In October 2014, the US Department of Education’s Office of Civil Rights issued a clarion call to school districts and states to review their policies and practices in order to ensure they are equitably providing educational resources to their schools. In a Dear Colleague letter, Assistant Secretary Catherine E. Lhamon decried the persistent unequal access to educational resources, outlined the legal framework for enforcing civil rights in education, and specified where discrimination is most prevalent.

She cited systematic discrimination in the academic rigor and quantity of courses offered, the quality of curricula, the number of extracurricular activities available to students, the quality of teaching and leadership, the adequacy and condition of school facilities, and the availability of sophisticated technology and instructional materials. The letter echoes the 2013 report of the Equity and Excellence Commission:

“Our educational system, legally desegregated more than a half century ago, is ever more segregated by wealth and income, and often again by race. Ten million students in America’s poorest communities—and millions more African American, Latino, Asian American, Pacific Islander, American Indian and Alaska Native students who are not poor—are having their lives unjustly and irredeemably blighted by a system that consigns them to the lowest-performing teachers, the most run-down facilities, and academic expectations and opportunities considerably lower than what we expect of other students. These vestiges of segregation, discrimination and inequality are the unfinished business for our Nation.”

Much of Americans’ faith in the social contract is based on the belief that America is the “land of opportunity.” According to the Pew Charitable Trusts, however, people who have no or few family resources find it incredibly difficult to climb the economic ladder: In a 2012 study, Pew found that 43 percent of those raised at the bottom of the income distribution remained there a generation later, 70 percent never reached the middle, and only 4 percent made it all the way to the top.

A number of factors influence mobility: geographic location (state, town or
city, and neighborhood), the amount of savings a family has accumulated, and whether or not a household has a working mother. Today, four out of ten children are born to unwed mothers; working for these women is essential for their family’s well-being.

But education plays an outsized role in upward mobility. The Pew study also found that young people raised at the bottom of the economic pyramid who earn college degrees are five times more likely to leave the bottom income levels as adults when compared with their peers who do not have bachelor’s degrees. A young person who drops out of high school is lucky to make $12 an hour, while a young person with an advanced degree is likely to earn $33 an hour.1

By 2020, 65 percent of jobs will require at least some college education or training beyond high school.4 If the warnings of the Equity and Excellence Commission are not heeded, we could well see a nation divided not only by class and race but also education. The Great Equalizer could become a permanent Great Unequalizer.

This dire possibility coincides with the biggest explosion of knowledge in human history. Today, we can see the edge of eternity, map genetic codes, build computers that calculate many millions of instructions per millisecond, communicate instantly with people around the world, and soon will be able to create learning avatars that can act as our intellectual guardian angels.5 Young people who cannot participate in mastery and creation of knowledge will be shut out of the economy and from full participation in society. There is evidence that each generation is smarter than previous generations,6 but will this growth in cognitive capacity be widely shared? The knowledge explosion and the persistence of educational inequities call for a new learning paradigm that prepares all children to strive and thrive.

School Improvement from the Inside Out

School quality significantly affects students’ ability to learn and their capacity for lifelong learning, but what is inside the black box that separates a highly effective school from a low-performing school? Thirty-six years ago, Ronald Edwards conducted research in inner-city elementary schools where students from economically impoverished backgrounds were equaling or surpassing the national average.7 Edmonds outlined six characteristics essential for effective schooling:

- strong administrative leadership;
- high expectations;
- an orderly atmosphere;
- basic skills acquisition as the school’s primary purpose;
- capacity to divert school energy and resources from other activities to advance the school’s basic purpose;
- frequent monitoring of pupil progress.

In 1983 the US Department of Education published A Nation at Risk, which famously said, “If an unfriendly foreign power had attempted to impose on America the mediocre educational performance that exists today, we might well have viewed it as an act of war.” Education was no longer a policy afterthought; it became a topic of national conversation and at times acrimonious disagreement. But through it all, some basic truths held: The quality of classroom instruction and the quality of the organizational systems supporting instruction were the keys to equal education.

Recently, Howard University’s A. Wade Boykin identified six school-based factors that are highly correlated to student engagement and achievement:

- positive teacher-student relationship quality, marked by caring, support, and high expectations;
- collaborative learning, marked by intellectual exchanges among group members;
- mastery of classroom goal structures, focused on student understanding, effort, and improvement;
- meaningful learning, marked by a focus on personal relevance and links to prior knowledge and experiences;
- cultural significance, marked by links to family socialization and traditions, fundamental core values, and popular culture;
- promotion of effectiveness and efficiency of information processing skills, such as problem-solving strategies and critical thinking.8
Boykin and other researchers have put flesh on the bones of the effective schools literature; trust, dignity, and affirmation are essential for learning. When educators build social-emotional learning into the daily life of a school, they create a positive learning environment. There is strong evidence that positive school climates and cultures are highly correlated with high graduation rates, college and career readiness, and a sense of competence among students. In my own research on the socialization effects of high schools on students’ self-perceptions and aspirations, I was impressed by how profoundly the cultures of high schools influence the educational trajectories of students.

Social-emotional learning and trusting school climates are not “soft” concepts. Hamre and Pianta, for example, found that when high emotional and instructional support was consistently present in classrooms, students who were behaviorally and academically at risk performed at a higher level academically than students who did not have those supports. This high emotional support includes a teacher’s 1) sensitivity to student needs, 2) reluctance to impose an agenda onto a child and 3) creation of a positive classroom climate.

These findings have policy implications. Not that many years ago, Finland did not do well in international comparisons of mathematics and reading. Beginning in the 1980s, educators and the public came to terms with the fact that they were going to be shut out of the global marketplace unless they overhauled their public education system. Finland adopted a grassroots school improvement approach. Policymakers and educators emphasized inclusion and creativity, well-prepared teachers who were themselves lifelong learners, the wide use of special education pedagogical strategies, teacher-developed curriculum, and an emphasis on social cohesion.

Today, Finland is among the top scorers in international testing, while the United States continues to flounder in the middle of the pack. Of course, Finland and the United States differ in many ways, but these differences should not obscure the finding that certain policy approaches are more effective than others in creating a high-functioning education system of public schools.

Education for Tomorrow’s Jobs

Students today are digital natives; they have grown up in an age of networked intelligence enhanced by instant communication, artificial intelligence, and social media. This networked intelligence includes not only an expanded definition of intelligence but also a far greater emphasis on collective and distributed intelligence and the emergence of a cognitive fluency that allows students to think across and past old categories of thought and knowledge and stretch their thinking in new directions and deeper dimensions. While there are many ways to describe cognitive fluidity, four qualities are essential:

- **Critical reflection.** The ability to distinguish fact from factoid, reality from fiction, and truth from lies is essential to shaping the mind of the mature thinker.

- **Empirical reasoning.** Logic and the ability to manipulate large data sets become more important with each passing year. Those without this skill will not be able to compete for any job except the most low paying and unsatisfying.

- **Collective intelligence.** No one learns in isolation: We not only learn from each other, we learn with each other. Teamwork, sharing ideas, and using gaming, simulations, and complex ways of communicating are how work will be accomplished in the coming decades.

- **Metacognition.** Thinking about thinking is no longer the preserve of the privileged; it is a basic skill. The 21st century mind is not an attic where all sorts of unrelated ideas and beliefs are stored with no organizing principle. Complex metacognition is both fluid and structured.

Albert Einstein once said that imagination is more important than intelligence; I would argue that the qualities of mind mentioned above are far more important than traditional approaches to learning in a world experiencing exponential economic and intellectual growth. Children born today are likely to be living and perhaps even working in the 22nd century, and the job market will require more of them. According to Carnevale, Hanson, and Gulish:

The workforce of the 21st century will look quite different from the workforce of the 20th century. While adapting institutions to the new
age workforce constitutes a challenge, it also reflects a unique opportunity to develop the most dynamic, skilled workforce in the world. The occupational shift from blue-collar jobs in the manufacturing industry to sales, office, and service jobs across industries now allows a greater share of the population to participate productively in the workforce and contribute to the economy, provided they have the requisite skills.

What was sufficient for the development of human capital even two decades ago is no longer adequate. University of California economist Enrico Moretti refers to the 21st century as the “human capital century.” Will the school system be further stratified between schools that are dedicated to providing an enriched curriculum based on inquiry, discovery, and metacognition to middle and upper middle students, while poor, near poor, and working class students continue to be educated for the 19th and 20th centuries?

Recent work by Greg Duncan and Richard Murnane makes it clear that the dynamics of income inequalities will, if left unattended, transform the “land of opportunity” into a land of deep divisions and economic immobility. In the words of a recent report released by the Hamilton Project, “Our educational system needs to foster talent at all levels.”

Who Has a Place in the Knowledge Economy?

Educational equity in this context takes on new meaning: It can be defined as including participation and leadership in the knowledge economy. Defining equity this way requires rethinking what education means, how it is delivered, and how results are measured.

For poor, near poor, and working class students, the stakes could not be higher; if schools produce graduates who are destined to reproduce the current social arrangements, the chances of upward mobility for disadvantaged young people are low. But if learning environments become more inclusive, rigorous, and forward thinking, students who do not come from privileged backgrounds have more than a reasonable chance of succeeding.

In *The Great Disruption*, Francis Fukuyama wrote, “One of the greatest challenges modern information age democracies face today is whether they can maintain social order in the face of technological and economic change.” Looking at equal education in this light, the unfinished business of the nation is to ensure that efforts to ensure access to quality education for all students maps onto a future markedly different from the past.

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