The McKinsey Quarterly

SOCIAL SECTOR PRACTICE

JUNE 2009

The economic cost of the US education gap

Gaps in academic achievement cost the US economy trillions of dollars a year. Yet there is reason to think they could be closed.

Byron G. Auguste, Bryan Hancock, and Martha Laboissière

McKinsey&Company

A persistent gap in academic achievement between children in the United States and their counterparts in other countries deprived the US economy of as much as $2.3 trillion in economic output in 2008, McKinsey research finds.[1] Moreover, each of the long-standing achievement gaps among US students of differing ethnic origins, income levels, and school systems represents hundreds of billions of dollars in unrealized economic gains. Together, these disturbing gaps underscore the staggering economic and social cost of underutilized human potential. Yet they also create room for hope by suggesting that the widespread application of best practices could secure a better, more equitable education for the country's children—along with substantial economic gains.

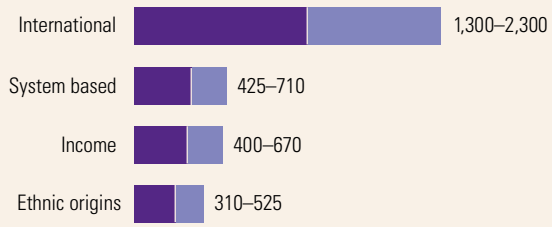
How has educational achievement changed in the United States since 1983, when the publication of the seminal US government report A Nation at Risk[2] sounded the alarm about the "rising tide of mediocrity" in American schools? To learn the answer, we interviewed leading educational researchers around the world, assessed the landscape of academic research and educational-achievement data, and built an economic model that allowed us to examine the relationships among educational achievement (represented by standardized test scores), the earnings potential of workers, and GDP.

We made three noteworthy assumptions: test scores are the best available measure of educational achievement; educational achievement and attainment (including milestones such as graduation rates) are key drivers in hiring and are positively correlated with earnings; and labor markets will hire available workers with higher skills and education. While these assumptions admittedly simplify the socioeconomic complexities and uncertainties, they allowed us to draw meaningful conclusions about the economic impact of educational gaps in the United States.

Four substantial achievement gaps emerged from our work (Exhibit 1). The first is the international one. As recently as the 1960s, the United States led the world in a variety of educational outcomes. Yet the Organisation for Economic Co-operation and Development (OECD) found that in 2006, America ranked 25th out of 30 industrialized countries in math and 24th in science. Moreover, cross-country comparisons of US students at two different ages—9–10 and 15—suggest that the closer they get to joining the labor force, the further they lag behind

Exhibit 1
Education and GDP

Increase in US 2008 GDP that would have resulted from closing US educational-achievement gaps by 1998, low to high estimates, $ billion



[1]Read the full report, *The Economic Impact of the Achievement Gap in America's Schools,* free of charge at mckinsey.com/mgi.
[2]*A Nation at Risk: The Imperative for Educational Reform, US National Commission on Excellence in Education*, April 1983.

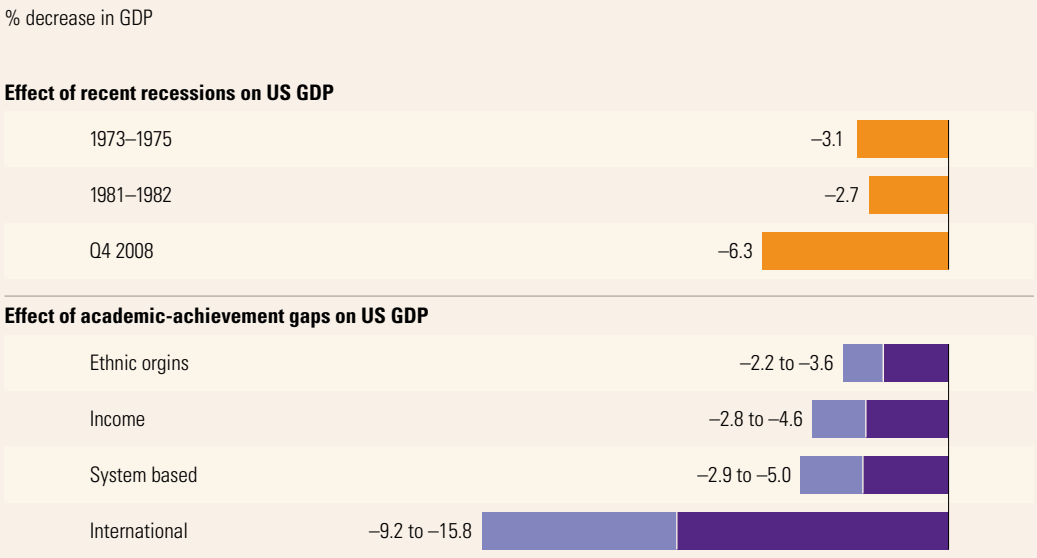
their international counterparts in reading, math, and science. The gap's impact is startling: if the United States had closed it by 1998 and reached the level of the top performers, such as Finland and South Korea, the US GDP could have been $1.3 trillion to $2.3 trillion higher in 2008. To put the facts another way, the gap imposes a higher recurring annual economic cost on the US economy than the current recession does.

Next we looked at other gaps in US educational achievement. A second one emerges among US students of different ethnic origins. As researchers have long known, black and Hispanic students score, on average, two to three years behind white students of the same age on standardized tests—a gap that persists regardless of how it is measured. These differences too represent sizable missed opportunities. If the gap had been bridged by 1998, the 2008 US GDP could have been up to $525 billion higher than it was. When we looked at the implications of the achievement gap on US earnings, we found that in aggregate they could have been up to $160 billion higher in 2008 had it been eliminated. Left unchecked, the magnitude of such disparities will rise in coming years as blacks and Hispanics account for a larger share of the US population.

The two remaining achievement gaps we studied—one between students at different income levels, the other between higher- and lower-performing school systems—also appear to exact a heavy price. We define lower-income students as those eligible for free lunch through a government program. Had the achievement gap between them and other students been bridged by 1998, a decade later US GDP might have been as much as $670 billion higher than it was. If the gap between low-performing states and the US average had been closed, the 2008 US GDP could have been up to $700 billion higher. Collectively, the economic impact of the four achievement gaps we studied is significant—comparable, in their effect on the US economy, to recessions since the 1970s (Exhibit 2).

Exhibit 2

Worse than a recession



Yet there is cause for optimism amid the gloomy findings. The wide variation in performance among schools serving similar students suggests that the widespread application of best practices observed at the system level could close the gaps. California and Texas, for example, are two large, demographically similar states. But in educational attainment, students in Texas are, on average, one to two years ahead of California students of the same age, even though Texas has a lower per capita income and spends less per pupil than California does (Exhibit 3).

Exhibit 3

Different outcomes

Demographics and resources		California	Texas
	Population	36.8 million	23.5 million
	Ethnic composition[1]	White: 44% Black: 6% Asian: 12% Hispanic: 34% Other: 3%	White: 48% Black: 11% Asian: 3% Hispanic: 37% Other: 2%
	GDP per capita	$42,102	$37,073
	Per-pupil spending	$8,486	$7,561
Outcomes	**Grade 4 math**	**California**	**Texas**
National Assessment of Educational Progress (NAEP), state average score on a scale from 0–500, where 500 = highest achievement	All	230	242
	White	247	253
	Black	218	230
	Hispanic	218	236
	Grade 8 math		
	All	270	286
	White	287	300
	Black	253	271
	Hispanic	256	277

[1] Figures do not sum to 100%, because of rounding.

Source: National Assessment of Educational Progress (NAEP)

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The same pattern holds true among school districts within states, among schools within districts, and among classrooms within schools. Indeed, the OECD finds that the variation within US schools in 2006 was 2.6 times greater than the variation across them, confirming research by McKinsey and others that consistent, high-quality teaching is a key factor determining student achievement. Moreover, international experience confirms that it is possible to make progress in closing these gaps: not only have two dozen countries made substantial progress in overall achievement, but 17 countries that exceed US performance levels also have a narrower gap among children of divergent socioeconomic backgrounds. Q

Byron Auguste is a director in McKinsey's Washington, DC, office,
Bryan Hancock is a principal in the Atlanta office, and **Martha Laboissière** is a consultant in the San Francisco office.