SPECIAL REPORT

educational equity

Six Ways to Open Opportunity

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Six Ways to Open Opportunity

INTRODUCTION

Income inequality has grown in the last six decades, and the COVID-19 pandemic has exacerbated the disparity where widespread hardship rates -- including insufficient food, inability to pay rent, and difficulty covering expenses—were at an all-time high at the end of 2020.[1] Income inequality has become a constant in recent conversation thanks to Thomas Piketty's Capital in the Twenty-First Century,[2] the social justice encyclical by Pope Francis,[3] and the 2020 election. What concerns me and many others in the education sector is the degree to which these increasing disparities are eroding education opportunities in the United States. All of us should be concerned about the impact this troubling trend is having on our schools, and the children and teachers in them.

Historically, education has been the primary vehicle that drives upward mobility. At a time when high-level skills are in demand and the stakes have never been greater for individual and societal success in a competitive global economy, we still have not realized the guarantee to an equal education promised by the Elementary and Secondary Education Act of 1965,[4] and as a result, our shared American Dream could slip into our shared American Nightmare.

What does education equity look like?

I BELIEVE THAT IT HAS SIX COMPONENTS:

1. It's diverse. We can't achieve equity in education without diversity—broadly defined in terms of socioeconomics and race, as well as by cultural and gender identity. We should see an inclusive snapshot of our changing America in every classroom.

2. It's governed by high expectations and high standards.

It is also grounded in the belief that all children can (and do) learn regardless of who they are or where they live. The focus should be on what they are learning and how well they learn it. Further, it requires high expectations and high standards from everyone who touches the learning community: teachers, administrators, students, parents, and other learning guardians. All students, including those who are now our least well served should acquire relevant and meaningful knowledge, skills, and the ability to think and learn so that they can successfully matriculate to college without requiring substantial remedial courses.

3. It aligns school achievement with student and teacher success.

We should take steps to prioritize formative assessment, job-embedded teacher professional development, and post-graduation performance over teacher tenure and high-stakes testing.

4. It's connected with broadband and devices.

Access to advanced instructional technologies that deliver effective, personalized, and engaging learning experiences can make all the difference in enhancing learning outcomes. We need to ensure that innovations in learning do not exclude less advantaged communities.

5. It provides adequate and sustained funding and financial support.

To cultivate a high-performance learning community academically, nutritionally, emotionally, and physically, financial support should be available where, when, and how it is needed.

6. It cultivates graduates who possess relevant skills.

The goal is for individuals to have relevant and globally competitive capabilities that will help them not to survive but to thrive in the global marketplace. We want graduates who can confidently secure gainful employment, create and lead new innovative organizations, and pursue post-graduate degrees.

"Education is the most powerful weapon which you can use to change the world."

—Nelson Mandela

As partners in learning, we at DreamBox are poised to provide the best education available to every student, particularly those who are economically disadvantaged, because we have scalable and affordable solutions to support teacher development, student learning, and parental involvement. We can choose to view all students as "with potential" (intentionally optimistic) rather than "at risk" (intentionally pessimistic). This is the truth of who these students are. To help them realize that truth, we must take steps now to ensure an equal education can help them fulfill their full abilities, no matter where they come from, where they learn, or where they live.

Where we are today

THE MAJORITY OF THE K–12 U.S. STUDENT BODY IS LOW-INCOME

Educational equity is the civil rights issue of this century. UNESCO defines education as a "fundamental human right and essential for the exercise of all other human rights. It promotes individual freedom and empowerment and yields important development benefits. Yet millions of children and adults remain deprived of educational opportunities, many as a result of poverty."[5] This is certainly true in the U.S. as well as in the rest of the world. This issue shouldn't be approached as a polarizing one, and it isn't a question of left versus right or us versus them, or any other oppositional framework. We all must work together to adapt to the needs of young people who arrive at school each day for their own good and for the collective good.

For the first time in at least 50 years, a majority of public school students across the country are considered "low-income," according to a 2015 study by tthe Southern Education Foundation. While poor children are spread across the country, concentrations are highest in the South and in the West.
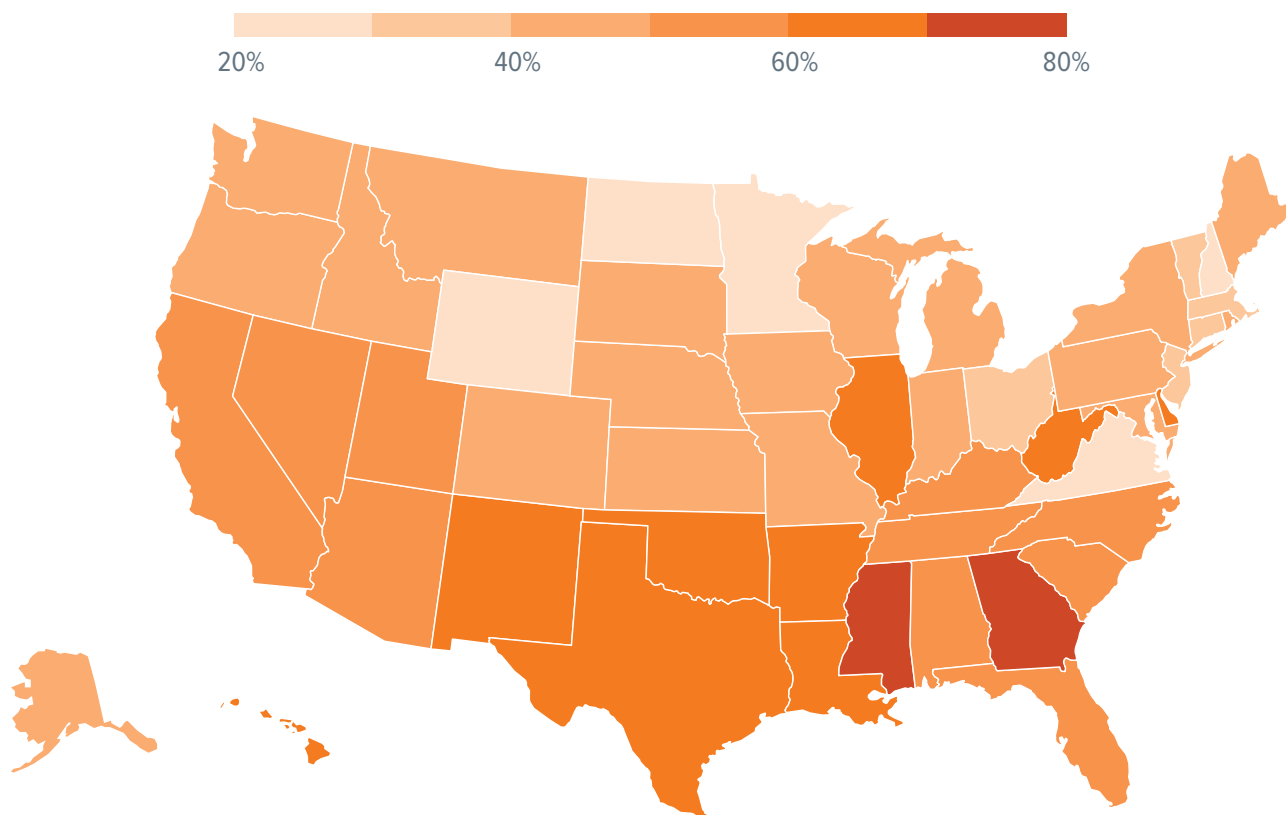
Source: SEF calculations of NCES Common Core of Data, 2013. Published Jan. 16, 2015

A time of rapid change.

In 2000, students who were eligible for free or reduced-price meals made up at least half of the student body—in four states. The Southern Education Foundation report[6] stated in 2015 at least half of children in public schools in 21 states were eligible for free or reduced-price lunches. When you look at the map from the report, you can see high proportions of low-income students in four-fifths of the 50 states in 2013. The 21st century has sharply increased the number of parents who are unemployed or who do not earn enough to provide adequate food, shelter, clothing, or health care for their children.

The double-bind of funding for high-poverty districts.

Low-wealth neighborhoods cannot pay the price for equal, quality education because for most districts, property taxes support school funding. According to a 2016 report from the Center on Budget and Policy Priorities: "Most states provide less support per student for elementary and secondary schools—in some cases, much less—than before the Great Recession, our survey of state budget documents over the last three months finds. Worse, some states are still cutting eight years after the recession took hold."[7]

An "equal opportunity challenge" everywhere.

While white Americans comprise the largest number of people in poverty, the poverty rate for Hispanics and African-Americans is significantly higher. Economic disadvantage is an "equal opportunity challenge" in every way for children of every ethnicity in rural, urban, and suburban settings. The journal *Child Development Perspectives* noted that child poverty is shifting from the inner city and rural areas to suburbs and small towns. While that change is occurring rapidly, income-related gaps in achievement skills are still three times greater in large cities than in suburban and rural communities.[8] These changes require a new look at academic supports provided for children in different environments.

Achievement gaps reflect economic status.

Fifty years ago, the black/white proficiency gap was one and a half to two times as large as the gap between a child from a family at the top 90th percentile of the income distribution and a child from a family at the 10th percentile.[9] Today, the proficiency gap between the poor and the rich is nearly twice as large as that between Black and white children. While racial inequities remain very real, data points to the idea that economic class is a principal driver of achievement gaps.

Impacts of the COVID-19 pandemic.

According to a 2020 McKinsey teacher survey, the COVID-19 pandemic has affected all students, but younger children and children living in households under the poverty line are experiencing learning loss at higher rates. The survey found that the longer students are out of in-person schooling, the higher the learning loss.[10] With the NAEP's 2021 school survey reporting that white students are more likely to enroll in full-time, in-person instruction than Black, Hispanic, and Asian students[11], it's probable students of color are experiencing greater learning loss due to the pandemic than white students. However, it will take time to fully assess the impact of the pandemic on students.

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>
> *—Center on Budget and Policy Priorities*

Six ways to open opportunities

There is no doubt that No Child Left Behind (NCLB)[12], now Every Student Succeeds Act (ESSA), had shortcomings. However, it did provide a valuable understanding of the achievement of specific groups of students thanks to the disaggregation of test scores by student group, including ethnicity, disability, and income. By spotlighting how African-American, poor, and Hispanic students were meeting learning goals, schools had to pay attention to their performance and understood that steps needed to be taken to equalize opportunity. I believe this accounts for some of the forward progress after the adoption of ESSA.
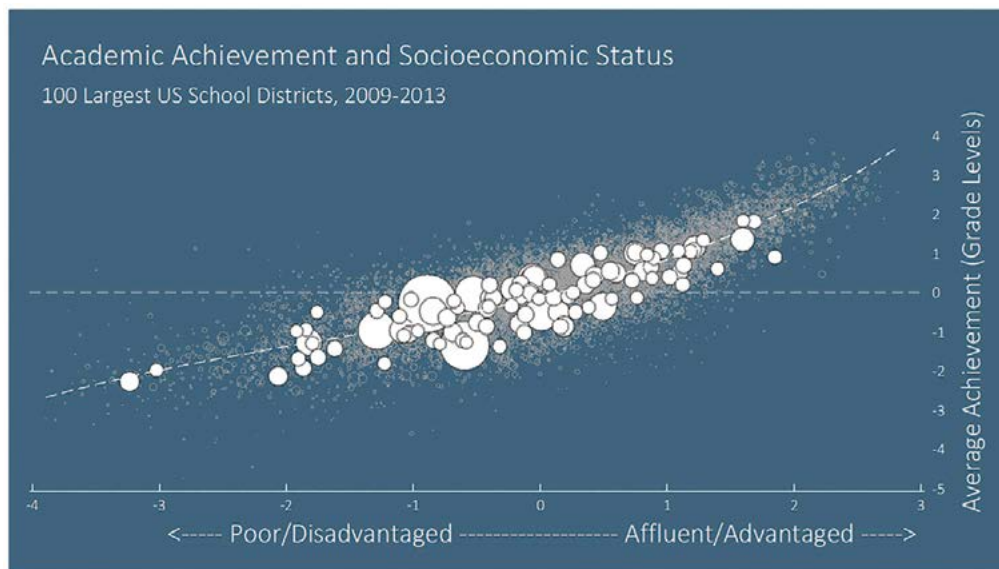
Source: Stanford CEPA (Center for Education Policy Analysis

Yet we can see exactly how socioeconomic status still affects achievement in aggregated data from the Stanford Center for Education Policy Analysis: children in the school districts with the highest concentrations of poverty score an average of more than four grade levels below children in the wealthiest districts.[13] This is the hurdle we need to overcome by being inclusive, egalitarian, forward-thinking, and supportive of parents, teachers, and students.

That means doing everything we can to see that disadvantaged learners get into and graduate from college—a prerequisite for upward mobility in the new economy. A study from the University of Michigan[14] found that the gap in college completion—considered the single most important predictor of success later in life—between low-income and affluent students has grown by about 50 percent since the late 1980s.

There are no simple solutions, and no single action taken in isolation will affect all the changes we need. However, I believe there are six important areas to focus on in the search for educational equity:

1 GREATER DIVERSITY IN ALL SCHOOLS.

The average poor child goes to school in an entirely different America than one who is economically advantaged. The result is that there are two different Americas, two different attitudes, and two different outcomes—which means we all lose. These two different Americas have two different levels of hope in the future, and hope is the fuel of progress.

UCLA's Civil Rights Project[15] reported that three-quarters of Black and Latino students attend majority-minority schools and about two in five are in schools where the white population is less than 10 percent; the typical white student attends a school that is three quarters white; and that minority students are also subject to "double segregation" by race and poverty. The situation persists despite evidence found years ago in the congressionally authorized Coleman Report,[16] which suggested that socioeconomic school integration could increase academic achievement more than any other school strategy. Other, newer research shows socioeconomic integration clearly benefits low-income learners and benefits wealthier students as well.[17]

Policymakers and scholars across the political spectrum are seeing the wisdom in the strategy to close large achievement gaps between races and economic groups. Even polar opposites in debates over education reform have advocated new measures to promote school integration to raise the achievement of disadvantaged students.

"The Problem We All Live With"

PLAY ▶

New York Times Reporter Nikole Hannah-Jones is an investigative journalist covering civil rights. Her two-part series on NPR's *This American Life* covers the one education reform that is not given enough attention, despite evidence that it works: school integration.

2

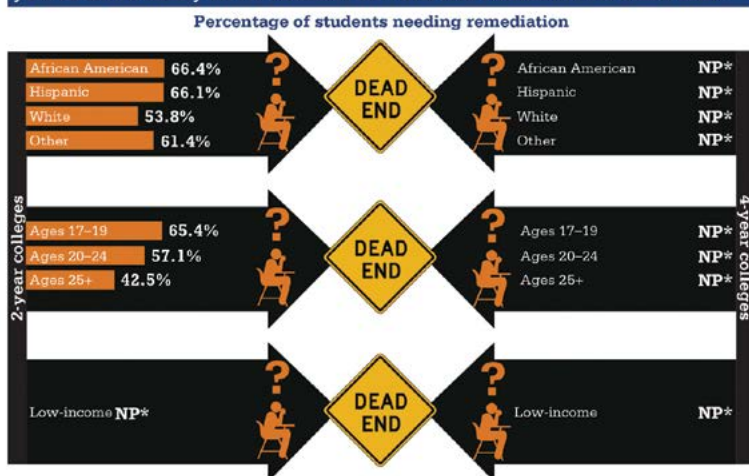## SET EXPECTATIONS AND STANDARDS HIGH.

I believe that all children can learn, regardless of who they are or where they live. There is research that shows that acting on that premise yields results. A study from the Center for American Progress (CAP)[18] confirms what many feel to be an important element of learning support—the power of the Pygmalion effect. This is the idea that teachers' expectations for their students match strongly to their students' achievement levels, and eventual college graduation rates. Thus, a teacher's faith in a student's abilities (or lack of faith) may influence that student's future success.

The study found that teachers generally have lower expectations of students of color and those from high-poverty backgrounds. Secondary teachers viewed high-poverty students as 53 percent less likely to graduate from college than their classmates from wealthier backgrounds. Black and Hispanic students were also respectively deemed 47 and 42 percent less likely to graduate than white students.

What can we learn from this study? Teacher expectations are "tremendously predictive," and can be even more important than student motivation or effort. We must move forward with the understanding that every learner has potential and that they can succeed, and we must treat students accordingly.

While we see students in the light of high expectations, it is important to keep academic standards high. This happens in classroom cultures where learners clearly understand what it will take to be successful for specific assignments or tasks. There should be no excuses for not completing work. But in addition to this kind of rigor, it is important to give students a grasp of the "big picture" to help them internalize how assignments fit together to form a meaningful whole. In thriving classrooms, while students work toward individual achievement, they are also part of a learning community where every student and their teachers work together toward a common goal of excellence.

If you're African American, Hispanic, or a low-income student, you're more likely to be headed toward the remediation dead end.

Percentage of students needing remediation

2-year colleges			4-year colleges	
African American	66.4%		African American	NP*
Hispanic	66.1%		Hispanic	NP*
White	53.8%		White	NP*
Other	61.4%		Other	NP*
Ages 17–19	65.4%		Ages 17–19	NP*
Ages 20–24	57.1%		Ages 20–24	NP*
Ages 25+	42.5%		Ages 25+	NP*
Low-income	NP*		Low-income	NP*

Source: CompleteCollege.org

Change the paradigm from intervention and remediation to high-quality education opportunities for everyone.

51.5 percent of those entering a two-year college, and 19.9 percent of those entering a four-year college enroll in remediation. For African-American, Hispanic, and low-income students, the percentages are even higher. The 2012 report, *Remediation: Higher Education's Bridge to Nowhere*, stated, "It is estimated that states and students spent more than $3 billion on remedial courses last year with very little student success to show for it."[19]

Why does this situation exist? Answers may be found in a 2014 study by the National Bureau of Economic Research: *Can You Leave High School Behind?*[20] It examines the relationship between the quality of high schools and subsequent student success in higher education. Using data from the University of Austin, the researchers found that providing higher education opportunity is not enough. The quality of the high schools is a key predictor of student success in college, and the paper said, "The results of this study suggest that high school background does influence college academic performance and that students from schools with multiple sources of disadvantage are a likely target for interventions at college entry."

The remedy is to improve high school college preparation. How can we make this a reality at scale? The Center for American Progress report, *Improving Academic Preparation for College: What We Know and How State and Federal Policy Can Help*[2i] suggests:

- **Federal support.** Create incentives for states, districts, and schools to address student needs by providing widespread public information about college preparation; build states' capacities to develop and measure students' college readiness; and support innovative college readiness activities focused on traditionally underserved students.

- **State support.** States should undertake a range of strategies to ensure that their policies to improve academic preparation are translated into changes in curricula and instruction and better outcomes for students. These state strategies might include developing better student support policies that are connected to efforts to increase academic rigor and monitoring the implementation of state policies to identify inconsistencies and needs for technical assistance.

3

ALIGNING SCHOOL ACHIEVEMENT WITH TEACHER AND STUDENT SUCCESS.

Nationwide, roughly 17 percent of new teachers quit within the first five years. This rate is significantly higher in low-income communities.[22] A pattern of chronic turnover affects instructional, financial, and organizational costs directly, negatively affects student learning, and destabilizes education communities.[23]

In "Speaking of Salaries: What It Will Take to Get Qualified, Effective Teachers in All Communities,"[24] Linda Darling-Hammond, a professor of education at Stanford University and Frank Adamson, a postdoctoral scholar at Stanford, found that on average, schools with low-income students have fewer experienced teachers who are at the top of the salary scale. While some veteran teachers remain, many leave the stressful environment of high-poverty schools and transfer to more affluent, better resourced schools. This is why less qualified teachers at the low end of the payscale end up in low-income schools, perpetuating the inequity cycle.

There are solutions to stop the cycle.

What will help us nurture good teachers and keep them in classrooms where poverty is a challenge? The Alliance for Excellent Education[25] concludes that "a well-designed, comprehensive induction program during the new teacher's first two years in the profession combines high-quality mentoring with release time for both new teachers and mentor teachers to allow them to usefully engage with one another; targeted and ongoing quality professional development; common planning time with other teachers in the school; and networking with teachers outside the school. The induction process culminates with an evaluation to identify a teacher's strengths and weaknesses, target future professional development, and determine if the individual should move forward in the profession." Like students, teachers need support to achieve their goals.

There is good news on the horizon for teacher support and training.

The Every Student Succeeds Act (ESSA) provides grants to districts for greater teacher support in many areas, including efforts to help implement performance pay and additional resources to help train teachers on literacy and STEM.[26] Investment in quality teaching goes a long way to increase teacher effectiveness and job satisfaction.

Formative assessment training and use in the classroom.

The use of assessment to provide feedback to teachers and students in the course of learning is formative assessment. Teachers use formative assessments to give students feedback about their progress and to guide decisions about next steps in the learning process. Research has shown that this approach helps close the gap between the learner's current and desired state of learning and achievement.

The power of formative assessment.

The Centre for Education Research and Innovation[27] researched the use of formative assessment in eight education systems around the world. They found that formative assessment strategies embedded in instruction resulted in a positive impact on students' self-perception as learners and helped them do well on standardized and other summative tests.

This research supports the groundbreaking findings of Paul Black and Dylan Wiliam's 1998 metastudy, *Assessment and Classroom Learning*.[28] Their work showed that the use of formative assessment in the classroom can result in a one-grade leap in achievement in a single school year.

Despite the promise of formative assessment, pre-service teachers may not receive adequate training in using it: only 1 in 3 teachers can correctly identify the definition of formative assessment practice.[29] Teachers can be supported through professional development training and improved instruction in teacher colleges, with a particular focus on the use of digital learning software that enables timely feedback and data.

Ongoing embedded formative assessment benefits teachers in their practice.

Because of evidence gained from research and that of our own experience, the teachers, curriculum experts, and developers at DreamBox have built our math curriculum with ongoing embedded formative assessment. There is a benefit for teachers, because our "intelligent" technology enables the ability to use data to gain unique insights into students' learning while promoting student agency and providing actionable data to teachers. Thanks to immediate and ongoing feedback, there is no need to wait until a student has failed to intervene and make corrections. Instead both student and teacher are provided with in-the-moment, ongoing feedback that enables success.

Being able to take advantage of best practices like formative assessment and new educational technology that supports that approach helps teachers personalize learning, make better use of classroom time, and raise achievement for everyone in the classroom.

4 PERSONALIZE LEARNING WITH EDUCATION TECHNOLOGY.

C. Kenneth Tanner, Professor Emeritus, University of Georgia, conducted a meta-analysis of effects of school design on student success. He found that "Ample state-of-the-art technology for teachers and students makes a statistically significant contribution to student achievement." Further, Lynch and Oakford documented their findings in "The Economic Benefits of Closing Educational Achievement Gaps"[30] that economically disadvantaged students in particular benefit from technology designed to promote high levels of interactivity and engagement with data and information in multiple forms.[31] A 2014 Stanford study found that students who worked with teachers in tandem with their online experience were much more likely to say they developed an interest in a given subject and also improved their academic standing.[32]

In rural areas, a greater push for high-quality online instruction "could broaden the scope of educational opportunities available to rural students, and help to alleviate staffing shortages. Cutting down on long and arduous journeys from a rural student's home to her school; virtually attending classes taught by a subject matter expert in another city; linking students who share similar interests but attend schools great distances apart— online learning can make all this and more possible."[33]

Demand for education technology is growing rapidly as more learning guardians—parents, teachers, tutors, and other invested adults—experience and understand the benefits of using personalized learning technologies. In 2019, 99% of public K-12 schools in the U.S. were connected to highspeed internet,[34] which creates opportunities to use online learning programs for more learners across the country. A 2019 Newschools Gallup Study found that 87% of teachers use digital learning tools at least a few days a week, and 92% of administrators see great value in using digital learning tools in the classroom.[35]

DreamBox believes that learning should be personalized, powerful, and seamlessly integrated with what happens both inside and outside of classrooms. That is why we have developed a learning technology that tracks a student's progress anytime, any place they learn, and connects them to mastery of subject matter—not merely rote memorization—with lessons that keep them in their optimal learning zone. At the same time, their learning guardians are kept in the loop to maximize the support they can provide and engagement with their learners' progress.

5

FUND WHEN, WHERE, AND HOW IT MATTERS.

Many of the measures I have discussed require money, and money does make a difference. Rutgers Professor Bruce Baker in Does Money Matter in Education? said "on average, aggregate measures of per-pupil spending are positively associated with improved or higher student outcomes." In addition he noted, "Schooling resources that cost money, including smaller class sizes, additional supports, and more competitive teacher compensation … are positively associated with student outcomes."[36]

Every Student Succeeds Act (ESSA)'s intent is to direct dollars to the highest-poverty schools and districts. While far from perfect, the Title I formula allocates funds in a way that benefits the districts and schools with the most need in each state, and within districts, high-poverty schools are given priority for Title I funds.

Due to the COVID-19 pandemic, we are likely to see continued boosts in EdTech funding. To alleviate the impact of the pandemic on education, Congress set aside billions of dollars in 2020 and 2021 toward the Elementary and Secondary School Relief Fund (ESSER Fund).[37] Schools are encouraged to use allocated funds to address student learning loss due to the pandemic. Certainly, funds could be used toward online education programs like DreamBox that fill gaps and mitigate learning loss. To gain greater understanding about the ESSER Fund, the Office of Elementary and Secondary Education is a helpful resource.

6

SUPPORT COLLEGE ATTENDANCE, COMPLETION, AND EMPLOYMENT.

A corollary around funding is that most individuals now have to pay for college with loans, and this new normal of debt-financed higher education disproportionately affects poor and minority students. In *The Debt Divide*, Mark Huelsman shows how the shift to this system threatens the U.S. historic commitment to ensuring that everyone can afford to go to college. His study which used data from three U.S. Department of Education surveys found that the current debt-financed system "not only results in higher loan balances for low-income, Black and Latino students, but also results in high numbers of low-income students and students of color dropping out without receiving a credential."[38]

The reason for all this debt and struggle is that poor and minority students are well aware of the gap between the earnings of students with a college degree. This gap is wider than ever[39] at a time when a degree is crucial to success and upward mobility.

> *"Education then, beyond all other devices of human origin, is the great equalizer of the conditions of men, the balance-wheel of the social machinery."*
>
> —Horace Mann, 1848

Chances of getting ahead for children with and without a college degree, from families of varying income
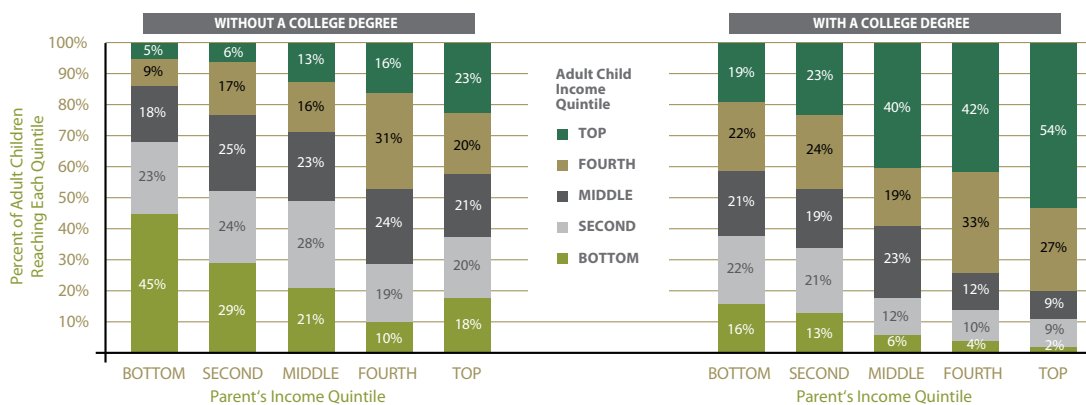
Source: Brookings tabulations of PSID data

Once economically challenged students graduate, they need to get and keep a job. Is opportunity available to all Americans who equip themselves with the right skills? Even with a degree, minorities have a difficult time gaining employment. Discrimination is clear in the statistics: In 2020, Black graduates were almost twice as likely to be unemployed a year after graduating college compared to their white peers.[40]

A past study showed why that may be true. "An Examination of Racial Discrimination in the Labor Market for Recent College Graduates: Estimates from the Field,"[41] answered online job advertisements with over 9,000 resumes from fictitious, recently-graduated job seekers. It was found that Black applicants received approximately 14 percent fewer interview callback requests than their otherwise identical white counterparts. All the positions in the experiment were sales and marketing, finances, banking, or insurance. In customer-related jobs, Black applicants were about 28 percent less likely to receive a positive response or a callback compared to otherwise identical white applicants.

What conclusion can be drawn from this? We can surmise that even if equally qualified, if you are a person of color, disparity of opportunity may grow even when qualifications are the same. In school, and out of school, we still have work to do to bring greater equity to the lives of all our citizens. Our goal should be to cultivate a workforce with the relevant and globally competitive capabilities to help all individuals thrive in the world marketplace, create and lead new innovative organizations, or pursue postgraduate degrees.

> *"It always seems impossible until it's done."*
>
> *—Nelson Mandela*

Restore opportunity and improve outcomes

Everything we know about life and work in the 21st century confirms that the definition of "quality education" must include access to technology for students and their learning guardians, both to gain computer skills and to provide access in and out of school to information, collaboration, and online learning. While the use of EdTech alone cannot solve the problem of persistent poverty, teachers and technology are essential to the success of students; and enabling all of today's learners to meet the future with confidence, armed with the right skills and tools, is a matter of urgency.

By providing equal opportunity and inclusion to all students, we can not only help reduce poverty over the long term by making poor children more productive during adulthood, but also foster economic growth that expands opportunity for everyone. We must also consider the moral imperative that disadvantaged children should not be penalized for where and when they were born. Fair education policy is one of the best ways to prevent this from happening.

Investing in the future of our young people makes sense. By providing everything needed to unlock the learning potential of every child, we also unlock their human potential—the key to good citizenship. That's good for the learner, their family, their community, and our nation. Let's partner to keep the American Dream alive and well for us, and for future generations.

ABOUT JESSIE WOOLLEY-WILSON

Jessie supports the broader K–12 industry by serving on the boards of several educational organizations including the International Association for K–12 Online Learning (iNACOL), Camelot, the Woodrow Wilson Foundation, and Islandwood. Jessie has been a featured speaker at international events including TEDx Rainier, SXSWedu, and DENT. She was awarded the 2015 Executive Excellence Award in the CEO of the Year category by Seattle Business magazine; she was also on the *Forbes* "Impact 15" list for being a disruptor of education, and was honored as a "Woman of Influence" by Puget Sound Business Journal for making an impact in the EdTech industry. Jessie holds an MBA from Harvard Business School and a BA from the University of Virginia. She is also a 2007 Henry Crown Fellow and moderator of the Aspen Institute.

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About DreamBox

DreamBox is an award-winning, online K–8 math program that is both engaging and proven to boost your child's math performance. Created by educators, DreamBox math lessons dynamically adapt and adjust based on how students are solving problems—providing your child with personalized one-on-one instruction to meet their unique needs.

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