighborhoods in five categories: health (including, for example, life expectancy), safety (crime incidents, arrests), neighborhood socioeconomic status (poverty rates), custodianship (such as lawn or trash complaints), and neighborhood access (to such assets as schools, parks, trails, transit, and grocery stores)—local conditions that play an important role in the ability of families and students to thrive. Each indicator is tested to confirm that it has a practical and statistically significant relationship to academic outcomes.

While they often measure conditions outside a school's control, the index indicators help ImpactTulsa identify the resources and supports needed by neighborhoods and schools within neighborhoods. To that end, mapping specialists and urban planners from the regional planning organization serving the Tulsa metropolitan area, INCOG, have created geocoded maps that illustrate residential concentrations and neighborhood differences. They convey the statistical relationship between neighborhood conditions and the academic outcomes of the students living there. This analysis helps guide the types of interventions needed to close opportunity gaps and overcome barriers to student success.

In another example of how the strategy helped improve school attendance, analysts found high concentrations of student absenteeism and high rates of student mobility overlapping with hot spots of evictions. That finding launched a conversation among housing advocates, school and community leaders on the scale of eviction in Tulsa and its impact on students.

In response, ImpactTulsa, Tulsa Public Schools and Asemio, a local, community-oriented technology firm, organized a data-collaboration effort that combined eviction records with school attendance information and resulted in an automated alert system for homeless counselors at the school district that helped them marshal support for students and families facing eviction and provide strategies to minimize educational disruption.

ImpactTulsa now convenes an eviction-data working group with other Tulsa agencies and organizations that is exploring additional ways to help policymakers, court advocates and school officials reduce the impact of evictions on children and families. It is also identifying factors that place families at risk of eviction and potential interventions, as well as mapping the incredibly complex eviction system and the likely routes that lead families to homelessness.

ImpactTulsa also drew on the Child Equity Index when it worked with the Tulsa Planning Office to map geographic disparities in internet access during the height of the pandemic, highlighting concentrations of residents without connectivity. The analysis helped inform remote-learning strategies and launch the city's Internet Access Taskforce, which is addressing disparities in connectivity. It led the City of Tulsa to advocate for $5.6 million in state CARES Act dollars to subsidize internet subscriptions for up to 20,000 public school families and pay internet-access navigators.

The Child Equity Index allows the Tulsa community to understand the landscape of opportunity, opening up new conversations about how best to support student populations lacking equal chances to succeed in school and beyond.

AN EQUITY AGENDA FOR HIGHER EDUCATION

BY TED MITCHELL

Ted Mitchell is president of the American Council on Education, a Washington-based organization representing more than 1,700 higher education institutions. He was Under Secretary of Education in the Obama administration and served as president of Occidental College, New Schools Venture Fund, and the California State Board of Education. In November 2022, at the fourth-annual National Dual Mission Summit hosted by Colorado Mountain College in Glenwood Springs, Colorado, he spoke about what it would take to make higher education a more equitable sector of American society. These are his edited remarks.

I want to talk about equity in higher education, using three lenses: access, completion, and student success. Each of these is important in its own right, but equity can only be achieved by creating a diverse and welcoming community, ensuring learning outcomes that are equal among groups, and generating opportunities for all graduates independent of race, class, gender and other attributes or preferences. I want to try to integrate them by talking about what we've learned through generations of research about what works in each of those areas. The important thing is bringing the lessons into the institutional context and asking, "What kinds of institutions can perform well on ALL these dimensions?"

Access

Let's talk about access first. When we think about access, we think oftentimes about providing broader opportunities for people who don't typically come to college. But that's the tip of the iceberg. I think what we know is that access, real access, is far more complicated than that. It includes affordability, and not just the cost of college, but the foregone costs of not being employed in the job market. Debt, too.

Most people who go to college do so within 60 miles of where they live. What if there isn't a college within 60 miles of where you live? Or what if there is a really bad college within 60 miles of where you live? So, access and proximity are related. As are access and quality.

Flexibility. We're learning, and COVID really helped us in many ways on this, that if we really want to understand and address the needs of the students of today and tomorrow, we have to be more flexible in how we deliver post-secondary programs. Inflexibility is a big barrier to access, whether it's a lack of federal financial aid for short-term programs or the tradition that Carnegie Units be based on semester-long courses. We need to break down those barriers and create flexible ways for students to pursue their educational aims.

Preparation. We oftentimes think of preparation as a barrier to access. Or we place people in different locations on our screen because of their preparation. If we really want to promote access, we need to throw formal preparation pretty much out the window. And the movement to eliminate standardized testing is a part of that effort.

Real life. We miss the main challenge to access if we do not understand that a majority of college-goers are not 18-year-olds fresh out of high school ready to spend four years in ivy covered isolation. We need to understand that students come to us as whole people—something we learned the hard way during the pandemic. They come with families. Some of them are kids in families. Some of them are parents in families. Some of them are siblings in families. You know the configurations. Sixty percent work. But they come to us as real people with real lives. Access means accepting all of a student.

And then finally, access to college isn't just for the people we admit. It's also about the community in which the institution sits. And there really isn't a better story than the story of Colorado Mountain College, which educates many of the nurses, firefighters, and other critical community members in western Colorado. So, access is a super complicated thing when you start to move away from the Fiske Guide-view of access to what really matters for students and families.

Completion

Let's turn to completion. The first questions are, what does completion mean and who gets to decide? For centuries, we've decided that the institution gets to decide. James Conant [the former president of Harvard University] decided that in order to complete a science degree at Harvard, you needed to have biology, chemistry, and physics. Why did you need to have them in that order? It's alphabetical. I'm not kidding.

That's the epitome of somebody else deciding when you're done. One hundred and eighty Carnegie Units? Okay, you're done. In the world that really addresses equity, the learner needs to decide when they're done. How can we bring that to life?

By creating learning opportunities that are separable but stackable, by understanding that completion is a nonlinear process, that people should be able to come in and out of post-secondary programs. We need to understand that an equitable distribution of completion requires a great deal of support and guidance.

The easiest thing to do is to go to a place that has only one set of requirements, because you have zero choices to make. The hardest thing to do is to go to a place that has lots of choices, because you have lots of decisions to make. Allowing students to make those decisions on their own simply privileges people who have more information, more contacts, and more knowledge about what the implications of those choices are.

Next, I think we need to ask underneath completion, what does it mean to do well enough to move from one course, program, or degree to another? Today we combine time in class with achievement of certain objectives tied to content—a final exam in a course, passing a required menu of courses. What if we were to simply ask students to display mastery, or competency, of a collection of skills,

content, and concepts and to do so at their own pace? Western Governors University is probably the best example of an institution that has taken that concept to scale, measuring course completion and progress to degree not by so called seat time but by successfully mastering a matrix of skills.

Finally, in keeping with this concept, we need to make sure that we are crediting, literally and figuratively, the learning that our learners bring to us. As an example, at ACE we have, for decades, certified certain aspects of military and corporate training for college credit, allowing students to present a "bank" of credit when they enroll at the institution of their choice—but only if that institution is open to what is called in the education business "credit for prior learning."

And then finally, we need to understand that completion, if it's in the student's control, is not just a degree. Completion is when a student says, "I have achieved my goal and I'm ready to go do something else." The joke is that the worst welders are the ones who get their associate's degrees, because the best welders are hired after two weeks, three weeks, or six weeks of training in community colleges. So, if I'm taking a welding course and I get a job offer, I'm done. It doesn't matter that I didn't get my degree, but I have completed what I set out to do. And we need to find ways to credit that as completion of something. It's not an AA degree, but it's completion.

And then I guess the last thing that I'll say is completion isn't completion. Completion is the end of a chapter, but it's not the end of the book. And so, the access and completion cycles work together. In a truly equitable higher education ecosystem, student could combine certificates, short-term badges, and regular course units to create a degree that aggregates all those experiences. The welder I mentioned could exit higher education with a certificate, return and finish an AA, and perhaps go on to a BA. On-ramps and off-ramps along the higher education highway should and can be plentiful and well-marked.

Success

And the directional destination of that highway is learner success. Here, too, we must give sovereignty and agency to the learner herself, who will define their own educational journey and their own dream of success. But it is also true that as educational leaders we, to have ideas of success for our students. There are some things about success that we believe as a society and as educators are important.

First, it's important to have a job. A job provides stability. It provides a level of economic security that's important for individuals and families. And, critically, it provides a sense of identity.

At ACE we paid a lot of money to a pollster to survey people about their attitudes about higher education. And he came back and basically said, "I'm sorry to charge you so much money, but I think I can probably summarize our findings of what America wants from higher education in three words. They're expensive words, sorry about that. But they're jobs, jobs, and jobs."

We need to understand that.

Second, health. It is widely accepted that educational attainment is positively correlated with a variety of positive health outcomes. Those with more education have lower rates of Type 2

diabetes, are less likely to become obese, smoke less, drink less, and are less likely to suffer from drug or alcohol addiction. Mental health indicators are also positively correlated with educational attainment.

Third, we have long connected education with civic participation and community engagement. Our founders defended education and an informed citizenry as fundamental bulwarks of democracy. Today, we hope people will identify success, in part, as being engaged in their communities.

There's nothing in these markers of success that is the unique domain of any individual or group. In fact, we prosper as a society, a neighborhood, or a nation the more broadly these successes are achieved by individuals. These successes, while clearly of benefit to learners, are also benefits to all of us. Social good is thus linked to individual success—and it's why equity is so important.

One of our aims needs to be taking things that are common among communities of privilege and making them visible and doable in communities without privilege. How do we do that?

Networking, creating opportunities for people to engage in communities that are not their own. Curiosity. We need to help people understand that there are more opportunities and more options than they know about. We need to think about wellness, about student and staff wellness as a part of our work. And then, more tactically: internships, apprenticeships, creating ways for industry certifications to be a part of the curriculum. Digital literacy.

These are all things that often come with or are the products of privilege. We need to be aware of that, and we need to create those opportunities for students who traditionally haven't had them.

So this is a fast tour through a lot of work. What I take away from it is that many, if not most, traditional brick-and-mortar institutions are not going to be able to check off more than a half dozen things on the list.

But there are a handful of institutions, including dual mission institutions, that have made this their daily work. By dual mission, I intend to capture institutions that are the "one room schoolhouse" of higher education, seeing to the needs of their learners often within a closed geography, often defying traditional boundaries between two-year and four-year, between vocational and academic, and that provide multiple on-ramps and off-ramps that are not limited by age, class, life condition, or even aspiration level. Whether it's access, learner-led exits, stackable experiences, or connection to students' and society's definitions of success, the dual mission schools you represent have proven themselves to be quality providers of an equitable education.

Underneath the work that you do and central to what I've been trying to articulate is a shift in perspective that aligns access, completion, and success in an equitable way: a simple but profound focus on the student. Once we do that, all things are possible in higher education.

THE PROMISE AND PERIL OF NEW TEACHING TECHNOLOGIES

BY ANTHONY SALCITO

Anthony Salcito is chief institution business officer at Nerdy, the parent company of Varsity Tutors. He previously spent 15 years as Microsoft's vice president of education in the United States and vice president of worldwide education, where he led Microsoft's work with schools and colleges.

I have been fortunate to have had a front-seat view of the evolving role of technology in the nation's classrooms, first as Microsoft's vice president of education in the United States and vice president of worldwide education for 15 years and more recently as an executive at Nerdy, the parent company of Varsity Tutors. That experience has given me helpful insights into how best to introduce new instructional resources in the nation's schools—a key task as educators help students rebound from the pandemic.

The early days of classroom technology were defined by one word: acquisition. Schools sought to purchase more computers and used student-to-computer ratios to measure progress toward that goal. The technology was originally used as a supplemental resource. Then it was increasingly integrated into day-to-day classroom learning and today most educators rightfully view technology as an essential classroom tool—even as many struggled mightily to incorporate it into their lesson plans effectively early in the pandemic.

I came to call this three-step evolutionary process the "technology maturity model." The best practices that emerged as the use of classroom technology matured can help school district leaders introduce tutoring and other resources that complement classroom instruction effectively and help learners in need.

Early technology adoption required significant buy-in from educators to adopt the systems needed to meaningfully integrate computers in classrooms. And it required a significant amount of training to help those implementing the new tools understand the connection between hardware, software and, eventually, apps and internet resources. But in many school districts there was little of either.

As a result, schools eager to have computers in the classroom during the early days of technology adoption were often sold tools that did not fully meet their needs. Without previous experience buying technology (or buying technology at scale), schools purchased hardware or software that they believed would work, only to find it fell short of expectations. Low-cost Chromebooks that provided computer access to many students but lacked functionality are a good example.

Similar challenges have emerged with tutoring. Flush with federal pandemic-response funding, district leaders are suddenly facing the unfamiliar task of vetting tutoring programs. And in their eagerness to help students recover from learning loss as quickly as possible, some have adopted tutoring programs in a rush, failing to find answers to critical questions: How effective is it? Where's the data? Self-directed tutoring or third-party vendor? Is the program integrated with our curricula? How will we pay for the program once federal ESSER money runs out?

In some cases, schools eager to provide tutoring to as many students as possible turned to online, chat-based, on-demand tutors. While these tutors are useful in supporting a student struggling with, say, a particular math problem, they are significantly less useful when students can't self-identify where they need help, or to support complex areas like emerging literacy.

Then think about the computer labs that schools set up in the early days of school-based edtech. Because they operated independently from the classroom and weren't connected to the remainder of the curricula, their impact on student achievement was small—and the qualitative data nonexistent. Technology finally became an effective tool for learning once schools began integrating it into what was already going on in classrooms. Students no longer trek to the computer lab when their lessons require technology; it's at their fingertips.

Tutoring should be just as readily accessible. And that means deeply integrating it into the daily classroom curricula and workflow. Research shows that tutoring is most effective when connected to classroom education, something that rarely happens today. For an example of what can happen when tutoring doesn't align with the curricula, look no further than the era of supplemental educational services during the era of No Child Left Behind. Districts, required by law to offer tutoring if students did not make sufficient growth on standardized tests, paid for tutoring that wasn't aligned with what kids were learning in their classrooms, leading to often-mediocre results.

Over time, after years on the margins of instruction, edtech tools became increasingly integrated into the classroom, with teachers able to deploy the right intervention at the right time within their classrooms. The shift to online learning in response to the pandemic, while clearly met with challenges, correctly shifted focus away from tech for tech sake to tech as a vehicle for connection, collaboration and learning. Leaders recognized their technology investment was an enabler to extend learning beyond the school and provide a robust set of tools to students. Perhaps even more important, educators had clear evidence that when the world increased reliance on technology, their role and direct impact with learners was even more valued.

If educators are able to integrate tutoring into schools' instructional routines in the same way, tutoring could play a transformative role in schools. As always, classroom teachers, those who best understand students' needs, are key. If teachers could quickly identify when individual students could use additional support and deploy the right modality of tutoring (which might be in-person, chat-based, or video-based) to support a student, if they could offer students personalized support via tutoring in ways that fit into daily school routines, the opportunity may exist to finally make headway on what the education psychologist Benjamin Bloom called the two sigma problem.

In the very earliest forms of education, centuries before Horace Mann introduced the Prussian, classroom-based model of education in the United States, learning was often a sharing of information between a tutor or philosopher and a student or small group of students. The model was highly effective, but also expensive and therefore largely limited to the privileged. Yet while Mann's work expanded formal education to many more students, the one-to-many classroom model of instruction didn't deliver the same depth of learning as a one-to-one experience.

Bloom, who created the famous taxonomy of learning objectives known as Bloom's Taxonomy, attached a name to this phenomenon in 1984: the two sigma problem. According to Bloom, outcomes for students who received one-to-one tutoring surpassed those of classroom instruction

by two standard deviations, or two sigma. He proffered that if schools could make tutoring standard practice—if they could find a way to deliver it at scale—"it would be an educational contribution of the greatest magnitude" that could change "popular notions about human potential."

Today, nearly 40 years later, if teachers could deploy tutoring as easily as many now deploy computers—reinforcing a particularly complicated lesson that a student didn't fully grasp, say, or assigning small-group tutoring to four students who made Cs on a recent test—schools may be closer to making Bloom's vision a reality.

IN DEFENSE OF COLLEGE DEGREES, AND NEW POST-SECONDARY PATHWAYS

BY JEFFREY SELINGO

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In November 1965, at a ceremony at Southwest Texas State College, President Lyndon Johnson signed the Higher Education Act, a law he said "means that a high school senior anywhere in this great land of ours can apply to any college or any university in any of the 50 states."

The legislation and its expansion of federal financial aid for students and colleges ushered in a "universal college" movement in the United States, much like the "high school movement" at the turn of the 20th century that made 12 years of schooling the norm in an increasingly complex world. When the Higher Education Act was signed, about half of high school graduates went right on to college; today, some two-thirds enroll immediately in some sort of postsecondary education.

But there is mounting evidence that Americans are losing confidence in higher education as an engine of economic opportunity and social mobility. Americans have drastically shifted their priorities for K-12 education since the start of the pandemic. A new Populace study finds that "getting kids ready for college" has plummeted from the 10th highest priority to 47th. A growing number of commentators are also openly questioning the value of college.

That's unfortunate. The reality is that a college degree continues to pay substantial dividends. But rather than continuing to force students down the same narrow post-secondary pathway, it's increasingly clear that the nation needs a more flexible system for providing high school graduates the additional education and training they need, a system that gives students more options than State U or Starbucks.

A college degree is still worth the expense for many students, even if the journey to one doesn't begin three months after high school graduation. Research I'm working on with the Burning Glass Institute suggests that having a bachelor's degree delivers a wage premium worth more than four years of experience compared to those without a degree, findings confirmed by earlier research by Georgetown University's Center on Education and the Workforce. What's more, a degree gives workers greater mobility to move up (and out) into better jobs.

Why, then, are both students and commentators pushing back against college? The reasons are over-lapping and complex, but most of the research points to money: it costs too much and prospective students don't see it as worth the investment.

College presidents tell me their competition is now not only other colleges but also employers who are advertising jobs that pay more and offer flexibility. In a tight labor market, employers, including the states of Maryland and Utah as well as Delta Airlines, have dropped degree requirements for some jobs in the past year. And more companies, from Walmart to Disney, are offering education benefits as part of the job, just like health care and retirement, giving students the option to start work and then go to college. Working was always a side gig for many college students; now for many students working is core and learning is the side gig.

That's a reason why too many people start a degree but don't finish it. The number of people who began college but left without a credential grew to 39 million in 2020, up nearly 9 percent in two years. That represents more than one in five people in the United States over age 18, according to a report released this year by the National Student Clearinghouse Research Center.

One important solution is to increase the number of registered apprenticeship programs across all career fields. Registered apprenticeships combine paid on-the-job learning and formal instruction with a credential. In 2021, there were almost 27,000 active registered apprenticeship programs in the U.S. training over 593,000 apprentices, according to the U.S. Department of Labor's Employment and Training Administration.

While nearly 3,000 new programs were established in 2021 alone, we still have an antiquated image of apprenticeships as pathways that prepare young adults for the trades or factory work. But that perception is starting to shift as apprenticeships turn up in all kinds of fields, especially to train much-needed tech workers. The number of registered programs in tech fields grew about 41 percent between fall 2020 and 2021, according to an analysis by Work Shift. Still, the number of young adults in training programs pales in comparison to those in college.

Another key reform is to provide better education about careers and the training and education needed for them earlier in a person's schooling. By high school, students should start spending time rotating among employers and school much like they do now with college courses in dual-enrollment programs. Whether they want to go to college immediately or not, such an approach can give students a mix of hands-on learning with the academic elements of high school and early college. Depending on where they get their experiential learning, students can also earn industry certifications that can lead to a job right after high school.

Finally, we need to give young adults easy on-ramps to higher education if they decide to skip the turn after high school. We can do that by offering a broader array of options that stack up to a degree. For instance, students can start in low-risk noncredit programs that teach students just enough to start a career. The goal of these programs wouldn't be to give students everything they need to know for a job like a degree would but enough to get them started. By proving their knowledge on the job, they can later apply for credit. Eventually, those credits could equal a degree.

Another on-ramp could be more robust transfer agreements from two-year to four-year colleges, so that students feel their associate's degree can easily lead to a bachelor's degree when they're ready. Right now, only 31 percent of community-college students transfer to four-year colleges, and only about half of those end up with bachelor's degrees. And we could encourage more partnerships between colleges and companies like the one forged between Arizona State University and Starbucks that helps students more easily earn a degree while working.

The Higher Education Act was successful in making higher education the destination for high school students over the last 50 years. But half a century later, it's clear that it's going to take more than a single pathway to and through college to achieve Lyndon Johnson's goal of making post-secondary education available to every American student.

THE CASE FOR A NEW SCHOOL FINANCE REFORM AGENDA

BY ZAHAVA STADLER

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The Elementary and Secondary School Emergency Relief Fund (ESSER), the $190 billion fund established to help schools respond to the COVID-19 pandemic, has put school funding back in the national spotlight—a valuable opportunity to think about a critical issue in new ways.

There has been much progress over the past several decades in increasing education funding and directing resources to students with the greatest needs through state and federal school aid. And ESSER funds have been a vital, if temporary, response to students' heightened challenges during the pandemic.

But these improvements have been built on an unsound foundation. Policymakers continue to rely heavily on local property taxes to fund public schools, leaving many students, especially those from low-income backgrounds and students of color, in under-resourced school districts that cannot offer them the advantages provided to their more privileged peers. We need a new school finance agenda, one that addresses the fundamental problem that schools can't be engines of social and economic mobility when they place students on such unequal footing.

An Unsound Foundation

Forty-six percent of public school funding came from local sources in 2020 and property taxes contributed roughly two-thirds of that local share. But school districts' access to property tax revenues varies widely because those serving areas with high property values are able to draw on a richer tax base to raise more local money at lower tax rates, while districts with low-value property tax bases are much more challenged at raising funds locally. The result is that so-called high-poverty districts receive 5 percent less funding from state and local sources than districts with low concentrations of poverty nationally, and districts serving the most English learners receive 14 percent less than those with the fewest—despite their students having far more resource-intensive needs.

And in many states the equity picture is far worse than the national averages suggest. Consider Connecticut. It's among the wealthiest states in the nation, with one of the highest levels of income inequality. The state's most affluent school districts raise almost triple the amount of per-pupil funding from local sources than the state's highest-poverty districts do—$18,936 in local funds per pupil compared to $6,802.

Given the connection between property values and neighborhood affordability, the students who lose out tend to be those from low-income backgrounds. And the problem has a strong racial component. Many years of American discrimination against Black and Latino homebuyers has suppressed the property wealth held by families and communities of color. Since the school district map is layered on top of neighborhoods shaped by this history, districts serving many children of color are more likely to be disadvantaged by a school funding system rooted in local property taxes.

In response, most states employ equalization policies—mechanisms that allow districts to tap a combination of state and local dollars to reach a calculated "formula amount" of funding. These efforts help, to a point. But the inequality persists because so much of districts' local property tax revenue exists outside these policies, in a kind of school funding Wild West. Again, Connecticut exemplifies the problem. Its highest-poverty districts receive $14,698 per pupil in state education aid, while its wealthy districts receive $5,257. But that still isn't enough to bring funding levels to parity—the high-poverty districts end up with 11 percent less than their wealthy peers—let alone to meet students' needs.

That's because in Connecticut, as in nearly every state, school districts may raise "extra" dollars beyond the state formula's target amount, usually subject to no equalization requirements at all. The result is a school funding landscape in which massive amounts of local money are completely ungoverned by equity-conscious policy. District property tax revenues may amount to just 30 percent of total public education spending nationally, but they're responsible for a much larger share of the persistent funding gaps between school systems—and especially the gap between districts that serve predominately students of color and those that do not.

Building Barriers

The inequities are even greater advantage in the realm of school facilities, an undervalued ingredient of student success that's typically financed overwhelmingly with local dollars. Because school facilities financing usually sits outside the main state funding formula and is not subject to any equalization efforts, and since historical disinvestment in school buildings is so expensive to redress, students from low-income communities are at an extreme disadvantage. Districts' choices regarding the relatively unrestricted ESSER dollars reflect the extent of the problem. High-poverty districts have been much more likely than their affluent peers to use the federal aid to make physical plant upgrades.

The problem they are addressing—and that is still far from solved, despite the ESSER investments—is not merely cosmetic. Extensive research shows that academic achievement is linked to the physical learning environment. Students are more frequently absent from schools affected by infestations or mold, for instance, and scores on tests are lower when they're taken on hot days in schools without air conditioning. Students should not have to learn in substandard facilities simply because their parents can't afford a home in a high-priced neighborhood.

And there's another detrimental consequence to the gaps in local fundings between rich and poor communities: Local money is generally unrestricted, giving school leaders in low-wealth districts far less flexibility in addressing student needs. Federal dollars, in contrast, usually have many strings

attached to ensure they are spent on intended student groups. Some state funding comes in the form of flexible per-pupil aid, but much also comes through limited-use grants or reimbursements for specific costs.

As a result, the wealthiest districts, with more local money at their disposal, have the greatest latitude, while high-need districts face the most restrictions. By parceling out dollars to high-need districts in limited-use ways, we tie the hands of those closest to the kids who need the most support and push them to focus on reporting and formal compliance (often tying up funds to pay for entire departments focused on Title I administration) rather than on innovating to meet students' needs. When high-need districts have flexible dollars available, as they have under ESSER, they can try things that go beyond the standard state-prescribed educational program, like hiring and training family engagement specialists, providing intensive tutoring to the students most impacted by the pandemic, and incentivizing teachers to fill hard-to-staff roles and provide extended instructional time.

It should not require a global health emergency for districts to be given the room to do what's best for their students. And while it is legitimate for states to implement policies meant to ensure strong budgets or evidence-based uses of funds, these policies should apply equally to districts regardless of their wealth. Flexibility should not be a luxury good.

Solutions

A small number of states have taken important steps to curb or even eliminate the impact of local wealth differences on school budgets and students' experiences. These and related approaches can point the way toward a more equitable funding system.

Pool funds at the state level
Differences in local tax bases only matter when districts raise and keep funds locally, within the borders of individual school districts. This issue doesn't arise in Hawaii or the District of Columbia, each of which operates as a single school district. States that have more traditional school district structures can also eliminate the problem by requiring all school taxes to be collected at the state level (as Vermont does) or collected locally but deposited in a state pool for allocation (which Nevada has recently moved to do). As long as state dollars are distributed through a formula that appropriately accounts for differences in student and community need, pooling dollars at the state level can be a powerful way to eliminate inequity.

Limit local dollars
Even when districts keep some funds locally, that only causes inequity when property-rich districts are able to raise funding that exceeds the state's formula amount. Wyoming is the rare state where school districts are limited to raising the amount of local funding called for in the state formula. Districts must contribute the proceeds of a 2.5 percent property tax toward their schools; they cannot raise less or more, and if the tax yields more than a district's formula amount, the extra revenue is used by the state to supplement its distributions to other districts. This policy leaves no

room for unequal local funding amounts to affect schools' operations budgets. This approach faces steep political challenges—Wyoming only achieved it under pressure from a court ruling—but it is well within states' powers, and is among the clearest ways to level the local-tax-base playing field.

Redraw school district boundaries

The most ambitious, and likely most controversial, approach would be for states to redefine the meaning of "local" in "local school funding" to the benefit of all students. The boundaries of a school district determine more than the area and set of students that its schools serve. They also define the taxing jurisdiction from which a school district raises its local funding. Drawing a district border, then, is one of the most powerful ways to deteºrmine what resources will be available to which students.

Today, districts are often drawn in ways that entrench existing problems like residential segregation and inequality, rather than designed to best serve all students in diverse and well-resourced classrooms. But these borders are often the result of historical arrangements or the result of local, often self-interested initiatives to redraw borders.

Unlike with electoral districts, we have neither a norm nor a legal requirement to redraw school districts to ensure more equal governance as populations grow and change. Instead, though state lawmakers have the power to shape and change these boundaries, they rarely exercise it. State laws govern how school districts can and should be drawn. State lawmakers should take a far more active role in ensuring that the school district map produces equitable outcomes.

They could require processes that aim for districts to encompass heterogeneous student populations and be supported by roughly similar local tax bases. No state currently does this systematically. But several states do intervene when school district border changes are proposed. Arkansas and California, for instance, require that new school districts not be drawn in a manner that would hamper racial integration, and six states set requirements so that border changes don't result in a worse or unsustainable financial position. An extension of these policies would be for states to proactively draw school district borders that produce a more equitable funding system for all students.

States and the federal government have taken important steps over the last several decades to improve the fairness of their distributions and to target funding to student need. But by rooting the school finance system in local property taxes, we have created a situation in which the very first layer of school funding is tied to community wealth rather than to student need, and even the best state allocation policies can only partially compensate for that underlying problem. It's time to work on solving the problem at its source. No parent should ever have to say, "I can't afford to live in a neighborhood where my child can go to a good public school."