

Commissioner's Statement

INTRODUCTION

With the creation of the original Department of Education in 1867, the Congress declared that it should “gather statistics and facts on the condition and progress of education in the United States and Territories.” The National Center for Education Statistics (NCES) currently responds to this mission for the Department of Education through such publications as *The Condition of Education*, a mandated report submitted to Congress on June 1st each year.

Reauthorization of the Center through the Education Services Reform Act of 2002 (P.L. 107-279) reaffirms this mandate. The Act calls upon NCES to release information that is valid, timely, unbiased, and relevant.

Recognizing that reliable data are critical in guiding efforts to improve education in America, *The Condition of Education 2003* presents indicators of important developments and trends in American education. Recurrent themes underscored by the indicators include participation and persistence in education, student performance and other outcomes, the environment for learning, and societal support for education. In addition, this year's special analysis examines children's reading achievement and classroom experiences in kindergarten and 1st grade, with a focus on the school, classroom, and home factors associated with the likelihood of children becoming good readers.

The main findings in this volume are summarized in this statement. First, the findings of a special analysis of children's reading achievement in kindergarten and 1st grade are summarized. Then, the main findings of the 44 indicators that appear in the six following sections of the report are summarized section by section. Each finding is referenced to a spe-

cific indicator in the volume by its number (e.g., *indicator 10*).

SPECIAL ANALYSIS OF READING—YOUNG CHILDREN'S ACHIEVEMENT AND CLASSROOM EXPERIENCES

This year's special analysis discusses findings from the Early Childhood Longitudinal Study, Kindergarten Class of 1998–99 (ECLS–K), which is following a nationally representative sample of children from kindergarten through 5th grade to collect information on their reading achievement, home literacy environment, and reading instruction. The ECLS–K survey provides current data on the reading skills of young children, focusing on their experiences in kindergarten through 1st grade and the classroom experiences of kindergartners who are beginning to read.

- The differences in children's reading skills and knowledge, often observed in later grades, appear to be present when children enter kindergarten and persist or increase throughout the first 2 years of school. For example, when children entered kindergarten (in fall 1998) and after 2 years of school (in spring 2000), White children had higher assessment scores in reading than Black and Hispanic children, and children from poor families had lower scores than children from nonpoor families.
- The resources that children possessed when they began kindergarten, such as their early literacy skills and the richness of their home literacy environment, were related to their reading skills and knowledge upon entering kindergarten and their gains in reading achievement by the end of kindergarten and 1st grade.

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- During kindergarten and 1st grade, children from less advantaged family backgrounds made gains that helped close the gap between themselves and their more advantaged peers in terms of basic reading skills, such as recognizing letters; however, on more difficult skills, such as reading simple words, the gap between these groups widened.
- Rates of enrollment in full-day and half-day kindergarten classes are related to where the children live, their race/ethnicity, and the poverty level of their families. In 1998–99, enrollment rates in full-day kindergarten were higher in the South (83 percent) than in the Northeast, Midwest, and West (41, 45, and 23 percent, respectively). Enrollment rates were also higher in urban and rural areas (59 and 65 percent, respectively) than in suburban areas (45 percent), and higher for Black children than White, Hispanic, and Asian children (79 vs. 49, 46, and 40 percent, respectively).
- Full- and half-day public school kindergarten classes are alike in several ways, although full-day programs can and do devote more time to certain aspects of instruction. No differences were found between full- and half-day kindergarten programs in the percentage of time teachers reported spending time on whole class, small group, and individual activities in 1998–99. Teachers in both types of programs reported devoting time each day to reading instruction. In both types of programs, teachers most frequently focused on teaching children to recognize the letters of the alphabet, followed by matching the letters to sounds and learning the conventions of print. However, the latter two skills were more likely to be taught daily in full-day than in half-day classes.

PARTICIPATION IN EDUCATION

As the U.S. population increases, so does its enrollment at all levels of education. At the elementary and secondary level, growth is due largely to demographic changes in the size of the school-age population. At the postsecondary level, both population growth and increasing enrollment rates help explain rising enrollments. Adult education is also increasing due to the influence of both demographic shifts in the age of the U.S. population and increasing rates of enrollment, as influenced by changing employer requirements for skills. As enrollments have risen, the cohorts of learners—of all ages—have become more diverse than ever before.

- Public elementary and secondary enrollment is projected to reach 47.9 million in 2005, decrease to 47.6 million in 2010, and then increase to 47.7 million in 2012. The West will experience the largest increase in enrollments of all regions in the country (*indicator 1*).
- Over the past 20 years, the education level of parents of school-aged children has increased, though the parents of Black and Hispanic children continue to have less education than their White peers. The percentages of Black and White children living in poverty in 2001 were smaller than the percentages in 1976, with Black children experiencing a larger decline (*indicator 2*).
- In 1999, 16 percent of all children ages 5–17 lived in households where the annual income in the previous year was below the poverty level. Compared with students in other types of communities, students in school districts in central cities were more likely to be poor, and students in the urban fringe or rural areas within metro-

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politan areas were less likely to be poor (*indicator 3*).

- The number of 5- to 24-year-olds who spoke a language other than English at home more than doubled between 1979 and 1999. In 1999, among these young people who spoke a language other than English at home, one-third spoke English with difficulty (i.e., less than “very well”). Spanish was the language most frequently spoken among those who spoke a language other than English at home (*indicator 4*).
- In a change from the enrollment patterns of the 1980s and 1990s, undergraduate enrollment in the current decade is projected to increase at a faster rate in 4-year institutions than in 2-year institutions. Women's undergraduate enrollment is expected to continue increasing at a faster rate than men's (*indicator 5*).
- Two percent of undergraduate students were foreign students with visas and 5 percent were foreign-born permanent residents, compared with 9 and 3 percent, respectively, of graduate and first-professional students in 1999–2000 (*indicator 6*).
- Graduate and first-professional enrollment in degree-granting institutions increased from 1976 to 2000, with women's enrollment growing at a faster rate than men's. During this period, the percentage of female graduate students increased from 46 to 58 percent (*indicator 7*).
- The percentage of persons 16 and above participating in adult education—including basic skills instruction, apprenticeships, work-related courses, personal interest courses, English as a Second Language (ESL) classes, and college or university credential programs—increased from 1991

to 2001. Work-related courses and personal interest courses were the most popular forms of adult education in 2001 (*indicator 8*).

LEARNER OUTCOMES

How well does the American educational system—and its students—perform? Data from national and international assessments can help answer this question, as can data on adult experiences later in life. In some areas, such as mathematics, geography, and U.S. history, the performance of elementary and secondary students has improved over the past decade, but not in all grades assessed. International assessments place the performance of U.S. students in perspective and assist policymakers, researchers, and the public in understanding how the performance of U.S. students compares with that of their peers in other countries.

- According to the Progress in International Reading Literacy Study (PIRLS), U.S. 4th-graders performed above the international average of 35 countries in reading literacy in 2001. Three countries had a higher average combined reading literacy scale score than the United States and 23 countries had a lower average score (*indicator 10*).
- U.S. 15-year-olds performed at the international average of 27 Organization for Economic Cooperation and Development (OECD) countries in reading literacy in 2000, scoring below the average of 3 countries (Canada, Finland, and New Zealand) and above the average of 4 OECD countries (Greece, Portugal, Luxembourg, and Mexico) (NCES 2002–025, *indicator 9*).
- The average mathematics scale scores of children who entered kindergarten in fall 1998 increased by 8 points by the end of kindergarten and by another 10 points

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(one standard deviation) by the end of 1st grade. Their average reading scale scores increased by 10 points in kindergarten and by 19 points in 1st grade. Differences in the average reading and mathematics skills of kindergartners by their mother's level of education persisted or increased throughout their kindergarten and 1st-grade years (*indicator 9*).

- The mathematics performance of 4th- and 8th-graders assessed by the National Assessment of Educational Progress (NAEP) increased steadily throughout the 1990s. The performance of 12th-graders increased between 1990 and 1996 but then declined through 2000. In 2000, 26 percent of 4th-graders, 27 percent of 8th-graders, and 17 percent of 12th-graders performed at or above the *Proficient* level for each grade, defined as "solid academic performance for each grade assessed" (*indicator 11*).
- Students in high-poverty public schools—using the percentage of students eligible for free or reduced-price lunch as a measure of poverty—scored lower on the 4th-grade NAEP Mathematics Assessment than did students in low-poverty public schools in 2000 (*indicator 12*).
- The performance of 4th- and 8th-graders on the NAEP Geography Assessments increased from 1994 to 2001, while no difference was found for 12th-graders. In 2001, 21 percent of 4th-graders, 30 percent of 8th-graders, and 25 percent of 12th-graders scored at or above the *Proficient* level, defined as "solid academic performance for each grade assessed" (*indicator 13*).
- The performance of 4th- and 8th-graders on the NAEP U.S. History Assessments improved from 1994 to 2001, while no

difference was found for 12th-graders. Eighteen percent of 4th-graders, 17 percent of 8th-graders, and 11 percent of 12th-graders scored at or above the *Proficient* level, defined as "solid academic performance for each grade assessed" in 2001 (*indicator 14*).

- The more education people have, the more likely they are to vote in presidential and congressional elections. Thirty-eight percent of U.S. voting-age citizens who had not completed high school voted in 2000, compared with 77 percent of those with a bachelor's degree or higher (*indicator 15*).
- Fifty percent of U.S. students in grade 9 participated in a community-related volunteer organization in 1999, a higher percentage than in any of the 27 other countries participating in the Civic Education Study (*indicator 16*).

STUDENT EFFORT AND EDUCATIONAL PROGRESS

Many factors are associated with school success, persistence, and progress toward high school graduation or a college degree. These include student motivation and effort, the expectations and encouragement of others, learning opportunities, and financial assistance. Monitoring these factors in relation to the progress of different groups of students through the educational system and tracking their educational attainment are important to knowing how well we are doing as a nation in education.

- One indicator of the failure to persist in school is the "status dropout rate" (i.e., the percentage of young people who have not completed high school and are not enrolled in school). Since 1972, status dropout rates for Whites and Blacks ages 16–24 have declined, but they have re-

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- mained relatively stable since the early 1990s. The rates for Hispanic youths have not decreased and remain higher than the rates for other racial/ethnic groups (*indicator 17*).
- Since 1983, immediate college enrollment rates have increased faster for Blacks than Whites, narrowing the gap between the two groups. During the 1980s and 1990s, White immediate college enrollment rates increased, but Hispanic rates remained stagnant, widening the gap between Hispanics and Whites (*indicator 18*).
 - On average, first-time recipients of bachelor's degrees in 1999–2000 who did not leave college temporarily for 6 months or more took 55 months to complete a degree. Those who attended only one institution took less time on average (51 months) to complete a degree than those who attended multiple institutions (*indicator 21*).
 - Among students who sought a bachelor's degree and began their postsecondary studies at a 4-year institution in 1995–96, just over half graduated from that institution within 6 years. Others in this group transferred and earned a degree elsewhere, making the cohort's 6-year rate of attaining a bachelor's degree higher (63 percent) (*indicator 20*).
 - The transfer rates of community college students are related to their initial degree goals. Among undergraduates starting at a public 2-year postsecondary institution in 1995–96, about one-half who intended to obtain a bachelor's degree and about one-fourth who sought an associate's degree transferred to a 4-year institution within 6 years (*indicator 19*).
 - Postsecondary attainment rates vary with students' socioeconomic status, but rigorous academic preparation and achievement in school can partially compensate for disadvantaged backgrounds. Among students from low socioeconomic backgrounds (SES), those who studied calculus in high school were about 10 times more likely than those who did not to have completed a bachelor's degree or higher by 2000. In contrast, among high SES students, those who completed calculus were 1.7 times as likely as those who did not to have completed a bachelor's degree or higher (*indicator 22*).
 - Pell Grant recipients tend to start their postsecondary studies with more disadvantages than low- and middle-income nonrecipients. However, among 1995–96 beginning postsecondary students, no difference was found in the overall persistence rates of Pell recipients and nonrecipients after 6 years—that is, in the percentages of students who attained any degree or certificate or were still enrolled (*indicator 23*).

CONTEXTS OF ELEMENTARY AND SECONDARY EDUCATION

Student performance in elementary and secondary schools is shaped by many factors in the school environment. These factors include the courses offered in the school and taken by students, the instructional methods used by teachers, the options for learning available to students with special needs, and the climate for learning and discipline in the schools. Monitoring these and other factors provides better understanding of conditions in schools that shape student learning.

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- The percentage of high school graduates who completed advanced academic levels of English (courses classified as “honors”) and foreign language study (3 years or more) doubled between 1982 and 2000 (*indicator 24*).
- Asians/Pacific Islanders were more likely to have completed advanced English courses than Hispanics and Blacks, and Whites more than Hispanics, but no other differences were detected. Asians/Pacific Islanders, Hispanics, and Whites were more likely to have completed advanced foreign language courses than Blacks and American Indians (*indicator 25*).
- According to findings from the 1999 Third International Mathematics and Science Study (TIMSS) Video Study, in 8th-grade mathematics lessons in the United States, students spend 53 percent of the time reviewing previously studied content and 48 percent of the time studying new content (*indicator 26*).
- Public alternative schools and programs serve students who are at risk of dropping out of school for various reasons, including poor grades, truancy, suspension, and pregnancy. In 2001, 39 percent of public school districts had alternative schools and programs, serving about 613,000 at-risk students. Public alternative schools were most common in school districts with large enrollments, in urban areas, and in the Southeast (*indicator 27*).
- In 1999–2000, students in middle grades were more likely than students in high schools to have out-of-field teachers—teachers who lack a major and certification in the subject they teach. Out-of-field teachers taught a larger proportion of English students in the middle grades than in high school, as was also true for mathematics, science, and social science (*indicator 28*).
- In 1999–2000, private schools and schools with high minority enrollments were more likely to employ teachers with 3 or fewer years of teaching experience than were public schools and schools with low minority enrollments. Beginning teachers were evenly distributed across public and private schools by sex, however (*indicator 29*).
- In 1999–2000, the size of the student body at a typical high school varied by location. In urban areas, almost half of all high schools were large (900 or more students), whereas in rural areas, half of all high schools were very small (fewer than 300 students). A positive relationship exists between the size of regular schools and the percentage of teachers who reported that apathy, tardiness, absenteeism, dropping out, and drug use are “serious problems” in their school (*indicator 30*).
- Assault, theft, and other forms of victimization at school affect all types of students. However, in 1999, students who reported gangs or guns at their schools were more likely to report victimization than students who did not report these conditions (*indicator 31*).

CONTEXTS OF POSTSECONDARY EDUCATION

The postsecondary education system encompasses various types of institutions, both public and private. Although issues of student access, persistence, and attainment have been predominant concerns in postsecondary education, the contexts in which postsecondary education takes place matter as well. The diversity of the undergraduate and graduate

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populations, the various educational missions and learning environments of colleges and universities, the courses that students take, the modes of learning that are employed, and the ways in which colleges and universities attract and use faculty and other resources all are important aspects of the context of postsecondary education.

- Undergraduates display considerable diversity in their demographic, enrollment, and employment characteristics. In 1999–2000, more than half of undergraduates were women, close to a third were other than White, and 43 percent were of non-traditional college age (24 years or older). Eighty percent were employed, including 39 percent who were employed full time (*indicator 32*).
- The number of associate's degrees awarded increased at a faster rate than the number of bachelor's degrees between 1990–91 and 2000–01. The number of associate's degrees awarded increased more during the first half of this period than in the latter half, while the number of bachelor's degrees awarded increased by 6 to 7 percent during each 5-year period (*indicator 33*).
- In 1999–2000, about 9 percent of undergraduates reported having a disability that created difficulties for them as a student: about half of these students attended public 2-year institutions, and another 26 percent attended public 4-year institutions. Among students with disabilities, 22 percent reported not receiving the services or accommodations they needed (*indicator 34*).
- The majority of postsecondary institutions had taken actions that affected faculty tenure as of 1998, and the proportion of recently hired faculty who were not on a tenure track increased from 1992 to 1998. These institutions offered early or phased

retirement to full-time tenured faculty more often than they instituted more stringent standards for granting tenure or downsizing tenured faculty (*indicator 35*).

SOCIETAL SUPPORT FOR LEARNING

Society and its members—families, individuals, employers, and governmental and private organizations—provide support for education in various ways, such as spending time on learning activities, encouraging and supporting learning, and investing money in education. This support includes learning activities that take place outside schools and colleges in communities, workplaces, and other kinds of organizations, as well as the financial support of learning inside schools and colleges. Parents contribute to the education of their children in the home through encouraging them to learn and teaching them directly. Communities impart learning and values to their members through various kinds of formal and informal modes. Financial investments in education are made both by individuals in the form of income spent on their own education (or the education of their children) and by the public in the form of public appropriations for the education of the population. These investments in education are made at all levels of the education system. Other collective entities, such as employers and other kinds of organizations, also invest in various forms of education for their members.

- Children with richer home literacy environments demonstrated higher levels of reading skills and knowledge when they entered kindergarten in 1998–99 than did children with less rich literacy environments. Children's home literacy environment varied by their poverty level, with poor children scoring lower than nonpoor children on a home literacy index (*indicator 36*).

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- The percentage of poor and nonpoor children who participated in literacy activities with a family member increased between 1993 and 2001. Despite these increases, nonpoor children were more likely than poor children to engage frequently in certain literacy activities in 2001, such as being read to by a family member or being told a story (*indicator 37*).
- Fifty percent of children in kindergarten through 8th grade were enrolled in a variety of nonparental care arrangements after school in 2001. Black children were more likely than White and Hispanic children to participate in nonparental care (*indicator 38*).
- Total expenditures per elementary/secondary student adjusted for inflation increased from \$6,700 in 1991–92 to \$8,100 in 1999–2000. The largest increases occurred in central cities of midsize metropolitan statistical areas and rural locations (*indicator 39*).
- School districts with the highest poverty levels received less local general revenues per student (revenues for any educational purpose) than districts with the lowest poverty levels in 1999–2000. State general revenues and federal and state categorical revenues (revenues for specific educational purposes) tend to compensate for these lower amounts (*indicator 41*).
- In 1999, public and private expenditures per student for the member countries of OECD averaged \$4,850 at the combined elementary and secondary level and \$9,210 at the postsecondary level. The United States and Switzerland, two of the world's wealthiest countries, ranked highest in expenditures per student at the elementary/secondary and postsecondary levels. Wealthy countries such as the United States spent more on education, but typically did not spend a higher percentage of their wealth on education than did less wealthy nations (*indicator 40*).
- Both average tuition and fees and the total price of attending college were higher for undergraduates in 1999–2000 than in 1992–93. The net price (total price minus grants), however, did not change for students in the lowest income quartile (*indicator 43*).
- The percentage of full-time undergraduates with federal loans, available to all undergraduates, increased between 1992–93 and 1999–2000. No change was observed in the percentage with federal grants, typically available only to low-income undergraduates (*indicator 42*).
- Among employed adults ages 25–64 who participated in adult education in 2001, 87 percent received employer financial support for work-related education. A higher percentage of employed adults received support for work-related education than for nonwork-related education (*indicator 44*).

CONCLUSION

Trends in the condition of American education continue to show a mixed picture. In reading, U.S. 4th-graders outscored their counterparts in many other countries, and the percentage of high school graduates completing advanced-level courses in English has increased since the early 1980s. Yet the reading literacy scores of 15-year-olds in the United States were at the average among industrialized countries. In mathematics, the performance of 4th- and 8th-graders increased steadily throughout the 1990s, but the performance of

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12th-graders increased in the early part of the decade and then declined. Only 17 percent of 12th-graders scored at or above the *Proficient* level. One-quarter of 12th-graders scored at or above the *Proficient* level in geography, and about 10 percent scored at this level in history.

The poverty level of students sets the social context for their progress and achievement in school. In the 4th, 8th, and 12th grades, the average mathematics scores of students decline as the percentage of students who receive free or reduced-price lunch in the school increases. The percentage of students from families below the poverty line is highest in central cities and lowest in the urban fringe or rural areas within metropolitan areas.

In the coming decade, total enrollments in elementary and secondary education are projected to remain at or near their current levels, and the trends toward greater diversity in the racial/ethnic composition of the population are expected to continue. The level of parental education has increased for all children in the past 20 years, potentially promoting higher student achievement and attainment in the years ahead. During the past two decades, the number of language minority students has grown, with a doubling of the percentage of 5- to 24-year-olds who speak a language other than English in the home.

In contrast to enrollments in elementary and secondary education, postsecondary enrollments are projected to increase in the next decade. At the undergraduate and graduate levels, enrollments have grown faster among women than men in recent years: 57 percent of undergraduate students and 58 percent of graduate students were women in 2000. The students who attend U.S. postsecondary institutions are changing in other ways, too. Close

to one-third of undergraduates are other than White, and 43 percent are age 24 or older. Eleven percent of undergraduate students are foreign born. In the last decade, the percentage of students who completed a bachelor's degree in 4 years increased. About one-half of students who started at a community college intending to earn a bachelor's degree earned one.

Paralleling the growth in postsecondary education, participation in adult education has increased as well. Most adults who participate in adult education receive various forms of support from their employers.

NCES produces an array of reports each month that present findings about the U.S. education system. *The Condition of Education* is the culmination of a yearlong project. It includes data that were available by early April 2003. In the coming months, many other reports and surveys informing us about education will be released, including student assessments of elementary and secondary reading, writing, and mathematics; the baseline year of a new longitudinal study of high school students; and reports on schools and teachers with state-by-state information. As with the indicators in this volume, these surveys and reports will continue to inform Americans about the condition of education.



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