**Center on Education Policy**

The Center on Education Policy is the national independent advocate for public education and for more effective public schools. The Center works to help Americans better understand the role of public education in a democracy and the need to improve the academic quality of public schools. We do not represent any special interests. Instead, we help citizens make sense of the conflicting opinions and perceptions about public education and create conditions that will lead to better public schools.

Working at the national, state and local levels, the Center achieves its mission by producing publications, writing articles, convening meetings, making presentations and, upon request, providing expert advice. The Center also works jointly with many other education, business, state and civic organizations.

Based in Washington, D.C., and founded in January 1995, the Center receives nearly all of its funding from charitable foundations. To learn more about our work, please visit our web site: www.ctredpol.org.

**American Youth Policy Forum**

The American Youth Policy Forum is a nonpartisan professional development organization providing learning opportunities for policymakers and practitioners working on youth issues at the local, state and national levels. AYPF’s goal is to provide participants with information, insights and networks on issues related to the development of healthy and successful young people, productive workers and participating citizens in a democratic society, including: schooling, transition to careers and career development, training and preparation for employment, postsecondary education, national and community service and related forms of youth development.

Since 1993, AYPF has conducted an average of 40 events each year for over 2,000 participants, including lunchtime meetings and out-of-town field trips and foreign study missions with a thematic focus. Forum participants include Congressional staff, officials of various federal agencies, state and local government officials, policymakers from national non-profit and advocacy associations and members of the media who report on youth issues. AYPF also publishes, for the benefit of policymakers, practitioners and scholars, a wide variety of inexpensive and brief policy reports and background materials on youth issues. These may be consulted on our web site: www.aypf.org.

**Credits**

This publication was researched and written by Nancy Kober, a freelance writer and consultant to the Center on Education Policy, and Diane Stark Rentner, the Center’s associate director. They received assistance and advice from Jack Jennings, the Center’s director, and from Samuel Halperin, Betsy Brand, Glenda Partee and Donna Walker James of the American Youth Policy Forum. Cutting Edge Graphics of Washington, D.C., designed the publication.

The Center on Education Policy and the American Youth Policy Forum thank our respective funders who support this report and the other activities of our two organizations.
INTRODUCTION

Many people believe American public schools are failing. Such views are not surprising, since critics of public education emphasize only what’s wrong with public schools, and negative stories about education appear frequently in the media. Seldom do people hear the good news about public education.

There’s no question that our public schools must become better. But the public also needs to recognize that there have been major improvements in public education since the early 1980s, when the nation started focusing seriously on school reform.

The Center on Education Policy and the American Youth Policy Forum publish this report because informed citizens need to be aware of these positive trends. This booklet highlights important improvements in public education over the past 15-20 years, along with other positive data about the state of public education. This report updates and expands on the monthly one-page briefs issued by the Center on Education Policy in 1998 and 1999. The only findings included are those supported by objective national data banks, such as the National Center for Education Statistics. By laying out the facts in a succinct, straightforward way, we hope to dispel some widely-held misconceptions about public schools and give citizens solid evidence to inform their opinions, policy decisions and future actions.

We present indicators that we believe are meaningful and interesting to parents and the general public. If an aspect of education is not discussed in this report, that does not mean it is negative. Many positive trends were not included for lack of space. Other areas, such as reading achievement, have not been included because the trends are mixed or vary by age groups.

Emphasizing the positive, we do not ignore the problems facing public schools. Public schools must be improved, and many more students need to benefit from the general progress already made. For that reason, we include a brief discussion of The Work Ahead at the end of each group of indicators. These sections discuss some of the various actions that states, school districts and citizens can take to build on the progress already made—for example, by paying special attention to groups of students who are not doing as well, or by eliminating obstacles that stand in the way of greater progress.
By featuring objectively good news in this brief report, we hope to restore public confidence that school reform can make a difference and to encourage everyone to keep working to make public schools better for all students.

**DATA USED IN THIS REPORT**

This report includes a variety of statistics showing positive trends in education. These statistics are grouped into five broad categories:

- **School Participation and Curriculum.** Trends in school dropout rates, student course-taking patterns, and participation of students with disabilities.

- **Student Achievement.** Trends in student performance on the National Assessment of Educational Progress, various college entrance exams and other nationwide measures.

- **Educational Climate.** Data on school safety and crime and other environmental factors that affect student learning.

- **Teachers.** Statistics on the qualifications and experience of K-12 teachers.

- **Higher Education.** Trends in postsecondary enrollment and completion of degrees.

The higher education data and a few of the K-12 indicators include data for students in both public and private institutions. Since 89% of K-12 students and 76% of postsecondary students attend public institutions, these indicators still reflect improvements in public education.

To the extent possible, we have compared baseline data from the early 1980s with the most recent year available. The specific years vary depending on which data are available for a particular indicator. In some cases, we also include data earlier than the 1980s to show longer-term trends. For several indicators, reliable data on trends over time are not available, but we include current data showing positive aspects of public education.

We chose the early 1980s as our primary baseline because that’s when school reform became a major national issue. Since then, educational improvement has remained a high priority at the local, state and national levels, although the specific strategies have changed as the school reform movement has matured. Most recently, nearly all states have adopted standards to define what students should know and be able to do by the time they finish high school, along with new state tests to measure student progress. Most of these standards-based reforms are too new to have influenced the trends discussed in this report, but their effects on student learning should soon begin to appear.
Do You Know?

FEWER STUDENTS ARE DROPPING OUT OF SCHOOL

THE FACTS

Two-thirds of citizens surveyed mistakenly believe that high school dropout rates are going up and are higher than they were 25 years ago (1997 Phi Delta Kappa-Gallup Poll). In fact, dropout rates are lower today than they were in the 1970s and 1980s. Especially noteworthy is the sharp decline in the dropout rate of black youth.

Note: This chart shows the “status dropout rate,” the percentage of the U.S. population ages 16–24 who were not enrolled in school, had not completed high school, and did not possess a general education development (GED) certificate.

Do You Know?

HIGH SCHOOL STUDENTS ARE TAKING MORE CHALLENGING COURSES

THE FACTS

The education reforms of the 1980s focused on raising the coursework requirements for high school students. As a result, more students today are taking tougher courses than their predecessors did in the early 1980s. The percentage of students completing a core academic curriculum that includes 4 years of English and 3 years each of social studies, science and mathematics more than tripled between 1982 and 1994, with large increases across all racial and ethnic groups.

Note: The “core curriculum” consists of 4 years of English and 3 years each of social studies, science and mathematics.

MORE GIRLS ARE TAKING HIGH-LEVEL MATHEMATICS AND SCIENCE COURSES

THE FACTS

The gender gap in mathematics and science that had limited educational and career opportunities for girls and women is disappearing. The percentage of girls taking rigorous high school mathematics and science courses, such as algebra II, trigonometry, chemistry and physics, has gone up significantly since 1982. For example, 59% of the girls who graduated in 1994 had completed a chemistry course, compared with only 30% of the girls in the class of 1982. In fact, gender patterns have reversed for some courses, with girls enrolled at higher rates than boys in courses like algebra II and chemistry. Boys still had slightly higher rates of enrollment in physics and calculus in 1994.

Do You Know?

HIGH SCHOOL STUDENTS ARE TAKING TOUGHER MATHEMATICS AND SCIENCE COURSES

THE FACTS
Recent education reforms emphasize the need for students to take more rigorous mathematics and science courses. Since 1982, the percentages of students taking higher-level courses, such as algebra II, trigonometry, chemistry and physics, have gone up significantly. (Enrollments have also gone up for other courses not shown here, from algebra I to calculus, and from biology to astronomy.)

These increases in higher-level course-taking occurred across all racial and ethnic groups. Especially impressive is the growth in the numbers of black and Hispanic students taking courses like algebra II and chemistry.

Note: These percentages do not include students who took these courses before they entered high school.

**Percentage of High School Graduates Completing Chemistry and Physics**

By Race/Ethnicity, 1982 and 1994

<table>
<thead>
<tr>
<th></th>
<th>All</th>
<th>White</th>
<th>Black</th>
<th>Hispanic</th>
<th>Asian</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Chemistry, 1982</strong></td>
<td>31%</td>
<td>14%</td>
<td>8%</td>
<td>6%</td>
<td>16%</td>
</tr>
<tr>
<td><strong>Chemistry, 1994</strong></td>
<td>56%</td>
<td>25%</td>
<td>17%</td>
<td>15%</td>
<td>16%</td>
</tr>
<tr>
<td><strong>Physics, 1982</strong></td>
<td>14%</td>
<td>14%</td>
<td>8%</td>
<td>16%</td>
<td>16%</td>
</tr>
<tr>
<td><strong>Physics, 1994</strong></td>
<td>53%</td>
<td>35%</td>
<td>16%</td>
<td>44%</td>
<td>44%</td>
</tr>
</tbody>
</table>

**Note:** These percentages do not include students who took these courses before they entered high school.

Do You Know?

MORE STUDENTS WITH DISABILITIES ARE BEING EDUCATED IN REGULAR CLASSROOMS

THE FACTS

The federal Individuals with Disabilities Education Act requires children with disabilities to be educated in the “least restrictive environment” and encourages them to be educated in general classroom settings, with appropriate services and supports. When students with disabilities are educated alongside other children in regular classrooms, they have increased opportunities to study the same curriculum as their peers, meet higher performance expectations, and learn the knowledge and skills necessary for independent adult life. This approach also helps children without disabilities avoid damaging stereotypes and understand how much people have in common.

Between 1986 and 1996, the percentage of children with disabilities who were educated in regular classrooms increased from 26% to 45%. The proportion of children with disabilities served in resource rooms or separate classes decreased, except for students with certain severe disabilities, such as autism. The percentage educated in separate facilities, such as state institutions for the disabled, dropped from 7% to 4%. These trends represent significant progress from 25 years ago, when 90% of developmentally disabled children were housed in state institutions and approximately 1 million children with disabilities were shut out of schools altogether (U.S. Department of Education, Office of Special Education and Rehabilitative Services, IDEA General Information: Overview, 1997).

THE WORK AHEAD:
SCHOOL PARTICIPATION AND CURRICULUM

The U. S. job market has changed considerably since the early 1970s. Young people without a high school diploma are limited mostly to low-paying jobs with little chance for advancement. Indeed, some economists predict that the only way to get a well-paying job and have a secure career will be to complete additional study beyond high school. So the first step of the work ahead is for states and school districts to ensure that all students earn at least a high school diploma.

Students need more than a credential, however, to be ready for the workplace or higher education. They also must have high-level knowledge and skills, which are best learned by pursuing a rigorous high school curriculum. In a technology-dependent workforce, a strong mathematics and science background is especially important.

The growth in the number of students taking challenging coursework is a promising trend. The work ahead should include aggressive efforts to encourage all students to complete four years of English and three years each of social studies, science and mathematics before they graduate. These efforts should begin in middle school, with strategies that encourage students to take gateway courses like algebra before 9th grade. At the high school level, states and school districts should eliminate the “general track” of courses that do not adequately prepare students for either the workplace or higher education. High schools should also offer advanced courses like calculus and physics, so that students are not hindered from progressing because these key courses are not available.

Some students will need extra help to meet graduation requirements and succeed in a rigorous curriculum. States and school districts should adopt strategies that have proved to be effective with students who are struggling to keep pace or who learn in different ways. These strategies include:

- counseling and mentoring programs that connect students with caring adults who can guide their academic progress;
- teaching methods that emphasize how academic knowledge applies in real-world contexts;
- “tech-prep” programs that integrate academic and technical education and lead directly into a two-year college or technical certificate program; and
- “career academies” that teach high-level academic skills through a curriculum centered around particular employment sectors, such as health care, hospitality, or finance.

The work ahead must also include continuing attention to students with disabilities. Although these students have benefitted from inclusion in regular classrooms and are graduating at higher rates than 15 years ago, they still drop out at twice the rate of their peers (OSERS, IDEA General Information: Overview, 1997). States and school districts should hold students with disabilities to high standards, while recognizing that they often need intensive assistance to graduate and make the transition from school to work or further education. Effective strategies include building relationships between students and caring adults, teaching problem-solving strategies and monitoring student behavior.
Do You Know?

STUDENT MATHEMATICS ACHIEVEMENT IS IMPROVING

THE FACTS

Between 1982 and 1996, students improved their achievement in mathematics, as measured by the National Assessment of Educational Progress. (NAEP is the only national testing program that measures trends in student achievement in key subject areas.) Average NAEP mathematics scores rose for all three age groups tested, with 9-year-old students making the most progress. Black and Hispanic students have made significant gains so that racial/ethnic differences in achievement have narrowed since 1982.

Note: NAEP uses a scale of 0–500. Students who score at or above 200 on the NAEP mathematics scale can add and subtract two-digit numbers and recognize relationships among coins. Those who score at or above 250 can add, subtract, multiply and divide using whole numbers and solve one-step problems. Those who score at or above 300 can compute with decimals, fractions and percents; recognize geometric figures; solve simple equations; and use moderately complex reasoning.

**Student Achievement**

**Trends in Average NAEP Mathematics Scale Scores**

*By Race/Ethnicity, 1982 and 1996*

<table>
<thead>
<tr>
<th>Race/Ethnicity</th>
<th>1982</th>
<th>1996</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Total</strong></td>
<td>269</td>
<td>274</td>
</tr>
<tr>
<td><strong>White</strong></td>
<td>274</td>
<td>281</td>
</tr>
<tr>
<td><strong>Black</strong></td>
<td>240</td>
<td>252</td>
</tr>
<tr>
<td><strong>Hispanic</strong></td>
<td>252</td>
<td>256</td>
</tr>
</tbody>
</table>

**Note:** NAEP uses a scale of 0–500. Students who score at or above 200 on the NAEP mathematics scale can add and subtract two-digit numbers and recognize relationships among coins. Those who score at or above 250 can add, subtract, multiply and divide using whole numbers and solve one-step problems. Those who score at or above 300 can compute with decimals, fractions and percents; recognize geometric figures; solve simple equations; and use moderately complex reasoning.

**Do You Know?**

**STUDENT SCIENCE ACHIEVEMENT IS IMPROVING**

**THE FACTS**

Between 1982 and 1996, science achievement increased for all three age groups tested by NAEP, with the greatest gains among black and Hispanic students. (NAEP is the only national testing program that measures trends in student achievement in key subject areas.)

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### Trends in NAEP Average Science Scale Scores

**By Race/Ethnicity, 1982 and 1996**

<table>
<thead>
<tr>
<th>Race/Ethnicity</th>
<th>1982</th>
<th>1996</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Total</strong></td>
<td>189</td>
<td>207</td>
</tr>
<tr>
<td><strong>White</strong></td>
<td>187</td>
<td>202</td>
</tr>
<tr>
<td><strong>Black</strong></td>
<td>187</td>
<td>202</td>
</tr>
<tr>
<td><strong>Hispanic</strong></td>
<td>189</td>
<td>202</td>
</tr>
</tbody>
</table>

**Note:** NAEP uses a scale of 0–500. Students who score at or above 200 on the NAEP science scale understand simple scientific principles; for example, they show some knowledge of the structure and functions of plants and animals. Those who score at or above 250 can apply general scientific information; for example, they can interpret data from simple tables and make inferences about the outcomes of experiments. Those who score at or above 300 can analyze scientific procedures and data.

Note: NAEP uses a scale of 0–500. Students who score at or above 200 on the NAEP science scale understand simple scientific principles; for example, they show some knowledge of the structure and functions of plants and animals. Those who score at or above 250 can apply general scientific information; for example, they can interpret data from simple tables and make inferences about the outcomes of experiments. Those who score at or above 300 can analyze scientific procedures and data.

**Do You Know?**

**SAT SCORES INCREASED DURING THE 1990s**

**THE FACTS**

High school students who plan to apply to college often take the college entrance examination known as the SAT, or Scholastic Assessment Test. Although some people are under the impression that SAT scores are falling, scores actually went up during the 1990s. The 1999 SAT mathematics average is markedly higher than the average for either 1983 or 1989. The 1999 verbal average is 1 point higher than it was in 1989 and has remained the same for the past four years. This is good news, since the proportion of test-takers who did not speak English as a first language increased from 6% in 1989 to 8% in 1999. It is also encouraging that mathematics and verbal scores have increased even as the population of test-takers has grown much larger and more racially and ethnically diverse.

![Mean SAT Scores for College-Bound Seniors](chart)

**Caution:** College entrance exams, such as the SAT and ACT, are designed only to be predictors of college success and should not be used as indicators of how well American schools and students are doing. Further, since students voluntarily choose to take these tests, the results are not based on a representative sample.

**Note:** The SAT uses a scale of 200–800.

**Source:** The College Board, *News From the College Board,* “College Board Reports ‘Decade of Promise’ for America’s College-Bound Students As Record Numbers Take the SAT and Advanced Placement Courses,” August 31, 1999.
Do You Know?

ACT TEST SCORES ARE UP

THE FACTS

The ACT is another popular college entrance examination taken by high school students who want to go to college. In 1999, the national average composite score on the ACT remained the same as in 1998, continuing a 10-year trend of stable or increasing scores. These results have occurred at a time when record numbers of students are taking the exam—a factor that normally would cause scores to drop. The ACT program has concluded that the students taking the exam today must be at least as well prepared as those tested in the past.

![ACT National Average Composite Scores](chart)

Caution: College entrance exams, such as the ACT and SAT, are designed only to be predictors of college success and should not be used as indicators of how well American schools and students are doing. Further, since students voluntarily choose to take these tests, the results are not based on a representative sample.

Note: The ACT uses a scale of 0–36.

Do You Know?

STUDENTS ARE TAKING MORE AP EXAMS

THE FACTS

Between 1984 and 1997, the number of Advanced Placement (AP) exams taken by high school students nearly \textit{tripled}, growing from 50 exams per 1,000 twelfth-grade students to 131. Since then, the numbers have continued to rise. Minority students now comprise 30\% of all AP test-takers, up from 22\% a decade ago (The College Board, press release, August 31, 1999). AP exams are annual tests offered in many different subject areas that give students an opportunity to demonstrate college-level achievement. Many institutions of higher education offer college credits to students who score at least a 3 on a scale of 0 to 5.

![Number of AP Exams Taken Per 1,000 Twelfth-Grade Students](chart)

\textbf{Note:} Includes exams taken by both 11th and 12th graders.

THE WORK AHEAD: STUDENT ACHIEVEMENT

Although U.S. students have made promising achievement gains during the past 15 years, the nation still has a way to go before all young people are academically well prepared. This is especially apparent at the secondary level. In a recent international achievement study, U.S. 4th graders performed above average in math, but our 8th and 12th graders lagged behind students from many other countries. In science, U.S. 4th graders performed in the top tier of nations, and our 8th graders achieved above the international average, but our 12th graders performed below average (U.S. Department of Education, Third International Mathematics and Science Study, 1998).

States and school districts should persist in their efforts to raise achievement in all core subjects. Students who take rigorous academic courses have higher test scores than other students. All students, whether headed for the workplace or higher education, should be encouraged to take challenging academic courses. Other critical steps for states and school districts include:

- setting high standards for student learning;
- strengthening the secondary school curriculum to provide more focus and depth;
- ensuring that subject-matter courses are taught by qualified teachers with credentials in the field they are teaching;
- encouraging all students to take college entrance examinations and providing extra help to prepare them for these tests; and
- making AP courses available in the 44% of high schools that do not offer them.

Strategies to raise achievement should also include extra assistance or different teaching methods for students who are struggling to meet high academic standards. In science and math, for example, many students do better when teachers make clear how the content and skills being taught apply to real-life problems and careers.

Closing the gap between white and Asian students and their black and Hispanic counterparts should be a major thrust of the work ahead. Although minority students have made considerable gains, a gap still remains. Socioeconomic factors, such as racial-ethnic differences in family income and parents’ educational levels, play a role in this gap. Poverty has a negative correlation with school achievement, and black and Hispanic children are more than twice as likely to live in poverty as white children (NCES, The Condition of Education 1997). Yet teachers in schools with high minority enrollments or high poverty are somewhat less likely to have a master’s degree or a college major or minor in their main field of assignment than teachers in schools with few minority children or low poverty (NCES, Teacher Quality: A Report on the Preparation and Qualifications of Public School Teachers, 1999).

To close achievement gaps, states and school districts should make special efforts to:

- recruit and hire teachers for high-poverty and high-minority schools who have academic backgrounds and full certification in the fields they are teaching;
- encourage all middle school students to take rigorous coursework; and
- make low-income students aware of programs to help finance the costs of AP exams, as well as the costs of postsecondary education.
Do You Know?

U.S. STUDENTS RECEIVE MORE INSTRUCTIONAL TIME THAN EUROPEAN STUDENTS

THE FACTS

Students in the United States receive more instructional time than students in the seven European countries studied by the Organization for Economic Cooperation and Development. In 1994, U.S. primary schools provided an average of 958 teaching hours per year, compared with 923 in France and 760 hours in Germany. The U.S. secondary school averages were also higher.

![Number of Teaching Hours Per Year in Public Schools Primary Level, 1994](chart)

**Note:** Number of teaching hours is the total number of hours per year during which a full-time classroom teacher is responsible for teaching a group of students.

**Number of Teaching Hours Per Year in Public Schools**

**Lower Secondary Level, 1994**

<table>
<thead>
<tr>
<th>Country</th>
<th>Teaching Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>U.S.A.</td>
<td>964</td>
</tr>
<tr>
<td>Denmark</td>
<td>750</td>
</tr>
<tr>
<td>France</td>
<td>660</td>
</tr>
<tr>
<td>Germany</td>
<td>712</td>
</tr>
<tr>
<td>Ireland</td>
<td>735</td>
</tr>
<tr>
<td>Italy</td>
<td>612</td>
</tr>
<tr>
<td>Spain</td>
<td>900</td>
</tr>
<tr>
<td>Sweden</td>
<td>576</td>
</tr>
</tbody>
</table>

**Upper Secondary Level, 1994**

<table>
<thead>
<tr>
<th>Country</th>
<th>Teaching Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>U.S.A.</td>
<td>943</td>
</tr>
<tr>
<td>Denmark</td>
<td>480</td>
</tr>
<tr>
<td>France</td>
<td>660</td>
</tr>
<tr>
<td>Germany</td>
<td>650</td>
</tr>
<tr>
<td>Ireland</td>
<td>735</td>
</tr>
<tr>
<td>Italy</td>
<td>612</td>
</tr>
<tr>
<td>Spain</td>
<td>630</td>
</tr>
<tr>
<td>Sweden</td>
<td>528</td>
</tr>
</tbody>
</table>

**Note:** Number of teaching hours is the total number of hours per year during which a full-time classroom teacher is responsible for teaching a group of students.

Do You Know?

SCHOOL CRIME IS DECLINING

THE FACTS

The overall school crime rate decreased between 1993 and 1997. In 1993, there were 155 school-related crimes for every 1,000 students ages 12 to 18, while in 1997 there were 102 such incidents. The most common crime at school is theft, rather than violent crime.

Although recent, tragic school shootings have reminded the nation that violent death at school is intolerable no matter how rare an event, children are safer in schools than in the community or at home. Less than 1% of the 2,500 child homicides and suicides during the last 6 months of 1997 took place at school or on the way to and from school. There were also significant decreases between 1993 and 1997 in the percentages of high school students who carried a weapon on school property or were involved in a physical fight at school (U.S. Department of Education, 1999 Annual Report on School Safety).

School-Related Crimes Against Students Ages 12 to 18
1993 and 1997

<table>
<thead>
<tr>
<th>Crime Type</th>
<th>1993 Number of Incidents per 1,000 Students</th>
<th>1997 Number of Incidents per 1,000 Students</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overall Crime</td>
<td>155</td>
<td>102</td>
</tr>
<tr>
<td>Theft</td>
<td>63</td>
<td>59</td>
</tr>
<tr>
<td>Violent</td>
<td>40</td>
<td>12</td>
</tr>
<tr>
<td>Serious Violent</td>
<td>8</td>
<td>8</td>
</tr>
</tbody>
</table>

Note: Serious violent crimes are defined as rape, sexual assault, robbery and aggravated assault. Violent crimes include serious violent crimes and simple assault.

Creating a safe climate that promotes learning is a joint responsibility of the community, schools, educators, parents and students. Continuing steps to reduce crime and violence at home and school should be part of the work ahead. Even though serious crime is down, students seem to feel less safe at school than they did a few years ago. In 1989, 6% of students ages 12 to 19 feared being harmed at school, but by 1995, this figure had risen to 9%. Street gangs and drugs on school property continue to be a problem at some schools. In 1995, 28% of students reported that there were gangs at their school, and almost one-third said they had been offered, sold, or given an illegal drug on school property (U.S. Departments of Education and Justice, *Indicators of School Crime and Safety, 1999*).

Parents and families need to teach children respect for others and help them to resolve conflicts through non-violent means. States, communities and schools should ensure that schools have and enforce strict codes of student behavior and have in place preventive approaches, such as conflict resolution strategies, counseling for troubled students and character education. States, communities and schools also should develop special strategies to improve the safety of children in urban areas, who are more vulnerable to serious violent crime than suburban or rural children.

Time devoted to teaching and learning is another factor that both educators and parents can influence. Recently many schools have sought to boost the amount of time spent on instruction, and the international data cited above suggest these efforts may be paying off. Whether added instructional time translates into higher achievement, however, depends on how well the time is used. To improve the educational climate, states, communities and school districts should:

- organize the school day so that students have adequate instructional time to learn core academic subjects;
- keep interruptions to a minimum;
- provide teachers with professional development in effective use of classroom time; and
- offer before- and after-school activities in a safe and structured environment.

Students themselves must also make a serious effort to stay focused and learn while in class.

Parents can shape the learning environment by setting clear guidelines for children about study, homework, television, and other recreational activities. Children who spend several hours a day watching TV or playing computer games obviously have less time to spend on homework, reading and other active pursuits. In addition, parents can help to create a learning climate at home by reading aloud to their young children and having their children read to them, and by talking with their children about the television programs they watch and the books they read.
Do You Know?

PUBLIC SCHOOL TEACHERS ARE WELL-EDUCATED

THE FACTS

Public school teachers are well-educated, according to a 1998 national survey by the National Center for Education Statistics. Virtually all public school teachers have a bachelor’s degree, and nearly half (45%) hold a master’s degree. One percent have doctorates. These percentages have remained much the same since 1993–94.

Other good news about teacher qualifications came out of this survey:

- Teachers have stronger backgrounds in academic disciplines than critics have asserted. Two-thirds of high school teachers, 44% of middle school teachers and 22% of elementary teachers have an undergraduate or graduate major in an academic field (such as English or mathematics), rather than a major in an education field (such as general education or mathematics education).

- Ninety-three percent of general elementary teachers and 92% of subject-matter teachers are fully certified in the field of their main teaching assignment (in other words, the field in which they taught most often).

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**Percentage of Full-Time Public School Teachers Who Hold Various Degrees, 1998**

<table>
<thead>
<tr>
<th>Degree</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bachelor’s</td>
<td>100% (rounded)</td>
</tr>
<tr>
<td>Master’s</td>
<td>45%</td>
</tr>
<tr>
<td>Doctorate</td>
<td>1%</td>
</tr>
<tr>
<td>Other degree</td>
<td>1%</td>
</tr>
<tr>
<td>Other certificate</td>
<td>5%</td>
</tr>
</tbody>
</table>

Do You Know?

PUBLIC SCHOOL TEACHERS ARE BETTER EDUCATED THAN PRIVATE SCHOOL TEACHERS

THE FACTS
In 1993-94, virtually all public school teachers (99.3%) had completed at least a bachelor’s degree, compared with 93.4% of private school teachers. Public school teachers also had more experience on average: 14.8 years of experience for public school teachers versus 12.2 years of experience for private school teachers.


Note: Although data on teacher education were updated for public school teachers in 1998, comparable data were not collected that year for private school teachers.
Do You Know?

TEACHERS HAVE LITERACY LEVELS COMPARABLE TO OTHER COLLEGE GRADUATES

THE FACTS

Some critics of public education contend that school teachers have low literacy skills, but this isn’t the case. Data from a 1992 national study of adult literacy suggest that teachers have a level of literacy comparable to that of other college graduates. The prose literacy of teachers is not significantly different from that of engineers, physicians, writers, sales representatives, registered nurses and other college-educated professionals. (“Prose literacy” means the ability to understand, analyze and synthesize information from written texts.) Scientists were the only professionals who had measurably higher prose literacy skills than teachers.

THE WORK AHEAD: 
TEACHERS

Public school teachers have the education, certification and academic backgrounds necessary for teaching. States, school districts, colleges and universities must next address the issues of out-of-field teaching, recruitment and retention, competitive compensation, teacher preparation and professional development.

Although the vast majority of public secondary school teachers have an undergraduate or graduate major or minor in their main field of assignment, some still teach courses outside their field. In 1998, 18% of mathematics teachers, 14% of English teachers and 12% of science teachers in grades 7 through 12 did not have a major or minor in their main field of assignment (NCES, Teacher Quality, 1999). These figures probably understate the problem because they omit teachers who teach most of their courses in their major field but teach a few courses outside their field. Issues of teacher qualification are most acute in low-income areas, central cities, and schools with high minority enrollments; teachers in these settings are somewhat less likely than other teachers to have full (rather than provisional) certification, to have a master’s degree, or to have a major or minor in their assigned field. States, higher education institutions and school districts should work together to ensure that all teachers—especially in schools with the greatest needs—have at least a major in the subject they are teaching.

Large cohorts of experienced teachers are approaching retirement age at the same time that secondary school enrollments are about to surge—a combination that could intensify existing teacher shortages. College graduates with good literacy skills can choose from a wide range of occupations, including many that pay better than teaching. In 1992, for example, teachers who scored at prose literacy level 3, the middle range of the National Adult Literacy Survey, had median weekly wages of $475, compared with $603 for other college graduates scoring at level 3 (U.S. Department of Education, National Adult Literacy Survey 1992). School districts should raise teacher salaries and offer other incentives to attract and keep highly qualified candidates. States and higher education institutions should develop incentives, such as alternative certification, to encourage knowledgeable, experienced people from other fields to become teachers.

State and local reform initiatives have raised the bar for student learning, which places greater demands on teachers. To prepare new cohorts of teachers for these heightened expectations will require reforms in teacher education programs. Colleges and universities should strengthen the academic course requirements for prospective teachers and should provide them with high-quality education and practice in effective teaching methods. School districts should provide supports for new teachers, such as mentoring and sustained professional development.

School districts should also provide all teachers with more sustained professional development, rather than short-term workshops. Teachers need professional development in such areas as teaching to high standards, integrating the use of technology into their teaching, acquiring deeper content knowledge in their field, teaching students with limited English proficiency, and teaching students with disabilities in the regular classroom. Currently, 37% of teachers said they felt only somewhat well prepared or not at all prepared to address the needs of children with disabilities (NCES, Teacher Quality).
**Do You Know?**

**MORE STUDENTS ARE GOING ON TO HIGHER EDUCATION**

**THE FACTS**

Compared with young people of the early 1980s, many more students today are going to college soon after they complete high school. Especially noteworthy are the increases among black students and women.

**College Enrollment Rates of High School Graduates Ages 16-24**

*By Sex and Race/Ethnicity, 1983 and 1997*

<table>
<thead>
<tr>
<th></th>
<th>Total</th>
<th>Male</th>
<th>Female</th>
<th>White</th>
<th>Black</th>
<th>Hispanic</th>
</tr>
</thead>
<tbody>
<tr>
<td>1983</td>
<td>53%</td>
<td>52%</td>
<td>53%</td>
<td>55%</td>
<td>60%</td>
<td>54%</td>
</tr>
<tr>
<td>1997</td>
<td>67%</td>
<td>64%</td>
<td>70%</td>
<td>68%</td>
<td>60%</td>
<td>66%</td>
</tr>
</tbody>
</table>

**Note:** Chart shows percentage of high school completers (including GED recipients) ages 16-24 who were enrolled in college during the October after they finished high school. Due to small sample sizes, the percentages shown for black and Hispanic students are subject to relatively large sampling errors.

Do You Know?

MORE YOUNG ADULTS ARE COMPLETING 4-YEAR COLLEGE DEGREES

THE FACTS

Between 1985 and 1998, there was an increase in the percentage of young adults who had completed a bachelor’s degree or higher by age 29. The completion rates rose for white and black students, but decreased for Hispanic students. Particularly noteworthy is the rising rate among women, who are now more likely than men to complete a college degree.

![Percentage of Adults Age 25-29 Who Had Completed a Bachelor’s Degree By Sex and Race/Ethnicity, 1983 and 1998](chart.png)

Do You Know?

MORE WOMEN ARE EARNING GRADUATE AND PROFESSIONAL DEGREES

THE FACTS

Since passage of Title IX of the Education Amendments of 1972, which aimed to bring about equal educational opportunity by gender, the number of women earning graduate and professional degrees has gone up significantly. Women now constitute a larger share of medical, dental and law graduates, and of doctoral degree holders, than they did two decades ago. For example, women earned 43% of the law degrees granted in 1994, compared with only 7% in 1972.

THE WORK AHEAD:
HIGHER EDUCATION

More students are enrolling in college than ever before, but only about 31% of high school graduates ages 25 to 29 had completed a bachelor’s degree or higher in 1998 (U.S. Department of Education, *Condition of Education 1999*). About 9% had completed an associate’s degree (U.S. Department of Commerce, *Current Population Survey*, March 1998), although this figure does not include students who left higher education with a technical certificate or who transferred from a two-year to a four-college to pursue a bachelor’s degree.

Higher education institutions and secondary schools must work together to ensure that more students who start college complete a technical certificate or an associate’s or bachelor’s degree. This is especially important for black and Hispanic students, who have lower college completion rates. States and school districts should implement programs in middle and high schools to:

- let students know early on which courses they need to take—particularly mathematics, science and language courses—to prepare for success in postsecondary education;
- provide more intensive academic help for students who are struggling; and
- strengthen counseling programs to help students better understand the kinds of preparation required for various jobs, make wise choices about courses of study and types of institutions, and be well-informed about access to financial aid.

Although gender and racial-ethnic gaps have narrowed in higher education, women and minorities are still underrepresented in mathematics, engineering and the physical sciences. A mathematics or science degree often leads to a high-paying career and is good preparation for a job in fast-growing technological fields. Schools and higher education institutions should take steps to:

- kindle early interest in mathematics and science among girls and boys, and particularly students of color;
- be aware of and address gender and racial differences in attitudes about mathematics and science;
- provide better counseling about course decisions and career options related to mathematics and science; and
- provide supports so that students can persist in a challenging curriculum all the way through high school and postsecondary education.
CONCLUSION

The statistics highlighted in this brief report are a sample of the many benefits emerging from a decade and a half of school reform and sustained investment in our schools and our teachers. What is perhaps most remarkable is that our nation has made these improvements with a very diverse population, a strong tradition of local control of education, and enormous variation among states and school districts in their student population, policies and practices.

Americans should give credit to public education for the progress made thus far in course-taking, school completion, student achievement, school safety, teacher quality and access to higher education. But this is just a beginning. There are still many areas where our nation should improve or fine-tune education reforms. Examples of needed improvements include:

- closing racial and ethnic gaps in achievement, high school graduation and completion of postsecondary degrees;
- encouraging more students to take harder courses at an earlier age;
- improving student achievement in reading, writing and other key subjects and accelerating the gains already made in mathematics and science;
- continuing the drop in school crime and eliminating violent crime; and
- strengthening the preparation of new teachers and ensuring that all courses are taught by teachers with a certification or major in that field.

As the data in this report demonstrate, educational improvement is an achievable goal. Public education is moving in the right direction. Continued support from citizens and political leaders will maintain this welcome momentum.
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