



# THE CASE FOR EDUCATION TRANSFORMATION

Part I. The Disappointing Reality of  
American Education

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# Introduction

Traditional district schools aren't working for an increasing number of American families. Slight upticks in high school graduation and college-going rates mask persistent gaps in access and achievement for low-income and minority families.

Roughly 43 percent of American children are growing up in low-income households in 2018. A majority of these children do not have access to high-quality education options. This lack of access will impact their ability to graduate high school, to enter and persist in college, and to earn a living wage.

This paper presents basic facts about educational access and quality in the U.S. from pre-kindergarten through adulthood. It draws on national and international data to demonstrate how the United States continues to provide a mediocre education to most students and a deeply inequitable educational experience for the least advantaged. It goes on to discuss how a lack of educational opportunity affects children into adulthood, influencing job opportunities and the health of communities and the nation as a whole.

This is the first paper in a series exploring the case for a true transformation in education and how to make it happen.

## **K-12 Educational Opportunity and Outcomes in the U.S.**

Forty-three percent of children in the United States live in low-income families—families that do not have enough money to cover basic expenses. Minority and immigrant children are more likely to live in poverty than their white counterparts.<sup>1</sup> Since the 1960s, researchers have known that the circumstances associated with living in poverty negatively impact educational opportunities, a child's school experience, and life outcomes.<sup>2</sup>

Only 29 percent of preschool aged children of parents with a high school diploma or less were enrolled in preschool in 2016. Low-income children who do not have access to high quality early childhood education are more likely to repeat grades, more likely to get in trouble with the law, and will earn on average, \$2,000.00 less per month than their more affluent counterparts who have had access to preschool.<sup>3</sup>

And this gap in access leads to staggering achievement gaps between low-income students and their more affluent peers. *Data from the National Assessment of Educational Progress (NAEP) show a difference of 1.25 standard deviations in reading achievement between the nation's poorest and wealthiest students—this equates to more than six years of learning in middle and high school.*<sup>4</sup>

As bleak as this picture is for low-income students, especially low-income students of color, it's actually not much better for their comparatively privileged counterparts. NAEP was designed in the 1970s to assess what American school children know and can do in basic content areas. It is the only assessment that is reliably given to a representative sample of U.S. students every few years and that is aligned to a survey of curricula nationally that suggest what U.S. students should know in each subject area at each grade level. NAEP also allows researchers to understand trends in education over time.

*On average, higher-income students in the U.S. achieve the equivalent of six years of learning more than their lower-income peers on standardized tests of reading achievement.*

The most recent NAEP<sup>5</sup> results reveal that proficiency in basic content areas has changed remarkably little since the 1970s. They also reveal that few Americans are actually proficient . . . in much of anything.

On the 2015 NAEP reading assessment, only 36 percent of 4<sup>th</sup> grade students and 34 percent of 8<sup>th</sup> grade students tested at or above proficient. This means that 66 percent of 8<sup>th</sup> grade students in the U.S. cannot, according to NAEP, read at grade level.

The results are no better in the other subject areas that NAEP tests. In math, only 33 percent of 8<sup>th</sup> grade students score at or above proficient. In 12<sup>th</sup> grade science, only 22 percent of students have a command of grade level content.<sup>6</sup>

<i>NAEP 8th Grade Reading, 2015</i>	<i>34 % at or above proficient</i>
<i>NAEP 8th Grade Math, 2015</i>	<i>33 % at or above proficient</i>
<i>NAEP 8th Grade Science, 2015</i>	<i>34% at or above proficient</i>
<i>NAEP 12th Grade Science, 2015</i>	<i>22% at or above proficient</i>
<i>NAEP 8th Grade History, 2014</i>	<i>18% at or above proficient</i>

Given these results, it is somewhat surprising that so many American students graduate high school and enroll in college. It isn't surprising, however, that once in college, so few students persist.

## High School Graduation and College-Going

In all public schools, nationally, 83 percent of students graduate high school, with great variation among states. Of those high school graduates, 69 percent enroll in college the following fall. But high school graduation and college acceptance rates are much lower for low-income and minority students.<sup>7</sup>

In 2014-15, 75 percent and 78 percent of black and Hispanic students, respectively, graduated high school. Those students are more likely than their white counterparts to be low-income. Among low- and middle-income high school graduates, 63 percent enrolled in college the following fall, compared to 88 percent of high-income high school graduates.<sup>8</sup>

Overall, even when Americans start college, only a small number graduate. Of the higher-income high school graduates who enroll in college, only 54 percent graduate after six years. That number drops to 19 percent for students who grew up in low-income households.<sup>9</sup>

In today's economy, there are many reasons why students don't persist in college. Even middle- and high-income students may find the cost of college prohibitive. But, the data strongly suggest another reason: the vast majority of high school graduates, especially those who attended rural and urban schools with concentrations of low-income students, simply aren't prepared for the rigors of college.

College-going and persistence has a direct relationship to employment and future earning capabilities. In 2015, 88 percent of Americans with a bachelor's degree or higher were employed, whereas only 48 percent of people with only a high school diploma were employed. The median annual income of young adults with no high school diploma was \$25,000. Young adults who completed high school made a median annual income of \$30,000, and young adults with a bachelor's degree earned a median annual income of \$50,000.<sup>10</sup>

### High School Graduation and College Enrollment in the U.S.

<i>National high school graduation rate</i>	83%
<i>National graduation rate for black students</i>	75%
<i>National graduation rate for Hispanic students</i>	78%
<i>Rate at which high-income students enroll in college immediately after high school</i>	88%
<i>Rate at which low- and middle-income students enroll in college immediately after high school</i>	63%



### *The Hidden Truth About Adult Literacy*

While a focus on high school graduation and college-going is important for understanding who does and does not gain access to a middle-class wage and the global economy, it masks another issue rarely discussed in American education: astonishingly low literacy rates among American adults, even those who hold high school diplomas.

Results from the most recent national data available revealed in 2003 that 22 percent of Americans—over 191 million adults—are functionally illiterate. Another 28 percent of adults, including adults who hold high school diplomas, read at very basic levels.<sup>11</sup>

The National Adult Literacy Survey (NALS) captured non-native English speakers, who account for a small percentage of adults who cannot read or write in English. But, overall the survey's results suggest that almost half of the U.S. population is reaping little benefit from schools. Even adults who leave high school before graduation should be functionally literate by the eighth grade. NAEP data and the NALS make it clear that too many American schools are failing to equip students with the most basic literacy skills.

The implications of illiteracy are profound. According to the U.S. Department of Justice: *“the link between academic failure and delinquency, violence, and crime is welded to reading failure.” 85 percent of all juveniles who “interface with the juvenile court system are functionally illiterate, and over 70 percent of inmates in America’s prisons cannot read above a fourth-grade level.”*<sup>12</sup>

And those who escape the justice system still struggle. The 20 percent of adults with the lowest literacy levels are far more likely to receive assistance through the Supplemental Nutrition Assistance Program (SNAP) and far less likely to hold a bank account.<sup>13</sup>

As the U.S. rapidly becomes a society where technological literacy is just as important as reading and writing, the same Americans who lack basic literacy skills are left out of the technological revolution. The wealthy and educated are “more likely than others to have good access to digital resources.”<sup>14</sup>

For adults, a lack of technological skill means a failure to compete in a changing economy. For students, a lack of broadband access in schools—even where computers and other technologies are available—means a lack of exposure to the skills and competencies that foster post-secondary and occupational success.



Fully 25 percent of the United States—mostly rural areas—has no access to broadband, or a connection fast enough to stream video. And many citizens who do have access to broadband simply can't afford it.<sup>15</sup> A 2012 Pew report on Internet and American Life found that 49 percent and 51 percent of black and Hispanic Americans, respectively, have high-speed internet at home, compared to 66 percent of Caucasians.<sup>16</sup>

Teachers of low-income students report that a lack of technological access at home presents obstacles to learning in schools. The same teachers were more likely to report a lack of technological support in their school: 56 percent of teachers in low-income schools, according to Pew, believe that “inadequate access to technology is a major challenge in teaching.”<sup>17</sup>

Whether basic literacy skills or, increasingly, technological literacy skills, too many Americans do not have the educational access they need to be successful in today's economy. Each type of literacy comes down to education. Schools across the country are failing students.

### *The U.S. in International Perspective*

International comparisons show that the same people who aren't benefiting from the current system are likely to suffer in the international economy as well. At first blush, international comparisons don't look too terrible for the U.S. On average, a slightly higher percentage of U.S. students graduate high school and go on to college than their counterparts in other Organization for Economic Cooperation and Development (OECD)<sup>18</sup> countries. U.S. students also score slightly higher on international reading and science examinations conducted under the Programme for International Student Assessment (PISA) than the OECD average, though they score lower in math.<sup>19</sup>

But a closer look reveals that averages hide important disparities in American education. These disparities are linked to low literacy (the U.S. scores below the international average on adult competency tests) and an overall lack of rigor in schools that serve the most disadvantaged Americans.

Results from the 2012 PISA indicate, “15% of the variation in student performance in the United States is explained by students' socio-economic background.” Put another way,

*“...in the United States, two students from different socio-economic backgrounds vary much more in their learning outcomes than is normally the case in other, higher performing countries.” Important to note, too, is that the United States does “not necessarily have a more disadvantaged*

*socio-economic student intake than other countries but that socio-economic differences among students have a particularly strong impact on student learning outcomes.”*

And it’s clear that the U.S. can’t spend its way out of inequity. The U.S. spends more per pupil (28 percent more) than most OECD countries: \$11,800 per pupil, on average, compared to \$9,200 in other OECD countries. Countries where students consistently outperform their peers on math and reading tests, such as Finland and Japan, spend less than \$10,000 per pupil.

These countries not only have higher overall averages but less disparity of outcomes between students of differing socioeconomic status. And many countries that outperform the U.S. in these domains have rates of immigration equal to or higher than the U.S. The U.S. is not an outlier when it comes to racial, ethnic, and socioeconomic diversity, it just doesn’t do as good a job of providing access to high quality educational options for all students.<sup>21</sup>

Why do other countries do better? Many countries that serve all students at a higher standard have systems of education that are fundamentally different than the U.S. They subsidize pre-kindergarten programs and those programs have very high rates of participation. Many countries have objectively more rigorous primary and secondary school curricula, and they hold all students to one high standard for graduation.

Higher performing countries also invest heavily in teachers, ensuring their nations have a workforce that is prepared to deliver rigorous curricula. Furthermore, almost none of the countries that outperform the U.S. rely on local property taxes to fund a major portion of schooling; because of this, schools don’t suffer from drastically uneven access to resources—basic and technological—which is common in the U.S.

Another differentiating factor is the extent to which parents can send children to the school of their choice. *The United States is one of the only industrialized countries that allows parents little flexibility to choose among public schools and one of only five OECD countries that does not provide government funding for privately managed schools.*<sup>22</sup>

In many high-performing OECD countries, parents have greater flexibility to choose a school that meets their children’s needs—private or public, religious or secular—and government bears the cost.<sup>23</sup>

PISA put this in perspective in 2012 when it noted that its results reveal the U.S. to have one of the most deeply inequitable systems of education. That is, the wealthiest citizens in the wealthiest locales often have access to the best schools. In many cases, that access comes from the ability of families

to vote with their feet, choosing the schools that work best for children and fostering the creation of innovative school options.

*PISA results reveal the U.S. to have one of the most deeply inequitable systems of education. PISA notes that well designed systems of school choice in other countries diminish inequities.*

### What Now?

The case for an education transformation is clear. Understanding the unsettling truth about the state of American education is only a first step. In the next installment of this series of reports, CER will explore how the U.S. can learn from other countries and from pockets of educational excellence here at home.

We will uncover how expanding opportunity and fostering innovation can assure students achieve academic excellence. We will present data on how teacher training can elevate the status of the profession and attract high-quality teachers. We will present ideas for closing the digital divide and providing Americans across diverse geographies with the skills and competencies they need to compete in today's job market. We will do all of this with an eye to holding policy makers accountable for creating a more just, more equitable system for all Americans.

<sup>1</sup> National Center for Children in Poverty, "Child Poverty," <http://www.nccp.org/topics/childpoverty.html>. Downloaded September 20, 2017.

<sup>2</sup> See Coleman, James (1966) *Equality of Educational Opportunity (COLEMAN) Study (EEOS)*, Ann Arbor, MI: Inter-university Consortium for Political and Social Research

<sup>3</sup> National Education Association (NEA) "Early childhood education," <http://www.nea.org/home/18163.htm>.

<sup>4</sup> Vanneman, A., Hamilton, L., Baldwin Anderson, J., and Rahman, T. (2009). *Achievement Gaps: How Black and White Students in Public Schools Perform in Mathematics and Reading on the National Assessment of Educational Progress, (NCES 2009-455)*. National Center for Education Statistics, Institute of Education Sciences, U.S. Department of Education. Washington, DC.

<sup>5</sup> National Center for Education Statistics (NCES) (2017), *The Condition of Education, 2017*, pp. 42-50, <https://nces.ed.gov/pubs2017/2017144.pdf>

<sup>6</sup> *ibid* (includes figures listed in table below)

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7 *ibid*

8 *ibid*

9 National Student Clearinghouse Research Center (2017) "Snapshot report: persistence and retention," <https://nscresearchcenter.org/tag/persistence/>

10 National Center for Education Statistics (2017), *The Condition of Education, 2017*, pp. 42-50, <https://nces.ed.gov/pubs2017/2017144.pdf>

11 Kirsch et. al (2002) "Adult literacy in America: A first look at the findings of the national adult literacy survey," U.S. Department of Education, Office of Educational Research and Improvement, <https://nces.ed.gov/pubs93/93275.pdf>.

12 Quoted in: "The U.S. illiteracy rate hasn't changed in over 10 years," *Huffington Post*, November 27, 2017.

13 Kirsch et. al (2002)

14 "Digital divide: the technology gap between rich and poor," in *Digital Responsibility*, downloaded Jan. 24, 2018, <http://www.digitalresponsibility.org/digital-divide-the-technology-gap-between-rich-and-poor/>

15 Vick, Karl (2017) *The digital divide: a quarter of the nation is without broadband*, *Time Magazine*.

16 Quoted in "Digital divide: the technology gap between rich and poor"

17 *ibid*

18 Organization for Economic Cooperation and Development

19 *ibid*

21 OECD 2013

22 Mussett, Pauline (2012) "School choice and equity: current policies in OECD countries and literature review," Directorate for Education, Working Paper #66: *This is a statement about U.S. education in general. Different states and localities may allow parents to choose among different district schools and/or a charter school (publicly funded/privately managed) options.*

23 Mussett, Pauline (2012)







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