



## Reviving the American Educational System

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In 2016, the high school graduation rate in the United States reached an all-time high at 84% (source: **National Center for Education Statistics, NCES**). However, colleges are reporting that an increasing number of high school graduates arrive at college unprepared for college-level work. Across the U.S.,



40% of students who enroll in college are required to take a remedial course, where they re-learn skills they were supposed to have mastered in high school. The percentage for minority students is even higher. Furthermore, students who must take a remedial course are 74% more likely to drop out than their peers.

Also according to the NCES, less than 40% of students starting their college studies will complete them in four years, and 41% of four-year college students will fail to graduate within six years. In the community college system,

more than half of the students who start college drop out within six years. Employers are similarly reporting that new hires with only a high school diploma often lack basic skills to perform competently.

The news is even more sobering in the **ACT's Condition of College and Career Readiness National Report**. They reported that in 2018, a higher percentage of students than in recent years dropped to the bottom of their preparedness scale, showing little or no readiness for college coursework: 35% of 2018 graduates met none of the ACT College Readiness Benchmarks, up from 31% in 2014 and 33% in 2017. On America's latest exams (the **National Assessment of Educational Progress**), only one-third of eighth-grade students were proficient in math, science, or reading. Lower percentages were found in history, writing, and geography.

The numbers are even worse for 12th graders; only reading reaches the one-third proficient level. On average, 25% of 12th graders were proficient in math, 22% in science, 27% in writing, and 12% in U.S. history.

### A Recipe for Failure

A new study, "The Opportunity Myth" from **The New Teacher Project (TNPT)**, a national nonprofit focused on teacher development and educational programming, revealed that many students are finding themselves poorly prepared for whatever path they choose. Specifically, students reported feeling that performing well in school creates opportunities and prepares them for the next step in life. However, in their study, which looked at five diverse school systems across the U.S., TNTP found that more than half of the students consistently brought home As and Bs, indicating that they were obviously satisfying the demands of their schools and their teachers.

TNTP's CEO, **Daniel Weisberg**, stated, "As we visited classrooms around the country, we found teachers working hard individually to help their students, but we also saw pretty low-quality assignments, and instruction that doesn't give them a chance to do deep thinking and the type of work they're going to need to do in order to succeed." Indeed, students in lower-income schools demonstrated grade-level mastery on their assignments only 17% of the time. Frequently, their teachers were not assigning work that would bring them up to their grade level. This finding contrasts sharply with classrooms filled with predominantly higher-income students, who spent twice as much time on grade-appropriate assignments.

A sad side-note: 94% of the students in the low-income school in this study wanted to attend college, and 70% had career goals that required at least a college degree. When surveyed, less than half of the teachers responding believe their students could work at grade level, so they assign them work that doesn't require them to stretch. However, Weisberg also argues that teachers as a group are not at fault since many are forced to rely on "cookie-cutter curricula" or are evaluated based on students' standardized test scores. Therefore, they are unable to develop nuanced and engaging lessons or deal with students as individuals.

## International Mediocrity

When compared to other nations, the data is also discouraging. Every three years the **Programme for International Student Assessment (PISA)** measures reading ability, math and science literacy, and other key skills among 15-year-olds in dozens of developed and developing countries. The most recent PISA results, from 2015, placed the U.S. in 38th place out of 71 countries in math and 24th in science. And among the 35 members of the **Organization for Economic Cooperation and Development**, which sponsors the PISA initiative, the U.S. ranked 30th in math and 19th in science.

Researchers in the Education field provide a number of theories to help explain these statistics. **The Hewlett Foundation's Partnership for 21st Century Skills** noted the importance of deeper learning experiences for students that emphasize critical thinking, solving novel and complex problems, improved communication with diverse groups and within varied teams, and taking initiative in one's own learning. The report also argues that students' emotional and social well-being, combined with self-confidence that through hard work and persistence they can reach their goals, will improve education. In her research, **Angela Duckworth** also argues that passion plus perseverance (i.e., "grit") not only improves academic achievement, but also general happiness and health.

## What Should We Do?

A variety of ideas and techniques have been proposed to help improve the education of students. Weisberg proposes an easy first step solution by facilitating discussions between students and teachers and school administrators about their experiences in the classroom—are they engaged, participating, and asking questions, or do they find the classroom environment uninspiring and tedious? Others argue that we need to develop closer connections between high school education and students' careers, particularly those headed straight to the work force (i.e., vocational or skills training).

Proponents of technology in the classroom feel that we need to leverage technology to help restructure the high school experience through the form of adaptive learning technology or improved analytics related to students' academic performance to provide more detailed feedback. Some schools are starting to use personalized technology to shift to competency-based education models, in which students progress as they demonstrate mastery of a course's given learning objectives. These objectives can then

be aligned with college-level competency expectations. We are also seeing collaborative relationships between technology companies and school, such as **Design Tech High** in Redwood Shores or **P-TECH** schools being launched around the world.

## Fiscal Frustrations

Economic factors are also contributing to poor educational outcomes. Most students perform better with a smaller class size, but a study by the **National Center for Education Statistics** found that 14% of U.S. schools exceed capacity. Government spending on schools is another issue. **The Center on Budget and Policy Priorities** reports that public investment in K-12 schools has declined dramatically in several states during the past 10 years. In 2015, the latest year for which comprehensive spending data are available from the **U.S. Census Bureau**, 29 states were still providing less total school funding per student than they were in 2008. By the 2017-18 school year, at least 12 states cut general funding (the primary form of state support for elementary and secondary schools) by 7% or more per student over the last decade. Seven of those 12 including Arizona, Idaho, Kansas, Michigan, Mississippi, North Carolina, and Oklahoma enacted income tax rate cuts costing tens or hundreds of millions of dollars each year rather than restore education funding. Since then, only Kansas repealed the tax cuts and increased school funding.

More recently, we are recognizing the impact of corporate incentives on education. For example, in fiscal 2017, U.S. public schools lost \$1.8 billion across 28 states through corporate tax incentives, over which most schools had little or no control.

## Educators Matter

Old-fashioned models of teacher education may be another factor. New and innovative models of teacher training are needed to facilitate changes in the classroom. For example, all teachers should receive explicit training in how to use technology to deliver instruction. Similarly, teachers should be recognized and rewarded for developing cutting edge and engaging curricula or projects for students.

In 2008, **President Obama** recognized the important role of teachers when he said, "The single most important factor in determining [student] achievement is not the color of [students'] skin or where they come from. It's not who their parents are or how much money they have. It's who their teacher is." In reflecting on how the U.S. is missing the point of Obama's statement, **Joel Klein** from *The Atlantic* wrote that "rather than create a system that attracts and rewards excellent teachers—and that imposes consequences for ineffective or [uninspired] ones—we treat all teachers as if they were identical widgets and their performance didn't matter."

