

Report Part Title: The State of Education in the United States Today

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# The State of Education in the United States Today

The Task Force believes that a strong K-12 education is not only critical for individuals to succeed in life, but also fundamental in determining whether the United States can defend itself, project its power, and thrive in a global economic environment.

Task Force members consider certain, specific skills essential to U.S. security and are adamant that all young citizens need a strong academic foundation in literacy and numeracy, as well as a sense of global awareness and a strong understanding of their nation's democratic values and practices. Thus, the Task Force worked to understand how well the K-12 system is preparing young Americans to be ready to help promote technological advancement, innovation, and economic, military, and diplomatic strength.

## *WHERE IS AMERICA IN TERMS OF ACHIEVEMENT AND INVESTMENT?*

The United States has many excellent elementary and secondary schools, but, on the whole, too many schools are falling short in achieving their basic objectives:

- They are not adequately preparing students for citizenship.
- They are not equipping the majority of students to effectively participate in an increasingly fast-paced and interdependent global society.
- They are not producing a sufficiently skilled military or workforce.

Too often, resources and expertise are not distributed equitably, leaving the students who face the greatest academic hurdles with fewer resources and more underprepared teachers and principals. Many American students—urban and suburban, rich and poor, black

and white—suffer because of inadequate schooling, but the problems in American education are hurting minority and economically disadvantaged students the most. As a result, U.S. students have not been adequately competing with students in other developed countries.

The long-term trends in education are all the more disappointing because policymakers over the past three decades have been increasingly aware of the K-12 problems, have poured more and more resources into education, and have implemented scores of initiatives and programs intended to improve educational attainment. Selective improvements, innovations, and breakthrough transformations are not in question, but these advances have been overwhelmed by a “silver bullet” mentality of reform, a failure to follow through on implementation, and the ingrained and persistent weaknesses in U.S. elementary and secondary schools.

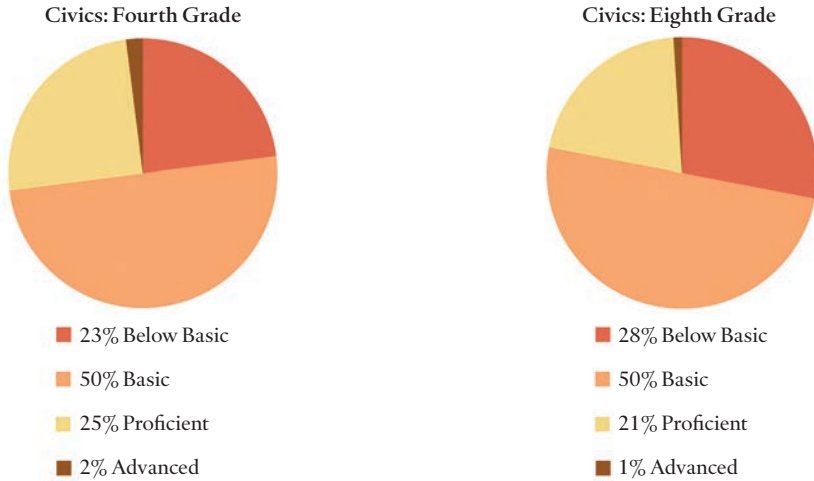
#### *NECESSARY SKILLS FOR COMMUNITY AND INTERNATIONAL ENGAGEMENT*

One of the earliest goals of the first public schools was to create an active and engaged citizenry. Too many U.S. public schools have stopped teaching civics and citizenship—leaving students without knowledge of their own national history, traditions, and values. Schools have also largely failed to help students become aware of other cultures or the world. This leaves students unprepared to exercise basic rights or fulfill core responsibilities.

In civics, about a quarter of American students are proficient or better on the National Assessment of Educational Progress (NAEP).<sup>28</sup> This leaves most twelfth graders unable to describe how laws are passed, unfamiliar with landmark Supreme Court decisions, and unsure of the functions of the U.S. Constitution or the Bill of Rights (Figure 2).<sup>29</sup>

Not only do American children know little about their own country, they also cannot understand or communicate with their global peers. Largely as a result of immigration, nearly four hundred languages are spoken within the United States.<sup>30</sup> However, roughly eight in ten Americans speak only English, and a decreasing number of schools are teaching foreign languages.<sup>31</sup> This failure to teach foreign languages (and a parallel failure to take advantage of the native language skills of immigrants) disadvantages Americans with respect to citizens of other countries, many of whom speak more than one language. For example,

FIGURE 2. 2010 NAEP CIVICS PERFORMANCE OF FOURTH AND EIGHTH GRADERS



Source: “The Nation’s Report Card: Civics 2010” (Washington, DC: National Center for Education Statistics, 2010), <http://nces.ed.gov/nationsreportcard/pdf/main2010/2011466.pdf>.

more than 35 percent of Canadians and 56 percent of Europeans speak more than one language.<sup>32</sup>

The Task Force does not necessarily believe that every U.S. student should be reading Chinese; indeed, too many are not reading English well enough. However, the group is troubled by the language deficit, and fears that it will prevent U.S. citizens from participating and competing meaningfully, whether in business or diplomatic situations. It will also have a negative impact on government agencies and corporations attempting to hire people knowledgeable about other countries or fluent in foreign languages.

### READING, MATH, AND SCIENCE

Students who score “basic” on the NAEP have achieved only “partial mastery of prerequisite knowledge and skills.” Students who score “proficient” have “demonstrated competency” over the knowledge and skills tested.<sup>33</sup> According to these nationally established cut points, about one-third of U.S. elementary and middle school students are demonstrating competency (or better) on national reading, math, and science

exams (Figure 3).<sup>34</sup> This means that far too few students will be prepared to succeed in college or the workforce. Many students are growing up deficient in vital math skills, including knowledge of number properties and operations, measurement, geometry, data analysis, statistics, probability, and algebra.<sup>35</sup> They cannot recall, interpret, critique, or evaluate texts. They are unable to identify or use scientific principles in physical, life, or earth and space sciences, and they have failed to grasp science essentials such as the scientific method and inquiry-based learning.<sup>36</sup>

There have been some recent gains in math achievement at the elementary and middle school levels, but reading performance has been persistently flat. Despite recent advances, the average level of achievement among U.S. students has been problematically low for a long time, as demonstrated in Figure 4.

Low averages obscure deep and persistent resource and achievement gaps that separate poor students from rich students and black and Hispanic students from white and Asian students. These gaps have remained too wide, despite efforts and additional resources directed at helping students catch up.<sup>37</sup>

Gaps also separate U.S. states from one another, some routinely out-educating others. In almost any assessment of performance—math, reading, science, or the number of students graduating from high school on time—the map of the United States consistently shows the same pattern of over- and under-performance (Figure 5).<sup>38</sup> This means that students growing up in California or Nevada, for example, cannot expect the same quality of education as their counterparts in Massachusetts or Montana.

The differences in educational standards and opportunities across the United States put students who were simply born in the “wrong” neighborhood or state at a significant disadvantage, and leaves those states—and, by extension, the country—at a disadvantage.<sup>39</sup> The Task Force acknowledges concerns about the proper role of the federal government in K-12 education. The system garners considerable strength from the primary role of states and localities. But clearly there cannot be different standards and expectations for students or educators in today’s world of labor and geographic mobility. The United States is a single country and every child here must have an equal chance at excellence.

Beyond the danger of creating massive disparity in educational attainment, these differences between districts and between states have another troubling effect: students who move frequently—such as the

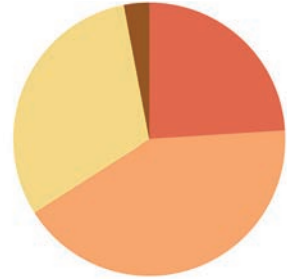
FIGURE 3. STUDENT RESULTS IN READING, MATH, AND SCIENCE

Reading: Fourth Grade (2011)



- 33% Below Basic
- 33% Basic
- 26% Proficient
- 8% Advanced

Reading: Eighth Grade (2011)



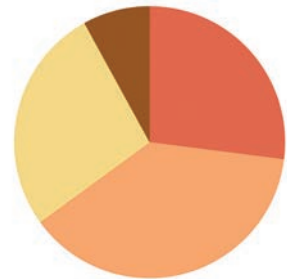
- 24% Below Basic
- 42% Basic
- 31% Proficient
- 3% Advanced

Math: Fourth Grade (2011)



- 18% Below Basic
- 42% Basic
- 33% Proficient
- 7% Advanced

Math: Eighth Grade (2011)



- 27% Below Basic
- 38% Basic
- 27% Proficient
- 8% Advanced

Source: "The Nation's Report Card," National Results, Achievement Levels, <http://nationsreportcard.gov>.

FIGURE 3. (continued)

Science: Fourth Grade (2009)



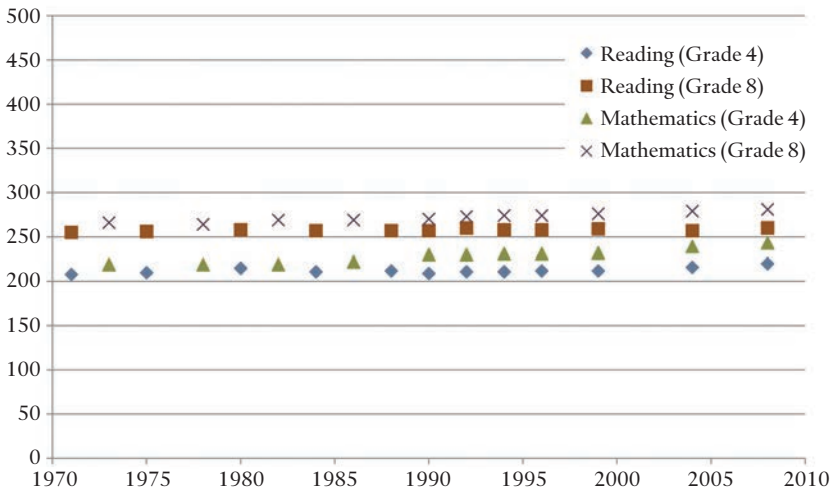
- 28% Below Basic
- 38% Basic
- 33% Proficient
- 1% Advanced

Science: Eighth Grade (2009)



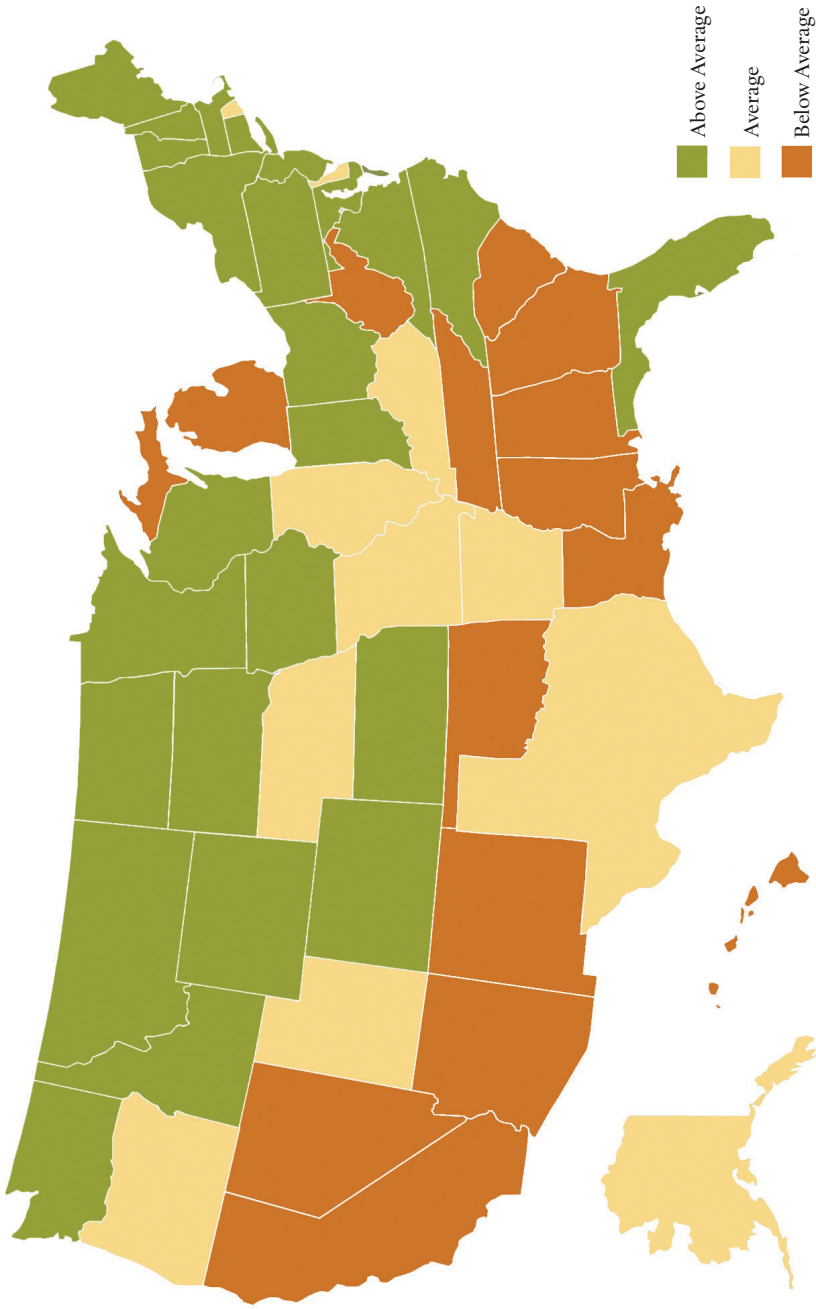
- 37% Below Basic
- 33% Basic
- 28% Proficient
- 2% Advanced

FIGURE 4. TREND IN NAEP MATHEMATICS AND READING AVERAGE SCORES FOR NINE- AND THIRTEEN-YEAR-OLD STUDENTS



Source: Bobby D. Rampey, Gloria S. Dion, and Patricia L. Donahue, "The Nation's Report Card: Trends in Academic Progress in Reading and Mathematics" (Washington, DC: National Assessment of Educational Progress, 2009), <http://nces.ed.gov/nationsreportcard/pubs/main2008/2009479.asp>.

FIGURE 5. FOURTH GRADE MATH NAEP 2009



Source: "The Nation's Report Card: Grade 4 Results" (Washington, DC: National Center for Education Statistics, 2009), [http://nationsreportcard.gov/math\\_2009/gr4\\_state.asp?subtab\\_id=Tab\\_1&tab\\_id=tab#tabsContainer](http://nationsreportcard.gov/math_2009/gr4_state.asp?subtab_id=Tab_1&tab_id=tab#tabsContainer).



more than one million children of military families—cannot expect to pick up at new schools where they left off.<sup>40</sup> This is a recruiting and retention problem for the armed services: the parents of school-age children will be hesitant to serve if their children's education will be at risk. This problem must be addressed.<sup>41</sup> It is worth noting that schools run by the Department of Defense outperform other schools, especially for minority students. However, these schools currently serve only 8 percent of the military-connected children in the United States.<sup>42</sup>

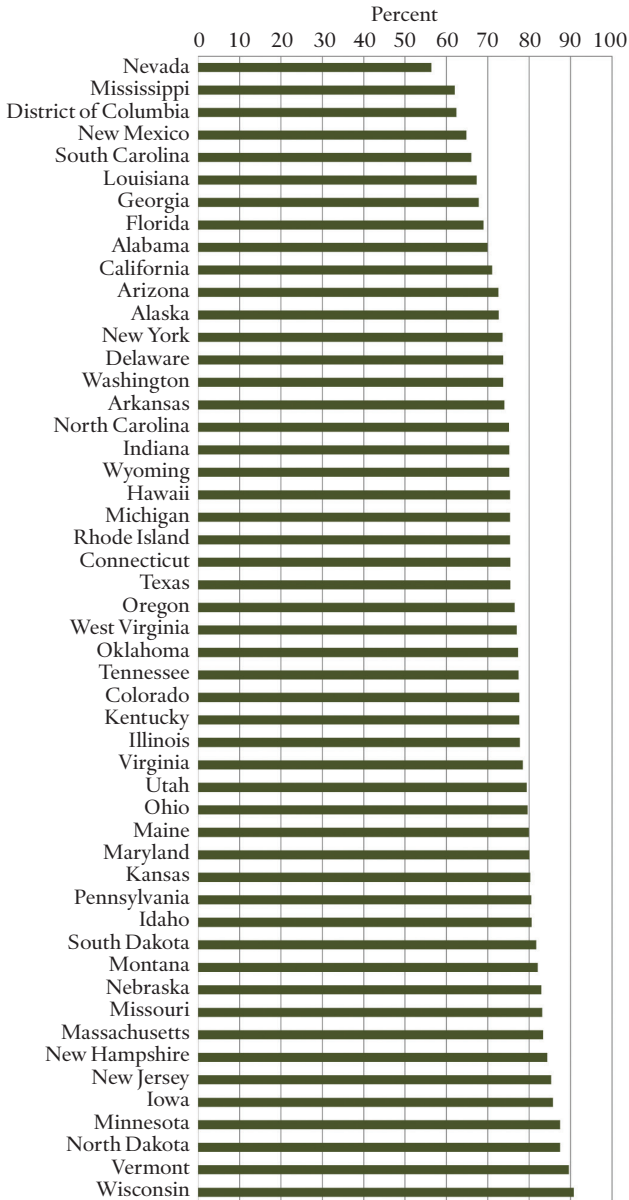
### GRADUATION RATES

Not surprisingly, the challenges that students confront in the early grades persist when they enter high school: they are unprepared, they struggle in their courses, and they begin skipping school. This pattern often precedes dropping out of high school.<sup>43</sup> Nationwide, about 75 percent of U.S. students graduate from high school in four years.<sup>44</sup> As with results in core academic subjects, achievement gaps in the graduation rate are wide.<sup>45</sup> States' graduation standards—as well as states' success in graduating students—also vary widely (Figure 6).<sup>46</sup>

Evidence is mounting that K-12 schools are not adequately preparing students who *do* graduate from high school for college or work. Estimates of college readiness of U.S. high school graduates are disquieting. One recent report by the ACT, the not-for-profit testing organization, found that only 22 percent of tested high school students in the United States met “college-ready” standards in English, mathematics, reading, and science.<sup>47</sup> The same study found that only 3 percent of African-American students met these standards.<sup>48</sup> Even among those headed to college, only 43 percent met college-ready standards.<sup>49</sup> According to the Department of Education, 42 percent of students at two-year colleges and 39 percent of those at four-year colleges need to take remedial courses to attempt to relearn what they failed to master in high school.<sup>50</sup>

A lack of preparation in the K-12 system matters: colleges typically cannot make up for what students fail to learn at the secondary level. Evidence is increasing that students who require remedial classes in college tend to struggle and drop out. One government study found that students who enroll in a remedial reading course are more than 41 percent more likely than their counterparts to eventually drop out.<sup>51</sup>

FIGURE 6. STATES' PUBLIC HIGH SCHOOL GRADUATION RATES (2008–2009)



Source: Chris Chapman, Jennifer Laird, Nicole Ifill, and Angelina KewalRamani, “Trends in High School Dropout and Completion Rates in the United States: 1972–2009,” IES 2012-006 (Washington, DC: National Center for Education Statistics, 2012), table 12, <http://nces.ed.gov/pubs2012/2012006.pdf>.

Failing to complete high school has a range of frightening consequences for students and society: dropouts are more likely to be unemployed, live in poverty, and end up in jail. They earn about \$20,000 less annually than graduates.<sup>52</sup> Dropouts are about three times as likely to be unemployed as college graduates and three times as likely to live in poverty as those who enroll in college.<sup>53</sup> Nearly one in ten male high school dropouts is in jail or juvenile detention, compared with less than three in one hundred high school graduates and less than two in one thousand college graduates.<sup>54</sup> These statistics represent real people—millions of people who leave school each year with limited prospects and limited ability to contribute to society, and who too often become burdens to the country.<sup>55</sup>

#### *U.S. PERFORMANCE VERSUS INTERNATIONAL PERFORMANCE*

As the United States struggles to educate its youngest citizens, educational systems around the globe are steadily improving.

According to the results of the 2009 Program for International Student Assessment (PISA), an international assessment that measures the performance of fifteen-year-olds in reading, mathematics, and science every three years, U.S. students rank fourteenth in reading, twenty-fifth in math, and seventeenth in science among students in industrial countries.<sup>56</sup> The results of the test, administered by the Organization for Economic Cooperation and Development (OECD), show that since the exam was first administered in 1999, some European and Asian students have academically surpassed students in the United States.<sup>57</sup> For example, Germany, Luxembourg, and Hungary were behind the United States in math on the 2000 PISA exam. In 2009, however, each outperformed the United States.<sup>58</sup>

In 2009, when students in Shanghai, China, took the PISA for the first time, they outscored the average U.S. student in reading, math, and science.<sup>59</sup> This might not be an apples-to-apples comparison, but U.S. secretary of education Arne Duncan called the results “a wake-up call.” He added, “I know skeptics will want to argue with the results, but we consider them to be accurate and reliable, and we have to see them as a challenge to get better. . . . We can quibble, or we can face the brutal truth that we’re being out-educated.”<sup>60</sup>

The results of international exams do not show merely that the average U.S. student is falling behind; they also show that the top students

FIGURE 7. 2009 PISA OECD COUNTRY RESULTS

Country	Reading	Country	Math	Country	Science
	Scale Score (2009 PISA)		Scale Score (2009 PISA)		Scale Score (2009 PISA)
Republic of Korea	539	Republic of Korea	546	Finland	554
Finland	536	Finland	541	Japan	539
Canada	524	Switzerland	534	Republic of Korea	538
New Zealand	521	Japan	529	New Zealand	532
Japan	520	Canada	527	Canada	529
Australia	515	Netherlands	526	Estonia	528
Netherlands	508	New Zealand	519	Australia	527
Belgium	506	Belgium	515	Netherlands	522
Norway	503	Australia	514	Germany	520
Switzerland	501	Germany	513	Switzerland	517
Estonia	501	Estonia	512	United Kingdom	514
Iceland	500	Iceland	507	Slovenia	512
Poland	500	Denmark	503	Poland	508
<b>United States</b>	<b>500</b>	Slovenia	501	Ireland	508
Germany	497	Norway	498	Belgium	507
Sweden	497	France	497	Hungary	503
France	496	Slovak Republic	497	<b>United States</b>	<b>502</b>
Ireland	496	Austria	496	Norway	500
Denmark	495	Poland	495	Czech Republic	500
United Kingdom	494	Sweden	494	Denmark	499
Hungary	494	Czech Republic	493	France	498
Portugal	489	United Kingdom	492	Iceland	496
Italy	486	Hungary	490	Sweden	495
Slovenia	483	Luxembourg	489	Austria	494
Greece	483	<b>United States</b>	<b>487</b>	Portugal	493
Spain	481	Ireland	487	Slovak Republic	490
Czech Republic	478	Portugal	487	Italy	489
Slovak Republic	477	Italy	483	Spain	488
Israel	474	Spain	483	Luxembourg	484
Luxembourg	472	Greece	466	Greece	470
Austria	470	Israel	447	Israel	455
Turkey	464	Turkey	445	Turkey	454
Chile	449	Chile	421	Chile	447
Mexico	425	Mexico	419	Mexico	416

Source: "Highlights from PISA 2009," NCES 2011-004 (Washington, DC: National Center for Education Statistics, 2010), <http://nces.ed.gov/pubs2011/2011004.pdf>.

in the United States would not be considered top students elsewhere in the world, particularly in mathematics. One recent report found that thirty countries have a higher percentage of advanced math students than the United States does. Only 6 percent of American students are advanced, against at least 20 percent in Taiwan, Hong Kong, Korea, and Finland.<sup>61</sup> Another study found that even the top-performing U.S. state, Massachusetts, is not at the top of the international pack in math.<sup>62</sup> Yet another found that students in wealthy U.S. public school districts would score in only about the fiftieth percentile in math relative to students in other developed nations. “If the city were Singapore,” the report found, “the average student in Beverly Hills would only be at the thirty-fourth percentile in math performance.”<sup>63</sup>

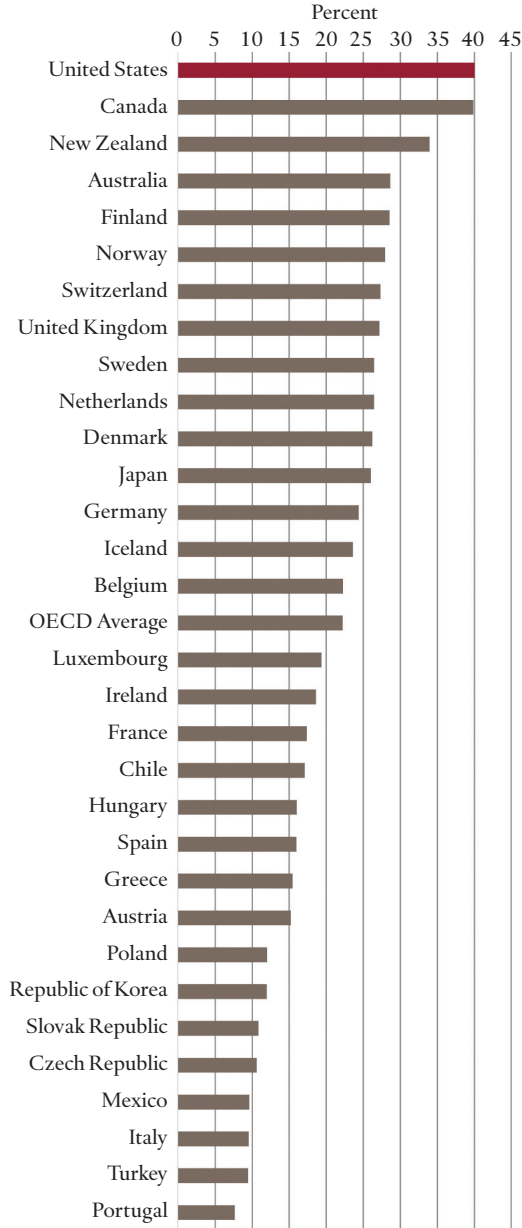
College attainment is another way to assess U.S. educational performance relative to other nations over time. This is relevant for an analysis of the K-12 system because success in college is an extension of prior academic success at the primary and secondary levels. For decades, about 40 percent of Americans have graduated from two- or four-year colleges. This level used to be the highest in the world, but is no longer.<sup>64</sup> The U.S. slippage in international rankings is best illustrated by examining college attainment by age cohort, as shown in the following series of charts.

In 2008, the percentage of Americans between the ages of fifty-five and sixty-four with a college degree was the largest percentage of any developed nation in that age cohort, according to the OECD (Figure 8). However, among those in the forty-five to fifty-four age cohort, the United States ranked third globally in 2008 (Figure 9).

For the youngest cohort measured, the international ranking is now tenth, as shown in Figure 10. These charts reflect the lack of progress in educational attainment in the United States as other countries are changing their practices and policies, making significant gains in the percentage of their citizens who graduate from college.

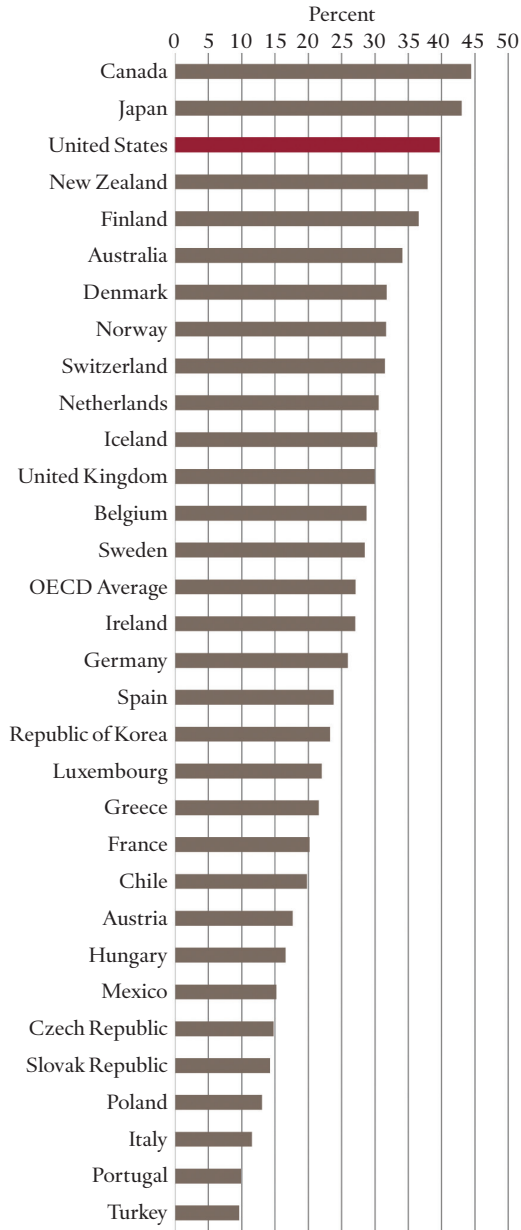
Some analysts blame the U.S. educational weakness on diversity, poverty, and governance. Although these factors may affect individual students or schools, an analysis from the OECD finds that they do not explain the poor U.S. international ranking. “The United States is not unique, at least not demographically or socio-economically,” the report found.<sup>65</sup> It also held that many other countries have the same degree of diversity as the United States, but that socioeconomic disadvantages in the United States are more closely linked with poor academic performance than in other countries. Rates of childhood poverty are lower

FIGURE 8. COLLEGE ATTAINMENT OF AMERICANS AGES FIFTY-FIVE TO SIXTY-FOUR



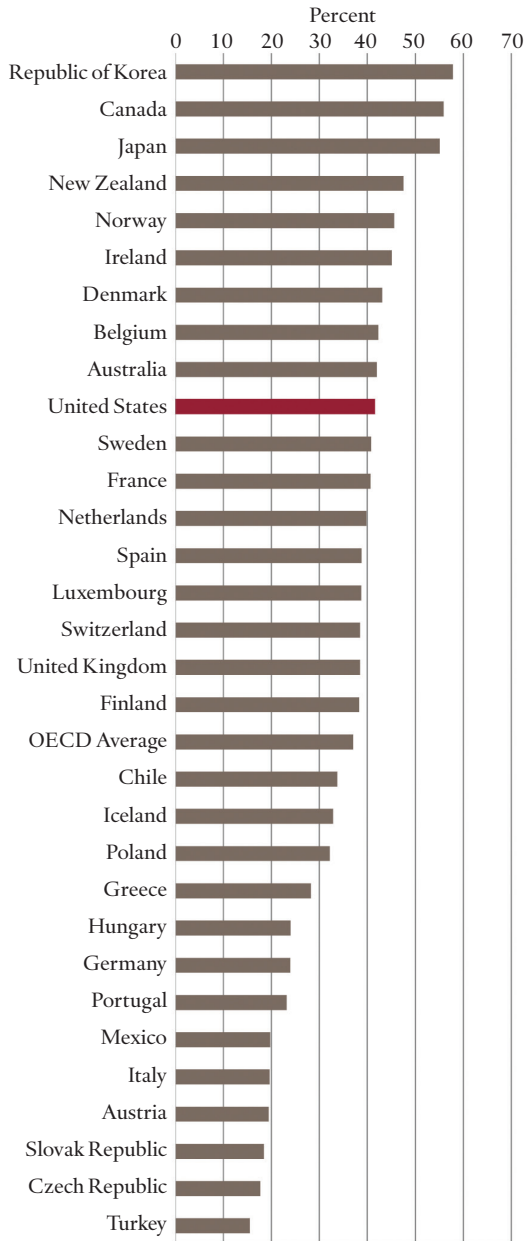
Source: Thomas D. Snyder and Sally A. Dillow, *Digest of Education Statistics, 2010*, NCES 2011-015 (Washington, DC: National Center for Education Statistics, 2011), table 421, [http://nces.ed.gov/programs/digest/d10/tables/d10\\_421.asp](http://nces.ed.gov/programs/digest/d10/tables/d10_421.asp).

FIGURE 9. COLLEGE ATTAINMENT OF AMERICANS AGES FORTY-FIVE TO FIFTY-FOUR



Source: Snyder and Dillow, *Digest of Education Statistics*, 2010.

FIGURE 10. COLLEGE ATTAINMENT OF AMERICANS AGES TWENTY-FIVE TO THIRTY-FOUR



Source: Snyder and Dillow, *Digest of Education Statistics*, 2010.



in many high-achieving countries.<sup>66</sup> However, even privileged U.S. students are trailing in international comparisons in math achievement. For example, only 8 percent of white students and 10 percent of those whose parents went to college are advanced in math.<sup>67</sup> Overall, U.S. educational outcomes are unacceptably low. The United States has known for a generation that its K-12 system is slipping, but reform efforts have not made a major impact, and the United States is continuing to underprepare its young people. It is essential that all Americans—even those in relatively high-performing school districts—acknowledge this trend and take steps to address it.

### *INVESTMENTS IN EDUCATION*

As student progress has stagnated, the United States has invested progressively more in education.<sup>68</sup> In the 1960–61 school year, per-pupil spending was less than \$3,000 in 2008 dollars. In the 2007–2008 school year, per-pupil spending was \$10,441, more than three times the earlier figure.<sup>69</sup> (These numbers do not include the costs of the dramatically mounting prices of pensions and other postretirement benefits for teachers and other staff members.)

This increased spending has fueled growth in the education bureaucracy, growth of school-level programs and practices, and growth in the teacher workforce. The number of teachers in the United States has more than tripled since the 1950s, cutting the student-teacher ratio nearly in half.<sup>70</sup> Some argue that the resulting class size reduction has benefited students, but many maintain that it has cost a great deal relative to its positive impact on student learning. Some of the additional spending on teachers is due to the growing costs of special education, but this does not explain all of the growth. According to the Department of Education, only about 20 percent of the teacher increase is due to the increase in special education teachers.<sup>71</sup>

The tripling in inflation-adjusted spending per student suggests a misallocation of resources and a lack of productivity-enhancing innovations. Per-pupil investment in education in other countries, including in some that are now outperforming the United States, is below the U.S. level. Finland's spending per student at the elementary level is about 30 percent less than that of the United States. Germany's is 40 percent less, Poland's 51 percent less. These trends are similar at the secondary level.<sup>72</sup>

Recent studies that have inspected the connection between investments in education and student outcomes have found that while U.S. schools are spending more overall, the big picture is complicated. There are large differences in the levels of funding allocated to schools. This means that the resources dedicated to educating a student are different from school to school, district to district, and state to state. Unlike some of its high-performing peers, the United States spends less to educate needy students than it does to educate well-off students. The United States also fails to track how efficiently and effectively it is employing its educational resources. One recent study found that “low productivity” in educational spending costs the United States \$175 billion a year, 1 percent of the gross domestic product (GDP).<sup>73</sup> Further, the study found that unless there were new checks on the effectiveness of school spending, more spending would not necessarily improve student outcomes.<sup>74</sup> Given the magnitude of the challenge and past national investments at times of national security crises—from World War II to the terrorist attacks of September 11—increased spending on education may well be justifiable. However, more money alone is not the answer; education dollars must be spent wisely and efficiently, with real attention paid to eliminating waste and allocating scarce dollars to the work that has the largest impact on student learning. Resources are too often allocated to schools and students who will not benefit from them at the expense of students who desperately need them. Frequently, it also seems that resources are allocated without sufficient scrutiny over what dollars are buying. Thus, the Task Force calls for greater accountability and transparency in education budgets.

## *HOW ARE U.S. PUBLIC SCHOOLS ORGANIZED?*

The existing systems and structures of education in the United States are laden with bureaucracy and inefficiencies. While there have been efforts to promote reform, many are too short-lived to engender widespread improvements, and successful innovations in one school too rarely spur change in other schools. Over the years, repeated efforts to improve the system have been constrained by the inflexibility of the system and by the expectations of adults, who, over the course of recent decades, have grown accustomed to the status quo.

## STRUCTURE

U.S. elementary and secondary schools are not organized to promote competition, choice, and innovation—the factors that catalyze success in other U.S. sectors. Many institutions have overlapping authority over public elementary and secondary schools: the federal and all fifty state departments of education, more than thirteen thousand local school boards, and a smattering of big-city mayors. This tradition of decentralized control traces back to the Tenth Amendment, which declares that “the powers not delegated to the United States by the Constitution, nor prohibited by it to the States, are reserved to the States respectively or to the people.”

Although certain laws and funding streams—such as those controlling special education, English language learners, and programs governing national accountability standards—emanate from Washington, most school governance is considered a state or local matter. In practice, three layers of government, as well as a range of nongovernmental influences such as unions, community groups, and parent organizations, play a role in almost everything that happens in each school.

“It is time to admit that public education operates like a planned economy,” the legendary teachers’ union leader Albert Shanker said in 1989. “It’s a bureaucratic system where everybody’s role is spelled out in advance, and there are few incentives for innovation and productivity. It’s no surprise when a school system does not improve. It more resembles a Communist economy than our own market economy.”<sup>75</sup>

The system has rampant inequities: schools in richer neighborhoods are often better funded than schools in poorer neighborhoods. A recent analysis of educational economics found that because schools that serve needier students struggle to attract high-paid, experienced teachers, “Inside nearly every urban school district in the country, teachers are paid more to teach middle- or upper-class students than to teach high-poverty students.”<sup>76</sup> A recent OECD report found that though the United States is not unique in its population of poor or immigrant students, it is one of only three developed countries that invest less in high-needs schools than in well-off schools.<sup>77</sup>

The relative level and proportion of federal, state, and local dollars spent on education varies widely in a given school district, depending somewhat on local priorities, but mostly on local wealth, luck, and legacy. In Louisiana, for example, nearly 17 percent of education funds come

from the federal government, versus only 4 percent in New Jersey.<sup>78</sup> But because the state and local governments of New Jersey invest more in education than those of Louisiana do, the per-pupil expenditure in New Jersey is nearly 60 percent more than that in Louisiana.<sup>79</sup>

The wide variation in spending does not stop at the state or district level. Within a district, individual schools can receive different levels of resources than other schools that serve similar student populations.<sup>80</sup> Not surprisingly, this variation in funding means that some schools can provide students with more services and better-paid, more experienced teachers than others.

### *LACK OF INNOVATION*

Innovation is widely understood to be the engine that keeps America running—and the factor that has led to its success over the centuries.

In science, technology, retail, the arts, energy, and other sectors of the U.S. economy, it is easy to find examples of dynamic innovation: the light bulb, the Model T, Broadway musicals, Disney, jazz, the polio vaccine, Wal-Mart, the personal computer, the Internet, Starbucks, eBay, Netflix, Google, the Human Genome Project, the iPod, Facebook, and many others. Entrepreneurs around the world use and emulate these and other successful American models.

In education, it is hard to point to examples of successful and sweeping innovations that have changed the way schools are structured, the way teachers teach, and the way students learn. Given the innovation deficit in the public school system, it is perhaps not surprising that approximately 0.2 percent of U.S. K-12 educational spending is on research and development (R&D).<sup>81</sup> This is dramatically lower than that of the military or of virtually any private company. Overall, R&D spending constitutes 2.82 percent of the U.S. GDP.<sup>82</sup>

Of course, there have been some changes in recent years, but unfortunately the changes have not often had a dramatic impact on student outcomes. For example, by 2008, all public schools in the United States had at least one instructional computer with Internet access; the ratio of students to computers was about three to one. More than 90 percent also had projectors and digital cameras for instructional use, and more than 70 percent had interactive whiteboards.<sup>83</sup> It seems clear that technology has the power to help students learn in new ways, to assess more rigorously how much students are learning, and to help teachers

tailor instruction to students' individual learning needs. But technology is largely still being used to advance old-style teaching and learning with old-fashioned uses of human capital. That is, computers and digital technology have thus far not been used innovatively to change the way the United States educates its students, but instead simply to reinforce past practices.

### *HUMAN CAPITAL*

About 80 percent of resources in education fund human capital—teachers, principals, and administrators—but these resources are arguably not allocated as wisely as possible.<sup>84</sup> For example, educators are routinely treated uniformly, as if the most and the least effective are identical in value. In New York City, for example, a teacher with ten years of experience who has earned a master's degree earns \$75,937 a year regardless of performance and regardless of whether he or she is teaching math, science, or physical education.<sup>85</sup> Though there are political debates about how to properly train and compensate teachers, it seems clear that the United States is failing to effectively attract, train, develop, and retain and adequately compensate educators. The reluctance to embrace new ideas in human capital management—such as teacher performance incentives—places high costs on the educational system, dampens innovation, and increases the turnover rate among the best educators. In the end, students are the biggest losers, but teachers suffer as well.

Teachers' and principals' importance is both intuitively obvious and proven by countless studies and reports.<sup>86</sup> Because educators can have such a profound impact, ensuring that students have the best possible teachers and principals should be a top priority. Unfortunately, evidence is abundant that the United States does not do enough to make sure that schools are stocked with top-notch educators. As a result, unqualified teachers are teaching too many students. Explanations for this troubling shortage of highly skilled educators are numerous:

- Education is not seen as a prestigious profession.<sup>87</sup> In surveys, college students say teaching is less prestigious, less of a challenge, and has fewer high-quality coworkers than other fields.
- The United States is recruiting most of its teachers from the bottom two-thirds of college classes, whereas top-performing countries are pulling from the top third.<sup>88</sup>

- Well-educated women have more career options today and are not as likely to go into teaching as they were in past decades.<sup>89</sup>
- The United States is not doing a good enough job of training new teachers for the job or professionally developing them once they are hired. Most states and districts also fail to provide teachers with any performance-based incentives.
- Most U.S. school districts grant tenure to teachers and principals after a few years with little attention to quality. Only a tiny proportion of new teachers are asked to leave in the first few “probationary” years.<sup>90</sup> Tenure exists in many other countries with higher-performing schools, but, coupled with the training and pipeline problems, poses real problems in the United States.

The U.S. approach to teacher talent differs from that of other countries with more success in attracting and retaining high-performing teachers. It sets the bar lower for people to enter the profession and then invests less in teachers, starting with their training and continuing throughout their careers. For example, in South Korea, teaching is seen as an important and honorable career: teachers are selected from the top 5 percent of students to be trained in competitive training universities, and their pay is similar to that of doctors and engineers (and they typically teach larger classes of students than American teachers).<sup>91</sup> In Finland, another high-performing country, teachers are paid similarly to U.S. teachers, but, as in South Korea, the selection and training process is rigorous.<sup>92</sup>

Trends exist in top-performing countries. According to the OECD, these countries have adopted the following important human capital strategies:<sup>93</sup>

- *Change the pipeline of people coming into the profession by raising entrance standards to teacher training schools.*
- *Improve the quality of teacher training* so that trainees master the subjects they will teach, spend more time in clinical settings, and learn how to quickly diagnose and address students’ problems.
- *Improve teacher quality once teachers are in classrooms*, through mentorship and sharing of best practices and constant feedback from peers.

Given the clear significance of teachers on student outcomes, it is imperative that schools and districts seriously rethink the teacher pipeline, training, development, and practice. Teachers work in individual

classrooms, but they collectively have a profound impact on the readiness and character of the next generation.

## *CURRENT POLICIES AND REFORM EFFORTS*

### *NATIONAL POLICY*

Concerns about poor educational performance have mounted in recent decades, leading to a series of high-profile reform efforts. In the late 1980s, President George H.W. Bush and Bill Clinton, then governor of Arkansas, held a National Education Summit, at which the fifty governors aimed to agree on national education goals. The group adopted targets that it planned to meet by the year 2000; the goals included increasing the high school graduation rate to 90 percent, improving the quality of teachers, and making U.S. students first place worldwide in math and science. Unfortunately, the policies needed to achieve these goals were never put into place.

Later, the Clinton administration enacted the Goals 2000: Educate America Act, which gave states support so that they could develop learning standards and help students achieve those standards. The George W. Bush administration subsequently worked with Democratic and Republican leaders in Congress to enact and implement No Child Left Behind (NCLB), which mandated stricter accountability and transparency in education. This marked the first time that states were required to measure student results and make them publicly available. When Congress did not agree to restructure and reauthorize NCLB, the Obama administration began granting NCLB waivers to states in exchange for their agreeing to education reform. The U.S. Department of Education emphasizes that to gain the flexibility the waivers provide, states must agree to raise standards, improve accountability, and make reforms to improve teacher effectiveness.

The Obama administration is seeking to shift the federal role so that the Department of Education does more to support innovation in states, districts, and communities, using competitive funding to motivate change. Some of the administration's main initiatives are Race to the Top, the Investing in Innovation Fund (i3), and School Improvement Grants. Race to the Top is a national competition in which a \$4.35 billion pool of federal funds is allocated to select states that design and implement reforms to one or more of the following activities:

- adopting standards and assessments that prepare students for college and careers
- building data systems that measure student growth and success and inform teachers and principals about how to improve instruction
- recruiting, developing, rewarding, and retaining effective teachers and principals
- turning around the lowest-achieving schools

Race to the Top has pushed state and local education authorities to make some changes addressing accountability, choice, parent involvement, and more.

The federal government plays an important role in encouraging and rewarding positive change, but it is constrained in what it can do. In many cases, taking the brave steps required to transform the status quo is up to the states and individual school districts.

#### *STATE-LED CHANGE EFFORT: THE COMMON CORE*

For decades, each U.S. state and many cities set unique standards. The patchwork of learning standards and curricula is a prime example of the United States' failure to provide a strong, uniform K-12 education to all children.

Recently, state governors wisely recognized that U.S. high school graduates were unprepared for the academic demands of college, and that educators needed to prepare today's students to compete against people across the United States and around the globe. The governors, prodded by the "carrot" of increased funding provided by the Obama administration's Race to the Top initiative, collaborated to create the Common Core State Standards, a set of shared math and literacy standards—based on assessments of needed skills and knowledge—that have now been adopted by all but five states.<sup>94</sup> This extraordinary achievement is unprecedented in U.S. history. The standards are set to be rolled out in the 2014–2015 school year.

The Common Core is benchmarked to international standards and establishes a "staircase" of increasing complexity for elementary and secondary students. The hope is that, each year, students will build on what they have mastered in the previous year so that they graduate ready for college, careers, or military service. The Common Core is not



a prescribed curriculum, but rather a set of shared expectations for what students will learn and be able to do. It teaches fewer concepts in each grade but promotes a deeper mastery of the included topics—those that evidence shows matter most in preparing for college and careers.

In literacy, the standards place a greater emphasis on students' ability to read, understand, and summarize informational texts than previous state standards. In recent history, U.S. elementary students have spent most of their time reading narrative fiction. The new standards aim to build knowledge from an early age by requiring that 50 percent of students' time between kindergarten and the fifth grade be spent reading informational texts. In addition, the standards place a greater emphasis on evidence-based writing. From the sixth grade onward, the standards will require students to analyze sources and develop conclusions in their essays, as opposed to writing only narratives or personal opinion essays. The new standards require that 80 percent of what high school students produce be written with the intent "to write to inform and to write to argue."

In mathematics, the standards replace an approach that has been wide but shallow. American students study more topics each year but master fewer mathematical concepts than their peers in high-performing countries. The Common Core, in contrast, gives teachers more time to teach, and gives students the ability to practice more and learn in a rigorous way.

A recent study that surveyed college instructors found that the Common Core standards are rigorous enough to give students the skills and knowledge they need to succeed in college-level math and English language arts (ELA) courses.<sup>95</sup> However, questions remain about how the states will implement the standards. Some estimates find that teachers will have to make major changes in their practices to meet the new standards. Costs are of course associated with training teachers and publishing new materials, and the initiative faces political challenges from those skeptical about educational consistency across states.

Nevertheless, if this initiative succeeds, it will be the first time in U.S. history that expectations for learning are commonly understood across the United States, and that all students in the country will have the hope of learning what they need to know to succeed in college and jobs on graduation from high school. It seems clear that in order for this effort to work, it is important to invest in implementation, not just in the standards themselves. The expectations for what students must learn under

the new Common Core are different from today's curricula, and it will be important to help current educators learn how to align their practices with the new expectations.

#### *OTHER IMPORTANT RECENT REFORM EFFORTS*

In individual cities and districts across America, other education reform efforts have been numerous, and they have had varying levels of success. The following section highlights select prominent reform efforts:

##### *Improving the Quality of Educators and Leadership*

Many recent efforts have worked to mold strong educational leadership. Several states, along with some pioneering districts and universities, have created leadership development programs that have improved training and mentoring for school leaders and have demonstrated their ability to raise student achievement. In addition, many leadership development efforts have also been generated outside government. For example, the Broad Superintendents Academy works to train experienced leaders from business, education, military, government, and nonprofits to take charge of the United States' large school districts. New Leaders for New Schools seeks to train the next generation of principals.

Teach for America (TFA) sends thousands of the strongest graduates from America's top universities to teach in some of the United States' lowest-income communities for at least two years.<sup>96</sup> TFA's goal is to motivate its teachers to take up the causes of educational excellence and equity throughout their lives, from either inside or outside the system. TFA's ability to recruit more top college graduates than any other organization or business in the country is a cause for optimism.

Though these initiatives still represent only a small portion of all teachers and school leaders across the United States, they signal possibilities for how the system can tap and develop talent if it is more clearly focused on doing so in the future. The Task Force is encouraged that some of these leadership-focused reforms have helped create a new crop of educators and leaders who have taken charge of many classrooms and major school systems.

##### *Prioritizing Accountability*

Tracking results and holding schools accountable for student outcomes has been a central focus of education reform, particularly since the No

Child Left Behind Act became law in 2002. Despite significant progress in education accountability, a great deal of inconsistency remains in the quality of assessments and other metrics, and in what information is tracked, analyzed, and made publicly available. Some states, such as Florida, have implemented far-reaching policies to help parents understand how well their local schools are performing, but the usefulness of this effort is somewhat ambiguous because of questions about metric quality, and this level of transparency and public outreach is far from the national norm.

Consequences for failure are also inconsistent. Some districts and states ignore persistent school failure. Some seek to diagnose the problems and develop school improvement plans in response. Others have strict rules that force failing schools to restructure or shut down. Still others have what look like development plans or strict rules that are not applied uniformly. Recently, there has been evidence that restructuring failing high schools in New York City has helped engender positive change, but the policies that New York implemented are not yet in wide national use.<sup>97</sup> It seems clear that it is important to use information about which schools, programs, teachers, and principals are effective and which are not to inform decision-making and drive school improvement efforts.

### *Providing Better Choices to Families*

In the past decade, school districts and community-based school reformers have tried to give parents the flexibility to choose the school best suited to their children. The idea is that this allows schools to innovate, introducing new ideas and new competitive forces into school systems and allowing families to consider the best fit for their children.

Public school choice has been available in some districts, such as Cambridge, Massachusetts, and San Francisco, California, for more than twenty years. Magnet schools have offered choices to families in many more cities since the 1970s. Charter schools are a relatively new addition to district choice options. Charters are public schools that receive public money but are not subject to some of the rules and statutes that apply to other public schools. In return for flexibility, charters are supposed to be held accountable for student performance. If they fail to meet expectations, they lose their charters and are forced to shut down. Traditional public schools, on the other hand, can typically continue operating indefinitely regardless of performance.

Some charter schools have better results than others, but the best-performing ones (which are typically in states with the best charter laws) show that disadvantaged students and those with high needs can learn in the right environments. Though research is ongoing, a comprehensive new study analyzing previous charter school research found that there is “ample evidence” that charter elementary schools outperform traditional public schools in both reading and math, and that charter middle schools tend to outperform in math.<sup>98</sup> Another study found that the Knowledge is Power Program (KIPP) schools have a “very positive” influence on reading and math achievement. Researchers have shown that a KIPP school would move a student from the fiftieth percentile to the fifty-fourth percentile in reading and the fifty-ninth percentile in math in just one year.<sup>99</sup>

An encouraging large-scale example of the potential impact of charter schools is post-Katrina New Orleans. Though there is still a long way to go and some analysts disagree on the details, the city has made dramatic structural and leadership changes that have resulted in large performance gains: from 2006–2007, the school year after the storm, to 2009–2010, public schools in New Orleans gained an average of nearly twenty points on the state exams, versus a statewide average gain of 6.5 points.<sup>100</sup> Other districts have shown gains primarily by improving district-run schools that offer choices, including those with special governance arrangements, such as Boston’s Pilot Schools. San Diego has embraced a decentralized model under which schools innovate and implement reforms and then share best practices. As a result, student performance on the NAEP Trial Urban District Assessment improved significantly in both of these cities between 2003 and 2009.

These examples counter the long-held view that being born without money or other advantages is an insurmountable obstacle to student success.