# **Section 4**

# Contexts of Elementary and Secondary Education



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This List of Indicators includes all the indicators in Section 4 that appear on *The Condition of Education* website (<a href="http://nces.ed.gov/programs/coe">http://nces.ed.gov/programs/coe</a>), drawn from the 2000—2007 print volumes. The list is organized by subject area. The indicator numbers and the years in which the indicators were published are not necessarily sequential.

#### Introduction: Contexts of Elementary and Secondary Education

The indicators in this section of *The Condition* of Education measure salient features of the context of learning in elementary and secondary schools. This includes the content of learning and expectations for student performance; processes of instruction; mechanisms of choice in education; characteristics of teachers and the teaching profession; the climate for learning and other organizational aspects of schools; and the financial resources available. There are 30 indicators in this section: 13, prepared for this year's volume, appear on the following pages, and all 30, including indicators from previous years, appear on the Web (see Website Contents on the facing page for a full list of the indicators).

The first subsection examines learning opportunities afforded children. Measures include the extent of afterschool activities of youth and student/teacher ratios in public schools. Additional indicators on the Web show the availability of advanced-level academic courses, participation in early literacy activities, and the extent of out-of-field teaching.

The indicators in the second subsection look at special programs to serve the particular educational needs of special populations. For example, one indicator that appears in this volume shows the extent to which students with disabilities are included in regular classrooms for instructional purposes.

School choice provides parents with the opportunity to choose a school for their children beyond the assigned school. Parents may choose a private school, they may live in a district that offers choice among public schools, or they may select a school by moving into that school's community. An indicator on the Web examines parental choice of charter schools. An indicator in this volume profiles the characteristics of public charter schools.

Teachers are critical to the learning process in schools. One indicator in this volume examines the characteristics of full-time teachers by various individual and professional characteristics. An indicator on the Web examines the rates at which recent college graduates become elementary or secondary teachers.

The fifth subsection considers the climate for learning, which is shaped by different factors in the school environment, including parent, teacher, and student attitudes; school staff and leadership; and students' sense of physical security and freedom from violence. Indicators in this volume present measures of the last two factors.

The final subsection details financial support for education. Fundamentally, these financial sources of support are either private, in which individuals decide how much they are willing to pay for education, or public, in which case the decisions are made by citizens through their governments. In this subsection of *The* Condition of Education, the primary focus is on describing the forms and amounts of financial support to education from public and private sources, how those funds are distributed among different types of schools, and on what they are spent. Among the indicators in this volume of The Condition of Education are indicators on variations in expenditures per student and trends in expenditures per student in elementary and secondary education.

The indicators on contexts of elementary and secondary schooling from previous editions of *The Condition of Education*, which are not included in this volume, are available at <a href="http://nces.ed.gov/programs/coe/list/i4.asp">http://nces.ed.gov/programs/coe/list/i4.asp</a>.

# **Learning Opportunities**

#### **Afterschool Activities**

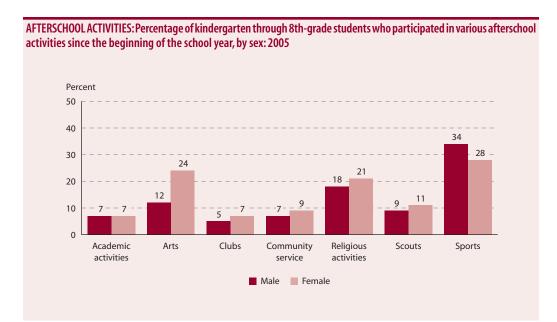
In 2005, a greater percentage of female than male students in kindergarten through 8th grade were involved in arts, clubs, community service, religious activities, and scouts after school, but the pattern of participation was reversed for sports.

This indicator looks at kindergarten through 8th grade (grades K–8) students' participation in various afterschool activities in 2005. Parents whose children were in grades K–8 were asked whether their children had participated in each of a series of specific activities (either primarily for supervision¹ or enrichment) outside of school hours since the beginning of the school year.

In 2005, among all students in grades K–8, some 43 percent of students participated in at least one activity. Of these students, 31 percent participated in sports, 20 percent in religious activities, 18 pecent in arts (e.g., music, dance, or painting), 10 percent in scouts, 8 percent in community service, 7 percent in academic activities (e.g., tutoring, mathematics laboratory), and 6 percent in clubs (e.g., yearbook, debate, or book club) (see supplemental table 29-1).

Rates of participation varied by poverty, sex, and parents' education. A greater percentage of students from nonpoor families (56 percent)

than from near-poor (30 percent) and poor (22 percent) families participated in at least one activity. In addition, students from nonpoor families were more likely to participate in each of the seven specific activities than students from near-poor and poor families. Females were more likely than males to participate in at least one activity (45 vs. 42 percent). By activity, a greater percentage of females than males were involved in arts (24 vs. 12 percent), clubs (7 vs. 5 percent), community service (9 vs. 7 percent), religious activities (21 vs. 18 percent), and scouts (11 vs. 9 percent). However, a greater percentage of males than females participated in sports (34 vs. 28 percent). Students whose parents had a bachelor's degree or higher were more likely to participate in at least one afterschool activity than students whose parents had some college or less. In addition, students whose parents had a graduate or professional degree were more likely to participate in each of the seven specific activities than students whose parents had some college or less.



In some cases, children participate in afterschool activities not only for enjoyment or enrichment; they also participate so that their parents, who are often working, can be assured that their children are being supervised by adults in a safe setting.

NOTE: When asked about their children's participation in a series of afterschool activities since the beginning of the year, parents could respond either "yes" or "no" to whether their child participated in each specific activity. The percentage of parents who responded "yes" for each activity is shown

SOURCE: U.S. Department of Education, National Center for Education Statistics, After-School Programs and Activities Survey of the 2005 National Household Education Surveys Program.

FOR MORE INFORMATION: Supplemental Notes 1,3 Supplemental Table 29-1



## **Learning Opportunities**

### Student/Teacher Ratios in Public Elementary and Secondary Schools

Student/teacher ratios tend to be higher in public schools with larger enrollments than in public schools with smaller enrollments.

The ratio of students to teachers, which is sometimes used as a proxy measure for class size, declined between 1990 and 2004 from 17.6 to 16.3 students per teacher for all regular<sup>1</sup> public elementary, secondary, and combined schools (see supplemental table 30-1). The patterns are different, however, when public elementary, secondary, and combined schools are examined separately.

The student/teacher ratio for regular public elementary schools declined from 1990 through 2004 (from 18.2 to 16.0), with most of the decline occurring after 1996. Generally, elementary schools in each enrollment category showed similar patterns except in the largest schools (1,500 students or greater), where the student/teacher ratio increased from 19.9 to 20.5 students per teacher.

In contrast, student/teacher ratios for all regular public secondary schools increased between 1990 and 1996 (from 16.7 to 17.6) and then declined to 16.9 in 2004. Secondary schools in each enrollment category showed similar patterns.

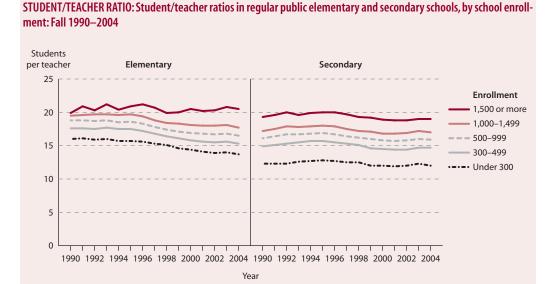
In regular public combined schools (that include both elementary and secondary grades), student/teacher ratios were lower in 2004 (15.2) than in 1990 (15.8). This change was consistent in all but the largest schools, where the ratio rose to 19.4 in 2004.

In every year from 1990 through 2004, the student/teacher ratio was positively associated with the enrollment for elementary, secondary, and combined regular public schools: the student/teacher ratio for any given enrollment category was always larger than that of any smaller enrollment category. For example, in 2004, regular elementary schools with over 1,500 students enrolled 6.8 more students per teacher, on average, than regular elementary schools with enrollments under 300.

NOTE: Student/teacher ratios do not provide a direct measure of class size. The ratio is determined by dividing the total number of fulltime-equivalent teachers into the total student enrollment. These teachers include classroom teachers; prekindergarten teachers in some elementary schools; art, music, and physical education teachers; and teachers who do not teach regular classes every period of the day. This analysis excludes schools that did not report both enrollment and teacher data.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Common Core of Data (CCD), "Public Elementary/Secondary School Universe Survey," 1990-91 through 2004-05.





<sup>&</sup>lt;sup>1</sup> Regular schools include all schools except special education schools, vocational schools, and alternative schools

# Special Programs

#### **Inclusion of Students With Disabilities in General Classrooms**

Approximately half of all students with disabilities in 2004–05 spent 80 percent or more of their day in a general classroom.

The Individuals with Disabilities Education Act (IDEA), enacted in 1975,1 requires public schools to make available to all eligible children with disabilities a free public education in the least restrictive environment<sup>2</sup> appropriate for their needs. In 1997, Congress passed amendments to IDEA,3 mandating for the first time that states collect data on the race/ethnicity of students identified as having special education needs. These data reveal an overrepresentation of some racial/ethnic minorities among students with disabilities (see indicator 7).

Between 1995 and 2005, the percentage of students with disabilities spending 80 percent or more of the school day in a general classroom showed an overall increase from 45 to 52 percent (see supplemental table 31-1). At the same time, there was an overall decline (from 22 to 18 percent) in the percentage of students with disabilities spending less than 40 percent of their day in a general classroom. The percentage of students with disabilities who did not attend general schools showed little change, however, staying at approximately 4 percent

over the 10-year span. Between the 2003-04 and 2004-05 school years, the percentage of students with disabilities spending 80 percent or more of the school day in a general classroom increased from 50 to 52 percent.

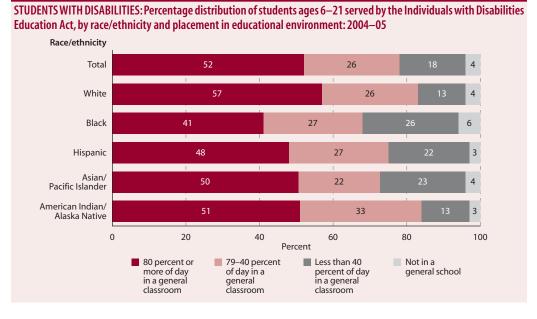
The percentage of time these students spent in a general classroom varied by race/ethnicity (see supplemental table 31-2). For example, White students with disabilities were more likely than students of any other race/ethnicity to spend 80 percent or more of their day in a general classroom. In contrast, Black students with disabilities were more likely than students of any other race/ethnicity to spend less than 40 percent of their day in a general classroom and were the most likely to receive education in a separate school facility for students with disabilities. American Indians/Alaska Natives and Hispanics with disabilities were less likely than students of any other race/ethnicity to receive education in a separate school facility for students with disabilities.

- 1 The most recent reauthorization of the Individuals with Disabilities Education Act (IDEA) occurred in 2004.
- <sup>2</sup> A least restrictive environment is determined on a case-by-case basis to ensure that each student's special needs are met, while allowing that student the maximum possible exposure to students without disabilities as well as the general education curriculum.
- <sup>3</sup> Individuals with Disabilities Education Act (IDEA) Amendments of 1997 (P.L. 105-17).

NOTE: Students with disabilities are those students served under "Assistance for education of all children with disabilities" (Part B) of the IDFA in the United States and outlying areas. See supplemental note 8 for further information on student disabilities. Race categories exclude persons of Hispanic ethnicity. Data are taken from a universe survey. Detail may not sum to totals because of rounding.

SOURCE: U.S. Department of Education, Office of Special Education and Rehabilitative Services, Annual Report to Congress on the Implementation of the Individuals with Disabilities Education Act, 2004, table 2-7, data from Individuals with Disabilities Education Act (IDEA) database. Retrieved on August 4, 2006, from https://www.ideadata. org/tables28th/ar\_2-7.htm.

FOR MORE INFORMATION: Supplemental Note 8 Supplemental Tables 31-1,





## School Choice

#### **Charter Schools**

Charter schools are more likely than conventional public schools to be located in urban areas, to have smaller total enrollment sizes, and to enroll higher proportions of Black, Hispanic, and American Indian/Alaska Native students.

A charter school is a publicly funded school that is typically governed by a group or organization under a contract or charter with the state; the charter exempts the school from selected state or local rules and regulations. In return for funding and autonomy, the charter school must meet accountability standards. A school's charter is reviewed (typically every 3 to 5 years) and can be revoked if guidelines on curriculum and management are not followed or the standards are not met (U.S. Department of Education 2000).

In the 2004-05 school year, there were 3,294 charter schools in the jurisdictions that allowed them (40 states and the District of Columbia), compared with 90,001 conventional public schools in all of the United States (see supplemental table 32-1). Charter schools made up 4 percent of all public schools. The population of students served by charter schools differed from the student population served by conventional public schools. Charter schools enrolled larger percentages of Black, Hispanic, and American Indian/Alaska Native students and lower percentages of White and Asian/Pacific Islander students than conventional public schools. A larger percentage of charter schools (27 percent) than conventional public schools (16 percent) had less than 15 percent of students eligible for free or reduced-price lunch.

Student enrollments in charter schools were lower than enrollments in conventional public schools. Seventy-one percent of charter schools had enrollments of less than 300 students, compared with 31 percent of conventional public schools. Charter schools were also more likely to be located in central cities than were conventional public schools (52 vs. 25 percent).

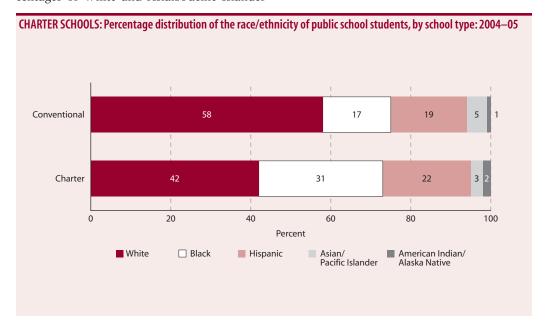
Charter schools were more likely to be located in the West (39 percent) than in the Midwest (27 percent), South (25 percent), and the Northeast (9 percent). In addition, a greater percentage of charter schools (24 percent) than conventional schools (19 percent) were secondary schools, while a larger percentage of conventional schools (57 and 18 percent) than charter schools (44 and 9 percent) were elementary and middle schools, respectively.

NOTE: These tabulations exclude schools with no charter status designation and those not reporting membership. Race categories exclude persons of Hispanic ethnicity. See supplemental note 3 for the states included in each region and information on location. Detail may not sum to totals because of rounding.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Common Core of Data (CCD), "Public Elementary/Secondary School Universe Survey," 2004-05.



FOR MORE INFORMATION: Supplemental Notes 1,3 Supplemental Table 32-1 U.S. Department of Education 2000



## **Teachers**

#### **Characteristics of Full-Time School Teachers**

In 2003–04, the percentages of full-time teachers in the United States who were under age 30 and between ages 50–59 were higher than the percentages of these categories of teachers in 1993–94.

The number of full-time teachers in the United States was higher in 2003–04 than in 1993–94 (3.3 vs. 2.6 million) (see supplemental table 33-1). This indicator examines the distribution of these teachers in elementary and secondary schools by sex, race/ethnicity, age, and certification status.

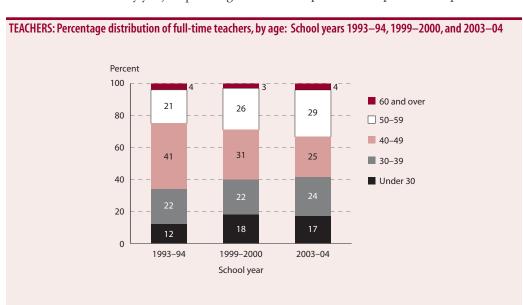
Overall, the percentage of full-time teachers who were female remained between 73 and 75 percent in the three survey years between 1993–94 and 2003–04. In each year, females were notably more likely than males to teach in both public and private elementary schools. At the secondary level, however, differences by sex were less prominent for schools of both types. For example, in 2003–04, some 44 percent of secondary school teachers were male, whereas 56 percent were female.

The percentage of full-time teachers who were racial/ethnic minorities was higher in 2003–04 than in 1993–94 (17 vs. 13 percent). In 1993–94 and 1999–2000, greater percentages of elementary school than secondary school teachers were minorities; however, in 2003–04, there were no measurable differences in the percentages of teachers by race/ethnicity at either school level. In each survey year, the percentages of

minority teachers at both levels were greater at public schools than at private schools.

The percentage of full-time teachers under age 30 was higher in 1999–2000 than in 1993–94 (18 vs. 12 percent) and remained at about that percentage in 2003–04. In the first two survey years, private schools employed greater percentages of teachers under age 30 than did public schools. In 2003–04, this pattern continued for secondary schools, but there was no measurable difference by school type for elementary schools. The percentage of teachers ages 50–59 was higher in 2003–04 than in 1993–94 (29 vs. 21 percent); however, no measurable differences were found for teachers age 60 and over between these years.

The percentage of full-time teachers with a regular certification was lower in 2003–04 than in 1993–94 (83 vs. 91 percent), while the percentages with other types of certifications were each higher in 2003–04 than in 1993–94 (see supplemental table 33-2). In each year, private school teachers at both levels were less likely to hold a regular certification than public school teachers. For example, in 2003–04, some 87 percent of public secondary school teachers had a regular certification compared with 43 percent of their private school peers.



<sup>1</sup> The Regular certification category includes regular or standard state certificates and advanced professional certificates (for both public and private school teachers) and full certificates granted by an accrediting or certifying body other than the state (for private school teachers only). Provisional certificates are for those who are still participating in an "alternative certification program." Probationary certificates are for those who have satisfied all requirements except the completion of a probationary period. Temporary certificates are for those who require additional college coursework and/or student teaching. Emergency certificates or waivers are for those with insufficient teacher preparation who must complete a regular certification program in order to continue teaching.

NOTE: Detail may not sum to totals because of rounding. See *supplemental note 3* for more information on the Schools and Staffing Survey (SASS).

SOURCE: U.S. Department of Education, National Center for Education Statistics, Schools and Staffing Survey (SASS), "Public School Teacher Data File" and "Private School Teacher Data File," 1993—94, 1999—2000, and 2003—04 and "Charter School Teacher Data File," 1999—2000.

FOR MORE INFORMATION: Supplemental Note 3 Supplemental Tables 33-1, 33-2 NCES 2005-114

## School Characteristics and Climate

## **Characteristics of School Principals**

Between 1993–94 and 2003–04, the percentage of public school principals who were female increased from 41 to 56 percent in elementary schools and from 14 to 26 percent in secondary schools.

This indicator looks at the distribution of school principals between school years 1993-94 and 2003-04 by various demographic and professional characteristics. During this period, the number of principals in the United States increased from 104,600 to 115,000 (see supplemental table 34-1).

There were changes in the distribution of principals by sex and age between 1993-94 and 2003-04. The percentages of female principals in public schools increased during this time, but there were no measurable differences in the percentages of female principals in private schools. In public schools, the percentage of female principals increased from 41 to 56 percent in elementary and from 14 to 26 percent in secondary schools. In private schools, the percentage of female principals remained around 68 percent in elementary and about 34 percent in secondary schools. Additionally, the percentage of principals ages 55 and over increased between 1993-94 and 2003-04, from 20 to 31 percent. This increase was particularly evident at the secondary level the percentage of secondary school principals who were ages 55 and over increased from 17 to 30 percent in public schools and from 22 to 46 percent in private schools.

The percentage of principals who had 3 or fewer years of teaching experience prior to becoming a principal was not measurably different in 2003-04 than in 1993–94 (11 percent), but the percentage with 20 or more years of teaching experience prior to becoming a principal increased from 10 to 18 percent (see supplemental table 34-2). In each year surveyed, the percentage of private school principals with 3 or fewer years of teaching experience prior to becoming a principal was twice the percentage for public school principals.

Principals' average annual salary, measured in 2003–04 constant dollars, increased by 10 percent, from \$62,200 in 1993-94 to \$68,900 in 2003-04. In each year surveyed, public school principals were paid, on average, more than private school principals. In 2003-04, some 50 percent of public elementary and 56 percent of public secondary school principals earned \$75,000 or more, compared with 9 percent of private elementary and 28 percent of private secondary school principals

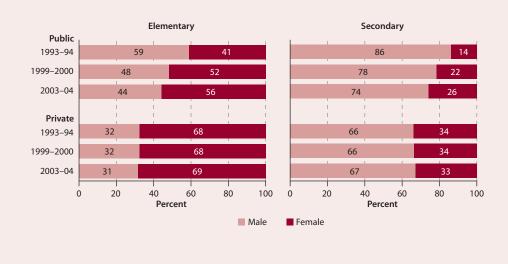
NOTE: Data are only for principals, not assistant principals. Principals from Bureau of Indian Affairs schools were excluded from the analysis. Detail may not sum to totals because of rounding. See supplemental note 3 for more information on the Schools and Staffing Survey (SASS).

SOURCE: U.S. Department of Education, National Center for Education Statistics, Schools and Staffing Survey (SASS), "Public School Principal Data File" and "Private School Principal Data File," 1993-94, 1999-2000, and 2003-04 and "Charter School Principal Data File," 1999-2000.



FOR MORE INFORMATION: Supplemental Note 3 Supplemental Tables 34-1, Grubb and Flessa 2006 Tucker and Codding 2002 Indicator 33





## School Characteristics and Climate

### **Student Support Staff in Public Schools**

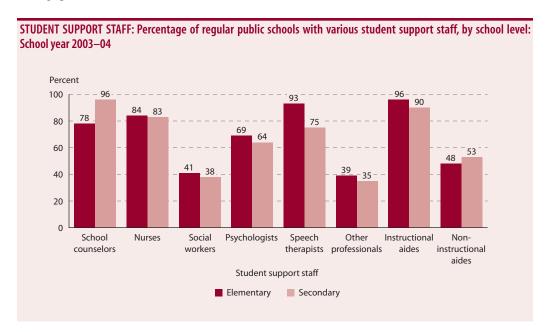
In 2003–04, nearly all elementary and secondary schools had student support staff, with most employed full time.

In addition to employing teachers, most schools employ staff who work directly with students and provide various support services. These student support staff, who include licensed or certified professionals (e.g., school counselors, social workers, and speech therapists) and teacher aides (e.g., special education, regular Title I, and library aides), constituted 27 percent of all public school staff in the 2003–04 school year (see supplemental table 35-1). This indicator examines the distribution of these staff in regular public schools in the 2003–04 school year.

About 857,000 support staff worked in elementary schools and 217,000 worked in secondary schools in 2003–04. Nearly all elementary and secondary schools reported having student support staff (99 and 100 percent, respectively), with a greater number employed full time than part time. In terms of licensed or certified professionals, over two-thirds of elementary and secondary schools reported having school counselors, having nurses, and having speech therapists. In terms of teacher aides, 80 percent of elementary schools and 81 percent of secondary schools reported having special education instructional aides. On

average, elementary schools had a lower number of students per all student support staff than secondary schools (33 vs. 62 percent). Elementary schools had a lower number of students per staff than secondary schools in each category of support staff except school counselors.

The number, percentage, and availability of student support staff varied by schools that were low poverty when compared with those schools that were high poverty (see supplemental table 35-2). A greater percentage of low-poverty schools than high-poverty schools had psychologists, had special education noninstructional aides, and had library instructional and noninstructional aides. In contrast, a greater percentage of high-poverty schools than low-poverty schools had regular Title I (61 vs. 16 percent) and ESL/ bilingual (41 vs. 29 percent) instructional aides. With the exception of school counselors, the average number of students per licensed or certified professional (nurses, social workers, psychologists, speech therapists, and other professionals) was smaller in high-poverty schools than in low-poverty schools.



NOTE: Data are for full- and part-time staff. Regular public schools do not include alternative, special education, special program emphasis, or vocational/technical schools. Data for combined elementary and secondary schools and for ungraded schools are excluded. Detail may not sum to totals because of rounding.

SOURCE: U.S. Department of Education, National Center for Education Statistics (NCES), Schools and Staffing Survey (SASS), "Public School Data File." 2003–04.

FOR MORE INFORMATION: Supplemental Note 3 Supplemental Tables 35-1, 35-2



## School Characteristics and Climate

#### **School Violence and Safety**

Between 1992 and 2004, the rate of nonfatal crime against students ages 12–18 at school declined 62 percent.

Theft and violence that occur at school<sup>1</sup> can lead to a disruptive and threatening environment, physical injury, and emotional stress (Elliot, Hamburg, and Williams 1998). To measure the frequency of theft and violence in our nation's schools, this indicator examines nonfatal crime rates per 1,000 students, ages 12-18, from 1992 through 2004. Nonfatal crime includes theft and all violent crime; all violent crime includes serious violent crimes (rape, sexual assault, robbery, and aggravated assault) and simple assault.

From 1992 through 2004, the rate of nonfatal crime against students at school declined 62 percent (from 144 to 55 crimes per 1,000 students) (see supplemental table 36-1). During the same time period, the rate of crimes against students at school declined 65 percent for theft (from 95 to 33 crimes per 1,000 students) and 54 percent for violent crimes (from 48 to 22 crimes per 1,000 students). Between 2003 and 2004, the rate of nonfatal crime against students ages 12-18 at school declined 25 percent (from 73 to 55 crimes per 1,000 students). The rate of thefts against students at school declined 27 percent during the same time period (from 45 to 33 crimes per 1,000 students).

From 1992 through 2004, the rates for serious violent crime were lower when students were at school than when they were away from school. However, students were generally more likely to be victims of theft at school than away from school.

In 2004, a higher percentage of middle schoolage students (ages 12-14) than high school-age students (ages 15-18) were victims of crime at school (64 vs. 46 crimes per 1,000 students) (see supplemental table 36-2). In contrast, middle school-age students were less likely to be victims of crime away from school than were high school-age students (34 vs. 61 crimes per 1,000 students). Differences were also found by students' household location. The rates of violent crime at school were higher for urban students than for suburban students. Furthermore, rates of violent crime away from school, especially serious violent crime, were also higher for urban students than suburban students. However, rural students experienced higher rates of theft away from school than urban or suburban students.

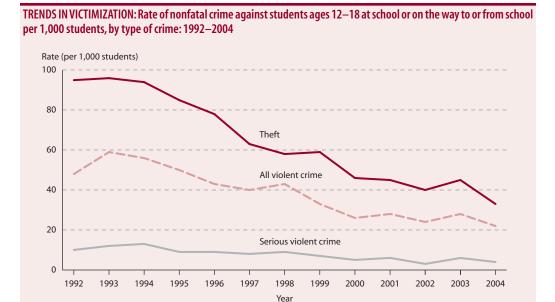
1 "At school" includes inside the school building, on school property, or on the way to and from school.

SOURCE: Dinkes, R., Cataldi, E.F., Kena, G., and Baum, K. (2006). Indicators of School Crime and Safety: 2006 (NCES 2007-003/NCJ 214262), table 2.1, data from U.S. Department of Justice, Bureau of Justice Statistics, School Crime Supplement (SCS) to the National Crime Victimization Survey (NCVS), 1992-2004.



FOR MORE INFORMATION: Supplemental Notes 1,3 Supplemental Tables 36-1,

Elliott, Hamburg, and Williams 1998



### **Changes in Sources of Public School Revenue**

Federal and state revenues increased at a faster rate than local revenues from 1989–90 to 2003–04.

From 1989-90 to 2003-04, total elementary and secondary public school revenues increased 51 percent in constant dollars. During this period, the total amount from each revenue source (federal, state, and local) increased, though not at the same rate (see supplemental table 37-1). Federal and state revenues increased at a faster rate than all local revenues (both property tax revenue and other local revenue). The proportion of total revenue for public elementary and secondary education from local sources declined, from 47 percent in 1989–90 to 44 percent in 2003-04, while the proportion of total revenue flowing to public schools from federal sources increased from 6 percent in 1989-90 to 9 percent in 2003-04 (see supplemental table 37-2). The proportion from state sources was the same in 1989-90 as in 2003-04 (47 percent).

Although total revenues for elementary and secondary public schools increased in each region, different regional patterns of change in the distribution of public school revenues are evident. The Midwest experienced the largest decreases in the proportion of total revenue from local sources: local funding there dropped from 55 percent of all revenue for public elementary and secondary

education in 1989–90 to 44 percent in 2003–04. Declines in the proportion of property tax revenue accounted for most of this decrease. The Northeast also experienced declines in the proportion of revenue from local sources. In both regions, there were increases in the proportion of total revenue from federal and state sources.

The proportion of total revenue from local sources increased in the West from 33 to 35 percent during this period. While that proportion experienced little change in the South (less than 1 percentage point), the proportion of total revenue from property taxes increased 4 percent. In both the South and the West, the proportion of revenue from state sources decreased, and the proportion from federal sources increased.

In 2003–04, as in earlier years, the Northeast relied to a greater degree on property tax revenues than the other regions. The difference in the reliance on property tax revenues between the Northeast and the Midwest was greater in 2003–04 than in 1989–90. Conversely, the differences between the Northeast and the other two regions were less in 2003–04 than in 1989–90.

<sup>1</sup> There was a decline in the property tax in Michigan from 1993—94 to 1994—95. During that period, the proportion of total revenue from property taxes fell from 59 to 21 percent in Michigan and from 46 to 39 percent for all the Michwest

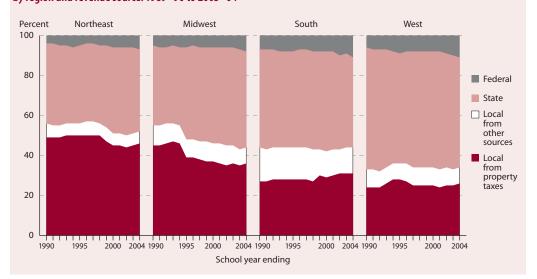
NOTE: Detail may not sum to totals because of rounding. Revenues have been adjusted for the effects of inflation using the Consumer Price Index (CPI) and are in constant 2003—04 dollars. Other local government revenue includes revenue from such sources as local nonproperty taxes, investments, and revenue from student activities, textbook sales, transportation and tuition fees, and food services. Property tax revenue and other local government revenues were imputed for Texas for 1992—93. See *supplemental note 11* for information about revenue for public elementary and secondary schools. Estimates are revised from previous publications.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Common Core of Data (CCD), "National Public Education Financial Survey," 1989–90 to 2003–04.

FOR MORE INFORMATION: Supplemental Notes 1, 3, 11 Supplemental Tables 37-1, 37-2



## CHANGES IN REVENUE SOURCES: Percentage distribution of total revenue for public elementary and secondary schools, by region and revenue source: 1989–90 to 2003–04



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## **Expenditures in Public Elementary and Secondary Schools by Expenditure Category**

Expenditures per student rose 27 percent in constant dollars from 1989-90 to 2003-04, with capital expenditures increasing the fastest.

This indicator examines expenditures per student in public elementary and secondary schools, in constant dollars, by major expenditure category and region between 1989-90 and 2003–04. Total expenditures include current expenditures, such as instruction, administration, operation and maintenance, as well as capital outlay and interest on school debt. Total expenditures per student are calculated by dividing total expenditures by the enrollment.

Total expenditures per student rose 27 percent in constant dollars between 1989-90 and 2003-04, from \$7,692 to \$9,762 (see supplemental table 38-1). This rate of increase in total expenditures was not evenly distributed among the major categories of expenditures. Among the five major categories of expenditures, the percentage change in spending on capital outlay and interest increased the most (68 percent). In contrast, instruction expenditures increased 24 percent, spending on operation and maintenance increased 9 percent, and spending on administration increased 8 percent.

In 2003-04, some 52 percent of the \$9,762 spent per student in public elementary and secondary schools went toward instruction expenditures such as teacher salaries and benefits. About 13 percent went toward capital expenditures, 8 percent toward operation and maintenance, 7 percent toward administration, and 20 percent toward other expenditures, including transportation, food services, and student support.1

Looking at total expenditures per student by region in 2003–04 reveals that expenditures per student were highest in the Northeast, followed by the Midwest, West, and South. This regional pattern held true for each major expenditure category except capital expenditures, which were highest in the West. A higher percentage of total expenditures went toward instruction in the Northeast (57 percent) than in the other regions (50 to 52 percent). However, in the Northeast, a smaller percentage of total expenditures (10 percent) went toward capital expenditures than in the other regions (14 to 16 percent).

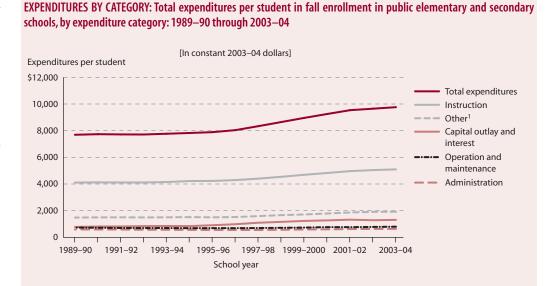
<sup>1</sup> Other expenditures include funds for student support, other instructional staff, student transportation, other support services, food services, and enterprise operations, all of which are components of current expenditures. Also included in other expenditures are funds for adult education, community colleges, private school programs funded by local and state education agencies, and community services.

NOTE: Detail may not sum to totals because of rounding. Expenditures have been adjusted for the effects of inflation using the Consumer Price Index (CPI) and are in constant 2003-04 dollars. See supplemental note 11 for information about this index and about classifications of expenditures for elementary and secondary education. See supplemental note 1 for information on regional categorizations

SOURCE: U.S. Department of Education, National Center for Education Statistics, Common Core of Data (CCD), "National Public Education Financial Survey," 1989-90 through 2003-04.



FOR MORE INFORMATION: Supplemental Notes 1, 3, 11 Supplemental Table 38-1



#### **Variations in Instruction Expenditures per Student**

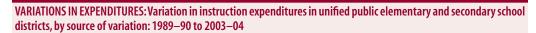
Between 1989–90 and 2003–04, differences between states accounted for a greater proportion of the variation in instruction expenditures per student among unified public school districts than did differences within states.

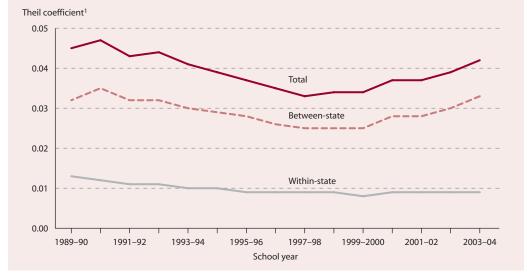
A number of methods can be used to measure the variation in the amount school districts spend per student on instruction. This indicator uses the *Theil coefficient* because it provides a national measure of differences in instruction expenditures per student that can be decomposed into separate components to measure school district-level variations both between and within states. In this indicator, a coefficient of zero indicates that there is no variation in the instruction expenditures per student in unified public school districts for kindergarten through grade 12, and the amount of variation present increases as the Theil coefficient increases in size.

Across U.S. districts, most of the variation in instruction expenditures is due to differences between states, rather than differences within states (see supplemental table 39-1). Between 1989–90 and 1997–98, the size of the variation decreased, and although the variation has increased in size since the late 1990s, it remains lower than in the early 1990s. As was the case for the total variation, when the variations due to between- and within-state differences

are considered separately, both components showed decreases between 1989–90 and 1997–98. However, since 1997–98, the trends have changed. The between-state component increased, while the within-state component remained largely unchanged, with the between-state variation accounting for 74 percent of the total variation in 1997–98 and 78 percent in 2003–04. Hence, the increase in the total variation between 1997–98 and 2003–04 was largely due to increases in the variation between states.

Changes in the variation in instruction expenditures over time may reflect differences across school districts in the trends in the amount of services or goods purchased, such as the number of classroom teachers hired. However, they may also be attributed to differences in the trends in the cost of items purchased, such as teacher salaries. The variations over time in the amount of services or goods purchased may, in part, reflect various state litigation and school finance reform efforts. Further, some of the variations in expenditures per pupil across states may be due to cost differences across states.





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<sup>1</sup> The *Theil coefficient* measures variation for groups within a set (i.e., states within the country) and indicates relative variation over time. See *supplemental note 11* for more information.

NOTE: Public elementary and secondary unified districts are those districts that serve both elementary and secondary grades. In 2003–04, approximately 71 percent of all school districts were unified school districts.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Common Core of Data (CCD), "NCES Longitudinal School District Fiscal-Nonfiscal (FNF) File, Fiscal Years 1990 to 2002" and "School District Finance Survey (Form F-33)," 2002—03 to 2003—04.

FOR MORE INFORMATION: Supplemental Notes 3, 11 Supplemental Table 39–1 NCES 2000–020

NCES 2001-323

Murray, Evans, and Schwab 1998



#### **Public Elementary and Secondary Expenditures by District Poverty**

Total expenditures per student in 2003–04 were highest in low-poverty school districts and next highest in high-poverty school districts.

Expenditures per student in public elementary and secondary schools vary by the level of poverty in a district. For example, in 2003–04, total expenditures per student were highest in low-poverty districts (\$10,857), next highest in high-poverty districts (\$10,377), and lowest in middle- and middle-high poverty districts (\$9,042 and \$9,045, respectively) (see supplemental table 40-1). Districts were divided into five equal-sized groups based on the percentage of 5- to 17-year-olds in poverty. The low-poverty district category consists of the 20 percent of students in districts with the lowest percentages of poor school-age children. Conversely, the high-poverty district category consists of the 20 percent of students in districts with the highest percentages of poor school-age children.

Between 1995–96 and 2003–04, total expenditures per student increased by 24 percent in constant dollars, from \$7,847 to \$9,754. Total expenditures per student increased the most for the high-poverty districts (28 percent), and the least for low-poverty districts (21 percent).

Expenditures in the other three categories increased between 22 and 27 percent.

Current expenditures, which include instructional, administrative, and operation and maintenance expenditures, followed a similar pattern as total expenditures. For example, the low- and high-poverty districts had the highest current expenditures per student in 2003-04 (see supplemental table 40-2). However, unlike total expenditures, current expenditures in high-poverty and low-poverty districts were about the same (\$8,858 and \$8,832, respectively).

The types of communities in which low- and high-poverty school districts were located differed. For example, 69 percent of students in low-poverty districts were enrolled in the suburbs, while 10 percent of the students in low-poverty districts were in cities (see supplemental table 40-3). In contrast, 69 percent of the students in high-poverty districts were in cities, while the suburbs enrolled 6 percent.

<sup>1</sup> Total expenditures include all expenditures allocable to per student costs—current expenditures for regular school programs, capital outlay, and interest on school debt. All expenditures in this indicator are in constant 2003-04 dollars. The Consumer Price Index (CPI) was used to adjust expenditures into constant dollars. See supplemental note 11 for information on the CPI and classifications of expenditures.

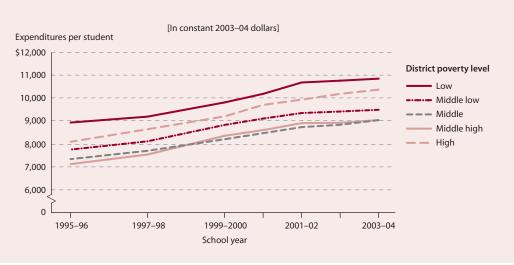
NOTE: See supplemental note 1 for further information on poverty and community types. Regular districts include elementary/secondary combined districts and separate elementary or secondary districts. They exclude Department of Defense districts and Bureau of Indian Affairs districts.

SOURCE: U.S. Department of Commerce, Census Bureau, "Small Area Income & Poverty Estimates," 1995-96,1997-98, and 1999-2000 to 2003-04; and U.S.Department of Education, National Center for Education Statistics, Common Core of Data (CCD), "School District Finance Survey (Form F-33)," 1995-96, 1997-98, and 1999-2000 to 2003-04.



FOR MORE INFORMATION: Supplemental Notes 1, 3, 11 Supplemental Tables 40-1, 40-2, 40-3

#### TOTAL EXPENDITURES PER STUDENT: Public school district expenditures per student, by district poverty level: Various years, 1995-96 to 2003-04



#### **International Comparisons of Expenditures for Education**

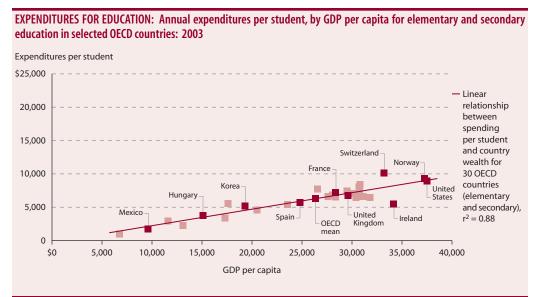
At the postsecondary level in 2003, U.S. expenditures per student were \$24,074, higher than the OECD average of \$11,254.

Two measures commonly used to compare countries' investments in education are expenditures per student from both public and private sources and total expenditures as a percentage of gross domestic product (GDP). The latter measure allows a comparison of countries' expenditures relative to their ability to finance education. Private sources include payments from households for school-based expenses such as tuition, transportation fees, book rentals, or food services, as well as funds raised by institutions through endowments or returns on investment.

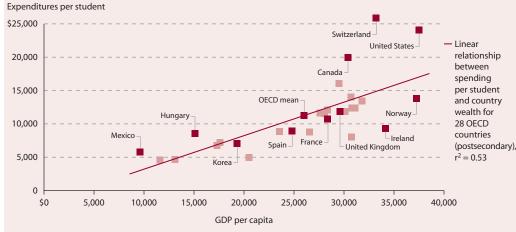
In 2003, expenditures per student for the United States were \$8,935 at the combined elementary and secondary level, which was higher than the average of \$6,278 for the member countries of the Organization for Economic Cooperation and Development (OECD) reporting data (see supplemental table 41-1). At the postsecondary level, U.S. expenditures per student were \$24,074, higher than the OECD average of \$11,254. Expenditures per student varied widely across the OECD countries, ranging from \$986 (Turkey) to \$13,621 (Luxembourg) at the combined elementary and secondary level

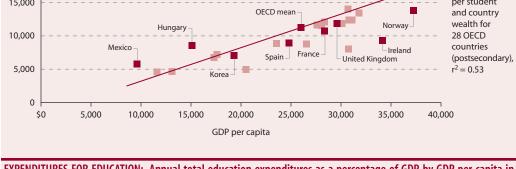
and from \$4,589 (Poland) to \$25,900 (Switzerland) at the postsecondary level.

A country's wealth (defined as GDP per capita) was positively associated with expenditures per student on education at the elementary/ secondary and postsecondary levels. In 2003, the United States and Korea spent the highest percentage of their GDP on total education expenditures<sup>1</sup> (7.0 percent) among the OECD countries reporting data. Looking at education expenditures by level, the United States spent 4.2 percent of its GDP on elementary and secondary education, higher than the average of 3.9 percent for all OECD countries reporting data. Compared with the United States, 10 countries spent a higher percentage of their GDP on elementary and secondary education, and 16 countries spent a lower proportion on education. At the postsecondary level, 2.9 percent of the GDP of the United States was spent on education expenditures, higher than the average of 1.4 percent for all OECD countries reporting data. The United States spent a greater percentage of its GDP on postsecondary education than all other OECD countries reporting data.

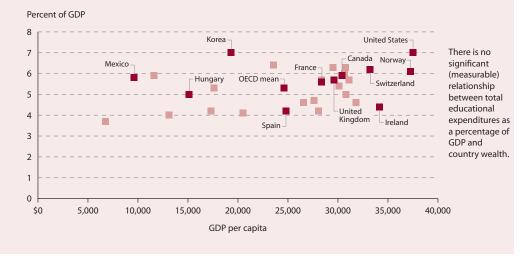


#### EXPENDITURES FOR EDUCATION: Annual expenditures per student, by GDP per capita for postsecondary education in selected OECD countries: 2003





#### EXPENDITURES FOR EDUCATION: Annual total education expenditures as a percentage of GDP, by GDP per capita in selected OECD countries: 2003



<sup>1</sup> Total education expenditures include expenditures at the elementary/secondary, postsecondary, and postsecondary nontertiary levels.

NOTE: Per student expenditures are based on public and private full-time-equivalent (FTE) enrollment figures and on current expenditures and capital outlays from both public and private sources where data are available. Purchasing power parity (PPP) indices are used to convert other currencies to U.S. dollars (i.e., absolute terms). Within-country consumer price indices are used to adjust the PPP indices to account for inflation because the fiscal year has a different starting date in different countries. Luxembourg data are excluded from the graphs because of anomalies with respect to their GDP per capita data (large revenues from international finance institutions distort the wealth of the population). The OECD average for GDP per capita for each graph is based on the number of countries with data available (30 for first graph; 28 for second graph; 27 for third graph).

SOURCE: Organization for Economic Cooperation and Development (OECD), Center for Educational Research and Innovation. (2006). Education at a Glance: OECD Indicators, 2006, tables B1.1c, B2.1c, and X2.1.



FOR MORE INFORMATION: Supplemental Note 6 Supplemental Table 41-1