In the New Economy, growth increasingly depends on the skills of the labor force. Given education’s role in the development of such skills—and the widely recognized shortcomings of our educational system—upgrading America’s schools could boost economic growth. So it is not surprising that the Bush administration has devoted a large part of its domestic agenda to injecting a dose of market discipline into the public school system.

On Jan. 8, President Bush signed into law the No Child Left Behind Act of 2001 (NCLBA). Together with the expansion of education IRAs as part of last year’s tax cut, the NCLBA has the potential to significantly improve both student performance and economic growth.

There is little doubt that the public school system in the United States falls

(Continued on page 2)
short of its potential. Despite decades of increased spending on schools, students continue to perform below expectations. Nearly 70 percent of fourth graders have fallen so far behind in reading that they may never catch up. On international tests of student achievement, U.S. high schoolers are among the weakest in the world. (See the box titled “International Comparisons of Student Performance.”) Thousands of public schools have been identified as failing, and hundreds of thousands of graduates must pursue remedial classes before they are ready for college.

The federal government has limited responsibility for the public school system. Public schools are, by design, a state and local affair. On average, federal funding represents less than 7 percent of public spending on primary and secondary schooling (Chart 1). The federal share ranges from less than 4 percent in New Jersey, New Hampshire and Connecticut to more than 14 percent in Mississippi and the District of Columbia. Much of the federal aid is directed at schools that serve economically disadvantaged populations and therefore is concentrated in urban and poor rural areas.

Despite the federal government’s limited role, changes in its policy have the potential to greatly alter the educational environment. To the extent that the new reforms rely on market forces, they leverage a small financial position into a significant force for change.

**Lifting the Veil**

The centerpiece of the education initiative is a vast new accountability system. The NCLBA requires all states to develop and administer student exams in math, reading, science and any other subjects the state deems appropriate. The exams should be challenging, rigorous and aligned with the curriculum, so that teaching to the test means teaching the material the state has identified as appropriate for the grade level.

Math and reading exams will be administered every year in every grade from third through eighth and at least once at the high school level. Science exams will be administered at the elementary, middle and high school levels. Provided that the federal government foots the bill, states will also be required to participate in the state version of the National Assessment of Educational Progress, an evaluation of fourth and eighth graders that is conducted every other year.

Crucially, the states must not only test, they must publish the results at the state, district and school levels. These annual report cards must be concise and presented in language that parents can understand. At all levels, the report card must break out information on the performance of low-income students, minority students, special education students and students with limited English proficiency.

Other provisions of the NCLBA also increase the public’s information about schools. At parents’ request, for example, districts must provide information on the educational background and professional qualifications of each classroom teacher.

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**International Comparisons of Student Performance**

Since the 1960s, U.S. students have participated in a variety of international exams. The most recent such exam, the Third International Mathematics and Science Study (TIMSS), was administered in 1995 (with a follow-up for eighth graders in 1999). As had been the case with all previous international exams, U.S. performance at the high school level was well below the international norm. Only Cyprus and South Africa had math or science scores significantly lower than the U.S. average (see the lists below).

Some try to dismiss the poor U.S. showing by arguing that other countries test only their best students. However, the TIMSS was administered to would-be seniors, whether in school or not. With the exception of Denmark and Iceland, all the countries that scored better than the United States also tested a greater percentage of their 17 or 18 year olds than the United States did. Furthermore, restricting the sample to only the best students in each country (the top 25 percent of the eligible age group) does nothing to improve our standing. All the countries that score better than the United States in the full sample also score better than the United States in the restricted sample.

**Significantly better than the United States in both math and science**
- Netherlands
- Sweden
- Denmark
- Switzerland
- Iceland
- Norway
- Australia
- New Zealand
- Canada
- Austria
- Slovenia

**Significantly better than the United States in math but comparable in science**
- France
- Germany
- Hungary

**Comparable to the United States in math and science**
- Italy
- Russian Federation
- Lithuania
- Czech Republic

**Significantly weaker than the United States in math and science**
- Cyprus
- South Africa

teacher. In particular, schools are required to provide “timely notice that the parent’s child has been assigned…a teacher who is not highly qualified.” In this context, a highly qualified teacher is fully certified by the state, has at least a bachelor’s degree and has either passed a rigorous test demonstrating knowledge in the relevant subjects or has an academic major, graduate degree or advanced certification in each subject taught.1

The NCLBA will generate a significant increase in consumer information. A 1994 law requires states to test and publish the results, but a student is tested only once at each level—elementary, middle and high school. Furthermore, as of April 2002, only 19 states were fully compliant with the law, leaving most parents and voters ill-equipped to monitor their schools (Chart 2). With the NCLBA, all states must meet the 1994 requirements immediately (no more waivers will be granted) and must meet the new, broader testing requirements by the 2005–06 school year (2007–08 for science).

The simple act of publishing information about student performance should have a positive impact on school quality. Voters and parents will be better able to identify their high-performing peers and follow their lead. Research suggests that schools are much more effective when it is easier to monitor their behavior and that informing professionals about the best practices of their peers encourages them to adopt those practices.

Unfortunately, it may be difficult to identify high-performing schools and school districts from the mandatory report cards. The NCLBA requires that states and school districts publish information about the average performance of various student groups. However, most researchers believe that performance levels are flawed indicators of school effectiveness. Instead, researchers favor an indicator of the gain in student performance, preferably one that separates the school’s influence on learning from the influences of parents and peers. The intuition behind this position is clear. Some schools will post high average reading scores because they have an advantaged student body, while other schools will post high reading scores despite a disadvantaged student body. Both have high-performing students, but only the latter is a high-performing school.

The NCLBA’s requirement that report cards break out information on groups such as low-income students is not suffi-
efficient to address this concern. Chart 3 plots the average reading performance of low-income sixth graders in Texas schools against a measure of the average gain in reading performance for those same students. While the two measures of performance are correlated, the relationship is not especially close. Dozens of schools appear to be high performing on the basis of average scores but fall to no better than average once differences in student preparation and demographics are taken into account.

Nothing in the NCLBA prevents states and school districts from providing additional information about performance gains. However, implementing a system of value-added measurement requires tracking students from one year to the next. For example, as students change schools, there must be a mechanism for matching their fifth-grade scores in one school with their sixth-grade scores elsewhere in the state (or ideally, the nation). Some states, such as Texas, already have the mechanism in place. To fully benefit from the NCLBA’s testing requirements, other states will need to go beyond the law’s minimum mandates.

Carrots and Sticks

In addition to empowering through information, the accountability system enables the federal government to introduce a variety of carrots and sticks. Schools and states that show significant progress from one year to the next can receive federal bonuses.

On the other hand, states must define “adequate yearly progress” so that all students are expected to improve and in 12 years all students meet the state’s standard for proficiency. Schools that do not show adequate progress for two consecutive years will be flagged as failing. States will get extra federal money to use to turn them around, but at the same time school districts must offer transfers and free transportation to students in failing schools so they can attend better schools within the district. If it is impossible to offer a place at a better school to all students from a failing school, districts must give priority to low-income students. If all schools in a district are failing, the district must try to arrange places for its students in other districts, but other districts are not obliged to accept the students. The NCLBA makes no provision for private school choice.

After a school has three consecutive years of inadequate progress, the district risks losing federal money. Districts that receive federal aid for low-income students must make supplemental educational programs available to low-income children at the failing schools. These supplemental programs (such as after-school programs like those offered by Sylvan Learning Centers) must be in addition to regular instruction and must be provided by an organization with “a demonstrated record of effectiveness.” Churches, charities, for-profit firms and successful school systems are all eligible providers of supplemental educational programs, which will be financed by redirecting the federal aid districts receive for low-income children.

Failure that persists for more than three years triggers mandatory reforms in addition to the public school choice and supplemental education provisions. These reforms range from curriculum changes to replacement of local management with an outside private firm or a complete state takeover of the school.

Ideally, the NCLBA’s requirements for public school choice would foster educational competition, thereby inducing improvements in satisfactory schools as well as unsatisfactory ones. But given that districts are only required to transfer students among their own schools, the competitive impact of the choice provisions is likely to be muted. To the extent that schools within a district compete with one another for enrollment and revenue, the choice provisions will increase competition. In districts with limited school-level autonomy, the choice provisions may offer little more than an escape hatch for some of the children trapped in failing schools.

Other Provisions

The NCLBA has a number of other provisions in addition to the accountability system and its ancillary incentives. It increases federal support for a variety of programs, ranging from test development and reading initiatives to teacher training and technology centers. Funding the NCLBA will cost approximately $22 billion per year, nearly 18 percent more than the prior program.

In exchange for accountability, the NCLBA also cuts some of the red tape that Washington had tied to federal money. Although considerable complexity remains, funding programs have been consolidated and streamlined. States and school districts that meet performance objectives are granted more flexibility than those that don’t. For example, the NCLBA permits states and districts in good stand-

![Chart 3](image-url)

**Reading Skills of Low-Income Sixth Graders in Texas**

**Average school scores**

- **Average school scores** are Texas Learning Index (TLI) scores. Average value-added scores are TLI scores adjusted for the prior year’s achievement, gender, ethnicity. English proficiency and special education status. Data are for 1990–2000.

**Sources:** Texas Education Agency; author’s calculations.
ing to transfer a portion of the funds they receive under certain federal programs (such as the Teacher and Principal Training and Recruiting Fund) into other programs (such as state and local technology grants) in order to better serve their needs. The increased flexibility should make it easier for schools to respond to the new incentives. All the competition and accountability in the world are meaningless if schools don’t have the authority to make changes.

**Education IRAs**

Another educational provision became law as part of last year’s tax relief act rather than the NCLBA. Parents and other interested parties may make after-tax contributions to Coverdell Education Savings Accounts, or education IRAs. Starting with the 2002 tax year, the contributions to each child’s education IRA can total $2,000 per year (up from $500 in 2001). The contributions and interest accumulate over time and can be withdrawn tax-free for any legitimate educational expense. Previous incarnations of the education IRA excluded expenses for elementary and secondary education, but those restrictions are now gone. Parents can use the accounts to cover private school tuition or the cost of supplies and curriculum materials for home schooling.

The greatest beneficiaries of education IRAs are parents in the top income tax brackets. Not only are they more likely to contribute the full amount each year, but the tax savings on the accumulated interest are greater for people in the 38.6 percent tax bracket than for people in the 10 percent tax bracket. Low-income parents who pay no income tax receive no direct benefit from education IRAs.

The public school system as a whole can benefit from the expanded education IRAs if they foster an increase in competition among schools. Almost across the board, researchers have found that competing with other education providers to attract or retain students makes public schools better. Public school students from areas where there are many education providers score higher on standardized tests, complete more years of schooling and earn higher wages after they finish school. Meanwhile, per pupil expenditures by public schools are substantially lower in states and communities where there are more districts to choose from. In other words, competition forces districts to get more bang for their buck.

Unfortunately, given the relatively small magnitude of the individual tax breaks, education IRAs are unlikely to change parental behavior much, especially over the near term. With the exception of parents teetering on the brink of sending their children to private schools, the primary beneficiaries of the expanded IRAs are parents who were going to send their kids to private school anyway. If the policy doesn’t at least threaten to change enrollment patterns, it doesn’t increase the competitive pressure.

**The Tail That Wags the Dog**

The Bush administration is relying heavily on market forces to improve school quality. Its initiatives provide consumers with substantially more information about public schools and provide a small boost to competition among schools. Such a strategy allows the federal government to leverage its relatively small role in elementary and secondary education into a more powerful force for change. In addition, provisions offering flexibility in exchange for accountability represent a subtle but important shift from a system that tries to manage the educational process to one that emphasizes results. Although they could be bolder, the new education initiatives should improve America’s schools.

—Lori L. Taylor

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**Notes**

1 To be deemed highly qualified, a teacher must not have any certification requirements waived on an emergency, temporary or provisional basis.

2 The NCLBA amends the Elementary and Secondary Education Act (ESEA), ESEA, which was enacted in 1965, is the primary federal law affecting K–12 education and the source of most federal support for education.