## SEPTEMBER 7, 2013, 2:30 PM The Great Stagnation of American Education

## By ROBERT J. GORDON

For most of American history, parents could expect that their children would, on average, be much better educated than they were. But that is no longer true. This development has serious consequences for the economy.

The epochal achievements of American economic growth have gone hand in hand with rising educational attainment, as the economists Claudia Goldin and Lawrence F. Katz have shown. From 1891 to 2007, real economic output per person grew at an average rate of 2 percent per year — enough to double every 35 years. The average American was twice as well off in 2007 as in 1972, four times as well off as in 1937, and eight times as well off as in 1902. It's no coincidence that for eight decades, from 1890 to 1970, educational attainment grew swiftly. But since 1990, that improvement has slowed to a crawl.

Companies pay better-educated people higher wages because they are more productive. The premium that employers pay to a college graduate compared with that to a high school graduate has soared since 1970, because of higher demand for technical and communication skills at the top of the scale and a collapse in demand for unskilled and semiskilled workers at the bottom.

As the current recovery continues at a snail's pace, concerns about America's future growth potential are warranted. Growth in annual average economic output per capita has slowed from the century-long average of 2 percent, to 1.3 percent over the past 25 years, to a mere 0.7 percent over the past decade. As of this summer, per-person output was still lower than it was in late 2007. The gains in income since the 2007-9 Great Recession have flowed overwhelmingly to those at the top, as has been widely noted. Real median family income was lower last year than in 1998.

There are numerous causes of the less-than-satisfying economic growth in America: the retirement of the baby boomers, the withdrawal of working-age men from the labor force, the relentless rise in the inequality of the income distribution and, as I have written about elsewhere, a slowdown in technological innovation.

Education deserves particular focus because its effects are so long-lasting. Every high school dropout becomes a worker who likely won't earn much more than minimum wage, at best, for the rest of his or her life. And the problems in our educational system pervade all levels. The surge in high school graduation rates — from less than 10 percent of youth in 1900 to 80 percent by 1970 — was a central driver of 20th-century economic growth. But the percentage of 18-year-olds receiving bona fide high school diplomas fell to 74 percent in 2000, according to the University of Chicago economist James J. Heckman. He found that the holders of G.E.D.'s performed no better economically than high school dropouts and that the rising share of young people who are in prison rather than in school plays a small but important role in the drop in graduation rates.

Then there is the poor quality of our schools. The Program for International Student Assessment tests have consistently rated American high schoolers as middling at best in reading, math and science skills, compared with their peers in other advanced economies.

At the college level, longstanding problems of quality are joined with the issues of affordability. For most of the postwar period, the G.I. Bill, public and land-grant universities and junior colleges made a low-cost education more accessible in the United States than anywhere in the world. But after leading the world in college completion, America has dropped to 16th. The percentage of 25- to 29-year-olds who hold a four-year bachelor's degree has inched up in the past 15 years, to 33.5 percent, but that is still lower than in many other nations.

The cost of a university education has risen faster than the rate of inflation for decades. Between 2008 and 2012 state financing for higher education declined by 28 percent. Presidents of Ivy League and other elite schools point to the lavish subsidies they give low- and middle-income students, but this leaves behind the vast majority of American college students who are not lucky or smart enough to attend them.

While a four-year college degree still pays off, about one-quarter of recent college graduates are currently unemployed or underemployed. Meanwhile, total student debt now exceeds \$1 trillion.

Heavily indebted students face two kinds of risks. One is that they fall short of their income potential, through some combination of unemployment and inability to find a job in their chosen fields. Research has shown that on average a college student taking on \$100,000 in student debt will still come out ahead by age 34. But that break-even age goes up if future income falls short of the average.

There is also completion risk. A student who takes out half as much debt but drops out after two years never breaks even because wages of college dropouts are little better than those of high school graduates. These risks are acute for high-achieving students from low-income families: Caroline M. Hoxby, a Stanford economist, found that they often don't apply to elite colleges and wind up at subpar ones, deeply in debt.

Two-year community colleges enroll 42 percent of American undergraduates. The Center on International Education Benchmarking reports that only 13 percent of students in two-year colleges graduate in two years; that figure rises to a still-dismal 28 percent after four years. These students are often working while taking classes and are often poorly prepared for college and required to take remedial courses.

Federal programs like No Child Left Behind and Race to the Top have gone too far in using test scores to evaluate teachers. Many children are culturally disadvantaged, even if one or both parents have jobs, have no books at home, do not read to them, and park them in front of a TV set or a video game in lieu of active in-home learning. Compared with other nations where students learn several languages and have math homework in elementary school, the American system expects too little. Parental expectations also matter: homework should be emphasized more, and sports less.

Poor academic achievement has long been a problem for African-Americans and Hispanics, but now the achievement divide has extended further. Isabel V. Sawhill, an economist at the Brookings Institution, has argued that "family breakdown is now biracial." Among lower-income whites, the proportion of children living with both parents has plummeted over the past half-century, as Charles Murray has noted.

Are there solutions? The appeal of American education as a destination for the world's best and brightest suggests the most obvious policy solution. Shortly before his death, Steve Jobs told President Obama that a green card conferring permanent residency status should be automatically granted to any foreign student with a degree in engineering, a field in which skills are in short supply..

Richard J. Murnane, an educational economist at Harvard, has found evidence that high school and college completion rates have begun to rise again, although part of this may be a result of weak labor markets that induce students to stay in school rather than face unemployment. Other research has shown that high-discipline, "no-excuses" charter schools, like those run by the Knowledge Is Power Program and the Harlem Children's Zone, have erased racial achievement gaps. This model suggests that a complete departure from the traditional public school model, rather than pouring in more money per se, is needed.

Early childhood education is needed to counteract the negative consequences of growing up in disadvantaged households, especially for children who grow up with only one parent. Only one in four American 4-year-olds participate in preschool education programs, but that's already too late. In a remarkable program, Reach Out and Read, 12,000 doctors, nurses and other providers have volunteered to include instruction on the importance of in-home reading to low-income mothers during pediatric checkups.

Even in today's lackluster labor market, employers still complain that they cannot find workers with the needed skills to operate complex modern computer-driven machinery. Lacking in the American system is a well-organized funnel between community colleges and potential blue-collar employers, as in the renowned apprenticeship system in Germany.

How we pay for education shows, in the end, how much we value it. In Canada, each province manages and finances education at the elementary, secondary and college levels, thus avoiding the inequality inherent in America's system of local property-tax financing for public schools. Tuition at the University of Toronto was a mere \$5,695 for Canadian arts and science undergraduates last year, compared with \$37,576 at Harvard. It should not be surprising that the Canadian college completion rate is about 15 percentage points above the American rate. As daunting as the problems are, we can overcome them. Our economic growth is at stake.

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This post has been revised to reflect the following correction:

## Correction: September 15, 2013

An earlier version of this article misstated the percentage of American undergraduates enrolled in two-year community colleges. It is 42 percent, not 37 percent.