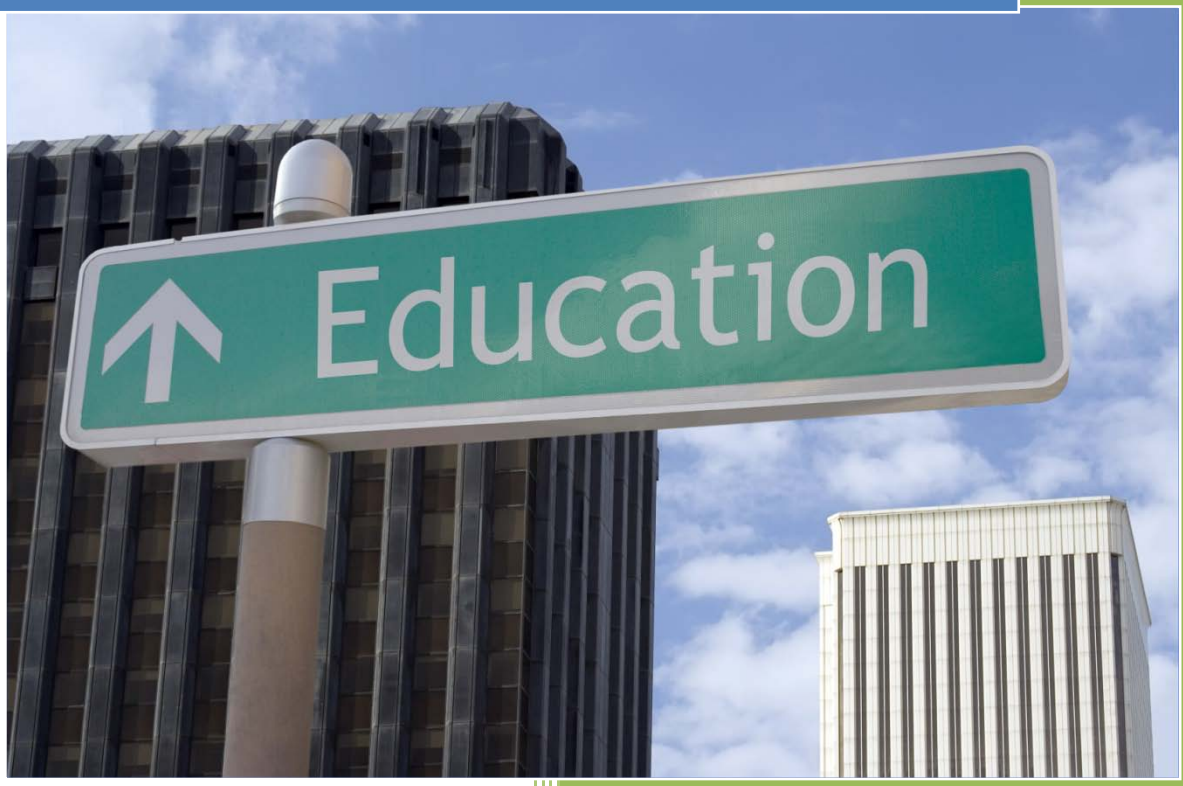
An Assessment by Hoover Institution's Koret Task Force on K–12 Education

American Education in 2030



Time Spent on Learning

Tom Loveless

Today, in 2030, American students spend more than on learning than at any other time in history. The change that has occurred in the past two decades represents a cultural shift of historical importance. The contemporary family spends most of its time, including evenings and weekends, focused on their children's success at school. Families with teenagers devote time and money to preparation for college. Students attend school about two hundred days each year and receive an average of seven hours of daily instruction. Nightly homework commands about two hours of the typical high school student's time. When needed, private tutors are hired to shore up academic weaknesses, and schools offer Saturday workshops for remediation.

It has not always been this way.

Looking Back

For about a century, from the 1830s until the Great Depression, the rise of the common school created tensions between the two social institutions most directly involved with children: schools and families. At stake was who was to control children's time. Schools, which predate the U.S. government and the governments of every state, aligned themselves with governments to gain popular recognition as the primary social institution responsible for learning. Families, however, assisted by churches and communities, had fulfilled that function for all of human history. The transition did not please everyone. Many Catholics distrusted this new, publicly governed institution and created their own school system. In the latter half of the nineteenth century and beginning of the twentieth century, compulsory education laws that turned child wage earners into students were met with resistance by many families.

The resistance failed. In terms of national education efforts, the signature accomplishment of the twentieth century was getting children physically into schools. Attendance drove policy at all levels: federal, state, and local. The flow of school funding was based on average daily attendance. Truant officers were hired to patrol the streets. Attendance of five- to nineteen-year-olds rose from 51 percent in 1900 to 79 percent in 1950 to 90 percent in the 1960s. The leap in high school attendance was dramatic. In every consecutive decade from 1890 to 1940, the number of students enrolled in high school at least doubled. Twentieth-century teens who would have been working in fields or factories a century before found themselves sitting in classrooms.

Seat time was paramount, a logical extension of defining the ability to attend school as the basis of society's commitment to families. Student outcomes associated with seat time mattered most: course completion (in Carnegie units) and attainment (diplomas earned or years of schooling completed). The amount of learning taking place largely escaped scrutiny. But the monopolization of children's learning time by schools had become institutionalized and thus an accepted part of modern life.

Gradually, attention began to shift from attainment to achievement. The 1966 Coleman Report (or *Equality of Educational Opportunity*) placed a spotlight on the academic results of schooling. The study examined correlates of learning. Variation in family characteristics, not school resources, appeared to matter most in predicting achievement. Coleman's 1982 study showing Catholic and other private schools' outperforming public schools in terms of math and reading achievement also supported a heightened emphasis on school outcomes. *A Nation at Risk* in 1983 and the accountability movement in the 1990s pushed the trend along, with the No Child Left Behind (NCLB) Act federalizing school accountability in 2002.

These efforts were not immediately successful, and the twenty-first century began with disappointment. Laws designed to enhance school performance—whether through parental choice, professional development, reduced class size, or accountability systems—produced mixed results. No amazing discovery in curriculum, pedagogy, or school management occurred to increase the efficiency of learning in classrooms.

One of the sturdiest findings of cognitive psychology is that the amount one learns is related to the time spent learning it. By 2010 it had become clear to Americans that raising achievement depended on increasing the amount of time children devote to learning. The additional time could come from longer school days and academic years, advocates argued, but it must also come from time outside school. Children in other countries spent a lot of time learning outside school; they had good reasons for doing so.

Time and Learning in 2010

In 2010, attending school and studying consumed a small portion of American children's time. Students attended school 180 days a year for six hours a day from age five to eighteen, totaling about 12 percent of children's time—and about 18 percent of their waking hours.

Other nations had longer school days and longer academic years that increased students' exposure to academic content, a discrepancy noted in *A Nation at Risk*. The differences were even larger when out-of-school activities were factored into time spent on learning. The typical family in the world's developed nations was strongly motivated to devote family time to academic learning, especially on middle and high school kids. Adolescents prepared for high-stakes tests that would determine their future. Exam-based systems function like a network of locks and canals, channeling some students into prestigious high schools and colleges and lucrative careers and others into less fortunate destinations. They offered a powerful incentive for students to study at home and fueled a huge demand for out-of-school instruction, sometimes called "shadow education" (Baker and LeTendre, 2005).

In Japan, two phenomena existed in 2010 that were unknown in the United States. The first, *kyoiku mama* ("education mother") was a derisive term for overbearing mothers so obsessed with educational success that they spent hours at home each night tutoring their children. The second was *juku,* or "cram school," attended by approximately two-thirds of Japanese middle school students after school and on Saturdays, receiving additional instruction on basic skills and help in preparing for an important exam. At the end of ninth grade, students selected a single public high school to qualify for via examination. The period of time between that examination and the exam three years later to get into college was often called "examination hell." A 1995 survey of Japanese parents found that two-thirds considered the exams stressful for their children and themselves.

Korea had a similar exam-based system, with Koreans spending an estimated $15 billion on cram schools in 2006. With about 2.8 percent of its GDP gross domestic produce going to private spending on education, Korea led all the Organization for Economic Cooperation and Development nations in such spending. Cram schools *(hagwon)* were enormously popular, and the industry continued to grow even during the severe economic downturn of 2008-9.[1] A booming company, Megastudy, held an informational event attended by 10,000 students in Seoul's largest indoor arena. As the teachers were introduced, they were met with thunderous applause. Korean tutors enjoyed rock star status; in 2007, a Korean teacher of English earned $2 million in royalties from the sale of online videos.

Not everyone admired the supreme value Asian societies placed on education. Many Americans considered it excessive, and even Japanese and Korean parents worried that students were under too much pressure. Along with legitimate enterprises, fly-by-night tutoring outfits operated in Korea and Japan. To the American way of thinking, the exam systems appeared too deterministic. Kids can change. The stakes also seemed too high. Why relegate a late bloomer to a less prestigious career path because of a single test taken at age fourteen? Like systems that held educators accountable, systems of student accountability were controversial.

But in 2010 Asian countries were not outliers. Exam systems with high stakes for students were the norm in Europe, Africa, and South America. The United States was an outlier. No other nation had such a lopsided system in stressing school accountability over student accountability.

What Triggered the Change in the United States?

In the earliest years of the twenty-first century, Americans began to realize that students needed to spend more time on learning, especially at home. In 2008, an annual survey of college freshmen conducted by the University of California at Los

[1] Kan Shin-who, "Hagwon" Mushrooming Despite Economic Slump, *Korean Times,* July 16, 2009.

Angeles (UCLA) found that time spent on homework had plunged to a forty-two-year low. Only 41.4 percent of the freshmen said they spent more than five hours a week on homework in their senior year of high school. Other activities absorbed more time. The percentage saying they devoted more than five hours a week to socializing with friends (71.0%), exercise and sports (44.9%), and working for pay (44.2%) exceeded the percentage spending that amount of time on homework.

If we assume that college-bound students are the most academically inclined high school kids, then academic pursuits probably commanded an even smaller portion of the typical American teenager's time than that indicated by the UCLA data. Data from the National Assessment of Educational Progress (NAEP) reinforce that assumption. In 2008, seventeen-year-olds were asked how many hours of homework they had had the night before: 28 percent responded that no homework had been assigned, and 12 percent said they had homework but didn't do it. That figure—40 percent of seventeen-year-old students reporting zero homework time—had remained about the same since 1999. On the other end of the spectrum, the number of students indicating a heavy load, more than two hours a night, also did not vary much: 12 percent in 1999 and 10 percent in 2008.

What about younger children? Evidence from the NAEP indicated that homework had increased only a little for nine- and thirteen-year-olds but not for kids who were already studying a lot at home. The percentage of thirteen-year-olds reporting more than an hour actually declined from 34 percent in 1999 to 27 percent in 2008, despite the pressures of NCLB and magazine cover stories about students overwhelmed by excessive homework. The increase in average homework was largely due to children who once said they had no homework assigned (or didn't do it) having some (less than an hour). At age thirteen, for example, 36 percent said they had no homework or didn't do it in 1980. In 2008, that figure fell to 30 percent. During the same time interval, those reporting having less than an hour of homework grew from 32 percent to 43 percent.

In addition to the catalysts described above—an historical trend toward education monopolizing children's time, achievement becoming the coin of the realm in terms of educational outcomes, an international norm of significant out-of-school time devoted to learning, and the realization that American kids spent little time on learning out of school—three other factors surfaced from 2010 to 2030 that motivated families to spend more time on education.

First, good models spread rapidly across the country. Knowledge is Power Program (KIPP) schools and other pioneers' extending the school day demonstrated that families, rather than rebelling, responded favorably to greater time demands. Here's how the KIPP website described it in 2009:

> One of the "Five Pillars" is more time. KIPP students are in school learning 60 percent more than average public school students, typically from 7:30 a.m. until 5:00 p.m. on weekdays, every other Saturday, and for three weeks during the summer. Rigorous college-preparatory instruction is balanced with extracurricular activities, experiential field lessons, and character development. In spite of the long hours, average daily attendance at KIPP schools is 96 percent.

Second, new technologies appeared. Technological advances placed accurate, individualized data in the hands of adults much more quickly than was previously possible. In the past, test results were delivered months after assessments had been given, rendering the data of little use in shaping instruction or in helping concerned parents at home. Handheld devices and tighter, faster Internet links between home and school exponentially increased the amount of information parents possessed on their children's learning. Knowing the topics on which children needed help encouraged adults to devote more time addressing academic weaknesses. In addition, online learning (discussed by others in this volume) meant that many homes came to resemble classrooms. Like parents of children schooled at home, parents with online learners not only became more aware of their children's educational activities but also assumed greater responsibility for their children's academic success. Parents managed family time more effectively to achieve that end.

Third, a cultural shift occurred. School improvement has its limits, mainly because schools themselves are limited. Coleman's argument in the 1980s that good schools create social capital, which undergirds learning, turned out to be prescient. One overlooked aspect of the theory identified families' use of time as a key source of social capital. The finding that Catholic schools were particularly good at creating social capital drew, at the time of the study's release, most of the headlines and debate. But Coleman also argued that social capital is fostered within families:

> One example illustrates what I mean by social capital within the family and how it differs from the more common concept of human capital. A school district where children purchase textbooks recently found that some Asian families were purchasing two. Investigation led to the discovery that one book was for the mother, to enable her to better help her child succeed in school. The mother, uneducated, had little human capital, but her intense concern with her child's school performance, and her willingness to devote effort to aiding that, shows a high level of social capital in the family.

Conclusion

Education reform in the United States is conventionally viewed as an engineering problem, with a better functioning school system—through carefully crafted rewards

and sanctions, teacher training, and more efficient use of resources—the key to higher quality. No doubt those are important elements. But what is also required is a cultural shift from thinking of education as something done to students, in which they are malleable objects that an educational system shapes into learned persons, to an accomplishment that students—and by extension, their families—bear a significant share of the responsibility for. Confucian cultures have no trouble with the notion; the content of learning is located outside the student, in the academic disciplines that contain their intellectual history. Learning takes place through practice and hard work. Effort is everything. Students are agents in their own education, not merely products stamped and polished by teachers and schools.

Americans now embrace the view that the amount one learns is inextricable from the time devoted to learning. That was not always the case. In 2010 academic learning took up a small portion of the time available to American children at home. There was room for that portion to grow, and it did. Families realized that more time devoted to learning leads to higher achievement and higher achievement leads to better lives for children—and to a better nation.

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The preferred citation for this publication is
Tom Loveless, "Time Spent on Learning," in *American Education in 2030* (2010), edited by Chester E. Finn Jr., www.americaneducation2030.com