Editorial Note

National Center for Education Statistics

The National Center for Education Statistics (NCES) fulfills a congressional mandate to collect and report "statistics and information showing the condition and progress of education in the United States and other nations in order to promote and accelerate the improvement of American education."

Education Statistics Quarterly

Purpose and goals

At NCES, we are convinced that good data lead to good decisions about education. The *Education Statistics Quarterly* is part of an overall effort to make reliable data more accessible. Goals include providing a quick way to

- identify information of interest;
- review key facts, figures, and summary information; and
- obtain references to detailed data and analyses.

Content

The *Quarterly* gives a comprehensive overview of work done across all parts of NCES. Each issue includes short publications, summaries, and descriptions that cover all NCES publications and data products released during a 3-month period. To further stimulate ideas and discussion, each issue also incorporates

- a message from NCES on an important and timely subject in education statistics; and
- a featured topic of enduring importance with invited commentary.

A complete annual index of NCES publications appears in the fourth issue of each volume. Publications in the *Quarterly* have been technically reviewed for content and statistical accuracy.

General note about the data and interpretations

Many NCES publications present data that are based on representative samples and thus are subject to sampling variability. In these cases, tests for statistical significance take both the study design and the number of comparisons into account. NCES publications only discuss differences that are significant at the 95 percent confidence level or higher. Because of variations in study design, differences of roughly the same magnitude can be statistically significant in some cases but not in others. In addition, results from surveys are subject to nonsampling errors. In the design, conduct, and data processing of NCES surveys, efforts are made to minimize the effects of nonsampling errors, such as item nonresponse, measurement error, data processing error, and other systematic error.

For complete technical details about data and methodology, including sample sizes, response rates, and other indicators of survey quality, we encourage readers to examine the detailed reports referenced in each article.

Table of Contents

Data Products, Other Publications, and Funding Opportunities

Data Products

Other Publications

Training and Funding Opportunities

Note From NCES

Peggy G. Carr, Associate Commissioner, Assessment Division

The NAEP High School Transcript Study

The National Center for Education Statistics (NCES) has been collecting high school transcript data since the early 1980s, when the focus of education reform was on statewide curricula in core courses. The first high school transcript study was conducted in 1982, in conjunction with the first follow-up of the High School and Beyond Longitudinal Study. The database from this transcript study was used to examine the criteria recommended by the National Commission on Excellence in Education in *A Nation at Risk,* issued in 1983. Since then, to address issues of quality education, various efforts have emphasized courses in specific subject areas, such as mathematics and science; the number of courses completed; and the timeline for course completion. NCES has conducted six other transcript studies: the National Assessment of Educational Progress (NAEP) High School Transcript Study (HSTS), conducted in 1987, 1990, 1994, 1998, and, most recently, in 2000; and the National Education Longitudinal Study of 1988 (NELS:88) transcript study, conducted in 1992. In fall 2004, NCES collected transcripts from a cohort of 2002 high school sophomores as part of the Education Longitudinal Study of 2002 (ELS:2002).

These periodic studies of transcripts of graduating seniors from our nation's high schools, both public and nonpublic, serve as a barometer of changes in high school students' coursetaking patterns. When combined with data on course offerings, they provide valuable information about the rigor of high school curricula across the nation. Because each of these transcript studies is conducted in conjunction with a major cross-sectional (NAEP) or longitudinal (NELS:88 and ELS:2002) study, it is possible to compare information on high school students' coursetaking patterns with achievement and other education outcomes. This allows NCES to examine numerous education reform issues such as changes in high school curricula, the status of vocational education, graduation requirements, and preparedness for postsecondary activities.

A new NCES report—*The High School Transcript Study: A Decade of Change in Curricula and Achievement, 1990–2000*—provides findings from the NAEP 2000 HSTS and examines trends in high school students' coursetaking patterns for the decade between 1990 and 2000. One of the most distinctive aspects of the NAEP transcript studies is that they allow examination of the relationship between transcript data and NAEP achievement scores. For example, it is possible to examine the relationship between high school graduates' average grade point average (GPA) and average NAEP scores attained in the 2000 mathematics and science assessments. The NAEP HSTS is the featured topic in this issue of the *Education Statistics Quarterly.*

Findings from the 2000 study show that high school graduates are taking more challenging courses and are doing well in them. They are completing more course credits and earning higher GPAs than they did a decade earlier. This progress is evident across various subgroups of students.

Overall, the number of course credits earned by high school graduates increased to an average of 26.2 in 2000, from an average of 23.6 in 1990. The same pattern of increase over the decade can be seen within all four major racial and ethnic subgroups. Across the decade, there were also substantial increases in graduates taking algebra II and calculus. In 2000, 56.7 percent of graduates completed algebra II as their highest mathematics course, compared to 47.0 percent in 1990. Similarly, 12.5 percent of graduates completed calculus as their highest mathematics course in 2000, compared to 7.2 percent in 1990. Along with increases in these advanced

courses, corresponding decreases are evident in the percentages of graduates whose highest mathematics course was algebra I or below.

Furthermore, when the data are disaggregated by race and ethnicity, the increase in the percentages of graduates completing advanced courses over the decade is also evident across all racial and ethnic subgroups. A strong increase is evident in the percentages of White, Black, and Hispanic graduates reaching the algebra II level. However, for calculus, only the percentage of White graduates completing calculus courses increased. When examining algebra II and calculus together, 88.4 percent of Asian and Pacific Islander, 70.4 percent of White, 64.9 percent of Black, and 60.6 percent of Hispanic graduates completed at least one of these courses in 2000.

In addition, findings from the 2000 transcript study show an increase in the grades students received in the courses they took. From 1990 to 2000, the average GPA of high school graduates increased from 2.68 to 2.94, with a highest possible GPA of 4.00. The increase in the average GPA of high school graduates from 1990 to 2000 was evident for all examined student and school characteristics including gender, race/ethnicity, school type, and region of the country.

However, while the average GPA of high school graduates has risen over the past decade, the level of proficiency of high school graduates has decreased. In 2000, the average NAEP mathematics score for all graduates was 301, within the *Basic* range. While this score represents a significant increase over the 1990 average mathematics score for all graduates (294), it is a significant decrease from the 1996 average score (304). Similarly, in 2000, the average NAEP science score for all graduates was 147, indicating a *Basic* level of science proficiency. This represents a significant decrease in the average NAEP science score from 1996. Findings such as these give the appearance of grade inflation and may explain why colleges emphasize the rigor of high school curriculum and standardized tests as well as grades.

While the relationship between average GPA and NAEP scores may prove to be informative, other findings raise important questions. For example, why is there an apparent disconnect between high school grades and preparedness for college? While the transcript study data show that the average high school graduate has a B average, about one-fourth (28 percent) of college freshman are enrolled in remedial courses in reading, writing, or mathematics.*

NCES transcript studies have provided valuable, objective data on high school students' coursetaking patterns and achievement at seven points from 1982 to 2000. The next NAEP transcript study will be conducted in 2005 in conjunction with the NAEP 12th-grade mathematics and science assessments. The 2005 study will allow continued examination of the relationship between high school students' coursetaking patterns and achievement. It will also include special studies to take a closer look at course content and materials.

For additional information on the NAEP High School Transcript Study, please visit the website at http://nces.ed.gov/nationsreportcard/hsts/.

*Remedial course enrollment data are from the Postsecondary Education Quick Information System (PEQIS), "Remedial Education in Higher Education Institutions: Fall 2000," PEQIS 12, 2001.

Featured Topic: The NAEP High School Transcript Study

Transcript Studies

The High School Transcript Study: A Decade of Change in Curricula and Achievement, 1990–2000

Robert Perkins, Brian Kleiner, Stephen Roey, and Janis Brown

This article was originally published as the Executive Summary of the Statistical Analysis Report of the same name. The sample survey data are from the National Assessment of Educational Progress (NAEP) High School Transcript Study (HSTS).

Introduction

Over the years, various reform efforts have sought to improve the quality of education across the nation. In the early 1980s, the focus was on statewide curricula in core courses, a response to the report *A Nation at Risk* (National Commission on Excellence in Education 1983). Since then, to address issues of a quality education, efforts have emphasized courses in specific subject areas (e.g., mathematics and science), the number of courses completed, and the timeline for course completion.

Transcript studies serve as a barometer for changes in high school student coursetaking patterns, which, in combination with school course offerings, provide valuable information about the rigor of high school curricula across the nation. One such transcript study, the National Assessment of Educational Progress (NAEP) High School Transcript Study (HSTS), periodically surveys the curricula being offered in our nation's high schools and the coursetaking patterns of high school students.

This report presents findings from the HSTS 2000 and examines the trends and changes in high school curriculum and student coursetaking patterns for the past decade. The results from the HSTS 2000 are presented with respect to earned course credits, grade point average, and education achievement, as measured by the NAEP 2000 mathematics and science assessments.[1] In addition, results are compared

[1]For HSTS 2000, the National Center for Education Statistics conducted a national survey of high school transcripts of 12th-grade students in conjunction with the NAEP 2000 mathematics and science assessments. The irregular frequency of the HSTS transcript studies prevents comparisons of HSTS data with data from the NAEP main mathematics and science assessments from previous years. The NAEP main assessments associated with HSTS 1994 and HSTS 1998 covered neither mathematics nor science. A NAEP main mathematics assessment occurred in 1990, but the design of HSTS 1990 linked HSTS data with NAEP data at the school level, not at the student level.

across the transcript studies between 1990 and 2000 (HSTS 1990, HSTS 1994, HSTS 1998, and HSTS 2000). Findings are viewed throughout the report by selected student and school characteristics, including student gender, student race/ethnicity, school type (public vs. nonpublic), and region of the country.

Additional transcript studies were conducted by the National Center for Education Statistics (NCES) in 1982 in conjunction with the first follow-up of the High School and Beyond Longitudinal Study (HS&B), in 1987 as a study of the 11th-grade cohort of the 1986 NAEP, and in 1992 in conjunction with the second follow-up of the National Education Longitudinal Study of 1988 (NELS:88). This report looks at the HSTS from 1990 to 2000 conducted in conjunction with NAEP, because it is only for these studies that the target population remains the same.

It should also be noted that trends in the relationship between coursetaking patterns and student achievement (as measured by NAEP) are not presented, since the corresponding NAEP assessment subjects differ across years. However, comparisons of coursetaking patterns are possible, due to the comparable analysis and course classification methodologies across the HSTS. The 2000 transcript study was conducted from May through October of 2000 after the administration of NAEP. Transcripts were collected for 12th-grade students who graduated high school by the end of the collection period. Most students also participated in the NAEP assessments earlier that same year.

Key Findings

Course credits earned

- Overall, the number of course credits[2] earned by high school graduates increased throughout the 1990s. In 2000, high school graduates earned an average of 26.2 course credits, compared to an average of 23.6 in 1990.
- The average number of credits earned in the core academic subject fields (mathematics, science, English, and social studies) increased from 13.7 to 15.0 between 1990 and 2000.
- High school graduates increased their number of earned credits in computer-related vocational courses from 0.4 in 1990 to 0.7 in 2000. In the same 10-year span, the number of credits earned by high school graduates in noncomputer-related vocational courses decreased from 3.5 to 3.1.
- Public high school graduates increased their number of earned course credits from 23.5 in 1990 to 26.2 in 2000.

Grade point average

- From 1990 to 2000, the grade point average[3] (GPA) of high school graduates increased from 2.68 to 2.94 (with a highest possible GPA of 4.00).
- Of the 16 major course subjects covered by the HSTS 2000, mathematics and science courses proved the most difficult for high school students. High school graduates in the year 2000 earned mean GPAs of 2.60 and 2.67, respectively, for mathematics and science courses (table A), both lower than the mean GPAs for the other 14 course subjects. High school graduates also earned lower mathematics and science mean GPAs compared to other course subjects in the 1990, 1994, and 1998 transcript studies.
- In 2000, high school graduates who took Advanced Placement (AP) and/or International Baccalaureate (IB) courses in both mathematics and science earned an overall mean GPA of 3.61. This mean GPA was higher than that of graduates who took AP/IB mathematics courses only (3.53 GPA) or AP/IB science courses only (3.33 GPA).[4] High school graduates who took neither AP/IB mathematics courses nor AP/IB science courses earned a lower overall mean GPA (2.85) than the AP/IB coursetaking subgroups.
- High school graduates in 2000 earned a higher mean GPA during grade 12 than in any other grade. The 2000 high school graduates earned a 12th-grade mean GPA of 3.03, compared to a 2.92 mean GPA for 9th grade, a 2.89 mean GPA for 10th grade, and a 2.92 mean GPA for 11th grade.

[2]Schools participating in the HSTS varied widely in their assignments of credits to their courses. The transcript study standardized the credits across schools such that one credit equals one Carnegie unit. One Carnegie unit equals a class period (45 to 60 minutes) that occurs once per day across the entire school year. Standardization to Carnegie units allows for an accurate comparison of course credits across schools within a transcript study and also allows for an accurate comparison between transcript studies over time.

[3]The GPA represents the average number of grade points a student earns for each graded high school course. Since not all schools have the same standards for course credits and grade scales, the HSTS converts course credits to standardized Carnegie units and assigns grade points based on the 4-point grade scale. No additional grade points were assigned for Advanced Placement, International Baccalaureate, or other honors classes.

[4]AP and IB mathematics courses include courses in precalculus, calculus, and statistics. AP and IB science courses include courses in biology, chemistry, physics, and environmental science.

Table A. Mean grade point average of high school graduates, by course subject: 1990, 1994, 1998, and 2000

Subject field	Mean grade point average			
	1990 graduates	1994 graduates	1998 graduates	2000 graduates
Mathematics	2.34	2.44	2.56	2.60
Science	2.39	2.50	2.62	2.67
English	2.52	2.63	2.74	2.77
Social studies	2.56	2.67	2.79	2.83
Fine arts	3.13	3.28	3.35	3.38
Foreign languages	2.58	2.67	2.78	2.82
Computer-related studies	2.81	2.95	3.08	3.17
Consumer & homemaking education	2.77	2.97	3.07	3.10
General labor market preparation	2.73	2.84	3.01	3.13
Specific labor market preparation	2.86	3.02	3.15	3.20
General skills	3.38	3.38	3.47	3.44
Personal health & physical education	3.11	3.21	3.27	3.34
Religion	2.89	2.94	3.14	3.33
Military science	2.79	2.97	2.98	3.03
Special education	2.63	2.74	2.92	2.97
All other courses	2.97	3.02	3.10	3.22

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP) High School Transcript Study (HSTS), 1990, 1994, 1998, and 2000. (Originally published as table 3 on p. 3-3 of the complete report from which this article is excerpted.)

- Female high school graduates earned a higher overall mean GPA in 2000 than male high school graduates (3.05 vs. 2.83).
- The increase in the mean GPA of high school graduates from 1990 to 2000 was evident for all examined student and school characteristics (gender, race/ethnicity, school type, and region of the country).

Education achievement

- Public and nonpublic high school graduates differed in their mean NAEP 2000 mathematics assessment scores.[5] Nonpublic high school graduates achieved a mean 318 mathematics assessment score (out of a possible 500 points), compared to the mean 300 mathematics assessment score achieved by public high school graduates (table B).
- Those HSTS 2000 graduates with AP/IB mathematics credits achieved a mean 345 NAEP mathematics assessment score, compared to the mean 297 mathematics assessment score achieved by graduates without AP/IB mathematics credits. Graduates with AP/IB science credits had a mean 179 NAEP science assessment score (out of a possible 300 points), compared to the mean 144 science assessment score achieved by graduates without AP/IB science credits (table C).
- High school graduates in the HSTS 2000 who earned mathematics course credits during the 12th grade earned higher scores on the NAEP 2000 mathematics assessment than graduates who last earned mathematics course credits before the 12th grade (table B).
- The NAEP 2000 science assessment scores earned by graduates differed by the highest science course level attained—the higher the science course level graduates attained, the higher the mean NAEP science assessment score they achieved (table C).
- A large positive correlation existed between the GPA that 2000 high school graduates earned in mathematics courses and their NAEP mathematics assessment scores. A medium positive correlation existed between their GPA in science courses and their NAEP science assessment scores.

[5]Public schools include all state-run elementary, secondary, charter, Bureau of Indian Affairs, and Department of Defense schools. Nonpublic schools include Catholic schools, other religious schools, and all other private schools.

Table B. Mean NAEP mathematics assessment scores for HSTS high school graduates, by school and student characteristics: 2000

Characteristic	Mean NAEP mathematics assessment score											
		AP or IB mathematics credits earned?		Highest mathematics course level taken					Last grade mathematics course taken			
	All graduates	No	Yes	Below Algebra I	Algebra I	Geometry	Algebra II	Calculus	Grade 9	Grade 10	Grade 11	Grade 12
All graduates	301	297	345	260	269	285	304	342	‡	278	293	307
Student gender												
Male	303	297	349	261	271	285	306	345	‡	275	294	310
Female	300	296	341	257	267	285	302	339	‡	281	292	305
Student race/ethnicity												
White	308	303	347	263	273	292	310	345	‡	280	298	314
Black	275	273	325	250	255	268	278	323	‡	272	271	277
Hispanic	284	282	332	250	261	276	291	320	‡	267	279	288
Asian/Pacific Islander	323	313	347	‡	‡	‡	317	346	‡	‡	310	327
School type												
Public	300	295	345	259	268	283	303	343	‡	278	291	306
Nonpublic	318	314	348	‡	‡	306	315	337	‡	‡	313	320
Region of the country[1]												
Northeast	303	298	348	263	274	296	304	344	‡	278	293	310
South	297	291	342	250	261	272	296	341	‡	279	288	302
Midwest	307	303	350	261	272	288	310	345	‡	279	299	315
West	301	297	344	264	269	283	311	337	‡	273	294	306

‡ Reporting standards not met.

[1] "Region of the country" refers to the census-defined regions.

NOTE: Nonpublic schools include Catholic schools, other religious schools, and all other private schools. Advanced Placement and International Baccalaureate (AP/IB) mathematics courses include courses in precalculus, calculus, and statistics.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP) High School Transcript Study (HSTS), 2000. (Originally published as table 7 on p. 4-5 of the complete report from which this article is excerpted.)

Table C. Mean NAEP science assessment scores for HSTS high school graduates, by school and student characteristics: 2000

Characteristic	Mean NAEP science assessment score										
		AP or IB science credits earned?		Highest science course level taken				Last grade science course taken			
	All graduates	No	Yes	Below Biology	Biology	Chemistry	Physics	Grade 9	Grade 10	Grade 11	Grade 12
All graduates	147	144	179	113	126	148	164	109	127	142	157
Student gender											
Male	149	145	182	114	128	149	167	106	129	144	159
Female	146	143	176	112	124	147	162	‡	124	140	155
Student race/ethnicity											
White	153	151	183	115	131	154	170	109	130	149	164
Black	123	121	156	105	107	124	135	‡	106	119	129
Hispanic	130	127	158	107	115	134	147	‡	116	126	138
Asian/Pacific Islander	158	144	184	‡	130	145	171	—	‡	142	166
School type											
Public	146	143	178	113	125	146	164	109	126	140	156
Nonpublic	163	160	188	—	139	160	171	‡	‡	157	170
Region of the country[1]											
Northeast	151	147	186	‡	125	147	167	‡	126	145	160
South	143	139	173	110	121	142	159	‡	123	136	153
Midwest	151	149	183	113	133	153	169	‡	132	146	161
West	147	143	180	113	125	152	167	‡	126	143	157

— Not available.

‡ Reporting standards not met.

[1] "Region of the country" refers to the census-defined regions.

NOTE: Nonpublic schools include Catholic schools, other religious schools, and all other private schools. Advanced Placement and International Baccalaureate (AP/IB) science courses include courses in biology, chemistry, physics, and environmental science.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP) High School Transcript Study (HSTS), 2000. (Originally published as table 8 on p. 4-8 of the complete report from which this article is excerpted.)

Reference

National Commission on Excellence in Education. (1983). *A Nation at Risk: The Imperative for Educational Reform.* Washington, DC: U.S. Government Printing Office.

Data source: The National Assessment of Educational Progress (NAEP) High School Transcript Study (HSTS), 1900, 1994, 1998, and 2000.

For technical information, see the complete report:

Perkins, R., Kleiner, B., Roey, S., and Brown, J. (2004). *The High School Transcript Study: A Decade of Change in Curricula and Achievement, 1990–2000* (NCES 2004–455).

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To obtain the complete report (NCES 2004–455), call the toll-free ED Pubs number (877–433–7827) or visit the NCES Electronic Catalog (http://nces.ed.gov/pubsearch).

NAEP 2000 Transcript Study

Invited Commentary: The NAEP 2000 Transcript Study: Contributing to the National Conversation on Transforming America's High Schools

Susan Sclafani, Counselor to the Secretary and Assistant Secretary for Vocational and Adult Education, U.S. Department of Education

The recent release of the National Assessment of Educational Progress (NAEP) 2000 High School Transcript Study (HSTS) report marks changes in the coursetaking and performance of high school graduates in the 1990s. The report contains some valuable insights and is timely, coinciding with the U.S. Department of Education's efforts to lead a national conversation about high school transformation. A key item of discussion in this conversation is how to best prepare youth for successful transitions to education, life, and work beyond high school.

The Preparing America's Future High School Initiative

In October 2003, Secretary of Education Rod Paige launched the Preparing America's Future High School Initiative and asked the Office of Vocational and Adult Education (OVAE) to coordinate the Department's work on the initiative. In the same month, OVAE sponsored a national high school summit for policymakers, educators, and leaders, and followed up with a series of regional summits in spring 2004. The regional summits gave state-level teams the opportunity to work together on creating high school improvement plans. Outreach and technical assistance work continues with the Council of Chief State School Officers, the National Governors Association, the Council of the Great City Schools, and many other organizations to ensure that high school transformation is a priority for all education stakeholders. A second national summit was held on December 2–3, 2004.

Educators and policymakers are becoming more aware of the enormous challenges students face after high school graduation. The fast-paced global economy and dynamic labor market put a premium on U.S.-based jobs that require education and training beyond high school. Consequently, there are fewer opportunities for gainful employment among youth with low-level skills. For example, in 2003, 44 percent of persons ages 16–24 with less than a high school diploma and not currently in high school were neither enrolled nor working, compared with 9 percent of those with a bachelor's or higher degree (U.S. Department of Education 2004, p. 132, table 13-1). Given this challenging environment, every U.S. student must leave high school well prepared for the next step in their life—whether that is to enter postsecondary education, start an apprenticeship, or immediately enter a career. However, in 2001, 11 percent of 16- to 24-year-olds were not enrolled in high school and had not earned a high school diploma or alternative credential (Kaufman, Alt, and Chapman 2004).

Leaders in education, civic and community organizations, business, and government are working with youth and their families to help youth face these challenges. They are working to create a new kind of high school for the new century—high schools that are compelled by a vision of having every youth complete high school ready for the next step in a successful life. In the high schools of the future, the "soft bigotry of low expectations" for some must become a thing of the past.

The NAEP 2000 High School Transcript Study Report

The High School Transcript Study: A Decade of Change in Curricula and Achievement, 1990–2000 provides critical support for the Preparing America's Future High School Initiative and comes at a time when the "millennial generation" is entering high school. This generation rivals that of the baby-boomers in size, due to a combination of high fertility rates, increasing immigration, and declining infant mortality (Howe and Strauss 2000). In addition to a high degree of racial/ethnic diversity, the "millennials" have come of age in an educational and economic environment that is information-rich and given to a fast pace of technological and organizational change.

In terms of formal schooling, many of our schools are still organized around an industrial model that categorizes students as "college bound" and "non-college bound." In contrast, we know that our economy and society have become more complex and demanding, and, as President George W. Bush has said, all of our high school graduates must be ready *both* for jobs in a workforce and for higher education.

What this means for high schools and for youth is reflected in the principal message of the NAEP 2000 HSTS report: content counts. The more academically intense a student's secondary school curriculum, the more likely it is that positive outcomes will follow. While the report spends a great deal of time looking at comparative grade point averages, we know that grades are less of an outcome of secondary school education than the *academic momentum* provided by coursetaking. The outcomes most relevant to that academic momentum are (1) college entry, persistence, and degree attainment; and (2) for those students heading directly into the workforce, documented competence in both the knowledge and communication skills necessary to function in increasingly technical occupational environments.

Why Content Counts

Reading and mathematical competencies provide gateways to other subjects—and they must be cemented during a student's high school education. These competencies are inextricably linked: a youth who cannot read fluently and comprehend what he is reading cannot read math problems either. A student who has difficulty reading cannot search the Internet, understand technical manuals, or study the new processes needed for training or further education. These understandings, these links between topics and areas of study, cannot be grasped without the preparation that a rigorous academic high school curriculum brings.

Occupationally oriented students need high levels of competence in reading and mathematics to compete. As an example, students enrolled in a construction class are given the blueprints of a proposed building (including foundation footings, window measurements, plumbing, electrics, etc.), construction cost data books, local wage rate adjustment factors, and environmental regulations and, working in teams, challenged to come up with a cost estimate. These students will need geometry, algebra, and, in some cases, applied trigonometry. They will need to be able to read and interpret regulations and factors bearing on wage rates, overhead, and profit. They will need to be fluent in the use of spreadsheet software. They will need to know enough physical science to select the proper materials. Real-world workers need a content-rich education—content does count.

And content counts even more in the fast-growing sectors of the labor market: mid-level technical work. Whether in medical labs, architectural firms, law firms, or software support centers, technicians must "work at the empirical interface between a world of physical objects [and events] and a world of symbolic representations" and "transform aspects of the material world into [those] symbolic representations" (Whalley and Barley 1997, p. 47).

Technicians help communicate the results to professionals—who, in turn, must be able to understand and act upon the information provided by the technicians. Proficiency in mathematics provides a student the capacity to communicate through symbolic representation; advanced computer skills provide the tools of transformation; and between the two lies the interpretive structural knowledge of science and/or history or social science.

A recent National Assessment of Vocational Education (NAVE) report (Silverberg et al. 2004) that uses NAEP 2000 HSTS data (in conjunction with past NAEP transcript data) shows that public high school graduates who complete an occupational concentration (defined as three or more courses in a single occupational area) take fewer academic courses than their nonoccupational peers. For example, in 2000, 51 percent of occupational concentrators fulfilled the "new basics" academic curriculum,* compared to 60 percent of other students. However, this level of academic coursetaking represents an improvement over the decade of the 1990s: In 1990, these percentages were 19 percent and 46 percent, respectively. Thus, while all public high school graduates increased their academic coursetaking on average, occupational concentrators increased their academic coursetaking more than their nonoccupational peers.

Building for Success After High School

There is no question that what students bring to this high-demand technical world requires a solid grounding in what the NAEP 2000 HSTS report calls the "core" disciplines, a grounding that will maximize the choices open to students after high school.

Recently, over 60 percent of high school graduates have continued their education immediately after high school (Snyder 2003, p. 223, table 184). For the high school class of 1992, over 75 percent of those with a standard high school diploma had been enrolled somewhere in the post-secondary system by the end of 2000 (U.S. Department of

*The "new basics" curriculum consists of 4 years of English and 3 years each of mathematics, science, and social studies.

Education 2003, p. 133, table 22-1). This finding, from the National Education Longitudinal Study of 1988 (NELS:88), sounds impressive, but consider other data from the same study.

Eight and a half years after they graduated from high school, one out of eight postsecondary entrants from the high school class of 1992 had quit by the time they earned their 10th credit. And of those who earned more than 10 credits, over one-third had earned no credential at all—no certificate, no associate's degree, no bachelor's or higher degree (Adelman 2004).

While there may be other reasons why students drop out of college, the academic momentum they bring forward from high school has a greater influence on degree completion than any other precollegiate or demographic factor (Adelman 1999). It is for that reason that the Preparing America's Future High School Initiative advocates and supports the State Scholars Initiative (www.centerforstatescholars.org) and similar initiatives among states and local school districts that encourage students to tackle rigorous courses.

During the coming years, states and local school districts will continue to pursue improvement strategies at all levels—including high school—to help realize the vision of the No Child Left Behind Act. We are already seeing evidence, through policy changes being made in a number of states, that the "curricular tracks" left by the millennial generation as it marches through high school will be different from the tracks of previous generations of U.S. high school students. We fully expect that future administrations of the NAEP High School Transcript Study will document the extent to which educators and decisionmakers on all levels took action—action to make sure high school students graduate prepared for the next step in their lives—whether it is further training, careers, or postsecondary education.

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Kindergarten Teachers

Kindergarten Teachers: Public and Private School Teachers of the Kindergarten Class of 1998–99

Elvira Germino Hausken, Jill Walston, and Amy H. Rathbun

This article was originally published as the Executive Summary of the Statistical Analysis Report of the same name. The sample survey data are from the Early Childhood Longitudinal Study, Kindergarten Class of 1998–99 (ECLS-K).

Kindergarten is an important transition year for young children. Kindergarten classroom activities typically cover many of the language arts and mathematics concepts and skills that provide important foundations for learning throughout the elementary school years. Kindergarten teachers play an important role in children's kindergarten experiences. The importance of quality teachers in students' educational experiences has been highlighted with the passage of the No Child Left Behind Act (NCLB, P.L. 107-110). The Act requires that schools have a highly qualified teacher in every classroom by the 2005–06 school year.

This report examines aspects of the kindergarten experience through a national profile of teachers of the kindergarten class of 1998–99 in the United States. It presents data collected from questionnaires completed by 3,102 kindergarten teachers participating in the Early Childhood Longitudinal Study, Kindergarten Class of 1998–99 (ECLS–K), conducted by the National Center for Education Statistics. It describes the demographic characteristics and professional qualifications of kindergarten teachers in both public and private school kindergartens. Moreover, the report examines data on the schools and classrooms where they teach. The study's sample of kindergarten teachers represents all of the nation's kindergarten teachers from public and private schools that have kindergarten programs.

School Sector and Teaching Workload

In the fall of 1998, over 190,000 teachers were teaching in public and private school kindergarten programs. Approximately 80 percent worked in public[1] schools and about 20 percent worked in private schools, with 5 percent teaching in Catholic schools and 15 percent teaching in a diverse group of private schools such as those affiliated with

[1]The public schools in this report include regular public schools; special-purpose schools such as magnet schools and special education schools; charter schools; Bureau of Indian Affairs or tribal schools; and schools that enroll preschoolers, kindergartners, and early elementary grade students.

non-Catholic religious organizations and nonreligious school associations, and those not affiliated with any association. Overall, about 61 percent of all kindergarten teachers taught a full-day class, 22 percent reported they taught one half-day kindergarten class, and 16 percent reported they taught two half-day kindergarten classes. Figure A shows the same data disaggregated by school sector. A higher proportion of kindergarten teachers in Catholic schools taught a full-day kindergarten class (75 percent) compared with the proportion of their peers in public schools (60 percent).

Demographics

The demographic profile of kindergarten teachers in the fall of 1998 was very similar to that of all elementary school teachers in the 1999–2000 school year (U.S. Department of Education 2004). The majority of kindergarten teachers in the fall of 1998 were female (98 percent) and White, non-Hispanic (84 percent), and had completed at least a bachelor's degree (98 percent). Their average age was 41.

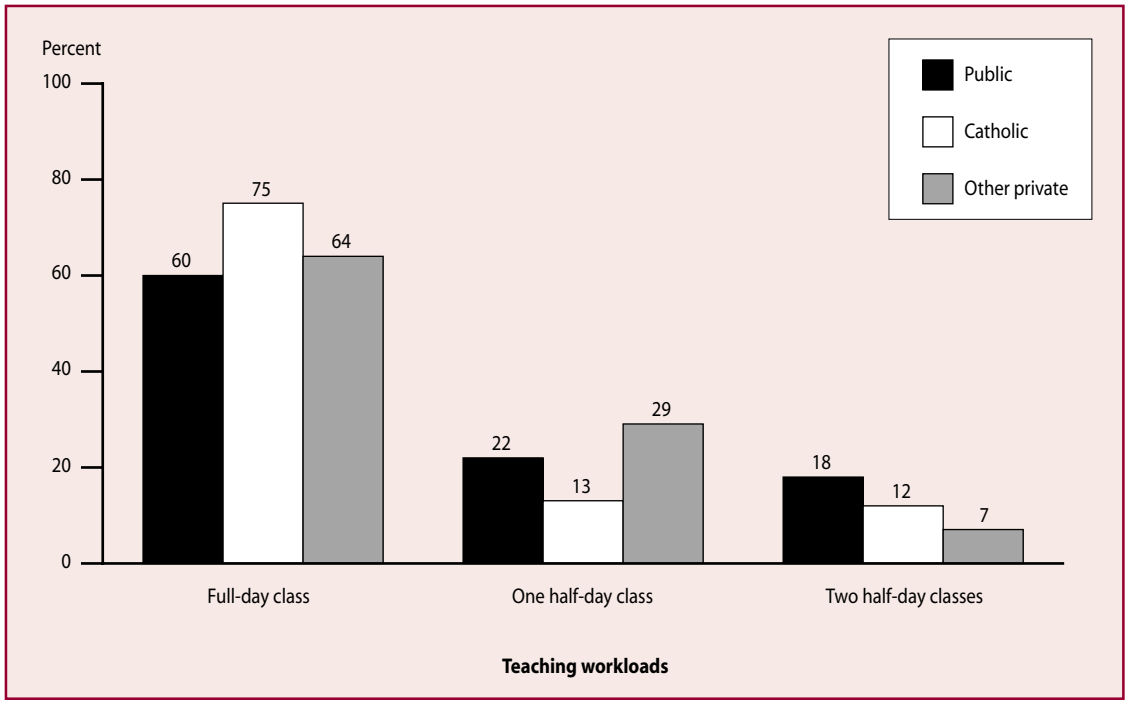
Kindergarten teachers were more likely to teach in classrooms with high concentrations of children of the same racial/ethnic backgrounds as themselves (table A). Fifty-five percent of White teachers were working in classrooms where 75 percent or more of the children were also White. Sixty percent of Black teachers taught in classrooms where 75 percent or more of the enrolled children were Black, and 61 percent of Hispanic teachers taught in classrooms where 75 percent or more of the children were Hispanic.[2]

Many kindergarten teachers of racial/ethnic minority backgrounds worked in classrooms with high concentrations of minority children. Seventy-three percent of Black, non-Hispanic teachers, 76 percent of Hispanic teachers, and 62 percent of teachers of other minority races reported teaching in classrooms with enrollments of 75 percent or higher minority children, compared with 15 percent of White, non-Hispanic kindergarten teachers. Moreover, racial/ethnic minority teachers were more likely to have taught in classrooms with high concentrations of children of the same racial/ethnic backgrounds as themselves than were teachers of majority racial/ethnic backgrounds (table A).

The racial/ethnic distribution of public school kindergarten teachers differed by the level of poverty of the school. Higher poverty schools, in which 50 percent or more of the

[2] "White" and "Black" are used interchangeably with "White, non-Hispanic" and "Black, non-Hispanic," respectively, throughout this report.

Figure A. Percent of kindergarten teachers with different teaching workloads, by school sector: Fall 1998



SOURCE: U.S. Department of Education, National Center for Education Statistics, Early Childhood Longitudinal Study, Kindergarten Class of 1998–99 (ECLS–K), "Teacher Questionnaires," fall 1998, Restricted-Use Data File.

Table A. Percent of kindergarten teachers in classrooms with 75 percent or higher concentrations of a racial/ethnic group enrolled, by teacher race/ethnicity: Fall 1998

Racial/ethnic classroom enrollment	Teacher race/ethnicity			
	White, non-Hispanic	Black, non-Hispanic	Hispanic	Other, non-Hispanic
75 percent or higher White children in classroom	55	5	6	6
75 percent or higher Black children in classroom	4	60	4	4
75 percent or higher Hispanic children in classroom	3	3	61	5

SOURCE: U.S. Department of Education, National Center for Education Statistics, Early Childhood Longitudinal Study, Kindergarten Class of 1998–99 (ECLS–K), "Teacher Questionnaires," fall 1998, Restricted-Use Data File.

students were eligible for free or reduced-price lunch, were compared with lower poverty schools, schools in which 0 through 49 percent of the students were eligible for subsidized meals.[3] A smaller percentage of public school kindergarten teachers in higher poverty schools were White (79 percent) compared with teachers in lower poverty schools (91 percent). A larger percentage of public school kindergarten teachers in higher poverty schools were Black (9 percent) and Hispanic (9 percent) compared with teachers in lower poverty schools (3 and 4 percent, respectively).

Education

In the fall of 1998, almost all (98 percent) of the nation's kindergarten teachers had at least a bachelor's degree and many had advanced degrees. Two percent of kindergarten teachers reported not having a bachelor's degree (table B). The highest concentration of kindergarten teachers without a bachelor's degree taught in non-Catholic private schools (13 percent). More public school kindergarten teachers reported having earned a master's degree as their highest degree (32 percent), compared with Catholic school kindergarten teachers (18 percent) and other private school kindergarten teachers (19 percent).

Certification

In fall 1998, most kindergarten teachers (84 percent) were fully certified, as opposed to holding a temporary, probationary, provisional, or other alternative type of certificate (12 percent).[4] Three percent reported having no certificate.

However, the proportion of kindergarten teachers who were fully certified varied by the following school and teacher characteristics:

- A smaller percentage of kindergarten teachers in classrooms with 75 percent or higher minority children were fully certified (77 percent) compared with teachers in classrooms with less than 50 percent minority enrollments (86 to 87 percent).
- A smaller percentage of kindergarten teachers in large city schools were fully certified (75 percent) compared with teachers in schools in other locations (86 to 88 percent).
- Eighty-nine percent of public school kindergarten teachers were fully certified compared with 71 percent of Catholic school kindergarten teachers and 63 percent of other private school kindergarten teachers. This reflects the fact that not all private schools require teachers to have a teaching certificate.

A goal of teacher preparation programs is to enable future kindergarten teachers to earn teaching certificates in either elementary education or early childhood education, or both, as well as a postsecondary degree. Almost all kindergarten teachers (95 percent) held a teaching certificate in either early childhood education or elementary education, or both, regardless of level of certification.

Experience

On average, the typical kindergarten teacher in fall 1998 had been teaching kindergarten for about 8 years. Kindergarten teachers in public schools had, on average, more years of experience teaching kindergarten (8.5 years) than did teachers in non-Catholic private schools (6.0 years). More teachers in non-Catholic private schools had less than 3 years of experience teaching kindergarten (43 percent), compared with teachers in public schools (28 percent).

[3] The school poverty analysis was restricted to public schools.

[4] In this report, teachers with regular or standard state certificates and those with advanced professional certificates were grouped together as "fully certified" because the sample size for those with advanced professional certificates was too small to be analyzed as a separate group. In the group of those with other types of certification, 2 percent had completed an alternative certification program (too small a group for analyses). The new Elementary and Secondary Education Act (ESEA) initiatives in the area of alternative certification were authorized into law after these data were collected.

Table B. Percentage distribution of kindergarten teachers according to highest degree earned, by school sector: Fall 1998

School characteristic	Less than a bachelor's degree	Bachelor's degree	Master's degree	Education specialist/ doctoral degree
All kindergarten teachers	2	63	29	6
School sector				
Public school	#	62	32	7
Catholic school	3	77	18	2
Other private school	13	64	19	4

Rounds to zero.

NOTE: Detail may not sum to totals because of rounding.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Early Childhood Longitudinal Study, Kindergarten Class of 1998–99 (ECLS–K), "Teacher Questionnaires," fall 1998, Restricted-Use Data File.

Similar to what has been found in other studies of elementary school teachers (e.g., Henke et al. 2000), the average number of years teaching kindergarten was less for teachers in classrooms with the highest concentration of minority children (75 percent or higher) than for teachers in classrooms with lower concentrations of minority children (less than 50 percent). Teachers in classrooms with 75 percent or higher minority enrollment had an average of 6.8 years of experience teaching kindergarten, fewer years of experience than those teaching in classrooms with less than 10 percent minority classroom enrollment (9.0 years), between 10 and 24 percent minority classroom enrollment (8.6 years), or between 25 and 49 percent minority classroom enrollment (8.7 years).

The kindergarten teaching experience of public school kindergarten teachers differed depending on whether they taught in higher poverty schools (where 50 percent or more of the school's total enrollment were eligible for free or reduced-priced lunch) or in lower poverty schools (where less than 50 percent of the students were eligible). Kindergarten teachers in higher poverty public schools were more likely to have less than 3 years of experience teaching kindergarten (31 percent) than were those in lower poverty public schools (24 percent). Twenty-two percent of teachers in higher poverty schools had 10 to 19 years of experience teaching kindergarten compared with 27 percent of teachers in lower poverty schools. While kindergarten teachers in higher poverty public schools had fewer average number of years of experience teaching kindergarten than teachers in lower poverty public schools, no statistically significant differences were detected in the certification and education background of kindergarten teachers in higher and lower poverty schools.

Summary

This report provides a description of the demographic and professional characteristics of kindergarten teachers in the nation. Kindergarten teachers are not as demographically diverse as the children they teach. They are mostly female and White. Although most kindergarten teachers were fully certified in the fall of 1998 and had at least a bachelor's degree, some differences in demographic and professional characteristics existed depending on school sector, school location, the poverty level of the student population, and the concentration of minority children in the classroom.

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Data source: The NCES Early Childhood Longitudinal Study, Kindergarten Class of 1998–99 (ECLS-K), fall 1998.

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Full-Day and Half-Day Kindergarten in the United States: Findings From the Early Childhood Longitudinal Study, Kindergarten Class of 1998–99

Jill Walston and Jerry West

This article was originally published as the Executive Summary of the Statistical Analysis Report of the same name. The sample survey data are from the Early Childhood Longitudinal Study, Kindergarten Class of 1998–99 (ECLS-K).

A major trend in kindergarten programs that has occurred in the past few decades is an increase in the prevalence of kindergarten classes that meet for the entire school day rather than just a part of the day. The increase has been attributed to various social, economic, and educational factors. Increases in the number of single-parent households and households with both parents working are commonly cited as important factors contributing to the need for full-day programs (e.g., Gullo 1990; Morrow, Strickland, and Woo 1998). Arranging child care during the workday is less costly and less complicated for these families when the child is in school for the whole day rather than half of the day. Another rationale in support of full-day kindergarten is that children who have spent some of their prekindergarten years in nursery school classes or child care arrangements (often full-day) are ready for the cognitive, social, and physical demands of a full-day kindergarten (Gullo 1990). Proponents of full-day kindergarten also emphasize the potential educational benefit—teachers have more time to get to know their children and individualize their instruction, and children have more time to acquire the early academic skills taught in kindergarten (Morrow, Strickland, and Woo 1998). In some cases, the move to full-day classes has been made to provide sufficient time for children to complete kindergarten curriculum that has become increasingly rigorous (Shepard and Smith 1988).

The differences between these two types of kindergarten programs have been the subject of a good deal of research as the move to full-day programs has been implemented at the state and local levels (e.g., Cryan et al. 1992; Elicker and Mathur 1997; Fusaro 1997; Gullo 2000; Morrow, Strickland, and Woo 1998). Not until the Early Childhood Longitudinal Study, Kindergarten Class of 1998–99 (ECLS-K) has the opportunity been available to describe full-day and half-day kindergarten differences at the national level. This report examines differences between full-day and half-day kindergarten across the United States using ECLS-K data from schools, teachers, parents, and kindergarten children. This report describes the schools, both public and private, that offer these programs and the children who attend them. It also describes many characteristics of public school full-day and half-day kindergarten classes, including specific curriculum differences between the program types. The report ends with an examination of the cognitive gains public school children make in full-day and half-day classes during the kindergarten year.

Schools That Offer Full-Day and Half-Day Kindergarten

In the 1998–99 school year, 61 percent of all U.S. schools that had a kindergarten program offered at least one full-day kindergarten class and 47 percent offered at least one half-day class.[1] These percents, however, are not uniform across different school types. Full-day programs are most prevalent in Catholic schools (figure A).

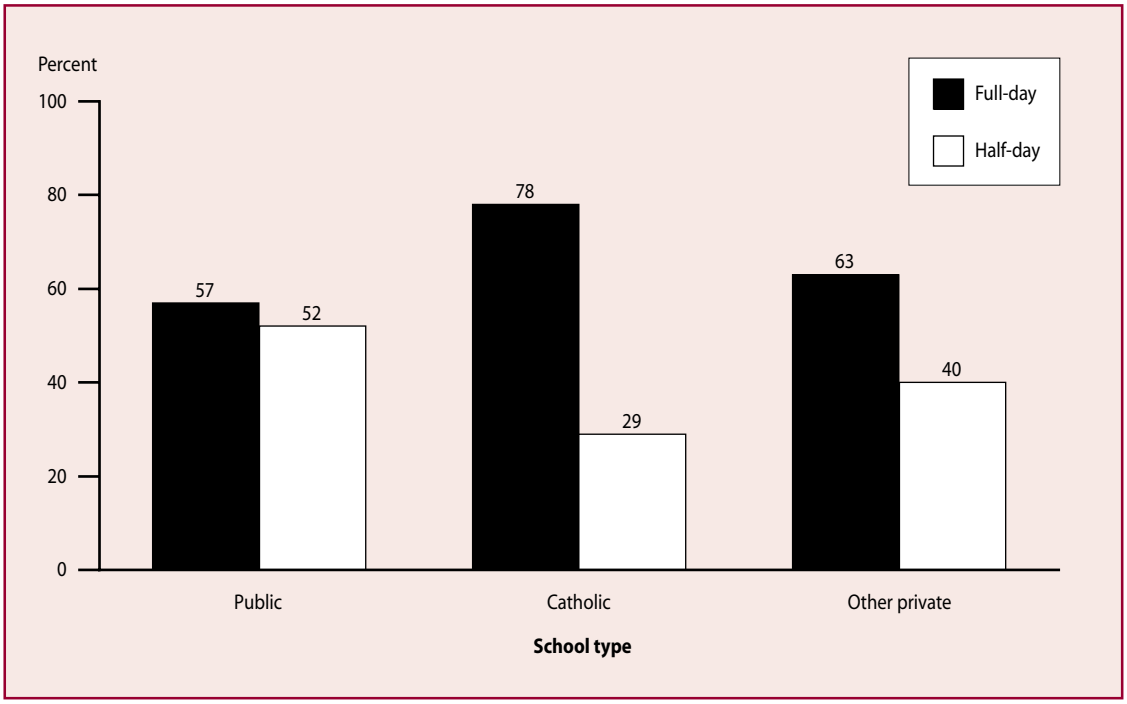
Among public schools, there is a strong regional difference—84 percent of public schools in the southern region[2] of the country provide a full-day program. Full-day kindergarten is also more prevalent in public schools located in cities (64 percent) and in small towns or rural areas (63 percent) compared with suburban or large town areas (46 percent). The percent of schools that offer full-day programs is also related to schools' enrollment of children that are at risk for school failure.[3] Both private and public schools that serve high concentrations of minority children are more likely to provide full-day programs compared to those that serve low concentrations of minority children. Additionally, full-day programs are more likely to be offered in public schools where at least half of the enrollment is comprised of low-income children (69 percent) than in schools with fewer low-income children (48 percent).

[1]Estimates here and elsewhere in this article are not adjusted by other child, class, or school variables unless noted.

[2]The southern region of the country includes DE, DC, FL, GA, MD, NC, SC, VA, WV, AL, KY, MS, TN, AR, LA, OK, and TX.

[3]The term "at risk" refers to children who belong to a sociodemographic group that, on average, performs lower on measures of academic achievement compared to other groups. Black and Hispanic children, low-income children, and children from non-English-speaking families are "at risk" for school failure (e.g., Donahue et al. 2001; West, Denton, and Reaney 2001).

Figure A. Percent of U.S. schools that offer full-day and half-day kindergarten programs, by school type: 1998–99



NOTE: The percent of schools offering full-day and half-day programs sums to more than 100 because some schools have both full-day and half-day classes. Estimates only pertain to schools with a kindergarten program.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Early Childhood Longitudinal Study, Kindergarten Class of 1998–99 (ECLS-K), "School Administrator Questionnaire" and "Kindergarten Teacher Questionnaires," Base-Year Public-Use Data Files.

Children Enrolled in Full-Day and Half-Day Kindergarten

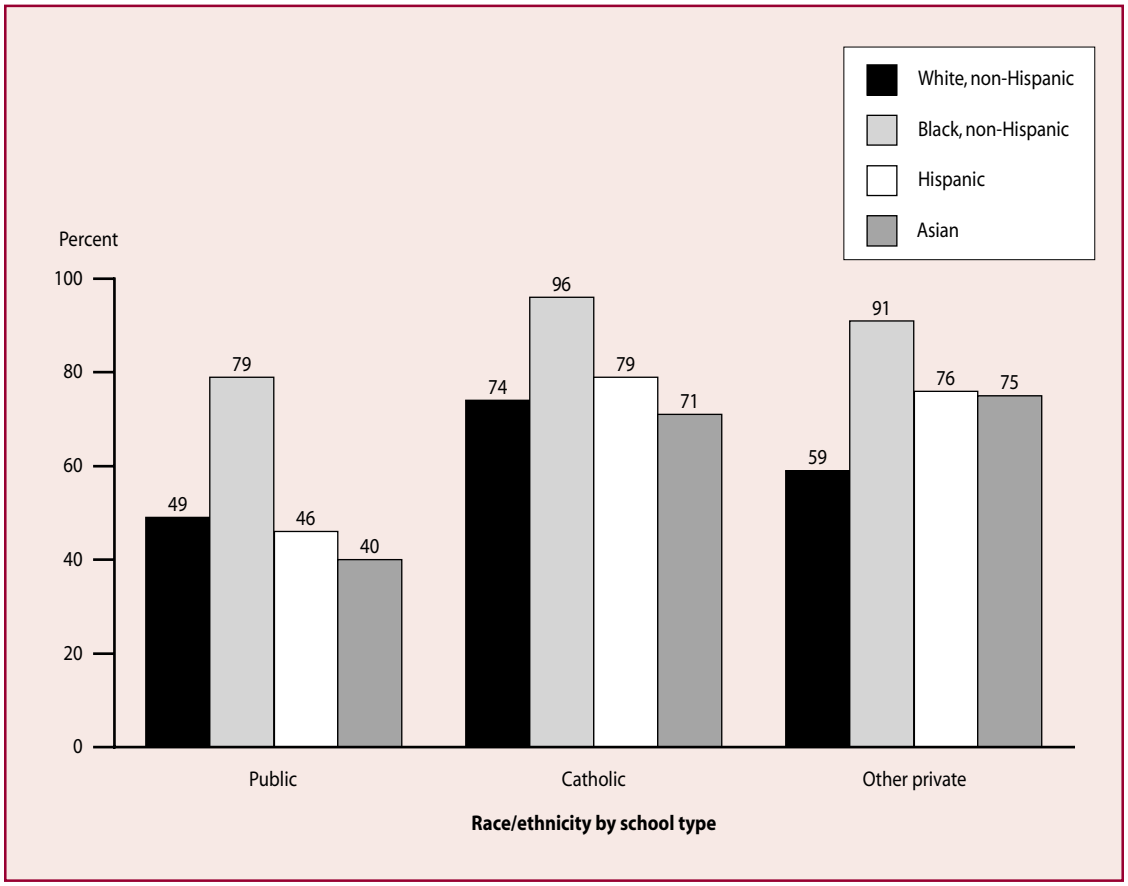
Overall, 56 percent of kindergarten children attend a full-day program, including 54 percent of public school kindergarten children and 67 percent of private school children. In public schools, 79 percent of Black kindergarten children are attending full-day programs; this is a higher rate than is found for White, Asian, or Hispanic public school kindergartners (figure B). Additionally, public school kindergartners whose family income is below the federal poverty threshold attend full-day programs at a higher rate (62 percent) than those from more affluent families (51 percent). The findings for Black children and economically disadvantaged children are consistent with the common rationale for offering full-day programs: to ease the child care needs of families who are least able to afford quality afterschool programs, and to provide "at-risk" children with more time during the kindergarten year to acquire the beginning reading and mathematics skills necessary to succeed in school (e.g., Gullo 1990; Morrow, Strickland, and Woo 1998). However, not all "at-risk" groups of children are attending full-day programs at relatively high rates. Compared to 79 percent of Black public school kindergarten children and 62 percent of public school kindergartners living in poverty attending full-day kindergarten, 46 percent of Hispanic public school kindergartners and 45 percent of public school kindergartners from homes where English is not the primary language attend full-day programs.

Among private schools, 77 percent of kindergartners in Catholic schools and 65 percent in other private schools attend a full-day program. Black children in Catholic and other private schools are more likely to attend a full-day program compared to White children (figure B), but poverty status and home language are not related to full-day enrollment rates in these schools.

Class Composition and Structure in Full-Day and Half-Day Public Kindergartens

Differences in the composition of public full-day kindergarten classes compared to half-day classes mirror the patterns seen in some of the child-level enrollment findings. The average percent of minority children in full-day classes

Figure B. Percent of U.S. kindergarten children enrolled in a full-day program, by race/ethnicity and school type: 1998–99



SOURCE: U.S. Department of Education, National Center for Education Statistics, Early Childhood Longitudinal Study, Kindergarten Class of 1998–99 (ECLS-K), "School Administrator Questionnaire," "Kindergarten Teacher Questionnaires," and "Parent interviews, "Base-Year Public-Use Data Files.

(46 percent) is higher than that for half-day classes (35 percent). Thirty percent of full-day classes have more than 75 percent minority enrollment compared to 19 percent of half-day classes. The same pattern is not evident for limited-English-proficient students.

A smaller percent of full-day classes are taught by White teachers, but the majority of both full-day and half-day classes are taught by White teachers (80 and 87 percent, respectively). A larger percent of full-day classes are taught by Black teachers (10 percent) compared to half-day classes (2 percent). Teachers in full-day classes are more likely than teachers in half-day classes to have their teaching certificate in the area of early childhood education.

The average number of children in full-day classes (20.3) is higher than is found in half-day classes (19.1). Full-day classes are less likely to have 17 or fewer students (21 percent) compared with half-day classes (31 percent), and full-day classes are more likely to have 25 or more students (16 percent) compared with half-day classes (10 percent). Classroom instructional aides are more prevalent in full-day classes. Sixty-one percent of full-day classes and 44 percent of half-day classes have an aide who works for at least an hour per day directly with the children on instructional tasks.

Instructional Activities in Full-Day and Half-Day Public Kindergarten Classes

Teachers in full-day kindergarten classes organize for instruction in much the same way as teachers in half-day classes. Full-day kindergarten classes spend, on average, more time each day than half-day classes on teacher-directed whole class, small group, and individual activities and they spend more time on child-selected activities. When the total amount of time available in these classes is taken into account, however, the percent of total class time spent in

each type of activity is similar for full-day and half-day classes. The strategies that teachers use for grouping children for instruction are also examined. Mixed-level groups are the most common grouping strategy in both types of classes. Full-day classes, however, are more likely than half-day classes to use achievement groups at least once a week for reading instruction (62 percent vs. 50 percent) and for mathematics instruction (42 percent vs. 32 percent).

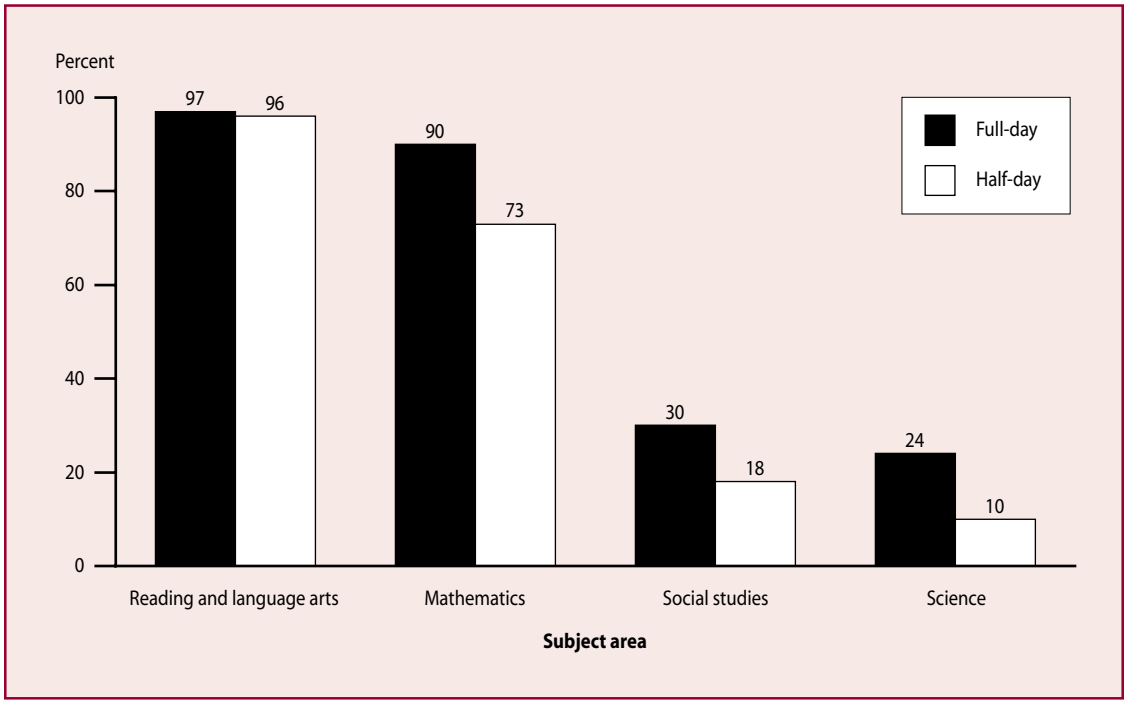
A large majority of both full-day and half-day classes have reading and language arts activities every day (97 and 96 percent, respectively) (figure C). However, full-day classes are more likely to spend time each day on other subjects—math, social studies, and science—compared with half-day classes. Among the four art and music subjects that teachers were questioned about—art, music, dance/creative movement, and theater/creative dramatics—only art is done every day in a larger percent of full-day classes (30 percent) compared to half-day classes (21 percent). Music is taught daily in a smaller percent of full-day classes (30 percent) compared to half-day classes (36 percent).

The relative order of the skills and activities that children spend time on within the domains of reading/language arts and mathematics is very similar for full-day and half-day classes; the most commonly reported skills and activities in full-day classes are generally the most common in half-day classes. Almost all specific skills and activities are more frequently covered daily in full-day classes compared with half-day classes; some of the exceptions are those done daily by a majority of both types of classes (e.g., calendar activities and counting out loud).

To illustrate some differences in the daily curriculum covered in public kindergarten full-day and half-day classes, figures D and E show the percent of these classes that work on common kindergarten activities and skills every day. Figure D presents a selection of the most commonly reported reading/language arts activities and skills and compares the percent of full-day and half-day classes that do these every day. Figure E compares the percent of full-day and half-day classes that spend time each day on common mathematics skills and activities.

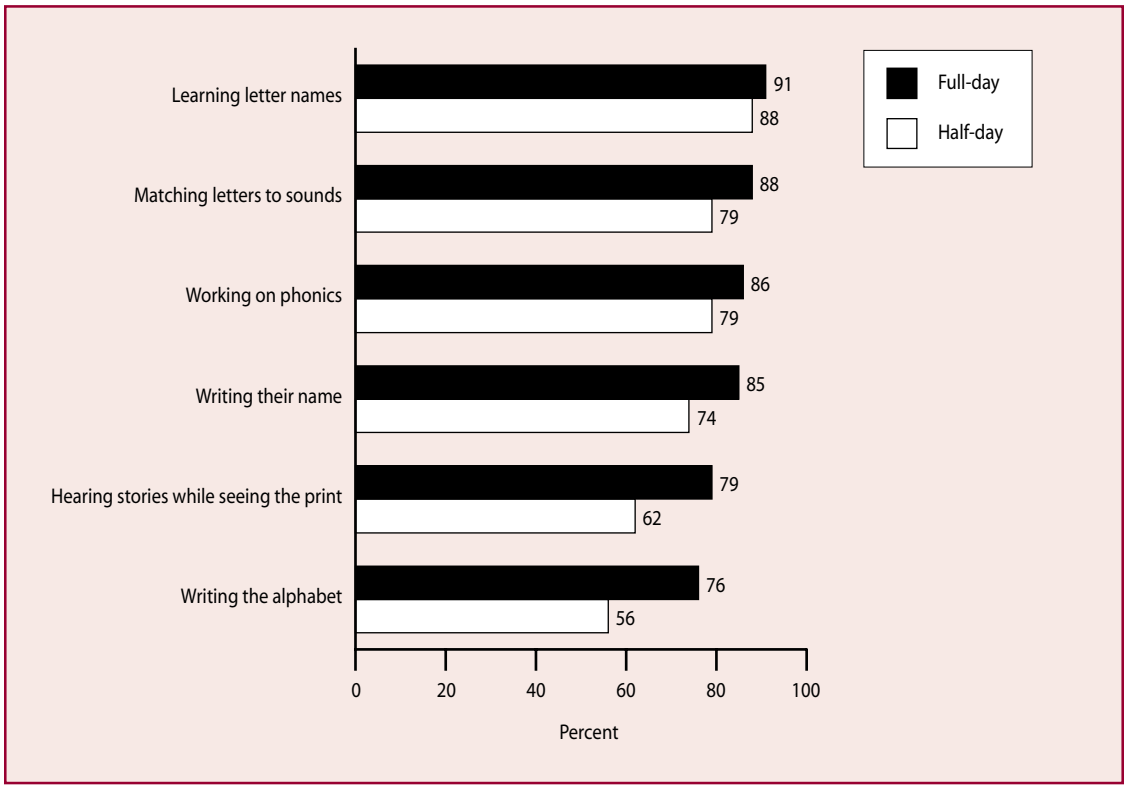
While there are many skills and activities that a larger percent of full-day classes spend time on each day compared with half-day classes, these differences may simply be attributed to the fact that full-day classes have the time to devote to a greater number of separate skills and activities. The differences in the percent of classes that

Figure C. Percent of U.S. public kindergarten classes that spend time each day on various academic subject areas, by program type: Spring 1999



SOURCE: U.S. Department of Education, National Center for Education Statistics, Early Childhood Longitudinal Study, Kindergarten Class of 1998–99 (ECLS-K), spring 1999, "Kindergarten Teacher Questionnaire," Base-Year Public-Use Data File.

Figure D. Percent of U.S. public kindergarten classes that work daily on various reading/language arts activities and skills, by program type: Spring 1999



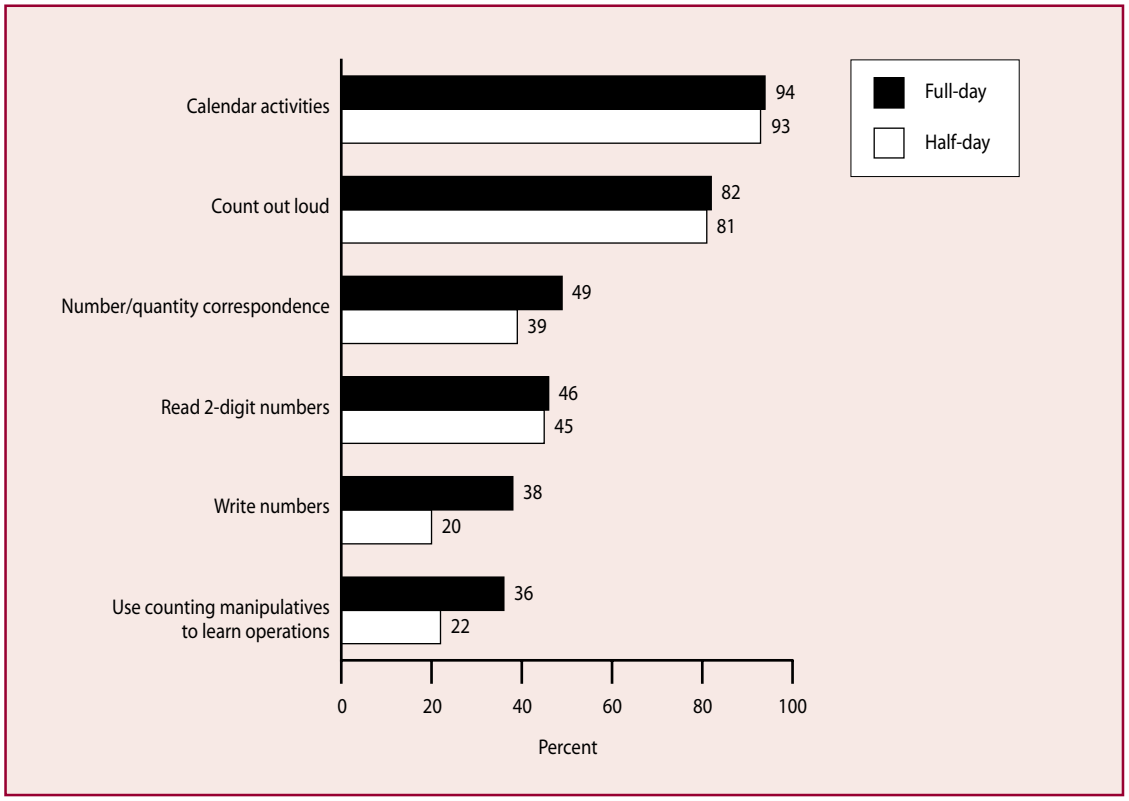
SOURCE: U.S. Department of Education, National Center for Education Statistics, Early Childhood Longitudinal Study, Kindergarten Class of 1998–99 (ECLS-K), spring 1999, "Kindergarten Teacher Questionnaire," Base-Year Public-Use Data File.

spend time on specific skills and activities *at least weekly* (either daily or weekly) may be a more useful comparison for describing differences in the curricular focus between full-day and half-day kindergarten classes. Within the reading/language arts domain (reading, writing, and expressive and receptive language), the percent of full-day classes that engage in a skill or activity at least weekly exceeds the percent of half-day classes for 19 out of the 36 skills and activities examined. Some of the reading activities and skills that are more likely to be part of at least a weekly routine in full-day classes are typically considered more advanced than the traditional kindergarten reading curriculum (e.g., reading aloud fluently, reading multisyllable words, and alphabetizing).[4] Nine out of the 11 writing skills and activities are done weekly in more full-day classes compared to half-day classes (e.g., writing in a journal, writing stories and reports, and conventional spelling). Among the 37 skills and activities examined in the mathematics domain, there are 29 in which the percent of full-day classes engaging in the skill or activity at least weekly exceeds the percent of half-day classes. Many of these are activities or skills that involve solving mathematics problems (e.g., explain how a math problem is solved, solve a real-life math problem, and solve math problems on the chalkboard). Additionally, some of these mathematics skills and activities are ones more typically part of a first-grade curriculum (e.g., recognizing fractions, telling time, and writing numbers from 1–100).[5]

[4]Comparisons of public school kindergarten and first-grade activities and skills show that a higher percent of first-graders compared to kindergartners engage in the following activities and skills at least once a week: reading aloud fluently, 98 vs. 44 percent; reading multisyllable words, 84 vs. 36 percent; and alphabetizing, 66 vs. 18 percent (Bose 2002).

[5]Comparisons of public school kindergarten and first-grade activities and skills show that a higher percent of first-graders compared to kindergartners engage in the following activities and skills at least once a week: recognizing fractions, 32 vs. 6 percent; telling time, 72 vs. 40 percent; and writing numbers from 1–100, 41 vs. 18 percent (Bose 2002).

Figure E. Percent of U.S. public kindergarten classes that work daily on various mathematics activities and skills, by program type: Spring 1999



SOURCE: U.S. Department of Education, National Center for Education Statistics, Early Childhood Longitudinal Study, Kindergarten Class of 1998–99 (ECLS-K), spring 1999, "Kindergarten Teacher Questionnaire," Base-Year Public-Use Data File.

Children in full-day kindergarten classes are spending some of the time focused on learning many of the same things and doing many of the same types of learning activities as those in half-day classes, but some full-day kindergarten classes are spending the "extra time" during the day exposed to more advanced reading, writing, and mathematics skills.

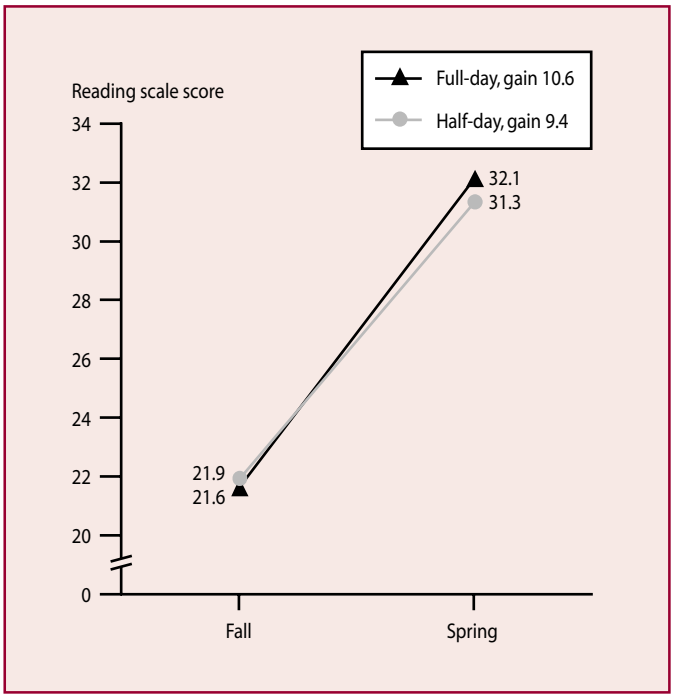
Full-Day and Half-Day Children's Gains in Cognitive Skills and Knowledge

The ECLS-K children were assessed in reading/language arts and mathematics in the fall and in the spring of the kindergarten year. The achievement gains made during the year are compared for English-speaking, first-time kindergartners in full-day and half-day public kindergarten classes. Given the nonexperimental, pretest-posttest design of the study, there is no way to determine if the samples were equivalent in all important ways at the beginning of the kindergarten year. This is a research design limitation that makes it impossible to draw causal conclusions from the data.

The children enrolled in a full-day program make greater gains in reading/language arts over the course of the kindergarten year compared to those in half-day classes (figure F). Additionally, full-day kindergartners make greater gains in mathematics achievement during the year compared to half-day kindergartners (figure G).

The differences in achievement gains associated with program type are not only apparent when simple comparisons of gains are made (figures F and G), they persist when the comparisons take into account other important child and class characteristics. Findings from a multilevel regression analysis indicate that children in full-day classes make greater gains in both reading and mathematics compared to those in half-day classes *after* adjusting for gain score differences associated with race/ethnicity, poverty status, fall achievement level, sex, class size, amount of time for subject area instruction, and the presence of an instructional aide. The positive effect associated with full-day

Figure F. Public school first-time kindergartners' mean reading gain scores, by program type: Fall 1998 to spring 1999



NOTE: Estimates are based on public school, first-time kindergarten children attending a regular kindergarten program (not a transitional or multigrade class) who are assessed in English in both the fall and spring. Only children with the same teacher in both the fall and spring are included in the analysis. Detail may not sum to totals because of rounding. The scores are simple means and are unadjusted for a number of other factors that are related to performance.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Early Childhood Longitudinal Study, Kindergarten Class of 1998–99 (ECLS-K), "Teacher Questionnaire" and "Child Assessments," Base-Year Public-Use Data Files.

programs after accounting for these other variables represents a difference in the reading gain scores of about 32 percent of a standard deviation. Findings from this analysis indicate that children in very large classes (25+) make gains in reading that are slightly smaller than those made by children in medium-size classes (18–24). Furthermore, there is not a differential effect associated with class size by program type—a smaller class size does not mitigate the difference in gains found between children in half-day and full-day programs. Additionally, the presence of a classroom aide is not associated with differences in reading gain scores among White children in either half-day or full-day programs; however, Black children in full-day classes with an aide make greater reading gains compared to Black children in full-day classes without an aide.

After accounting for the same class and child characteristics as for reading, children in full-day programs make gains in mathematics that represent about 22 percent of a standard deviation more than the gains made by children in half-day programs. For mathematics achievement, no other child or class variables interact with program type, which indicates that the greater gains associated with full-day programs are consistent for children with various sociodemographic backgrounds and across other classroom characteristics.

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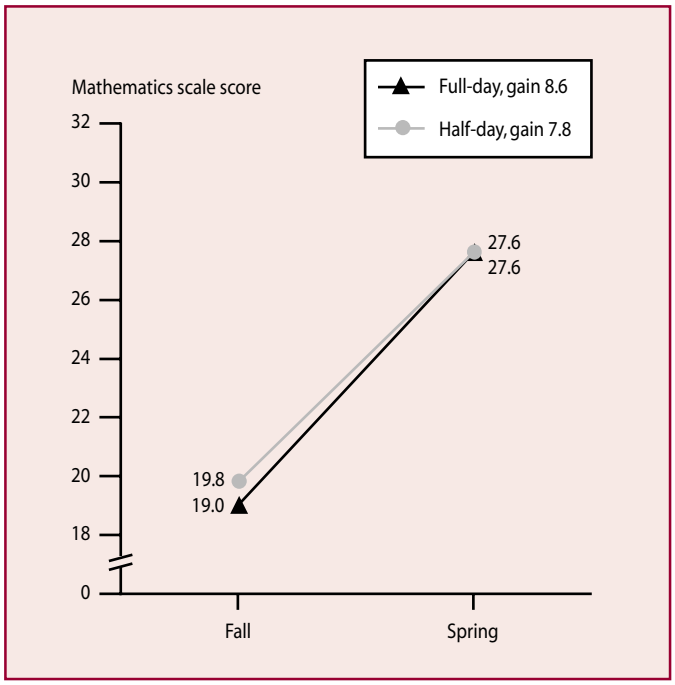
Figure G. Public school first-time kindergartners' mean mathematics gain scores, by program type: Fall 1998 to spring 1999



NOTE: Estimates are based on public school, first-time kindergarten children attending a regular kindergarten program (not a transitional or multigrade class) who are assessed in mathematics in both the fall and spring. Only children with the same teacher in both the fall and spring are included in the analysis. Detail may not sum to totals because of rounding. The scores are simple means and are unadjusted for a number of other factors that are related to performance.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Early Childhood Longitudinal Study, Kindergarten Class of 1998–99 (ECLS-K), "Teacher Questionnaire" and "Child Assessments," Base-Year Public-Use Data Files.

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For technical information, see the complete report:

Walston, J., and West, J. (2004). *Full-Day and Half-Day Kindergarten in the United States: Findings From the Early Childhood Longitudinal Study, Kindergarten Class of 1998–99* (NCES 2004–078).

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To obtain the complete report (NCES 2004–078), call the toll-free ED Pubs number (877–433–7827) or visit the NCES Electronic Catalog (http://nces.ed.gov/pubsearch).

Elementary and Secondary Education

First Results of ELS: 2002

The High School Sophomore Class of 2002: A Demographic Description—First Results From the Base Year of the Education Longitudinal Study of 2002

Steven J. Ingels and Leslie A. Scott

This article was originally published as the Executive Summary of the E.D. TAB report of the same name. The sample survey data are from the Education Longitudinal Study of 2002 (ELS:2002).

The data for this report, *The High School Sophomore Class of 2002: A Demographic Description*, describe the demographic characteristics and tested achievement of a cohort based on a nationally representative probability sample of 15,362 10th-graders in 752 public, Catholic, and other private schools who were studied in the spring term of the 2001–02 school year. The base-year data collection for the Education Longitudinal Study of 2002 (ELS:2002) is the first wave of a new longitudinal study of high school students that continues a series of nationally representative longitudinal studies conducted by the U.S. Department of Education's National Center for Education Statistics (NCES) in recent decades. Future survey waves will follow both students and high school dropouts and will monitor the transition of the cohort to postsecondary education, the labor force, and family formation. Although the base-year study comprised surveys of parents, teachers, school administrators, and library media specialists, as well as the cohort of high school sophomores, this report draws primarily on data from students, the primary unit of analysis for the study. (Parent, teacher, librarian, and school surveys provide contextual data for better understanding the student cohort.)

This E.D. TAB report summarizes the sociodemographic and educational characteristics of the cohort. These characteristics are captured in a series of student- and school-level classification variables. At the student level, these variables

are sex, age, race/ethnicity, language minority status, family composition, parental education, students' educational expectations, and tested achievement. Also included are three characteristics of each student's school: sector (public, Catholic, or other private), metropolitan status (urban, suburban, or rural), and region in which it is located (Northeast, Midwest, South, or West).

Selected Findings

Various background characteristics and differences may influence the educational experiences, achievement, and expectations of students as they progress through high school. Selected characteristics of the high school sophomore class of 2002 are as follows:

- The majority of sophomores are White (60 percent). Hispanics and Blacks make up 16 percent and 14 percent of the sophomore cohort, respectively; Asian and multiracial sophomores each constitute 4 percent; and American Indians/Alaska Natives constitute 1 percent of the sophomore cohort.
- There are differences by racial/ethnic group in the likelihood that English is a sophomore's native language. English is the native language of 94 percent of Black and 97 percent of White sophomores. It is the native language of 37 percent of Asian/Pacific Islander and 48 percent of Hispanic sophomores.
- About 57 percent of sophomores live in a family with both of their biological or adoptive parents. Others live in a single-parent household (22 percent), or with their mother or father and a guardian (17 percent). Still others (4 percent) live in a variety of other arrangements.

Reading and mathematics achievement were assessed in terms of various levels of skill and content mastery, or proficiency. Selected findings are as follows:

- Overall, in *mathematics*, 92 percent of sophomores are able to perform simple arithmetical operations on whole numbers (proficiency level 1) (figure A).
- Overall, in *reading*, 89 percent of sophomores have mastered the skills of simple reading comprehension (proficiency level 1) (figure B).

Data source: The NCES Education Longitudinal Study of 2002 (ELS:2002).

For technical information, see the complete report:

Ingels, S.J., and Scott, L.A. (2004). *The High School Sophomore Class of 2002: A Demographic Description—First Results From the Base Year of the Education Longitudinal Study of 2002* (NCES 2004–371).

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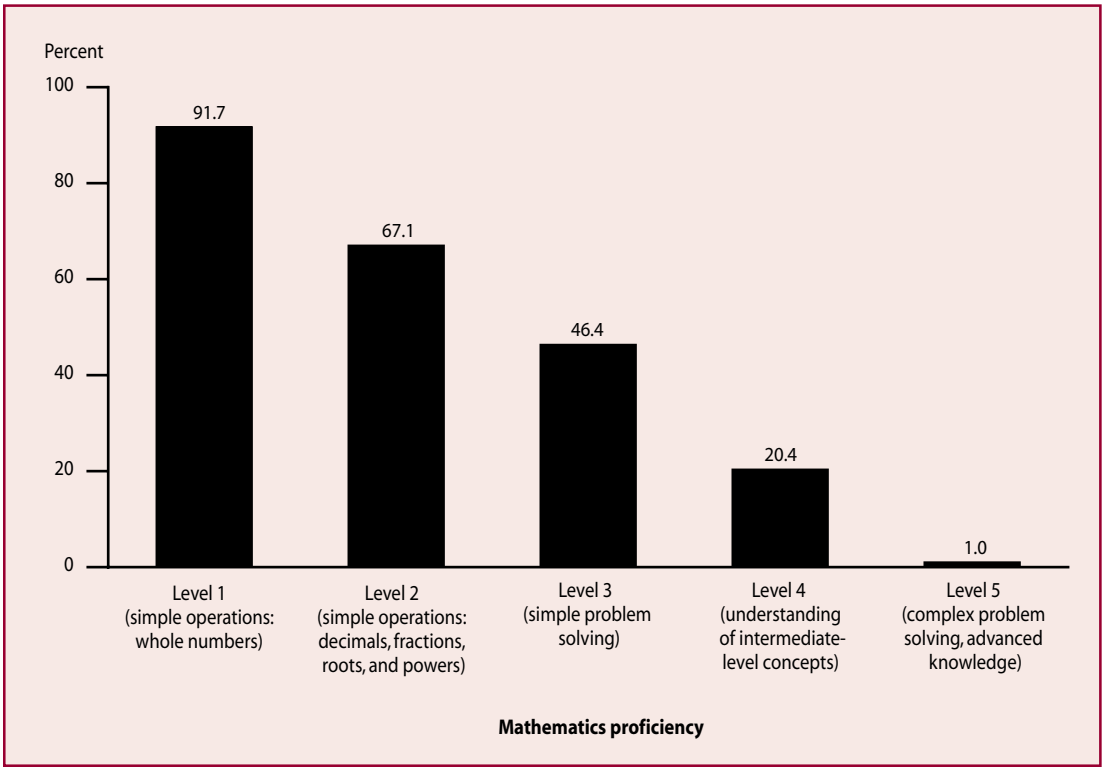
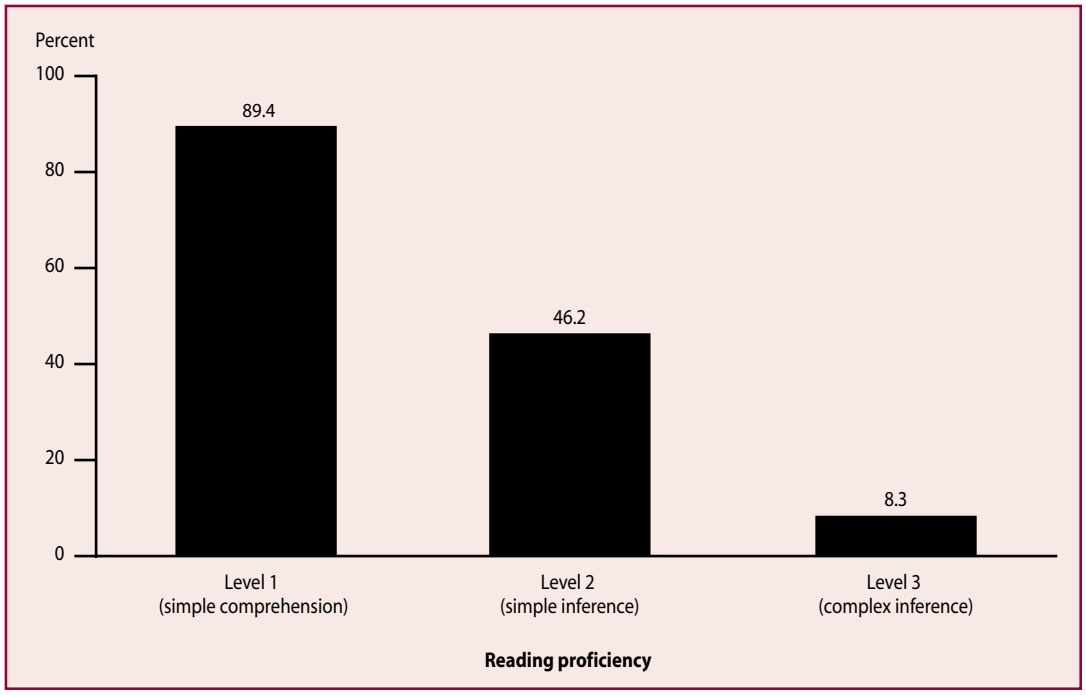
To obtain the complete report (NCES 2004–371), visit the NCES Electronic Catalog (http://nces.ed.gov/pubsearch).

Figure A. Percentage of high school sophomores, by demonstrated mathematics proficiency: 2002



SOURCE: U.S. Department of Education, National Center for Education Statistics, Education Longitudinal Study of 2002 (ELS:2002). (Originally published as figure 5 on p. 11 of the complete report from which this article is excerpted.)

Figure B. Percentage of high school sophomores, by demonstrated reading proficiency: 2002



SOURCE: U.S. Department of Education, National Center for Education Statistics, Education Longitudinal Study of 2002 (ELS:2002). (Originally published as figure 6 on p. 12 of the complete report from which this article is excerpted.)

Before- and After-School Care, Programs, and Activities of Children in Kindergarten Through Eighth Grade: 2001

Brian Kleiner, Mary Jo Nolin, and Chris Chapman

This article was originally published as the Executive Summary of the Statistical Analysis Report of the same name. The sample survey data are from the National Household Education Surveys Program (NHES).

Background

Many children in the nation are cared for by parents before and after school each day. Other children spend time in various nonparental arrangements before and after school, either because their parents choose or are obliged to work during these hours or because the children are participating in programs or activities geared toward their enrichment or enjoyment. Some children stay with one relative before and after school, or different relatives on different days, while others are cared for by people not related to them, such as neighbors, regular sitters, or family day care providers. Many children participate in center- or school-based programs before and after school, while other children participate in before- or after-school activities such as sports, clubs, or community service. Still other children are responsible for themselves before and after school, some for a few minutes at a time, others for several hours.

Surveys conducted in the 1990s found that while most children in kindergarten through eighth grade are in school during most of the hours when their mothers work (Smith 2000; Casper, Hawkins, and O'Connell 1994), many types of nonparental arrangements are utilized by parents of school-age children during time before and after school. Approximately 39 percent of all children in kindergarten through third grade in 1995 received some form of nonparental care before and after school, spending an average of 14 hours per week in such care, and most received care in a private home from a relative (Brimhall, Reaney, and West 1999). Employed parents often depended on multiple arrangements to provide supervision for their children (Hofferth et al. 1991), possibly including self-care. In 1991, 8 percent of 5- to 14-year olds with working mothers were in self-care (Casper, Hawkins, and O'Connell 1994). There is evidence that factors such as a child's age, race/ethnicity, family income, and parent education level have all been found to be related to children's participation in various types of before- and after-school arrangements.

This report presents findings from a national survey of families with children in kindergarten through eighth grade, the 2001 Before- and After-School Programs and Activities Survey of the National Household Education Surveys Program (ASPA-NHES:2001). This nationally representative study was conducted for the National Center for Education Statistics (NCES) of the U.S. Department of Education. Households were sampled using random-digit-dialing (RDD) methods. Interviews were completed with parents of 9,583 children attending kindergarten through eighth grade. Computer-assisted telephone interviewing (CATI) technology was used to conduct the interviews.

The survey asked parents about nonparental arrangements in which children participated before and after school during the school year, including care by relatives and people not related to the child; center- or school-based programs; scouting, sports, and other extracurricular activities; and self-care. These arrangements may be used primarily for the purposes of providing adult supervision for children or primarily for children's enrichment. Information was also collected about the characteristics of arrangements, parents' preferred types of after-school arrangements, and parents' ratings of aspects of their children's arrangements. An extensive array of household and family characteristic data was also collected.

This report provides various types of analyses based on data from the NHES:2001 Before- and After-School Programs and Activities Survey, including the extent of children's participation in nonparental arrangements during out-of-school hours, and details the characteristics of participants and nonparticipants in these arrangements. All of the estimates presented in this report are based on data that were weighted to produce unbiased and consistent estimates of the national totals. To test the differences between estimates, Student's *t* statistic was employed. All differences cited in the report are statistically significant at the 0.05 level of significance.

Key Findings

Overall, 20 percent of children in kindergarten through eighth grade had regularly scheduled nonparental arrangements before school in 2001 (table A), and 50 percent had nonparental arrangements after school. The three most common after-school arrangements for children were

Table A. Percent of kindergarten through eighth-grade children participating in various before- and/or after-school arrangements (scheduled at least monthly): 2001

Characteristic	Before-school		After-school	
	Percent	s.e.	Percent	s.e.
Any arrangements	20	0.5	50	0.6
Relative care	7	0.4	17	0.5
Nonrelative care	3	0.3	6	0.3
Center- or school-based program	4	0.3	19	0.5
Activities used for supervision	1	0.1	7	0.4
Self-care	6	0.3	13	0.4
Parental care only	80	0.5	50	0.6

NOTE: s.e. is standard error. Homeschooled children are excluded. Includes arrangements regularly scheduled at least once per month. Detail does not sum to totals because of multiple response—children who had more than one type of arrangement are reported under each type.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Before- and After-School Programs and Activities Survey of the National Household Education Surveys Program (ASPA-NHES), 2001.

center- or school-based programs (19 percent), relative care (17 percent), and self-care (13 percent). Fewer kindergarten through eighth-grade children were in the care of a nonrelative (6 percent) or in extracurricular activities used for supervision (7 percent) after school. Survey findings indicate the following:

- Overall, children who had regular weekly scheduled arrangements (before and/or after school) spent on average 10.4 hours per week in them, or about 2 hours per day. Children with regular weekly scheduled before-school arrangements spent on average 4.7 hours per week in them, and children with after-school arrangements spent on average 9.0 hours per week in them (table B).
- Of those children who had at least some nonparental arrangements before and/or after school, almost one-third were in more than one regularly scheduled arrangement.
- Generally, younger children (in kindergarten through fifth grade) were more likely than older children (in sixth through eighth grade) to be in the care of a relative, in the care of a nonrelative, or in a center- or school-based program before and after school, and were less likely than older children to care for themselves during out-of-school time.
- Differences existed across racial/ethnic groups: Black, non-Hispanic children were more likely than White, non-Hispanic and Hispanic children to be cared for by a relative and to be in self-care both before and after school. They were also more likely to participate in center- or school-based programs after school.
- Two characteristics that were consistently related to nonparental arrangements were family type and mother's employment status. Generally, single-parent households and households where mothers worked full time were more likely to have nonparental arrangements for their children before and after school.

The survey also provided data on the characteristics of the nonparental arrangements of kindergarten through eighth-grade children in 2001, including children's activities within their arrangements, the location and cost of arrangements, characteristics of relative and nonrelative care providers, and the number of children and adults present in different arrangement types. Survey findings indicate the following:

- In general, according to parents' reports, many children were engaged in education-related activities (such as homework) in all types of after-school arrangements. Many were also spending time in activities such as watching television, playing video games, and listening to music within their relative care, nonrelative care, and self-care arrangements after school.
- Children in relative care were more likely to be cared for in their own homes than children in nonrelative care, and children in self-care after school were very likely to spend at least some of this time in their own homes rather than other places, such as other homes, public places, community centers, schools, or outdoors. The majority of center- or school-based arrangements in which children participated were located in public schools (figure A).

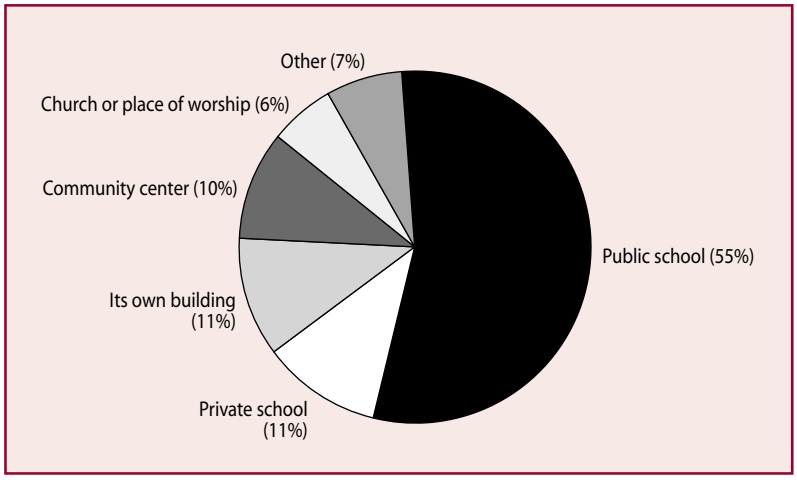
Table B. Mean number of hours per week kindergarten through eighth-grade children spent in before- and/or after-school arrangements (scheduled at least weekly): 2001

			Type of arrangement									
	All arrangements		Relative care		Nonrelative care		Center- or school-based programs		Activities used for supervision		Self-care	
Characteristic	Estimate	s.e.	Estimate	s.e.	Estimate	s.e.	Estimate	s.e.	Estimate	s.e.	Estimate	s.e.
Total number of children in before-school arrangements (thousands)	7,086	184	2,566	129	1,133	95	1,324	93	267	38	2,246	103
Mean before-school hours	4.7	0.1	5.0	0.2	5.5	0.3	4.5	0.2	2.2	0.2	3.5	0.1
Total number of children in after-school arrangements (thousands)	17,650	207	5,882	178	2,243	106	6,433	180	2,615	148	4,591	125
Mean after-school hours	9.0	0.2	9.7	0.3	9.5	0.3	7.5	0.1	4.2	0.1	4.8	0.1

NOTE: s.e. is standard error. Homeschooled children are excluded. May include hours after 6:00 p.m. Includes arrangements regularly scheduled at least once each week. Because of multiple response, children who had more than one type of arrangement are reported under each type.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Before- and After-School Programs and Activities Survey of the National Household Education Surveys Program (ASPA-NHES), 2001.

Figure A. Percent of kindergarten through eighth-grade children attending before- and/or after-school center- or school-based programs (scheduled at least monthly) in various locations: 2001



NOTE: Standard errors are as follows: public school, 1.4; private school, 0.8; its own building, 1.0; community center, 0.9; church or place of worship, 0.7; other, 0.8. If more than one center- or school-based program was reported, only the one with the most hours is represented. Includes arrangements regularly scheduled at least once each month. Homeschooled children are excluded.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Before- and After-School Programs and Activities Survey of the National Household Education Surveys Program (ASPA-NHES), 2001.

- Many relative care providers were grandmothers of the children (52 percent), but 21 percent of relative care providers were siblings. Most children who had sibling care providers were cared for by brothers or sisters in their teens or older (86 percent); however, 14 percent were cared for by siblings between the ages of 10 and 12. Overall, 0.5 percent of all children were cared for by siblings between the ages of 10 and 12.
- With respect to cost, parents of 19 percent of children in relative care reported a fee (paid either by them or some other person or agency) for their children's relative care arrangements, while parents of 72 percent of children in nonrelative care reported a fee for their nonrelative care. Parents of 58 percent of children in a center- or school-based program reported a fee. On average, for those children whose arrangements required a fee, parents paid $5.60 per hour for relative care, $7.90 per hour for nonrelative care, and $5.60 per hour for center- or school-based programs.

This report presents a broad view of the out-of-school time of kindergarten through eighth-grade children in the nation in 2001. Results suggest that children's experiences before and after school were quite varied. Many children simply were in the care of their parents, while others were in one or more nonparental arrangements during at least some of their out-of-school time on school days. The variability in children's experiences in nonparental arrangements reflects how parents from different backgrounds managed the demands and contingencies of work, the availability of different types of arrangements, the cost and location of arrangements, and other factors.

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Data source: The Before- and After-School Programs and Activities Survey of the NCES 2001 National Household Education Surveys Program (ASPA-NHES:2001).

For technical information, see the complete report:

Kleiner, B., Nolin, M.J., and Chapman, C. (2004). *Before- and After-School Care, Programs, and Activities of Children in Kindergarten Through Eighth Grade: 2001* (NCES 2004–008).

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To obtain the complete report (NCES 2004–008), call the toll-free ED Pubs number (877-433-7827) or visit the NCES Electronic Catalog (http://nces.ed.gov/pubsearch).

Revenues and Expenditures

Revenues and Expenditures by Public School Districts: School Year 2000–2001

Frank Johnson

This article was originally published as a Statistics in Brief report. The universe data are from the "School District Finance Survey (Form F-33)," part of the Common Core of Data (CCD). Technical notes and definitions from the original report have been omitted.

This report presents findings from the Common Core of Data (CCD) "School District Finance Survey." These data are collected annually from state education agencies through the U.S. Census Bureau "Survey of Local Government Finances: School Systems." Data in the "School District Finance Survey" include revenues by source, expenditures by function and object, long-term and short-term debt, and student membership for each school district in the United States. These data were collected and edited between March 2002 and March 2003. This short report on school district revenues and expenditures is a companion to the state-level Statistics in Brief, *Revenues and Expenditures for Public Elementary and Secondary Education: School Year 2000–01* (St. John 2003), which presents total state and national spending on public elementary and secondary education.

Only regular school districts that are on the CCD "Local Education Agency Universe Survey" file and that report student counts were included in this analysis. There were 14,028 such districts in school year 2000–01.

Revenues per Student

In the 2000–01 school year, the median school district received $8,236 per student in revenues from state, local, and federal sources (table 1). The median revenue per student indicates that half of the districts received less than $8,236 per student and half of the districts received more than $8,236 per student.

Revenues and expenditures of school districts vary both within and across states. Reporting the revenue per student at the 10th and 90th percentiles is one way of describing this variation in revenues. The national revenue per student at the 10th percentile ($6,369) indicates that 10 percent of all school districts received $6,369 or less in revenues per student. At the 90th percentile, the top 10 percent of districts had revenues of $12,877 or more per student. Eighty percent of all school districts received between $6,369 and $12,877 per student in revenues. The "90/10" ratio indicates the difference, or "disparity," between the 10th and 90th percentiles.[1]

For the nation as a whole, the 90/10 ratio was 2.0, with districts at the 90th percentile receiving twice as much in revenues per student as districts at the 10th percentile. The 90/10 ratio indicates that the variation in revenues per student was greatest in Montana (2.8) and lowest in Maryland and West Virginia (1.2). Median revenues per student among the states ranged from $14,995 in Alaska to $5,571 in Mississippi. The District of Columbia had the highest median revenues per student—$15,122. The median revenues per student in Mississippi, Tennessee, and Arkansas were lower than per student revenues in 90 percent of the school districts in the country (e.g., the $5,571 median in Mississippi was less than the $6,369 10th percentile for the nation). The median revenues per student in Alaska, the District of Columbia, and Vermont were higher than the per student revenues in 90 percent of the school districts in the country.

The data on the number of students and districts within each state also show the variation in the organization of education across the country. For example, Florida, with over 2 million students, has 67 school districts, whereas Nebraska, with fewer than 300,000 students, has 544 school districts. The number and size of school districts may affect administrative and other overhead costs.

Data for independent charter schools are reported at the bottom of table 1, and are not included in the state or national analysis. Independent charter schools are charter schools that are not affiliated with a school district. The median revenue for the 700 independent charter school districts included in this analysis was $6,591. The per student revenue for charter school districts at the 10th percentile was $241. When this is compared with the per student expenditures at the 10th percentile for charter school districts shown in table 5 ($3,580), it appears that some charter schools did not report all of their revenue. It is assumed that revenues from sources such as foundations or gifts were not reported in these cases.

Total Expenditures per Student

In 2000–01, the median total expenditure by school districts in the nation was $8,007 per student (table 2). This included current operating expenditures, capital outlays (for school construction and equipment), expenditures for

[1]The 90/10 ratio is based on that used in Evans, Murray, and Schwab (1999).

Table 1. Revenues per student for public elementary and secondary education, by state: School year 2000–01

State	Revenues per student			90/10 ratio	Number of districts	Number of students
	10th percentile	Median	90th percentile			
United States	$6,369	$8,236	$12,877	2.0	14,028	46,538,723
Alabama	5,870	6,428	7,682	1.3	128	728,532
Alaska	8,615	14,995	23,143	2.7	53	131,985
Arizona	5,934	7,671	15,818	2.7	216	834,377
Arkansas	5,782	6,298	7,705	1.3	310	449,693
California	6,816	8,021	11,915	1.7	975	5,973,228
Colorado	6,508	7,709	11,873	1.8	176	723,696
Connecticut	9,449	10,792	14,000	1.5	166	537,521
Delaware	8,633	9,942	11,226	1.3	16	106,545
District of Columbia	†	15,122	†	†	1	68,925
Florida	6,693	7,281	8,628	1.3	67	2,431,884
Georgia	6,856	7,709	9,463	1.4	179	1,441,297
Hawaii	†	9,125	†	†	1	184,360
Idaho	5,667	7,235	9,811	1.7	113	245,009
Illinois	6,593	7,958	11,735	1.8	892	2,025,249
Indiana	7,683	8,476	10,205	1.3	292	987,854
Iowa	7,095	7,894	9,420	1.3	373	495,080
Kansas	6,824	8,125	10,472	1.5	304	468,347
Kentucky	6,273	6,862	7,972	1.3	176	643,730
Louisiana	5,835	6,656	7,957	1.4	66	737,223
Maine	7,992	9,891	15,978	2.0	225	206,750
Maryland	7,764	8,962	9,584	1.2	24	852,920
Massachusetts	8,118	10,020	15,573	1.9	302	941,080
Michigan	7,366	8,172	10,528	1.4	556	1,648,807
Minnesota	7,485	8,433	10,204	1.4	342	836,386
Mississippi	5,006	5,571	6,903	1.4	152	496,513
Missouri	6,059	7,199	9,804	1.6	522	904,242
Montana	5,517	8,000	15,532	2.8	447	154,700
Nebraska	5,438	8,042	11,833	2.2	544	284,924
Nevada	6,896	8,165	13,523	2.0	17	340,706
New Hampshire	7,273	9,412	15,372	2.1	162	204,721
New Jersey	9,844	11,993	16,838	1.7	552	1,276,094
New Mexico	6,870	9,359	14,838	2.2	89	320,303
New York	10,000	12,153	17,105	1.7	687	2,856,425
North Carolina	6,668	7,490	10,021	1.5	117	1,277,013
North Dakota	6,066	8,086	12,870	2.1	226	108,739
Ohio	6,503	7,499	11,231	1.7	611	1,821,544
Oklahoma	5,552	6,577	9,046	1.6	543	623,098
Oregon	7,060	8,012	15,544	2.2	197	544,756
Pennsylvania	7,678	8,626	10,653	1.4	500	1,771,473
Rhode Island	8,792	9,994	12,668	1.4	36	156,275
South Carolina	7,054	7,775	9,306	1.3	86	676,681
South Dakota	6,239	7,181	9,495	1.5	173	127,986
Tennessee	5,204	5,799	6,854	1.3	137	895,839
Texas	6,771	7,932	11,492	1.7	1,040	4,021,403
Utah	5,302	6,440	9,669	1.8	40	477,380
Vermont	8,497	13,203	20,840	2.5	240	97,715
Virginia	6,954	7,851	10,100	1.5	132	1,143,807
Washington	6,881	7,987	13,806	2.0	296	1,004,843
West Virginia	7,345	7,882	8,823	1.2	55	285,785
Wisconsin	8,420	9,439	10,977	1.3	426	875,569
Wyoming	7,986	10,401	17,183	2.2	48	89,711
Independent charter school districts	241	6,591	9,938	41.2	700	179,473

† Not applicable.

NOTE: National figures do not include independent charter school districts (i.e., those not affiliated with a non-charter school district). Charter schools that are affiliated with regular school districts are included in the national and state figures. Only regular school districts matching the Common Core of Data (CCD) Agency Universe and with student membership > 0 were used in creating the national and state figures. Regular school districts with current expenditures per student between $2,500 and $35,000 were included in the national and state figures; 99.94 percent of school districts met this criterion. Charter school districts with revenues > 0 or expenditures > 0 were included in the charter school analysis; 83 percent of charter school districts met this criterion. It is assumed that some charter school districts did not report all revenues. The District of Columbia and Hawaii consist of one school district each.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Common Core of Data (CCD), "School District Finance Survey (Form F-33)," FY 2001.

Table 2. Total expenditures per student, for elementary and secondary education, by type of expenditure for regular districts and for independent charter school districts: School year 2000–01

Regular districts	Expenditures per student			90/10 factor
	10th percentile	Median	90th percentile	
Total	$6,158	$8,007	$12,621	2.0
Current	5,560	6,942	10,536	1.9
Instruction	3,349	4,268	6,578	2.0
Support services	1,732	2,359	3,775	2.2
Noninstructional services	167	307	517	3.1
Capital outlay	118	458	2,208	18.7
Other programs	0	9	160	†
Payments to state and local governments	0	0	20	†
Interest on long-term debt	0	102	483	†
Payments to other school districts	0	53	603	†

Independent charter school districts	Expenditures per student			90/10 factor
	10th percentile	Median	90th percentile	
Total	$4,190	$6,730	$11,132	2.7
Current	4,177	6,213	9,900	2.4
Instruction	1,893	3,256	5,519	2.9
Support services	1,557	2,746	4,737	3.0
Noninstructional services	0	26	465	†
Capital outlay	0	5	1,017	†
Other programs	0	0	89	†
Payments to state and local governments	0	0	0	†
Interest on long-term debt	0	0	44	†
Payments to other school districts	0	0	16	†

† Not applicable.

NOTE: National figures do not include independent charter school districts (i.e., those not affiliated with a non-charter school district). Charter schools that are affiliated with regular school districts are included in the national and state figures. Only regular school districts matching the Common Core of Data (CCD) Agency Universe and with student membership > 0 were used in creating the national and state figures. Regular school districts with current expenditures per student between $2,500 and $35,000 were included in the national and state figures; 99.4 percent of school districts met this criterion. Charter school districts with revenues > 0 or expenditures > 0 were included in the charter school analysis; 83 percent of charter school districts met this criterion. The District of Columbia and Hawaii consist of one school district each. Other programs include community services, adult education, and community colleges. Total expenditures do not include payments to other school districts.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Common Core of Data (CCD), "School District Finance Survey (Form F-33)," FY 2001.

programs other than elementary/secondary education (such as adult education and community service programs), interest payments on long-term debt, and payments to state and local governments. Total expenditures do not include payments to other school districts.

Tables 2 and 3 include median expenditures across districts in all states for specific types of expenditures and for total expenditures. Note that the median expenditures for the components (e.g., instruction, support services) do not sum to the median for total expenditures.

Total expenditures per student ranged between $6,158 and $12,621 for 80 percent of the school districts in the country (i.e., those districts between the 10th and 90th percentiles). School districts at the 90th percentile of total expenditures per student spent twice as much money per student as those districts at the 10th percentile (i.e., the 90/10 ratio was 2.0). The range in per student spending was similar for instruction, support services, and current expenditures. Expenditures for noninstructional services indicated a somewhat wider variation in per student expenditures between districts with high noninstructional expenditures

per student and districts with low noninstructional expenditures. This is possibly due to the inclusion of expenditures for enterprise operations (e.g., student-run bookstores), which are reported in only 29 states.

Expenditures for capital outlay, programs other than elementary/secondary education, payments to other school districts, and interest on long-term debt show a relatively large difference between per student expenditures in districts at the 90th percentile and the 10th percentile. Per student spending on capital outlay (for school construction and equipment) in districts with per student expenditures at the 90th percentile was more than 18 times that of districts at the 10th percentile. School districts with stable student populations do not need to make large expenditures for school construction, whereas districts experiencing a growing population of children tend to spend more money on school construction. In addition, expenditures for construction do not appear regularly from one year to the next. Districts may build several schools at the same time. This results in a large expenditure for capital outlays one year and small expenditures in subsequent years.

Per student spending for programs other than elementary/secondary education was approximately 18 times greater in high-spending districts than the national median ($160 vs. $9). The adult education and community service programs that make up most of the other program spending do not exist in many school districts. At least 10 percent of all school districts do not have programs other than elementary/secondary education, nor do they have interest payments or payments to other school districts or governments.

Note that payments to other school districts are not included in the total expenditures reported here. In most cases, these are transfer payments to educate children in other districts. These amounts are reported as payments to other districts by the sending district and are included in the current expenditures reported by the receiving district. The students are only counted by the receiving district, the district which actually educates the students. Thus, reporting the expenditure for only the receiving district avoids double counting and leads to more accurate per student estimates.

Median Expenditures per Student

Median total expenditures per student ranged from $15,143 in Alaska to $5,705 in Mississippi in 2000–01 (table 3). The median total expenditure per student was over $10,000 in Alaska, Connecticut, New Jersey, New York, and the District of Columbia. Median per student expenditures for classroom instruction (teacher salaries, supplies, etc.) ranged from $7,993 in Alaska to $3,136 in Mississippi. Among the eight states with the highest median expenditures per student for instruction, six were in the Northeast.[2] Median per student expenditures for capital projects (primarily school construction) ranged from $2,671 in the District of Columbia to $146 in Vermont.

Median expenditures per student for independent charter school districts were lower than the national median in every category except support services.

Current Expenditures per Student

Because of the variation in the kinds of programs run by school districts and the large swings in school construction expenditures, researchers often use current rather than total expenditures when reporting and comparing school district expenditures. Current expenditures are expenditures for the day-to-day operations of schools and school districts. They do not include expenditures for construction, equipment, debt financing, and programs outside of public elementary/secondary education.

Current expenditures per student by state are presented in table 4. The median current expenditure per student for the nation was $6,942 in 2000–01. Per student spending in districts at the 90th percentile was almost twice that of per student spending in districts at the 10th percentile (i.e., the 90/10 ratio was 1.9). Spending in districts at the 90th percentile was less than 50 percent higher than spending in districts at the 10th percentile in 23 states (i.e., the 90/10 ratio was less than 1.5). The median current expenditure per student in Alaska, the District of Columbia, and New York was larger than the current expenditure per student in 90 percent of all districts in the nation.

The three states with the highest 90/10 ratio in current expenditures per student were Alaska, Arizona, and Montana. The ratio was lowest in Alabama, Florida, and West Virginia. In these three states, current expenditures per student at the 90th percentile were less than 25 percent greater than spending at the 10th percentile.

Charter Schools

Although independent charter schools are public schools, they are often exempted from significant state or local rules that normally govern the operation and management of

[2]These states were Connecticut, Maine, Massachusetts, New Jersey, New York, and Rhode Island.

Table 3. Median school district expenditures per student by type of expenditure, by state: School year 2000–01

State	Median per pupil expenditures						
	Total expenditures[1]	Current expenditures	Instruction expenditures	Capital outlay expenditures	Other programs & payments to other govt. agencies	Interest expenditures on long-term debt	Payments to other school districts[1]
United States	$8,007	$6,942	$4,268	$458	$15	$102	$53
Alabama	6,666	5,842	3,627	481	150	74	0
Alaska	15,143	13,843	7,993	781	29	0	0
Arizona	7,657	6,060	3,262	1,006	0	83	0
Arkansas	6,160	5,616	3,506	278	0	113	0
California	7,764	6,596	4,184	804	11	14	26
Colorado	7,851	6,674	3,893	502	0	134	105
Connecticut	10,073	9,184	5,845	233	14	237	123
Delaware	9,604	8,151	5,168	780	16	58	276
District of Columbia	14,888	12,046	5,982	2,671	170	0	0
Florida	7,281	6,055	3,387	1,015	109	96	0
Georgia	7,351	6,552	4,174	570	1	63	5
Hawaii	7,394	6,599	3,973	613	182	0	0
Idaho	6,588	6,111	3,731	470	0	88	0
Illinois	7,753	6,669	3,983	607	0	111	269
Indiana	8,124	6,655	4,051	608	624	33	224
Iowa	7,100	6,374	3,866	415	0	81	659
Kansas	7,537	6,810	3,681	454	7	56	256
Kentucky	6,613	6,120	3,773	237	99	133	0
Louisiana	6,414	5,954	3,508	315	22	102	0
Maine	9,198	8,363	5,469	178	26	37	228
Maryland	8,805	7,658	4,677	907	24	77	90
Massachusetts	9,670	8,596	5,860	219	1	161	227
Michigan	7,981	6,930	4,323	411	72	286	8
Minnesota	8,195	6,911	4,319	481	251	273	267
Mississippi	5,705	5,209	3,136	377	3	105	0
Missouri	6,874	6,095	3,756	407	64	71	54
Montana	7,800	7,258	4,509	182	0	0	26
Nebraska	7,875	7,170	4,820	352	0	0	28
Nevada	8,021	7,140	4,214	525	33	245	2
New Hampshire	8,411	7,539	4,678	215	0	118	439
New Jersey	11,512	10,317	6,252	525	47	136	224
New Mexico	9,336	7,529	3,964	1,023	20	120	0
New York	12,808	10,598	7,021	899	46	297	24
North Carolina	7,560	6,600	4,126	749	25	97	0
North Dakota	7,312	6,850	3,939	381	0	0	376
Ohio	7,192	6,281	3,769	429	90	84	27
Oklahoma	6,585	6,217	3,594	202	0	14	0
Oregon	8,174	7,307	4,383	321	1	77	9
Pennsylvania	8,382	7,180	4,505	423	15	375	392
Rhode Island	9,337	8,925	5,887	163	24	66	150
South Carolina	7,730	6,504	3,855	873	74	155	13
South Dakota	7,510	6,552	3,917	622	0	13	37
Tennessee	6,272	5,280	3,454	450	54	133	0
Texas	8,095	6,912	4,299	565	4	149	37
Utah	6,101	5,261	3,289	713	137	153	0
Vermont	8,505	8,204	5,289	146	0	103	4,414
Virginia	7,714	6,852	4,244	571	12	120	70
Washington	7,812	6,756	4,103	379	3	191	9
West Virginia	7,962	7,328	4,519	402	44	0	6
Wisconsin	9,215	7,922	4,882	434	128	349	75
Wyoming	9,902	8,671	5,025	714	1	95	0
Independent charter school districts	6,730	6,213	3,256	5	0	0	0

[1]Total expenditures do not include payments to other school districts.

NOTE: National figures do not include independent charter school districts (i.e., those not affiliated with a non-charter school district). Charter school districts that are affiliated with regular school districts are included in the national and state figures. Only school districts matching the Common Core of Data (CCD) Agency Universe and with student membership > 0 were used in creating this table. Districts with revenues and expenditures between $2,500 and $35,000 per student were included in the national and state figures; 99.94 percent of school districts met this criterion. Charter school districts with revenues > 0 and expenditures > 0 were included in the charter school analysis; 83 percent of charter school districts met this criterion. The District of Columbia and Hawaii consist of only one school district each. Instruction expenditures are included in current expenditures. This table reports the median school district expenditure for each category; therefore, totals do not equal the sum of the detail. Other programs include community services, adult education, and community colleges.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Common Core of Data (CCD), "School District Finance Survey (Form F-33)," FY 2001.

Table 4. Current expenditures per student for public elementary and secondary education, by state: School year 2000–01

State	Expenditures per student			90/10 ratio	Number of districts	Number of students
	10th percentile	Median	90th percentile			
United States	$5,560	$6,942	$10,536	1.9	14,028	46,538,723
Alabama	5,435	5,842	6,615	1.2	128	728,532
Alaska	8,316	13,843	21,155	2.5	53	131,985
Arizona	4,740	6,060	10,476	2.2	216	834,377
Arkansas	5,053	5,616	6,778	1.3	310	449,693
California	5,870	6,596	9,077	1.5	975	5,973,228
Colorado	5,572	6,674	10,000	1.8	176	723,696
Connecticut	8,226	9,184	11,427	1.4	166	537,521
Delaware	7,448	8,151	9,373	1.3	16	106,545
District of Columbia	†	12,046	†	†	1	68,925
Florida	5,543	6,055	6,690	1.2	67	2,431,884
Georgia	5,922	6,552	7,869	1.3	179	1,441,297
Hawaii	†	6,599	†	†	1	184,360
Idaho	4,982	6,111	8,916	1.8	113	245,009
Illinois	5,479	6,669	9,449	1.7	892	2,025,249
Indiana	6,049	6,655	7,720	1.3	292	987,854
Iowa	5,776	6,374	7,325	1.3	373	495,080
Kansas	5,618	6,810	8,741	1.6	304	468,347
Kentucky	5,466	6,120	7,209	1.3	176	643,730
Louisiana	5,311	5,954	6,819	1.3	66	737,223
Maine	7,005	8,363	12,438	1.8	225	206,750
Maryland	7,004	7,658	8,760	1.3	24	852,920
Massachusetts	7,307	8,596	12,015	1.6	302	941,080
Michigan	6,269	6,930	8,879	1.4	556	1,648,807
Minnesota	6,012	6,911	8,256	1.4	342	836,386
Mississippi	4,666	5,209	6,145	1.3	152	496,513
Missouri	5,217	6,095	7,850	1.5	522	904,242
Montana	5,000	7,258	13,444	2.7	447	154,700
Nebraska	5,378	7,170	11,162	2.1	544	284,924
Nevada	5,751	7,140	12,168	2.1	17	340,706
New Hampshire	6,246	7,539	9,792	1.6	162	204,721
New Jersey	8,650	10,317	13,256	1.5	552	1,276,094
New Mexico	5,703	7,529	11,256	2.0	89	320,303
New York	8,865	10,598	14,878	1.7	687	2,856,425
North Carolina	5,899	6,600	7,707	1.3	117	1,277,013
North Dakota	5,095	6,850	10,306	2.0	226	108,739
Ohio	5,583	6,281	7,933	1.4	611	1,821,544
Oklahoma	5,115	6,217	8,246	1.6	543	623,098
Oregon	6,501	7,307	13,400	2.1	197	544,756
Pennsylvania	6,224	7,180	8,790	1.4	500	1,771,473
Rhode Island	7,986	8,925	10,513	1.3	36	156,275
South Carolina	5,754	6,504	7,930	1.4	86	676,681
South Dakota	5,499	6,552	8,711	1.6	173	127,986
Tennessee	4,666	5,280	6,326	1.4	137	895,839
Texas	5,864	6,912	9,695	1.7	1,040	4,021,403
Utah	4,388	5,261	7,402	1.7	40	477,380
Vermont	6,629	8,204	11,172	1.7	240	97,715
Virginia	6,179	6,852	8,260	1.3	132	1,143,807
Washington	6,072	6,756	11,811	1.9	296	1,004,843
West Virginia	6,793	7,328	8,050	1.2	55	285,785
Wisconsin	6,933	7,922	9,130	1.3	426	875,569
Wyoming	7,173	8,671	11,836	1.7	48	89,711
Independent charter school districts	4,177	6,213	9,900	2.4	700	179,473

† Not applicable.

NOTE: National figures do not include independent charter school districts (i.e., those not affiliated with a non-charter school district). Charter schools that are affiliated with regular school districts are included in the national and state figures. Only regular school districts matching the Common Core of Data (CCD) Agency Universe and with student membership > 0 were used in creating this table. Districts with revenues and expenditures between $2,500 and $35,000 per student were included in the national and state figures; 99.94 percent of school districts met this criterion. Charter school districts with revenues > 0 and expenditures > 0 were included in the charter school analysis; 83 percent of charter school districts met this criterion. The District of Columbia and Hawaii consist of one school district each.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Common Core of Data (CCD), "School District Finance Survey (Form F-33)," FY 2001.

public schools. A charter school may be affiliated with a regular school district, a university, or a private organization. In order to include all charter schools in its files, NCES created a separate school district record for each charter school (or charter school organization) that is not affiliated with a school district. In this report, data for charter schools that are associated with regular school districts are included with the data reported for the entire school district; the data for those schools and the affiliated districts are indistinguishable from districts that do not have charter schools.

Charter school data for independent charter schools that are not affiliated with a regular school district were included in this report if they could be matched to the CCD "Local Education Agency Universe Survey," if they had a student membership count greater than 0, and if they had both total revenues and total expenditures greater than 0. Data for independent charter school districts are reported at the bottom of the tables and are not included in the national totals or averages. Certain charter school districts in Arizona, California, Connecticut, Delaware, Georgia, Michigan, Minnesota, New Jersey, North Carolina, and Texas fell into this category. These data are kept separate because, in many cases, the data are not complete or fail to meet NCES editing standards. This is to be expected if the districts are not required to report finance data to a district or other local government agency. In some cases, a charter school district may operate more than one charter school.

Variations in Types of Districts

District-level analyses and comparisons can be complicated by the variety of administrative structures that exist across the nation in regular school districts. States such as Florida, Maryland, Nevada, and West Virginia have large districts that are coterminous with counties and encompass all levels and types of public schools. School districts in other states may exist in small communities with only one school, or in larger communities where all elementary schools are in one school district and all secondary schools are in another. In some states, all special education schools are administered by a few specific districts; in other states, each district may have all kinds of different schools and programs.[3] This variety in the types of school districts makes comparison of expenditures among school districts difficult.

The information presented in tables 1 through 4 is based on all regular education school districts reporting student counts that are reported on the CCD "Local Education Agency Universe Survey" regardless of grades served. Table 5 presents current expenditures per student in regular unified districts only. Unified districts are school districts with both elementary and secondary education programs.

The median current expenditure by unified school districts in the nation was $6,826 per student in 2000–01, with 80 percent of all districts ranging between $5,573 and $9,883 (table 5). The 90/10 ratio was 1.8, indicating a slight reduction in variation of per student spending compared with all regular school districts (1.9) reported in table 4. In nine states, fewer than half of the school districts were unified (Arizona, California, Illinois, Maine, Montana, Nebraska, New Hampshire, New Jersey, and Vermont). In two states, Montana and Vermont, fewer than half of the students attended schools in unified districts. In the three states with the widest disparity in current expenditures per student at the 10th and 90th percentiles when all regular school districts were analyzed, the disparity was reduced in Arizona and Montana when the analysis was limited to unified school districts.[4]

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Data source: The NCES Common Core of Data (CCD), "School District Finance Survey (Form F-33)," 2000–01.

For technical information, see the complete report:

Johnson, F. (2004). *Revenues and Expenditures by Public School Districts: School Year 2000–2001* (NCES 2004–319).

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To obtain the complete report (NCES 2004–319), visit the NCES Electronic Catalog (http://nces.ed.gov/pubsearch).

[3]Special education districts were not included in regular districts.

[4]The disparity in Alaska was not changed because all 53 of its districts are unified.

Table 5. Current expenditures per student for unified districts, by state: School year 2000–01

State	Expenditures per student			90/10 ratio	Number of unified districts	Percent of unified districts	Number of students	Percent of students in unified districts
	10th percentile	Median	90th percentile					
United States	$5,573	$6,826	$9,883	1.8	10,630	75.8	42,955,917	92.3
Alabama	5,435	5,842	6,615	1.2	128	100.0	728,532	100.0
Alaska	8,316	13,843	21,155	2.5	53	100.0	131,985	100.0
Arizona	4,740	5,709	8,889	1.9	95	44.0	524,861	62.9
Arkansas	5,053	5,616	6,778	1.3	310	100.0	449,693	100.0
California	5,963	6,525	8,864	1.5	338	34.7	4,331,315	72.5
Colorado	5,572	6,674	10,000	1.8	176	100.0	723,696	100.0
Connecticut	8,296	9,154	11,320	1.4	112	67.5	503,222	93.6
Delaware	7,448	8,151	9,373	1.3	16	100.0	106,545	100.0
District of Columbia	†	12,046	†	†	1	100.0	68,925	100.0
Florida	5,543	6,055	6,690	1.2	67	100.0	2,431,884	100.0
Georgia	5,924	6,543	7,607	1.3	172	96.1	1,438,190	99.8
Hawaii	†	6,599	†	†	1	100.0	184,360	100.0
Idaho	4,982	5,940	8,392	1.7	107	94.7	244,857	99.9
Illinois	5,522	6,498	7,775	1.4	409	45.9	1,288,502	63.6
Indiana	6,049	6,657	7,720	1.3	291	99.7	987,605	100.0
Iowa	5,776	6,374	7,325	1.3	373	100.0	495,080	100.0
Kansas	5,618	6,810	8,741	1.6	304	100.0	468,347	100.0
Kentucky	5,491	6,124	7,067	1.3	171	97.2	641,915	99.7
Louisiana	5,311	5,954	6,819	1.3	66	100.0	737,223	100.0
Maine	7,003	7,955	9,641	1.4	112	49.8	179,373	86.8
Maryland	7,004	7,658	8,760	1.3	24	100.0	852,920	100.0
Massachusetts	7,443	8,445	10,746	1.4	210	69.5	875,000	93.0
Michigan	6,329	6,930	8,775	1.4	525	94.4	1,646,679	99.9
Minnesota	6,011	6,882	8,188	1.4	327	95.6	834,098	99.7
Mississippi	4,661	5,179	6,145	1.3	149	98.0	495,426	99.8
Missouri	5,211	5,998	7,573	1.5	449	86.0	892,433	98.7
Montana	5,749	8,722	14,698	2.6	56	12.5	19,451	12.6
Nebraska	6,051	7,140	9,218	1.5	252	46.3	272,145	95.5
Nevada	5,751	7,053	10,058	1.7	16	94.1	340,599	100.0
New Hampshire	6,246	7,151	9,187	1.5	67	41.4	159,019	77.7
New Jersey	9,102	10,538	12,546	1.4	215	38.9	947,499	74.2
New Mexico	5,703	7,529	11,256	2.0	89	100.0	320,303	100.0
New York	8,842	10,458	14,311	1.6	637	92.7	2,805,858	98.2
North Carolina	5,899	6,600	7,707	1.3	117	100.0	1,277,013	100.0
North Dakota	5,089	6,642	9,282	1.8	170	75.2	105,447	97.0
Ohio	5,587	6,283	7,962	1.4	610	99.8	1,821,492	100.0
Oklahoma	5,133	6,170	7,973	1.6	430	79.2	600,472	96.4
Oregon	6,459	7,176	10,452	1.6	178	90.4	544,277	99.9
Pennsylvania	6,224	7,180	8,770	1.4	498	99.6	1,770,564	99.9
Rhode Island	7,986	8,795	10,084	1.3	32	88.9	154,035	98.6
South Carolina	5,754	6,504	7,930	1.4	86	100.0	676,681	100.0
South Dakota	5,461	6,533	8,450	1.5	168	97.1	126,883	99.1
Tennessee	4,775	5,333	6,324	1.3	123	89.8	873,432	97.5
Texas	5,856	6,851	9,554	1.6	976	93.8	4,011,347	99.7
Utah	4,388	5,261	7,402	1.7	40	100.0	477,380	100.0
Vermont	6,772	7,972	10,224	1.5	37	15.4	35,123	35.9
Virginia	6,179	6,852	8,260	1.3	132	100.0	1,143,807	100.0
Washington	6,075	6,668	10,034	1.7	246	83.1	995,003	99.0
West Virginia	6,793	7,328	8,050	1.2	55	100.0	285,785	100.0
Wisconsin	7,010	7,936	8,974	1.3	368	86.4	840,455	96.0
Wyoming	7,173	8,541	11,542	1.6	46	95.8	89,181	99.4
Independent charter school districts	3,580	5,763	9,924	2.8	192	27.4	57,558	32.1

† Not applicable.

NOTE: National figures do not include independent charter school districts (i.e., those not affiliated with a non-charter school district). Charter schools that are affiliated with regular school districts are included in the national and state figures. Only regular school districts matching the Common Core of Data (CCD) Agency Universe and with student membership > 0 were used in creating this table. Districts with revenues and expenditures between $2,500 and $35,000 per student were included in the national and state figures; 99.94 percent of school districts met this criterion. Charter school districts with revenues > 0 and expenditures > 0 were included in the charter school analysis; 83 percent of charter school districts met this criterion. The District of Columbia and Hawaii consist of one school district each.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Common Core of Data (CCD), "School District Finance Survey (Form F-33)," FY 2001.

Vocational Education

Undergraduate Enrollments in Academic, Career, and Vocational Education

Lisa Hudson and Linda Shafer

This article was originally published as an Issue Brief. The sample survey data are from the National Postsecondary Student Aid Study (NPSAS).

This Issue Brief examines postsecondary vocational education within the context of all undergraduate education. The National Center for Education Statistics (NCES) has traditionally reported data on postsecondary vocational education using a taxonomy that divides subbaccalaureate postsecondary education into academic and vocational areas of study (Choy and Horn 1992; Levesque et al. 2000). To better reflect the correspondence between instructional fields and the educational requirements of careers in today's economy, NCES recently developed the new taxonomy described in this Issue Brief.[1] The new taxonomy classifies all undergraduate majors as academic majors or career majors. Because federal law defines vocational education as instruction for careers below the baccalaureate level,[2] the new taxonomy further divides career majors into subbaccalaureate- and baccalaureate-level majors. At the baccalaureate level, career majors are considered nonvocational and at the subbaccalaureate level they are considered vocational (table 1). These majors are defined as follows:

- **Academic majors**—Formal programs of study designed to impart knowledge and skills that represent the accumulated knowledge base in a subject area. The instruction is typically designed to be comprehensive, theoretical, and decontextualized (from a labor market perspective). For example, a mathematics major typically provides instruction across a broad range of mathematical content areas, including in-depth study of historical and theoretical

[1]The revision process included the following steps: a review of community college course catalogs; a review of the taxonomy developed by the Center for the Study of Community Colleges' 1998 Curriculum Project (Schuyler 1999); an analysis of data on students' majors and degree expectations using the NCES 1999–2000 National Postsecondary Student Aid Study (NPSAS:2000); an analysis of student postsecondary completions data using the NCES 1999–2000 Integrated Postsecondary Education Data System (IPEDS); an examination of data from the Bureau of Labor Statistics on the educational attainment of workers in over 800 occupational fields; and a 1-day expert panel meeting of postsecondary faculty, administrators, and researchers. The new taxonomy classifies majors using the NCES Classification of Instructional Programs (CIP) (see U.S. Department of Education 2002); the taxonomy is available from the authors upon request. The taxonomy used here is a slight variation of the new taxonomy, which separates English/literature from humanities and includes liberal arts/general studies as part of humanities.

[2]The 1998 Carl D. Perkins Vocational and Technical Education Act, Section 3(29).

Table 1. Percentage distribution of degree-seeking undergraduates, baccalaureate students, and subbaccalaureate students, by educational orientation: 1999–2000

Educational orientation	All degree-seeking undergraduates	Baccalaureate students	Subbaccalaureate students
Total	100.0	100.0	100.0
Academic	26.3	32.9	20.4
Career	66.2	60.7	71.2
Vocational career	37.6	†	71.2
Nonvocational career	28.6	60.7	†
No major declared	7.5	6.5	8.4

† Not applicable. Federal legislation defines vocational education as career education at the subbaccalaureate level.

NOTE: Detail may not sum to totals because of rounding.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1999–2000 National Postsecondary Student Aid Study (NPSAS:2000).

perspectives, with minimal regard to specific occupational applications.

- **Career majors**—Formal programs of study designed to impart knowledge and skills that represent the relevant accumulated knowledge within the context of occupation-specific job requirements. The knowledge and skills imparted typically involve less theory, more application, and a narrower focus than what is taught in an academic major; they are also often explicitly linked to occupational skill demands. For example, an engineering major (or engineering technology major) focuses on the mathematical principles and applications that are required for practice as an engineer (or engineering technologist), with more limited attention to areas of mathematics that do not have engineering applications. Career majors can be either vocational or nonvocational.

  - **Vocational career majors**—A subset of career majors consisting of formal programs of study that impart the knowledge and skills required for semiskilled, skilled, technical, and paraprofessional occupations that typically require education below the baccalaureate level (such as engineering technology).

  - **Nonvocational career majors**—A subset of career majors consisting of formal programs of study that impart the knowledge and skills required for technical and professional occupations that typically require education at the baccalaureate or higher level (such as engineering).

Other NCES publications (e.g., Snyder 2002) list the distribution of students by specific major. For this Issue Brief, specific majors were aggregated into the 19 broad areas of study listed in table 2; these areas of study include 7 academic and 12 career areas of study. (A 20th category includes students with no declared major.) These classifications are used here to describe (1) the distribution of undergraduates across academic and career education, including vocational and nonvocational career education (referred to here as *educational orientation*); and (2) the distribution of baccalaureate and subbaccalaureate students among the broad *areas of study* within these educational orientations. The analysis uses data from a national sample of students enrolled in postsecondary education, collected through the NCES 1999–2000 National Postsecondary Student Aid Study (NPSAS:2000).[3] The analysis includes only NPSAS:2000 undergraduates who are seeking a postsecondary credential, referred to here as degree-seeking students.[4]

Educational Orientation

Table 1 shows that, based on the new taxonomy, most degree-seeking undergraduate education is career related. Overall, about two-thirds of degree-seeking undergraduates were majoring in a career field in 1999–2000, and over one-

[3]The NSPSAS:2000 methodology report (Riccobono et al. 2002) provides detailed information on the design and administration of this survey.

[4]In NPSAS:2000, non-degree-seeking students comprise 7 percent of all undergraduates. The analysis reported here is based on a sample of 45,778 degree-seeking undergraduates, for a weighted degree-seeking undergraduate population of 14,754,953. Degree-seekers were defined using students' self-report of the credential (degree or certificate) they were seeking at their current postsecondary institution and, where this information was not available, on the institutions' records of students' degree program. Subbaccalaureate students include (among others) students enrolled at 4-year institutions who reported that they were seeking a degree below the baccalaureate level. Students' majors were defined using students' self-report of their current major; where this information was not available, institutions' records were used.

Table 2. Percentage distribution of degree-seeking baccalaureate students and subbaccalaureate students, by area of study: 1999–2000

Area of study	Baccalaureate students	Subbaccalaureate students	Subbaccalaureate students with	
			Academic majors	Vocational career majors
Total	100.0	100.0	100.0	100.0
Academic area of study				
English/literature and humanities	5.0	1.8	8.6	†
Fine and performing arts	3.7	2.2	10.9	†
Interdisciplinary studies	1.2	1.4	6.7	†
Liberal arts/general studies	2.2	9.8	48.1	†
Mathematics	0.9	0.6	2.8	†
Science	7.0	1.8	8.9	†
Social sciences	12.9	2.9	14.1	†
Career area of study				
Agriculture/natural resources	1.1	0.6	†	0.8
Business/marketing	18.9	15.5	†	21.7
Communications/design	6.9	5.8	†	8.2
Computer science	5.4	10.4	†	14.6
Education	8.4	6.0	†	8.4
Engineering/architectural sciences	6.3	3.8	†	5.3
Health care	8.0	14.4	†	20.3
Legal services	0.7	1.6	†	2.3
Personal and consumer services	1.1	3.1	†	4.3
Protective services	1.5	2.9	†	4.1
Public, social, and human services	1.8	1.5	†	2.1
Trade and industry	0.7	5.7	†	8.1
No major declared	6.5	8.4	†	†

† Not applicable.

NOTE: Detail may not sum to totals because of rounding.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1999–2000 National Postsecondary Student Aid Study (NPSAS:2000).

third were majoring in a vocational career field. In comparison, approximately one-quarter of degree-seeking undergraduates were majoring in an academic field.

Although career education predominates at both the baccalaureate and subbaccalaureate levels, it is more common at the subbaccalaureate level, where 71 percent of students (compared to 61 percent of baccalaureate students) had career majors. Conversely, academic education is more common at the baccalaureate than at the subbaccalaureate level (33 vs. 20 percent, respectively), with the subbaccalaureate students in academic fields most often majoring in liberal arts/general studies (table 2).

Areas of Study Among Subbaccalaureate Versus Baccalaureate Students

Although academic education is more common at the baccalaureate than at the subbaccalaureate level, only five of the seven academic areas of study—English/literature and humanities, fine and performing arts, mathematics, science, and social sciences—were majored in by a higher proportion of baccalaureate than subbaccalaureate students in 1999–2000 (table 2). No measurable difference was detected in the proportions of subbaccalaureate and baccalaureate students majoring in interdisciplinary studies. In contrast, the proportion of subbaccalaureate students majoring in liberal arts/general studies was about four times larger than the proportion of baccalaureate students majoring in this area of study.[5]

Again, although career education is more common at the subbaccalaureate than at the baccalaureate level, the results for specific areas of study within career education are more

[5]Liberal arts/general studies is often taken at the subbaccalaureate level by students who intend to transfer to a 4-year program; for example, in NPSAS:2000, 20 percent of subbaccalaureate students with this major reported that their main goal was to transfer to a 4-year program, compared to 11 percent of subbaccalaureate students in other majors.

mixed. Six of the 12 career areas—computer science, health care, legal services, personal and consumer services, protective services, and trade and industry—were more commonly majored in by subbaccalaureate students. No measurable difference was detected in the proportions of subbaccalaureate and baccalaureate students majoring in public, social, and human services, and four career areas—business/marketing, communications/design, education, and engineering/architectural sciences—were more commonly majored in by baccalaureate than subbaccalaureate students.[6]

Subbaccalaureate Areas of Study

Fifty-three percent of all degree-seeking undergraduates in 1999–2000 were subbaccalaureate students (not in tables). While these students majored in a broad range of subject areas, four areas—the vocational career areas of business/marketing, computer science, and health care, and the academic area of liberal arts/general studies—accounted for about half of all subbaccalaureate majors (table 2). This pattern of enrollment reflects the dual role of community colleges (which serve most subbaccalaureate students) as providers of job training and as transfer institutions.[7]

Looking at academic and vocational students separately provides another perspective on subbaccalaureate enrollments. About half (48 percent) of all academic students at this level majored in liberal arts/general studies; no other area enrolled more than 14 percent of academic subbaccalaureate students. Among subbaccalaureate students with vocational career majors, 42 percent majored in the two fields of business/marketing and health care, and over half (57 percent) majored in the three fields of business/marketing, computer science, and health care.

Discussion

Using the new taxonomy, most baccalaureate and subbaccalaureate students are enrolled in career-oriented majors, as opposed to academic majors. Subbaccalaureate students are more likely than baccalaureate students to enroll in career majors, with about 7 out of 10 subbaccalaureate students having vocational career majors. But these distinctions are far from clear-cut, since students tend to have a mix of educational goals; the NPSAS:2000 data show that no major fits exclusively into the academic, nonvocational career, or vocational career definition. For example, 12 percent of students majoring in liberal arts (an academic major in the taxonomy) at less-than-4-year institutions said their main reason for enrolling was to learn job skills; conversely, 12 percent of less-than-4-year marketing majors (a vocational career major in the taxonomy) reported that their main goal was to transfer to a 4-year institution (data not in tables). The taxonomy does reflect general differences in the focus of educational programs and the occupations for which programs prepare students; however, as the labor market and education systems continue to evolve, the classification system for postsecondary vocational education may need to be periodically revisited.

[6]For agriculture/natural resources, small sample sizes resulted in data that were too unreliable to analyze.

[7]In 1999–2000, public 2-year institutions (community colleges) enrolled 89 percent of all students in less-than-4-year degree-granting institutions, and produced 73 percent of associate degree recipients and about 54 percent of all subbaccalaureate degree and award recipients (Snyder 2002, p. 204).

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Data source: The NCES 1999–2000 National Postsecondary Student Aid Study (NPSAS:2000).

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Status of Library Media Centers

The Status of Public and Private School Library Media Centers in the United States: 1999–2000

Barbara Holton, Yupin Bae, Susan Baldridge, Michelle Brown, and Dan Heffron

This article was originally published as the Executive Summary of the E.D. TAB report of the same name. The sample survey data are from the 1999–2000 Schools and Staffing Survey (SASS).

This report examines the state of public and private school library media centers in the United States in 1999–2000. The data used in the report come from the 1999–2000 Schools and Staffing Survey (SASS), the nation's most extensive sample survey of America's public and private schools and library media centers. Sponsored by the National Center for Education Statistics (NCES), SASS has been conducted four times, in school years 1987–88, 1990–91, 1993–94, and 1999–2000.

Currently, the library media center is defined as an organized collection of printed and/or audiovisual and/or computer resources that is administered as a unit, is located in a designated place or places, and makes resources and services available to students, teachers, and administrators.

Organization and Content of This Report

The body of this report is composed of tables providing an overview of school library media center data from the 1999–2000 SASS. The tables present data on traditional public school and private school library media centers. Traditional public schools are defined as institutions that provide educational services for at least one of grades 1–12 (or comparable ungraded levels), have one or more teachers to give instruction, are located in one or more buildings, receive public funds as primary support, and are operated by an education agency. Traditional public schools include schools in juvenile detention centers, schools located on military bases and operated by the Department of Defense, and Bureau of Indian Affairs (BIA)-funded schools operated by local public school districts. Traditional public schools

do not include schools that teach only prekindergarten or kindergarten, public charter schools (1,010 schools in the SASS sample), and BIA-funded schools that are not operated by a local public school district (120 schools in the SASS sample). In this report, the terms *traditional public schools* and *public schools* and the terms *school library* and *library media center* are used interchangeably.

The tables present data on several main topics of interest concerning school library media centers. These topics are

- library media center characteristics;
- library media center staff characteristics;
- library media center expenditures and collection holdings; and
- library media center policies.

The data are presented at various levels for traditional public school and private school library media centers.

Public school library media center data are presented at the following levels:

- national-level data;
- regional-level data;
- state-level data;
- community-type data;
- school-level data; and
- student enrollment data.

Private school library media center data are presented at the following levels:

- national-level data;
- affiliation-level data;
- NCES typology-level data;
- regional-level data;
- community-type data;
- school-level data; and
- student enrollment data.

Key Variables

The key variables—such as staffing, library expenditures, and collection holdings—were selected for this report because they represent important descriptors of library media centers. Some basic variables about library equipment were excluded from this report because they appeared in the E.D. TAB published in May 2002, *Schools and Staffing Survey, 1999–2000: Overview of the Data for Public, Private, Public Charter, and Bureau of Indian Affairs Elementary and Secondary Schools* (NCES 2002–313).

Findings

This report is intended to give the reader an overview of the status of public and private school libraries for school year 1999–2000. The data are presented in the following four categories:

- library media center characteristics—the availability of library media centers and the extent to which students have access to a library in their school;
- library media center staff characteristics—the educational level of public and private school librarians and the number of volunteers who assist in the library;
- library media center expenditures and collection holdings—the financial and information resources of the library; and
- library media center policies—issues related to the frequency of regularly scheduled class visits, independent use of the library, and borrowing privileges.

Selected findings are described below.

Library media center characteristics

- In 1999–2000, there were about 77,000 public school library media centers, representing 92 percent of all traditional public schools.
- There were approximately 17,000 private school library media centers, representing 63 percent of all private schools.
- Of the 45 million students enrolled in public elementary or secondary schools in the United States, approximately 44 million (97 percent) attended schools with a library media center.
- Four million private school students, or 82 percent, were enrolled in a school with a library media center.
- Among schools with a library media center, some three-quarters of public schools had a paid, state-certified library media specialist, compared with one-fifth of private schools.

Library media center staff characteristics

- Among public schools with a library media center, 52 percent of high schools had a school librarian with a Master of Library Science (MLS) or related degree

in 1999–2000, compared with 39 percent of elementary schools and 32 percent of combined schools.

- Among private schools with a library media center, 43 percent of high schools, 9 percent of elementary schools, and 26 percent of combined schools employed a librarian with an MLS or related degree.
- A larger proportion of library media centers in private schools than in public schools relied on adult volunteers. Among private schools, 58 percent reported having at least one adult volunteer in the library media center, compared with 38 percent of public schools.

Library media center expenditures and collection holdings

- Survey questions about expenditures and collection holdings refer to the previous school year. For the 1993–94 SASS, respondents reported data from 1992–93 and 1999–2000 SASS respondents reported expenditures and collection data from 1998–99.
- The average library expenditures of public schools increased between the 1993–94 and the 1999–2000 SASS. When adjusted for inflation, public schools spent an average of $7,900 on library expenditures in 1992–93. By 1998–99, public schools had increased their average library expenditures to $8,700.
- The percentage of library expenditures for the purchase or rental of books was higher for public and private elementary schools than for high schools or combined schools in 1999–2000. Seventy percent of public elementary schools' library expenditures and 69 percent of private elementary schools' library expenditures were for the purchase or rental of books. In public high schools, 56 percent of library expenditures, and in public combined schools, 58 percent of library expenditures, were for the purchase or rental of books. In private high schools, 49 percent of library expenditures, and in private combined schools, 58 percent of library expenditures, were for the purchase or rental of books.

Library media center policies

- The percentage of private school library media centers offering flexible scheduling for class visits increased from 27 percent in 1993–94 to 34 percent in 1999–2000. No such difference was detected for public schools where 30 percent in 1993–94 and 32 percent in 1999–2000 maintained a flexible schedule for class visits to the library.
- Public schools tended to provide greater access than private schools to the library media center for students' independent use before or after school. Fifty percent of public school library media centers scheduled times before or after school when students could use the library independently in 1999–2000, compared with 36 percent of private school library media centers.

Data source: The NCES 1999–2000 Schools and Staffing Survey (SASS).

For technical information, see the complete report:

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State Library Agencies

State Library Agencies: Fiscal Year 2002

Barbara Holton, Elaine Kroe, Patricia O'Shea, Cindy Sheckells, Suzanne Dorinski, and Michael Freeman

This article was originally published as the Introduction and Findings of the E.D. TAB report of the same name. The universe data are from the State Library Agencies (StLA) Survey.

Introduction

This report contains data on state library agencies in the 50 states and the District of Columbia for state fiscal year (FY) 2002. The data were collected through the State Library Agencies (StLA) Survey, the product of a cooperative effort between the Chief Officers of State Library Agencies (COSLA), the U.S. National Commission on Libraries and Information Science (NCLIS), the National Center for Education Statistics (NCES), and the U.S. Census Bureau. This cooperative effort makes possible the 100 percent response rate achieved for this survey. The frame or source of the list of respondents for this survey is based on the list that COSLA maintains of state library agencies. The FY 2002 survey is the ninth in the StLA series. The data upon which this report is based are final. Data from previous administrations of the survey have been revised, and a complete list of references can be found in the full report.

Background

A state library agency is the official agency of a state that is charged by state law with the extension and development of public library services throughout the state and that has adequate authority under state law to administer state plans in accordance with the provisions of the Library Services and Technology Act (LSTA) (P.L. 104–208). Beyond these two roles, state library agencies vary greatly. They are located in various departments of state government and report to different authorities. They are involved in various ways in the development and operation of electronic information networks. They provide different types of services to different types of libraries. They provide important reference and information services to state governments and administer the state libraries and special operations such as state archives, libraries for the blind and physically handicapped, and the State Center for the Book.[1] The state library agency may also function as the state's public library at large, providing library services to the general public. This report provides information on the range of roles played by state library agencies and the various combinations of fiscal, human, and informational resources invested in such work. Some state libraries perform allied operations, services not ordinarily considered a state library agency function. These special operations may include maintaining state archives, managing state records, conducting legislative research for the state, or operating a museum or art gallery.

The state library agencies of the District of Columbia, Hawaii, and Maryland are different from the other state libraries in a variety of ways. They are administrative offices without a separate state library collection. In the District of Columbia, which is treated as a state for reporting purposes, the Martin Luther King Memorial Library, the central library of the District of Columbia Public Library, functions as a resource center for the municipal government. In Hawaii, the state library is located in the Hawaii State Public Library System. State law designates Enoch Pratt Free Library's central library as the Maryland State Library Resource Center. These collections are reported on the NCES Public Libraries Survey (PLS) and thus are not reported on the StLA Survey, to avoid duplication.

The state library agencies of the District of Columbia, Hawaii, and Maryland administer LSTA funds and report LSTA revenues and expenditures in this report. In order to eliminate duplicative reporting, state funds for aid to libraries for the District of Columbia and Hawaii state library agencies are reported on the PLS, rather than on the StLA Survey, because of the unique situation of these two state agencies.

The District of Columbia and Maryland state library agencies administer and staff the Library for the Blind and Physically Handicapped (LBPH). The Library of Congress owns the LBPH collections.

Purpose of survey

The purpose of the StLA Survey is to provide state and federal policymakers, researchers, and other interested users with descriptive information about state library agencies. The data collected are useful to (1) chief officers of state library agencies; (2) policymakers in the executive and legislative branches of federal and state governments; (3) government and library administrators at the federal, state, and local levels; (4) the American Library Association

[1]The State Center for the Book, which is part of the Center for the Book program sponsored by the Library of Congress, promotes books, reading, and literacy, and is hosted or funded by the state.

and its members or customers; (5) library and public policy researchers; and (6) the public, journalists, and others. Decisionmakers use this survey to obtain information about services and fiscal practices.

The survey asks each state library agency about the kinds of services it provides, its staffing practices, its collections, its income and expenditures, and more. The data include services and financial assistance provided to public, academic, and school libraries, and to library systems. When added to the data collected through the NCES surveys of public, academic, and school libraries,[2] these data help complete the national picture of library service.

Congressional authorization

The StLA Survey is conducted in compliance with the NCES mission "to collect, analyze, and disseminate statistics and other information related to education in the United States and in other nations, including . . . the learning and teaching environment, including data on libraries . . ." (P.L. 103–382, Title IV, National Education Statistics Act of 1994, Sec. 404 [a]).

Content of this article

The remainder of this article presents highlights of the StLA Survey results for FY 2002.

Governance

- Nearly all state library agencies (48 states and the District of Columbia) are located in the executive branch of government. In two states (Arizona and Tennessee), the state library agency is located in the legislative branch. Sixteen state libraries are independent agencies within the executive branch.
- Of the state library agencies located in the executive branch, approximately two-thirds (33 states) are part of a larger agency.
- The state libraries of Louisiana, New Hampshire, New Mexico, and North Carolina are part of the Department of Cultural Resources. The Delaware, Florida, Illinois, Missouri, and Washington state library agencies are part of their Department of State. In 12 states, the agency is located in the Department of Education.

[2]The NCES Public Libraries Survey collects data from U.S. public libraries. The Academic Libraries Survey collects data from postsecondary institution libraries. The "School Library Media Center Questionnaire" of the NCES Schools and Staffing Survey (SASS) collects data from elementary and secondary school library media centers.

Allied and Other Special Operations

- Allied operations are those for which state libraries provide services not ordinarily considered a state library agency function. These special operations may include maintaining state archives, managing state records, conducting legislative research for the state, or operating a museum or art gallery.
- Fifteen state library agencies reported having one or more allied operations.
- State library agencies in 15 states contracted with public or academic libraries in their states to serve as state resource centers or reference/information service centers. State library agencies in 27 states hosted or provided funding for a State Center for the Book.
- In nine states (Alaska, Arizona, Connecticut, Florida, Kentucky, Nevada, Oklahoma, Texas, and Virginia), state library agencies serve as the state archives and provide state records management services. The Tennessee state library agency also serves as the state archives, and the Kansas state library agency manages the state records. In four states (Arizona, California, Kansas, and Oklahoma), state library agencies serve as the primary state legislative research organization. The state history museum or art gallery is an allied operation of the Alaska, Arizona, and Connecticut state library agencies.
- Thirteen state library agencies reported expenditures for allied operations. These expenditures totaled $24.2 million. Of states reporting such expenditures, Virginia reported the highest expenditure ($4.7 million) and West Virginia reported the lowest ($3,000). The StLA Survey requests information about state library expenditures for allied operations. The Alaska and New Hampshire state library agencies have allied operations, but expenditures for those operations are not from the state library agency budget.

Electronic Services and Information

Electronic networks, databases, and catalogs

- Most state library agencies (46 states and the District of Columbia) planned or monitored the development of electronic networks. State library agencies in 38 states and the District of Columbia operated electronic networks. State library agencies in 46 states and the District of Columbia supported the development of bibliographic databases via electronic networks, and state library agencies in 45 states and

the District of Columbia supported the development of full-text or data files via electronic networks.[3]

- All 50 states provided or facilitated library access to online databases through subscription, lease, license, consortial membership, or agreement.
- With the exceptions of Idaho and Washington, all state library agencies facilitated or subsidized electronic access to a union list, a list of titles of works, usually periodicals, in physically separate library collections. The union list includes location data that indicate libraries in which a given item may be found in the holdings of other libraries in the state. Most state library agencies provided access to the holdings of other libraries in the state via a web-based union list (47 agencies). Twenty-one state libraries offered union list access via a Telnet gateway. Seven state libraries provided access on CD-ROMs, and 12 states provided electronic access to the union list in some other way.
- Forty-seven state library agencies reported combined expenditures for statewide database licensing, for a total of $53.2 million. Of these states, Texas had the highest expenditure ($9.2 million) among states that reported expenditures for statewide database licensing, while three states (Alaska, North Dakota, and Rhode Island) spent less than $20,000. All state library agencies with such expenditures provided statewide database licensing services to public libraries in their states. At least two-thirds of state library agencies provided statewide database licensing services to the following user groups: academic, school, and special libraries; and other state agencies.
- For 10 state library agencies, 100 percent of their statewide database licensing expenditures came from federal sources. State funds accounted for 100 percent of 14 agencies' statewide database licensing expenditures.

Internet access

- All state library agencies facilitated library access to the Internet in one or more of the following ways: providing Internet training or consulting to state or local library staff or state library end users; providing a subsidy to libraries for Internet participation; providing equipment to libraries to access the Internet; providing access to directories, databases, or online catalogs; and managing gopher/websites, file servers, bulletin boards, or listservs.
- Nearly all state library agencies (48 states) had Internet workstations available for public use, ranging in number from 1 to 4 (12 agencies); 5 to 9 (16 agencies); 10 to 19 (10 agencies); 20 to 29 (4 agencies); 30 to 39 (3 agencies); and 40 or more (3 agencies). Louisiana reported the largest number of public-use Internet terminals (49). Of 48 state libraries' Internet workstations that were available for public use, 567 were owned by the state library agency and 63 were placed in the library by other agencies or groups.
- The fastest Internet connection at most state libraries is the T1 line at 27 library agencies, followed by library agencies in 15 states and the District of Columbia accessing the Internet using T3 lines. The fastest Internet connections in the Arizona, Idaho, and Oklahoma state libraries operate at 100 million bits per second (mbps). The Arkansas state library's fastest connection transmits data at 90–135 mbps, and New Mexico's state library is connected to the Internet at a speed of 10 mbps. The Pennsylvania state library agency's fastest Internet connection uses DS-3 lines, which transmit at 5–10 mbps.
- State library agencies for 32 states and the District of Columbia participated in the Universal Service (E-rate discount) program established by the Federal Communications Commission (FCC) under the Telecommunications Act of 1996 (P.L. 104–104).[4]

Library Development Services

Services to public libraries

- Public libraries serve all residents of a given community, district, or region and typically receive financial support, in whole or part, from public funds.
- All state library agencies provided the following types of services to public libraries: administration of LSTA grants; collection of library statistics; continuing education programs; and library planning, evaluation, and research. Nearly all state library agencies (47 to 50 agencies) provided consulting services, interlibrary loan referral services, library legislation preparation or review, and review of technology plans for the E-rate discount program.

[3]The development of bibliographic databases via electronic networks and the development of full-text or data files via electronic networks are both classified as "database development activities." These activities include the creation of new databases or files as well as the conversion of existing materials into electronic format.

[4]Under the E-rate discount program, the FCC promotes affordable access to the Internet and the availability of Internet services to the public, with special attention given to schools and libraries.

- Services to public libraries provided by 40 to 45 state library agencies include administration of state aid, literacy program support, reference referral services, state standards or guidelines, statewide public relations or library promotion campaigns, and summer reading program support. Two-thirds of state library agencies (34 agencies) provided union list development.
- Thirteen state library agencies reported accreditation of public libraries, and 24 state library agencies reported certification of public librarians.

Services to academic libraries

- Academic libraries are integral parts of colleges, universities, or other academic institutions for postsecondary education, organized and administered to meet the needs of students, faculty, and affiliated staff.
- Over two-thirds of state library agencies (36 to 43 agencies) provided the following services to academic libraries: administration of LSTA grants, continuing education, interlibrary loan referral services, and reference referral services. The state library agencies for California, Illinois, Montana, and New York administered state aid to academic libraries.
- Thirty-one state library agencies provided consulting services, agencies in 26 states and the District of Columbia provided union list development, and agencies in 23 states and the District of Columbia provided statewide public relations/library promotion campaigns to academic libraries.
- No state library agency accredits academic libraries. The state library agencies in Indiana, Massachusetts, New Mexico, and Washington reported certification of academic librarians.

Services to school library media centers

- School library media centers (LMCs) are integral parts of the educational program of elementary and secondary schools, with materials and services that meet the curricular, informational, and recreational needs of students, teachers, and administrators.
- At least two-thirds of state library agencies (34 to 42) provided administration of LSTA grants, continuing education, interlibrary loan referral services, or reference referral services to LMCs.
- Thirty-one agencies provided consulting services, and 25 agencies provided library planning/evaluation research or statewide public relations/library promotions campaigns to LMCs.
- The state library agencies for California, Colorado, Illinois, and Montana administered state aid to school LMCs.
- No state library agency reported accreditation of school LMCs, but Indiana and Massachusetts reported certification of library media specialists.

Services to special libraries

- Special libraries are located in business firms, professional associations, government agencies, or other organized groups. A special library may be maintained by a parent organization to serve a specialized clientele; or an independent library may provide materials or services, or both, to the public, a segment of the public, or other libraries. Special libraries include libraries in state institutions. The scope of special library collections and services is limited to the subject interests of the host or parent institution. Over two-thirds of state library agencies (38 to 44 agencies) served special libraries through administration of LSTA grants, continuing education, interlibrary loan referral, and reference referral services.
- Thirty-one state library agencies provided consulting services to special libraries, and 26 agencies provided union list development or library planning, evaluation, and research. Thirty-eight state agencies provided reference referral services to special libraries.
- The state library agencies for California, Colorado, Illinois, Montana, New York, Oklahoma, Rhode Island, and Washington administered state aid to special libraries.
- The Oklahoma state library agency accredits special libraries, and the library agencies for Indiana, Massachusetts, Oklahoma, and Washington reported certification of librarians of special libraries.

Services to systems

- Systems are groups of autonomous libraries joined together by formal or informal agreements to perform various services cooperatively, such as resource sharing or communications. Systems include multitype library systems and public library systems, but not multiple outlets under the same administration.
- Two-thirds of state library agencies administered LSTA grants to library systems.

- At least half of state library agencies (26 to 31 agencies) provided the following services to library systems: consulting services; continuing education; interlibrary loan referral; library legislation preparation or review; library planning; evaluation and research; administration of state aid; collection of library statistics; reference referral; and review of technology plans for the E-rate discount program.
- Six state library agencies reported library system accreditation, and seven agencies reported certification of librarians of library systems.

Service Outlets

- State library service outlets have regular hours of service in which state library staff are present to serve users. The state library, as part of its regular operation, pays the staff and all service costs. The main or central outlet is a single-unit library where the principal collections are located and handled. Other outlets have separate quarters, a permanent basic collection of books and/or other materials, permanent paid staff, and a regular schedule of hours open to users. Bookmobiles are trucks or vans specially equipped to carry books and other library materials. They serve as traveling branch libraries.
- State library agencies reported a total of 137 service outlets—47 main or central outlets, 70 other outlets (excluding bookmobiles), and 20 bookmobiles. The user groups receiving library services through these outlets, and the number of outlets serving them, included the general public (99 outlets); state government employees (91 outlets); blind and physically handicapped individuals (57 outlets); residents of state correctional institutions (34 outlets); and residents of other state institutions (25 outlets).[5]

Collections

- The number of book and serial volumes held by state library agencies totaled 22.6 million. Two state library agencies each had book and serial collections of over 2 million volumes: New York had 2.5 million and Michigan had 2.3 million volumes. The number of book and serial volumes in the Connecticut, New Jersey, and Texas state libraries exceeded 1 million. The state library agencies for Hawaii, Maryland, and the District of Columbia do not maintain collections (see discussion in the Introduction to this article).
- Forty-one state library agencies held a total of 29.5 million uncatalogued government documents. The states with the largest collections of uncatalogued government documents were California (4.3 million) and Illinois (3.3 million). Three other state library agencies had collections that exceeded two million uncatalogued government documents: Arkansas (2.1 million), Ohio (2.5 million), and Oklahoma (2.6 million).

Staff

- The total number of budgeted full-time-equivalent (FTE) positions in state library agencies was 3,832. Librarians with American Library Association-accredited Master of Library Science degrees (ALA-MLS) accounted for 1,201 positions, or 31 percent of total FTE positions; other professionals accounted for 20 percent of total FTE positions; and other paid staff accounted for 49 percent. Rhode Island reported the largest percentage (63 percent) of ALA-MLS librarians, and Virginia reported the smallest (12 percent).
- Most of the budgeted FTE positions (55 percent) were in library services; 19 percent were in library development; 12 percent were in administration; and 15 percent were in other services,[6] such as allied operations. Some two-thirds of the library development positions were for public library development.

Income[7]

- Sources of state library income or revenue are the federal government, the state government, and other sources, such as local, regional, or multijurisdictional sources. State library agencies may also receive income from private sources, such as foundations, corporations, Friends of Libraries groups, and individuals. State libraries may also generate revenue through fees for service or fines.
- State library agencies reported a total income or revenue of close to $1.2 billion in FY 2002. Most income was from state sources (84 percent), followed by federal sources (13 percent) and other sources (3 percent).[8]

[5] The number of outlets by user group may not sum to total outlets because some outlets serve multiple user groups.

[6] This includes staff not reported under administration, library development, or library services, such as staff in allied operations.

[7] Income is referred to as revenue in other NCES fiscal surveys.

[8] Federal income includes State Program income under LSTA (P.L. 104–208), income from Title II of the Library Services and Construction Act (LSCA) (P.L. 101–254), and other federal income. Note: LSCA was superseded by LSTA, but LSCA Title II funds are still active.

- Federal income totaled approximately $150.0 million, with 95 percent, or $142.0 million, from LSTA grants.
- State library agency income from state sources totaled $971.1 million, with two-thirds ($648.0 million) designated for state aid to libraries.[9] In 13 states, over 75 percent of the state library agency income from state sources was designated for state aid to libraries, with Massachusetts having the largest percentage (96 percent). Five states (Hawaii, New Hampshire, South Dakota, Vermont, and Wyoming) and the District of Columbia did not target state funds for aid to libraries.
- Three states (Hawaii, New Hampshire, and South Dakota) and the District of Columbia targeted 100 percent of their state income to state library agency operations.

Expenditures

- State library agencies reported total expenditures of over $1.1 billion in FY 2002. Over four-fifths (85 percent) of these expenditures were from state funds, followed by federal funds (13 percent) and funds from other sources (2 percent).
- The state library agencies with the highest total expenditures per capita were those for the District of Columbia, with $47.99; Hawaii, with $20.22; and Delaware, with $11.88. The agencies with total expenditures of less than $2 per capita were those for Arizona, Indiana, Iowa, Texas, and Washington.
- Operating expenditures are the current and recurrent costs necessary for the provision of services by the state library agencies. Operating expenditures include LSTA expenditures for statewide services conducted directly by the state library and administration of LSTA funds. Not included are LSTA expenditures for grants and other funds distributed to libraries. Seventy-five percent of state library operating expenditures are from state sources, and 22 percent are from federal sources.
- The state libraries with the highest per capita operating expenditures were Connecticut ($5.58), Alaska ($4.67), Vermont ($4.37), Wyoming ($3.56), and Montana and South Dakota ($3.40). Eighteen states reported total per capita operating expenditures under $1.00.
- Financial assistance to libraries accounted for 70 percent of total expenditures of state library agencies. Fifty-one percent of such expenditures were targeted to individual public libraries, and 21 percent went to public library systems.

Public Policy Issues

- Thirty-six state library agencies had a combined total of $27.1 million in grant and contract expenditures to assist public libraries with state or federal education reform initiatives. The area of adult literacy and family literacy accounted for 87 percent of such expenditures, and prekindergarten learning accounted for 13 percent.

[9]State aid to libraries does not include funds used to administer the State Library Agency or to deliver statewide services to libraries or citizens where the service is administered directly by the StLA; state funds allocated for school library operations when the StLA is under the state education agency; or federal funds.

Data source: The NCES State Library Agencies (StLA) Survey, fiscal year 2002.

For technical information, see the complete report:

Holton, B., Kroe, E., O'Shea, P., Sheckells, C., Dorinski, S., and Freeman, M. (2004). *State Library Agencies: Fiscal Year 2002* (NCES 2004–304).

Author affiliations: B. Holton and E. Kroe, NCES; P. O'Shea, C. Sheckells, S. Dorinski, and M. Freeman, Governments Division, U.S. Census Bureau.

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To obtain the complete report (NCES 2004–304), visit the NCES Electronic Catalog (http://nces.ed.gov/pubsearch).

Crosscutting Statistics

The Condition of Education

The Condition of Education 2004

This article was originally published as the Commissioner's Statement in the Compendium of the same name. The universe and sample survey data are from various studies carried out by NCES, as well as surveys conducted elsewhere, both within and outside of the federal government.

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."[1] 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 Sciences 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 2004* 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 volume contains a special analysis that examines changes in undergraduate student financial aid between 1989–90 and 1999–2000.

This statement summarizes the main findings of the special analysis and the 38 indicators that appear in the complete volume.

Special Analysis on Paying for College

The 1990s brought rising tuition and fees but also expanded and restructured financial aid programs to help students pay for college. At the federal level, the 1992 Reauthorization of the Higher Education Act broadened eligibility for need-based aid, raised loan limits, and made unsubsidized

[1] In 1869, the name of the new department was changed to the Office of Education and it was moved to the Department of the Interior (Snyder 1993).

loans available to students regardless of need. States and institutions increased their grant aid and put more emphasis on merit as a criterion for awards. As a result, the overall picture of what and how students pay for college has changed substantially since the early 1990s.

This special analysis uses data from the 1989–90 and 1999–2000 administrations of the National Postsecondary Student Aid Study to describe some of these changes. It focuses on students who were enrolled full time and were considered financially dependent on their parents for financial aid purposes. All dollar amounts were adjusted for inflation.

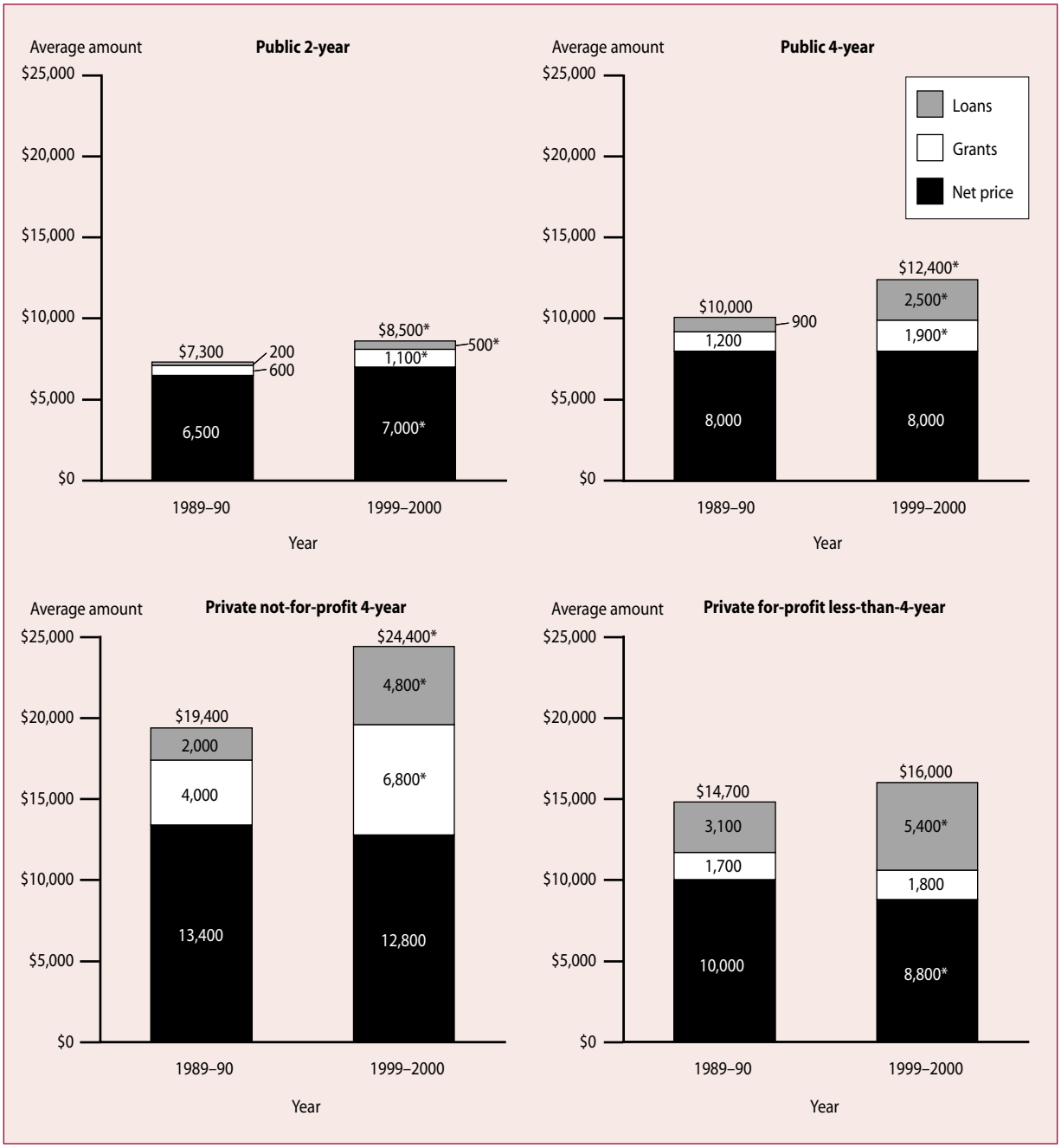
- Between 1990 and 2000, the average price of attending college (tuition and fees plus an allowance for living expenses) increased at public 2-year institutions (from $7,300 to $8,500), at public 4-year institutions (from $10,000 to $12,400), and at private not-for-profit 4-year institutions (from $19,400 to $24,400) (figure A).
- These higher prices, combined with reduced expected family contributions for low- and middle-income students and their families resulting from restructuring of the aid programs, meant that the average student was eligible for more need-based financial aid in 2000 than in 1990.
- Reflecting this greater need, more students received aid in 2000 than in 1990 (71 vs. 54 percent), and the average aided student received more aid ($8,700 vs. $6,200). Financial aid increased for all income groups and at all types of institutions.
- Grant aid partly offset the price increases, with the percentage of students receiving grants rising from 45 to 57 percent and the average amount received by students with grants increasing from $4,200 to $5,400. However, the average net price after taking grants into account (i.e., price minus grants) increased at each type of institution. In other words, the growth in grant aid was not enough to offset the price increases.
- The average net price after taking grants into account increased for all income groups, except those in the lowest income quarter attending public 2-year or private for-profit less-than-4-year institutions.
- Reflecting greater need and expanded eligibility for the Stafford loan program, the percentage of students who borrowed increased from 30 to 45 percent. In 2000, about half of low-income students and 35 percent of high-income students borrowed to help pay for their education. In 1990, about 46 percent of low-income students and 13 percent of high-income students borrowed. Among those who took out loans, the average amount borrowed increased from $3,900 to $6,100.
- After taking into account both grants and loans, the average net price of attending increased for full-time dependent undergraduates at public 2-year institutions, remained stable for those at public 4-year institutions, and declined for those at private for-profit less-than-4-year institutions. The apparent decline at private not-for-profit 4-year institutions was not statistically significant.
- The average net price after grants and loans declined for low-income students, except at public 2-year institutions, and increased for high-income students at public 2- and 4-year institutions.

Participation in Education

As the U.S. population increases, so does its enrollment at all levels of education. At the elementary and secondary levels, growth is due largely to the increase 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 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.

- As enrollment of school-age children is compulsory, growth in elementary and secondary schooling is primarily the result of the increasing size of the population. At the postsecondary level, both population growth and increasing enrollment rates help explain rising enrollments. Between 1970 and 2002, for example, the enrollment rate of 20- and 21-year-olds increased from 32 to 48 percent.
- Thirty-five percent of public elementary schools had prekindergarten programs in 2000–01, serving over 800,000 children. Schools in the Southeast were more likely to have prekindergarten programs and full-day programs than schools in other regions of the country. Public schools with large enrollments (700 or more students) and schools in central cities were more likely than other schools to offer prekindergarten classes.
- Enrollment among 4- to 6-year-olds in kindergarten increased from 3.2 million in 1977 to 4 million in 1992 before decreasing to 3.7 million in 2001. During

Figure A. Average net price, grants, loans, and total price (in 1999 constant dollars) for full-time, full-year dependent undergraduates, by type of institution: 1989–90 and 1999–2000



*Represents statistically significant change from 1989–90.

NOTE: Averages computed for all students, including those who did not receive financial aid. Detail may not sum to totals because of rounding.

SOURCE: Wei, C.C., Li, X., and Berkner, L. (2004). *A Decade of Undergraduate Student Aid: 1989–90 to 1999–2000* (NCES 2004–158), tables A-1.2, A-2.2, A-3.2, A-4.2, A-1.6, A-2.6, A-3.6, A-4.6, A-1.10, A-2.10, A-3.10, A-4.10. Data from U.S. Department of Education, National Center for Education Statistics, 1989–90 and 1999–2000 National Postsecondary Student Aid Study (NPSAS:90 and NPSAS:2000). (Originally published as figure 10 on p. 24 of the complete report from which this article is excerpted.)

this period, the proportion of students enrolled in full-day programs increased, and by 1995, it was larger than the proportion enrolled in half-day programs.

- Rising immigration and a 25 percent increase in the number of annual births that began in the 1970s and peaked in the mid-1970s have boosted school enrollment. Public elementary and secondary enrollment reached an estimated 48.0 million in 2003 and is projected to increase to an all-time high of 49.7 million in 2013. The West will experience the largest increase in enrollment of all regions in the country.
- In 2003, Black and Hispanic 4th-graders were more likely than White 4th-graders to be in high-poverty schools (measured by the percentage of students eligible for a subsidized lunch) and less likely to be in low-poverty schools. The same is also true by school location: Black and Hispanic students were more likely than White students to be concentrated in the highest poverty schools in central city, urban fringe, and rural areas in 2003.
- In the next 10 years, undergraduate enrollment is projected to increase. Enrollment in 4-year institutions is projected to increase at a faster rate than in 2-year institutions, and women's enrollment is expected to increase at a faster rate than men's. The number of part- and full-time students, those enrolled at 2- and 4-year institutions, and male and female undergraduates are projected to reach a new high each year from 2004 to 2013.
- Forty percent of the population age 16 and above participated in some work-related adult education in 2002–03. The most common types of programs were formal work-related courses (33 percent) and college or university degree programs for work-related reasons (9 percent). Educational attainment was positively associated with participating in adult education for work-related reasons.

Learner Outcomes

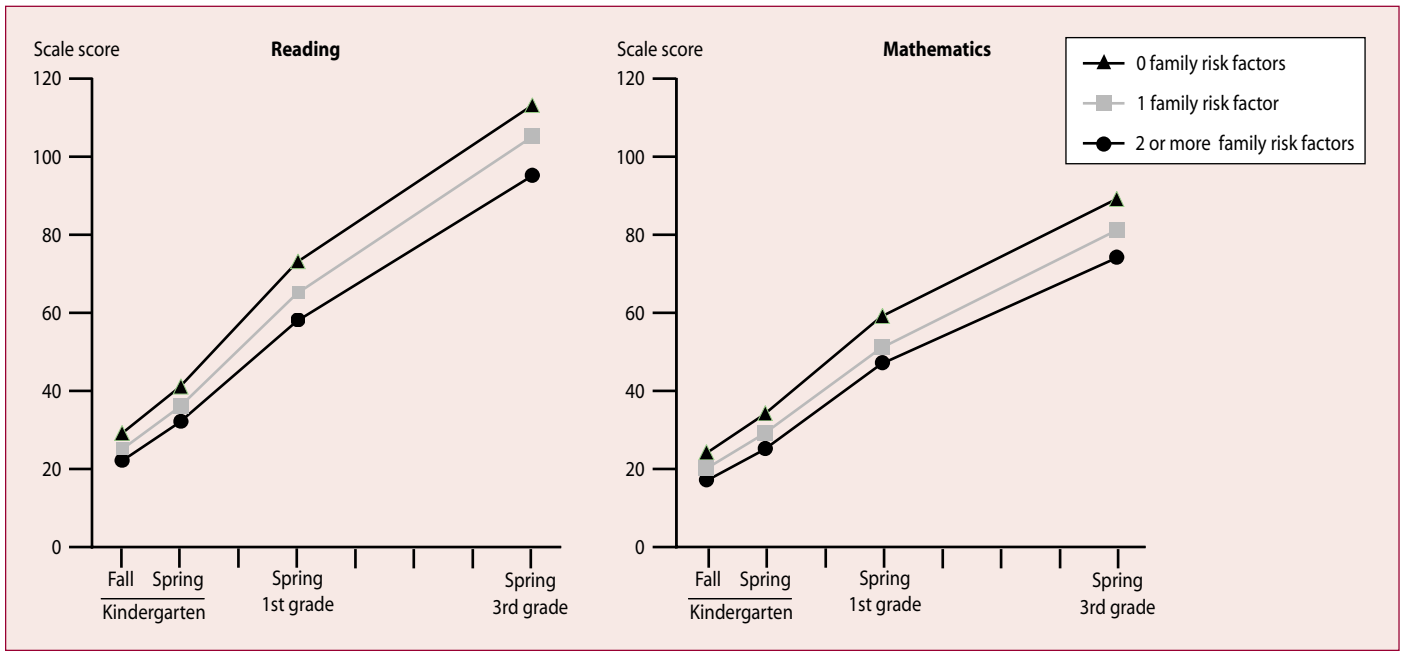
How well does the American educational system—and its students—perform? Data from national and international assessments can help answer this question, as can data on adults' educational and work experiences, health, and earnings later in life. In some areas, such as reading, mathematics, and writing, the performance of elementary and secondary students has improved over the past decade, but not in all grades assessed and not equally for all students. Long-term effects of education, such as on the health and earnings of adults, help underscore the importance of education and the outcomes of different levels of educational attainment.

- According to data from the Early Childhood Longitudinal Study, children without family risk factors, such as poverty, start kindergarten with higher performance and experience a larger gain in reading and mathematics scale scores through 3rd grade than students with 1 or more family risk factors. From the beginning of kindergarten in fall 1998 through the end of 3rd grade in spring 2002, children with no family risk factors had an average gain of 84 points in reading, compared with a 73-point gain among children with 2 or more family risk factors; the respective gains in mathematics were 65 and 57 points (figure B).
- The average reading scale scores of 8th-graders assessed by the National Assessment of Educational Progress (NAEP) increased between 1992 and 2003, while no difference was detected for 4th-graders. The percentages of 4th- and 8th-graders performing at or above the *Proficient* level, defined as "solid academic performance for each grade assessed," were higher in 2003 than in 1992. Among 12th-graders, average scores were lower in 2002 than in 1992 and 1998.
- The average writing scale scores of 4th- and 8th-graders assessed by NAEP improved between 1998 and 2002. Twenty-eight percent of 4th-graders, 31 percent of 8th-graders, and 24 percent of 12th-graders performed at or above the *Proficient* level in 2002.
- The average mathematics scale scores of 4th- and 8th-graders assessed by NAEP increased steadily from 1990 to 2003. For both grades, the average scale scores in 2003 were higher than in all previous assessments, and the percentages of students performing at or above the *Proficient* level and at the *Advanced* level, defined as "superior performance," were higher in 2003 than in 1990. Thirty-two percent of 4th-graders and 29 percent of 8th-graders were at or above the *Proficient* level.

In addition to indicators on students' academic achievement, there are also some indicators on the long-term outcomes of education.

- The better educated a person is, the more likely that person is to report being in "excellent" or "very good" health, regardless of income. Among adults age 25 and above, 78 percent of those with a bachelor's

Figure B. Children's reading and mathematics scale scores for fall 1998 first-time kindergartners from kindergarten through 3rd grade, by family risk factors: Fall 1998, spring 1999, spring 2000, and spring 2002[1]



[1]Family risk factors include living below the poverty level, primary home language was non-English, mother's highest education was less than a high school diploma/GED, and living in a single-parent household, as measured in kindergarten.

NOTE: The findings are based on children who entered kindergarten for the first time in fall 1998 and were assessed in fall 1998, spring 1999, spring 2000, and spring 2002. Estimates reflect the sample of children assessed in English in all assessment years (approximately 19 percent of Asian children and approximately 30 percent of Hispanic children were not assessed). The Early Childhood Longitudinal Study, Kindergarten Class of 1998–99 (ECLS-K) was not administered in spring 2001, when most of the children were in 2nd grade. Although most of the sample was in 3rd grade in spring 2002, 10 percent were in 2nd grade and about 1 percent were enrolled in other grades.

SOURCE: Rathbun, A, and West, J. (2004). *From Kindergarten Through Third Grade: Children's Beginning School Experiences* (NCES 2004–007), tables A-4 and A-5. Data from U.S. Department of Education, National Center for Education Statistics, Early Childhood Longitudinal Study, Kindergarten Class of 1998–99 (ECLS-K), Longitudinal Kindergarten-First Grade Public-Use data file and Third Grade Restricted-Use data file, fall 1998, spring 1999, spring 2000, and spring 2002. (Originally published as the Early Reading and Mathematics Performance figure on p. 48 of the complete report from which this article is excerpted.)

degree or higher reported being in excellent or very good health in 2001, compared with 66 percent of those with some education beyond high school, 56 percent of high school completers, and 39 percent of those with less than a high school education.

- In 2003, 13 percent of all persons ages 16–24 were neither enrolled in school nor working, a decrease from 16 percent in 1986. The gap between the percentage of poor youth and others neither enrolled nor working decreased over the period. The percentages of White and Asian/Pacific Islander youth neither enrolled nor working in 2003 were lower than the percentages of Hispanic, Black, and American Indian youth. In addition, the percentage of Hispanic youth neither enrolled nor working was lower than the percentages of Black and American Indian youth.
- The earnings of young adults with at least a bachelor's degree increased over the past 20 years relative to their counterparts with a high school diploma or General Educational Development (GED) certificate. Among men, the difference in median earnings rose from 19 percent in 1980 to 65 percent in 2002, while among women, the difference increased from 34 percent to 71 percent.

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 of students, encouragement from others, and learning opportunities, as well as various student characteristics, such as sex and family income. Monitoring these factors in relation to the progress of different groups of students through the educational system and tracking students' attainment are important for knowing how well we are doing as a nation in education.

- The proportion of 10th-graders who expected to complete a bachelor's as their highest degree nearly doubled between 1980 and 2002, and the proportion

who intended to earn a graduate degree more than doubled. Rising aspirations were also notable among students from families with low socioeconomic status: about 13 percent of such students intended to earn a bachelor's degree in 1980, but this figure had tripled by 2002.

- During the 1970s and 1980s, "event dropout rates," which measure the proportion of students who drop out of high school each year, declined. However, event dropout rates remained unchanged during the 1990s on average and for students from low-, middle-, and high-income families.
- First-time entry rates into programs that lead to a bachelor's or higher degree increased from 1998 to 2001 in many countries that were members of the Organization for Economic Cooperation and Development (OECD). In 2001, the U.S. rate was lower than the OECD country average.
- Despite assistance offered through remediation, students enrolled in remediation are less likely to earn a postsecondary degree or certificate. The need for remedial reading appears to be the most serious barrier to degree completion: 12th-graders in 1992 who took remedial reading at the postsecondary level were about half as likely as those who took no remedial courses to have earned a degree or certificate by 2000.
- While bachelor's degree completion rates have been steady over time, the likelihood of still being enrolled with no degree at the end of 5 years has increased. When comparing students who enrolled in a 4-year college or university for the first time in 1989–90 with those who began in 1995–96, 53 percent of both cohorts had completed a bachelor's degree within 5 years; however, the later cohort was more likely to have no degree but still be enrolled and also less likely to have left college without a degree.
- Women have earned more than half of all bachelor's degrees every year since 1981–82. They still trail men in certain fields but have made substantial gains since 1970–71 at both the undergraduate (table A) and graduate levels.

Table A. Percentage of bachelor's degrees earned by women and change in the percentage earned by women from 1970–71 to 2001–02, by field of study: 1970–71, 1984–85, and 2001–02

				Change in percentage points		
Field of study	1970–71	1984–85	2001–02	1970–71 to 1984–85	1984–85 to 2001–02	1970–71 to 2001–02
Total[1]	43.4	50.7	57.4	7.4	6.7	14.1
Health professions and related sciences	77.1	84.9	85.5	7.8	0.6	8.4
Education	74.5	75.9	77.4	1.3	1.5	2.9
English language and literature/letters	65.6	65.9	68.6	0.3	2.7	3.0
Visual and performing arts	59.7	62.1	59.4	2.4	-2.7	-0.3
Psychology	44.4	68.2	77.5	23.7	9.3	33.1
Social sciences and history	36.8	44.1	51.7	7.3	7.6	14.9
Communications	35.3	59.1	63.5	23.8	4.4	28.2
Biological sciences/life sciences	29.1	47.8	60.8	18.7	13.0	31.7
Business	9.1	45.1	50.0	36.0	4.9	40.9
Mathematics	37.9	46.2	46.7	8.3	0.5	8.8
Physical sciences	13.8	28.0	42.2	14.2	14.2	28.4
Computer and information sciences	13.6	36.8	27.6	23.2	-9.2	14.0
Agriculture and natural resources	4.2	31.1	45.9	26.9	14.8	41.6
Engineering	0.8	13.1	20.7	12.3	7.6	19.9

[1]Includes other fields not shown separately.

NOTE: Based on data from all degree-granting institutions.

SOURCE: U.S. Department of Education, National Center for Education Statistics. (2003). *Digest of Education Statistics 2002* (NCES 2003–060), tables 246, 276–297, and (forthcoming) *Digest of Education Statistics 2003* (NCES 2004–024), tables 265, 268, and 271. Data from U.S. Department of Education, National Center for Education Statistics, 1969–86 Higher Education General Information Survey (HEGIS), "Degrees and Other Formal Awards Conferred" and 1987–2002 Integrated Postsecondary Education Data System, "Completions Survey" (IPEDS-C:87–02), fall 2002. (Originally published as the Bachelor's Degrees table on p. 65 of the complete report from which this article is excerpted.)

Contexts of Elementary and Secondary Education

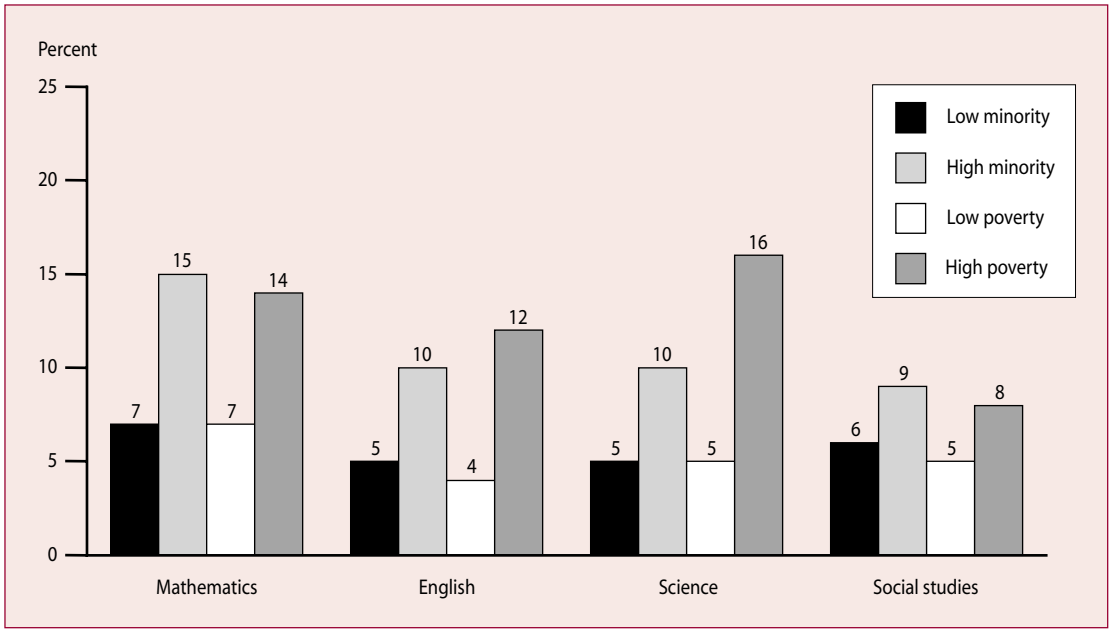
The school environment is shaped by many factors, including the courses offered in the school and taken by students, the instructional methods used by teachers, students' opportunities to attend a "chosen" public school, the role of school staff in providing various support services to students, the extent to which teachers are teaching in their field, and the characteristics of school principals and their influence over school governance. Monitoring these and other factors provides a better understanding of the conditions in schools that influence education.

- Since the early 1980s, the percentage of high school graduates completing advanced coursework in science and mathematics has increased. Between 1982 and 2000, the percentage who had completed advanced courses in science increased from 35 to 63 percent, and the percentage who had completed advanced courses in mathematics increased from 26 to 45 percent.
- Among high school graduates in 2000, Asian/Pacific Islander and private school graduates completed advanced levels of science and mathematics coursework at higher rates than their peers. Females were more likely than males to have completed some advanced science coursework and to have completed level II advanced academic mathematics courses (i.e., precalculus or an introduction to analysis).
- According to findings from the 1999 Third International Mathematics and Science Study (TIMSS) Video Study—which examined 8th-grade science lessons in Australia, the Czech Republic, Japan, the Netherlands, and the United States—46 percent of U.S. 8th-grade science lessons had students conduct experiments or other practical activities, while 31 percent had students collect and report data from those activities.
- In 1999–2000, high school students in high-minority schools and high-poverty schools (measured by the percentage of students eligible for a subsidized lunch) were more often taught English, science, and mathematics by "out-of-field" teachers (i.e., teachers who have neither a major nor certification in the subject they teach) than their peers in low-minority and low-poverty schools (figure C).
- The percentage of students in grades 1–12 whose parents enrolled them in a "chosen" public school (i.e., a public school other than their assigned public school) increased from 11 to 15 percent between 1993 and 2003. In the same period, the percentage of children attending private schools also increased (.9 percentage points for private, church-related schools and .8 percentage points for private, non-church-related schools). In addition, in 2003, parents of 24 percent of students reported that they moved to a neighborhood so that their children could attend a particular school.
- Principals' perceptions of their own influence over a number of school governance functions vary by the control of the school. In 1999–2000, private elementary and secondary school principals were more likely than their public school counterparts to report a high degree of influence over establishing curriculum, setting disciplinary policies, and setting performance standards for students.
- The goals that guidance programs in public high schools emphasize vary according to the size and location of the school. For example, in 2002, the smallest schools were more likely than larger schools to report that their primary emphasis was on helping students prepare for postsecondary schooling, while the largest schools were more likely to emphasize helping students with their high school academic achievement. Schools located in a central city or an urban fringe area were more likely than rural schools to make helping students with their academic achievement the primary emphasis.
- At the elementary and secondary school levels, most schools have staff who provide various support services directly to students (e.g., counselors, social workers, speech therapists, and instructional and noninstructional aides). In 1999–2000, the most common student support staff in public elementary and secondary schools were school counselors, speech therapists, school nurses, and special education aides, each of which were found in 79 percent or more of schools.

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 populations, the various educational missions and learning environments of colleges and universities, the courses that students take, the modes of learning that are

Figure C. Percentage of public high school students taught selected subjects by teachers without certification or a major in the field they teach, by minority concentration and school poverty: 1999–2000



NOTE: "Major" refers to a teacher's primary fields of study for a bachelor's, master's, doctorate, first-professional, or education specialist degree. "Major field" can be an academic or education major. "High minority" refers to schools in which 75 percent or more of their enrollments are minority students; "low minority" refers to schools with a minority enrollment of less than 10 percent. "High poverty" refers to a school in which 75 percent or more of students are eligible to participate in the federal free or reduced-price lunch program, a common proxy measure of poverty; "low poverty" refers to schools in which less than 10 percent of students are eligible to participate in this program.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Schools and Staffing Survey (SASS), 1999–2000, "Public School Survey" and "Public Charter School Survey." (Originally published as the Out-of-Field Teachers figure on p. 73 of the complete report from which this article is excerpted.)

employed, and the ways in which colleges and universities attract and use faculty and other resources all are important aspects of the contexts of postsecondary education.

- Students age 24 and above represented 43 percent of all undergraduates in 1999–2000, and 82 percent of these students worked while enrolled. Many older undergraduates were employees first, focusing primarily on their jobs, and students second. Those whose primary focus was on their employment were less likely to complete their postsecondary programs than were older students who worked primarily to meet their educational expenses.
- The list of the top 30 postsecondary courses, which reports the subjects that students study the most in college (and which is referred to as the "empirical core curriculum"), has remained relatively stable over the past three decades. Among bachelor's degree recipients who graduated from high school in 1972, 1982, and 1992, each cohort earned about one-third of its credits from the top 30 postsecondary courses for the cohort. For the 1992 cohort, the top 30 list for students attending highly selective institutions included a concentration of engineering and humanities courses and courses with an international theme, a pattern not present for students in selective and nonselective institutions.
- Postsecondary institutions provided remedial coursework for 28 percent of entering freshmen in fall 2000 (22 percent undertook remediation in mathematics, 14 percent in writing, and 11 percent in reading). Public 2-year colleges provided such coursework for 42 percent of their entering students.
- In 2000–01, 56 percent of all postsecondary institutions offered distance education courses, up from 34 percent 3 years earlier. The number of course enrollments in distance education also increased, nearly doubling between 1997–98 and 2000–01; by 2000–01, about half of these enrollments were at public 2-year institutions.

Societal Support for Learning

Society and its members—families, individuals, employers, and governmental and private organizations—provide support for education in various ways. This support includes learning activities that take place outside schools and colleges as well as the financial support for learning inside schools and colleges. Parents contribute to the education of their children in the home through reading with young children, setting aside a time and place for schoolwork, and seeing that assignments are completed. Communities impart learning and values through various modes, both formal and informal. 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 education. 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.

- In 2001, 50 percent of children in kindergarten through 8th grade were enrolled in a variety of nonparental care arrangements after school, most commonly center- or school-based programs, relative care, and self-care. Black children were more likely than White and Hispanic children to participate in nonparental care.
- Thirty-eight percent of children in kindergarten through 8th grade participated in one or more organized activities after school in 2001. Children in 3rd through 5th grade and 6th through 8th grade were more likely to participate than children in kindergarten through 2nd grade. Parents of 19 percent of these children reported using activities to cover hours when adult supervision was needed for their children.
- Total expenditures per public elementary and secondary school student, adjusted for inflation, increased by 25 percent between 1991–92 and 2000–01. The largest increases occurred in midsize cities and rural areas.
- In 2000, expenditures per student for the OECD member countries averaged $5,162 at the combined elementary/secondary level and $9,509 at the postsecondary level. The United States and Switzerland, two of the world's wealthiest nations, ranked highest in expenditures per student at the elementary/secondary and postsecondary levels. Wealthy countries such as the United States spent more on education, and a larger share of their gross domestic product (GDP) per capita on education, than less wealthy nations.
- The percentage of full-time undergraduates receiving institutional aid and the average amount awarded increased at 4-year institutions during the 1990s. In 1992–93, some 17 percent of full-time undergraduates at public institutions and 47 percent at private not-for-profit institutions received institutional aid; by 1999–2000, the respective proportions had increased to 23 and 58 percent. During this period, the average award increased from $2,200 to $2,700 at public institutions and from $5,900 to $7,000 at private not-for-profit institutions.
- Those who had received bachelor's degrees in 1999–2000 were more likely than their 1992–93 counterparts to have borrowed to pay for their undergraduate education (65 vs. 49 percent), and if they had done so, to have borrowed larger amounts, on average ($19,300 vs. $12,100 in constant 1999 dollars). However, the median "debt burden" (monthly payment as a percentage of monthly salary) a year later did not change.

Conclusion

Trends in the condition of American education continue to show promise and challenge, as well as underscore the importance of schooling. In reading, the performance of U.S. 8th-graders has increased since 1992, and higher percentages of 4th- and 8th-graders are scoring at or above the *Proficient* level. Yet the overall reading achievement of 12th-graders has decreased. In mathematics, the performance of 4th- and 8th-graders has risen steadily since 1990. In writing, the performance of 4th- and 8th-graders improved between 1998 and 2002, and in the later year, about one-quarter of 4th-, 8th-, and 12th-graders were at or above the *Proficient* level.

The poverty level of students and their schools presents a challenge to students' educational progress and achievement. Children with family risk factors, such as poverty, start kindergarten with fewer reading and mathematics skills and end 3rd grade with smaller gains. In the early part of this decade, high school students living in low-income families dropped out of school at six times the rate of their peers from high-income families.

The proportion of kindergarten students enrolled in full-day programs has risen since the late 1970s, and by 1995 exceeded that of students enrolled in half-day programs. In

elementary and secondary education, enrollments have followed population shifts, and in the coming decade are projected to remain fairly steady and then climb to an all-time high of 49.7 million in 2013. The current trends toward greater diversity in the racial/ethnic composition of the student population are expected to continue. In addition, the proportion of 10th-graders expecting to complete a bachelor's as their highest degree has nearly doubled since 1980 and the proportion expecting to earn a graduate degree has more than doubled, with the potential of higher educational attainment in the years ahead.

In the past 30 years, rates of enrollment in postsecondary education have increased and are projected to continue to do so in the next decade. At the undergraduate and graduate levels, enrollments have grown faster among women than men. In the next decade, full-time undergraduate enrollment is expected to increase faster than part-time enrollment, and enrollment in 4-year institutions faster than in 2-year institutions. In recent years, the number of course enrollments in distance education has nearly doubled, and continued growth is expected. Also, about one-third of undergraduates are now older students who combine school and work, and many of them characterize themselves as employees first and students second.

Paralleling the growth in postsecondary education, participation in adult education has increased as well. Many adults participate in adult education for work-related purposes, and in 2002–03, 40 percent of all persons age 16 and above did so.

NCES produces an array of reports each month that present findings about the U.S. education system. *The Condition of Education 2004* is the culmination of a yearlong project. It includes data that were available by early April 2004. In the coming months, many other reports and surveys informing us about education will be released, including the baseline year for a new longitudinal study tracking the development and early childhood experiences of very young children; the 3rd-grade follow-up to the kindergarten cohort study; international assessments; and the first year of a new longitudinal study of high school students. As is true of the indicators in this volume, these surveys and reports will continue to inform Americans about the condition of education.

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Data sources: Many studies from NCES and other sources.

For technical information, see the complete report:

National Center for Education Statistics. (2004). *The Condition of Education 2004* (NCES 2004–077).

For questions about content, contact John Wirt (john.wirt@ed.gov).

To obtain the complete report (NCES 2004–077), call the toll-free ED Pubs number (877–433–7827), visit the NCES Electronic Catalog (http://nces.ed.gov/pubsearch), or contact GPO (202–512–1800).

Language Minorities and Their Educational and Labor Market Indicators—Recent Trends

Steven Klein, Rosio Bugarin, Renee Beltranena, and Edith McArthur

This article was originally published as the Executive Summary of the Statistical Analysis Report of the same name. The sample survey data are from the U.S. Census Bureau's Current Population Survey (CPS).

The number and percentage of language minority youth and young adults—that is, individuals who speak a language other than English at home—increased steadily in the United States between 1979 and 1999. Of those individuals ages 5–24 in 1979, 6 million spoke a language other than English at home. By 1999, that number had more than doubled, to 14 million. Accordingly, of all 5- to 24-year-olds in the United States, the percentage who were language minorities increased from 9 percent in 1979 to 17 percent in 1999 (figure A).

This report documents the growth between 1979 and 1999 in the number and percentage of youth and young adults in the United States who speak languages other than English at home. The report describes these individuals in terms of the languages they speak and their English-speaking ability. This information is based on household responses to regular and supplemental questions included in the Census Bureau's monthly Current Population Survey of 1979, 1989, 1992, 1995, and 1999. The language data used in this report are based on individuals' responses to a series of questions on language ability included in the monthly survey. Household respondents were asked whether each qualifying household member spoke a language other than English at home. If so, respondents were asked to indicate which language that person spoke at home and how well that person spoke English ("very well," "well," "not well," or "not at all").

The report compares language minority youth and young adults with those who speak only English at home according to several education indicators: elementary/secondary school enrollment, grade retention, high school completion, postsecondary enrollment, and highest educational level attained. In addition to these education indicators, language minority youth and young adults also are compared with youth and young adults who speak only English at home in terms of three economic indicators: family income, employment status, and type of occupation. Finally, because language minorities' English-speaking ability (speaking English "very well" as opposed to speaking with difficulty, i.e., less than "very well") and the languages spoken at home may be associated with education and economic indicators, this report makes comparisons both within individual language minority groups and between these groups and those who spoke only English at home.

The results of the study offer mixed findings for language minorities. In general, language minority youth and young adults lagged behind their counterparts who spoke only English at home on most education and economic indicators. However, among those who finished high school, no differences were found by English-speaking ability in the percentage that enrolled in postsecondary education. Among language minority groups, those speaking Spanish fared less well than those speaking other languages.

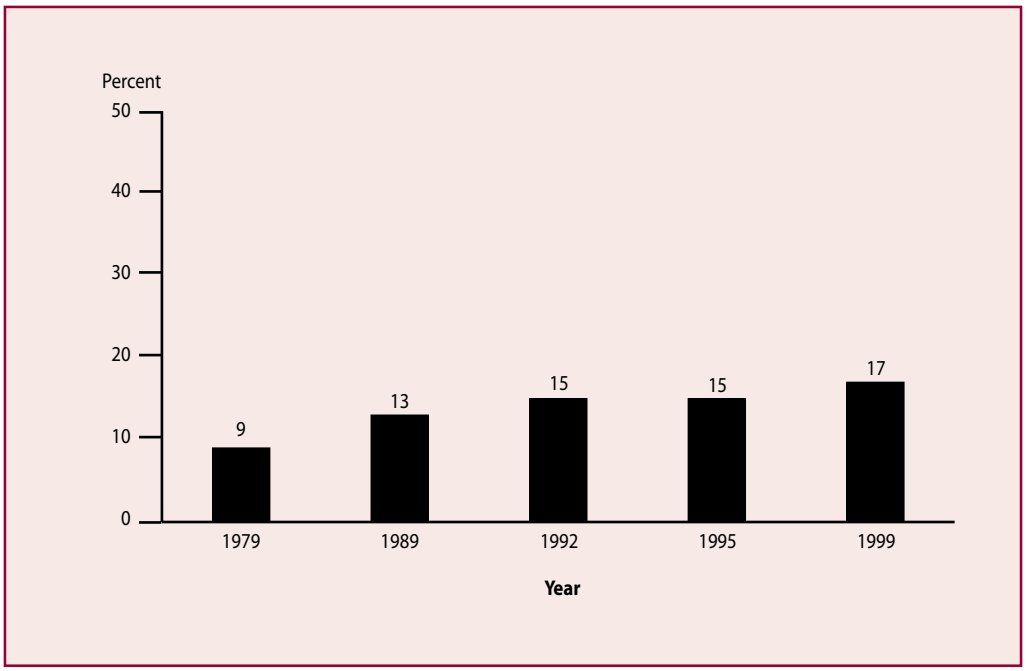
Language Minorities' Characteristics

In 1999, the majority (63 percent) of all language minorities (ages 5–24) were native-born—that is, they were born in the United States or its outlying areas. Language minorities were more likely to be Hispanic (65 percent) than to be members of any other racial/ethnic group. Within racial/ethnic groups, 74 percent of Hispanics and 60 percent of Asians/Pacific Islanders spoke languages other than English at home. Among all 5- to 17-year-olds (described here as "youth"), those living in the western United States were more likely than those living in other regions to speak a language other than English at home (29 percent vs. 18 percent in the Northeast, 14 percent in the South, and 8 percent in the Midwest).

No significant changes in English language ability among language minorities were detected between 1979 and 1999. Overall in 1999, 33 percent of language minorities spoke English with difficulty, compared with 34 percent in 1979. However, over this time, English-speaking ability did change among speakers of some language groups. Between 1979 and 1999, no significant differences in the proportion reporting being able to speak English "very well" were detected for Spanish-speaking language minorities, but this proportion changed for all other language minority groups.*

*For purposes of this report, other than Spanish, languages are grouped into three geographically based groupings: Asian languages (e.g., Chinese, Japanese, Vietnamese), other European languages (e.g., French, German, Polish), and all other languages (e.g., Arabic and American Indian languages).

Figure A. Percentage of 5- to 24-year-olds who spoke a language other than English at home: Selected years: 1979–99



SOURCE: U.S. Department of Commerce, Bureau of the Census, Current Population Survey (CPS), November 1979, November 1989, October 1992, October 1995, and October 1999.

In particular, for those who spoke Asian languages at home, there was a decrease in persons who reported speaking English "very well." Among speakers of European languages other than Spanish, the proportion who reported speaking English "very well" increased.

Additional differences in English-speaking ability were found by nativity. Fifty-one percent of foreign-born language minorities spoke English with difficulty, whereas 22 percent of their native-born counterparts did so. Among foreign-born language minorities, those who had lived in the United States longer were less likely to experience difficulty with English. Similarly, among native-born language minorities, those whose parents had entered the United States before 1970 or whose parents were born in the United States were less likely than those whose parents had entered the United States after 1970 to speak English with difficulty (15 percent vs. 34 percent).

Education Indicators

Elementary and secondary enrollment

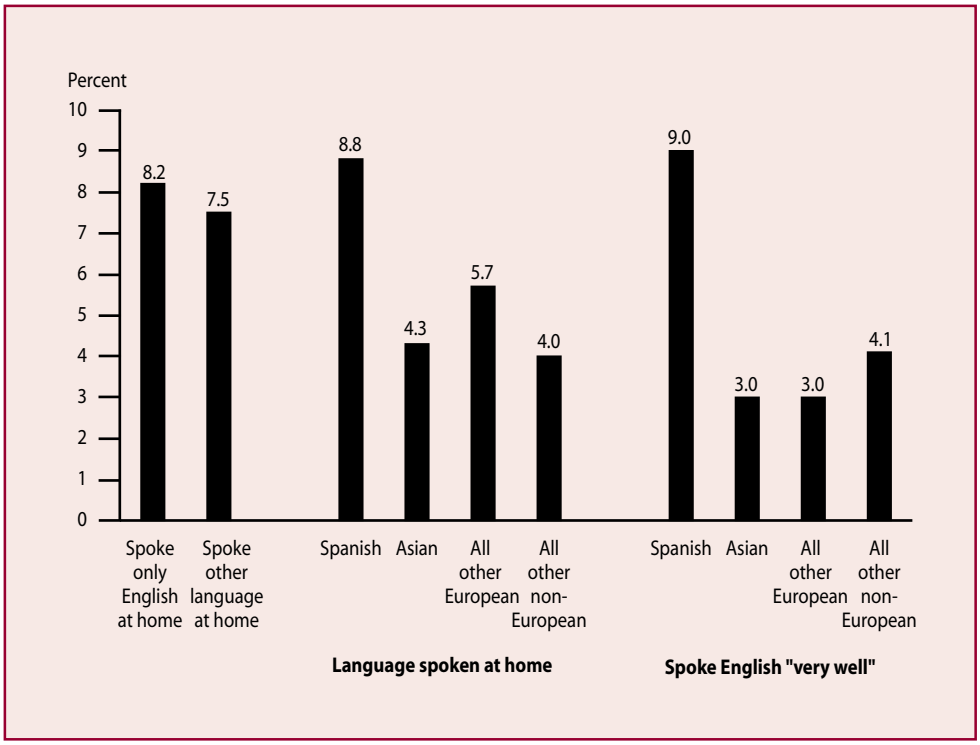
Language minorities enroll and are retained in elementary/secondary school at rates that are not measurably different from those of their counterparts who speak only English at home. However, there were differences among language minority groups. Youth who spoke Spanish at home were more likely than youth who spoke Asian or other languages to have repeated a grade (figure B). Among language minority youth who spoke English very well, Spanish speakers were more likely to have repeated a grade than other language minorities.

High school completion

Compared with their counterparts who spoke only English at home, language minority 18- to 24-year-olds (described here as "young adults") were less likely to have completed high school (10 percent vs. 31 percent). However, speaking English very well was associated with a higher likelihood of high school completion among the language minority group. Language minority young adults who spoke English very well were more likely than those who spoke English with difficulty to have completed high school (51 percent vs. 18 percent).

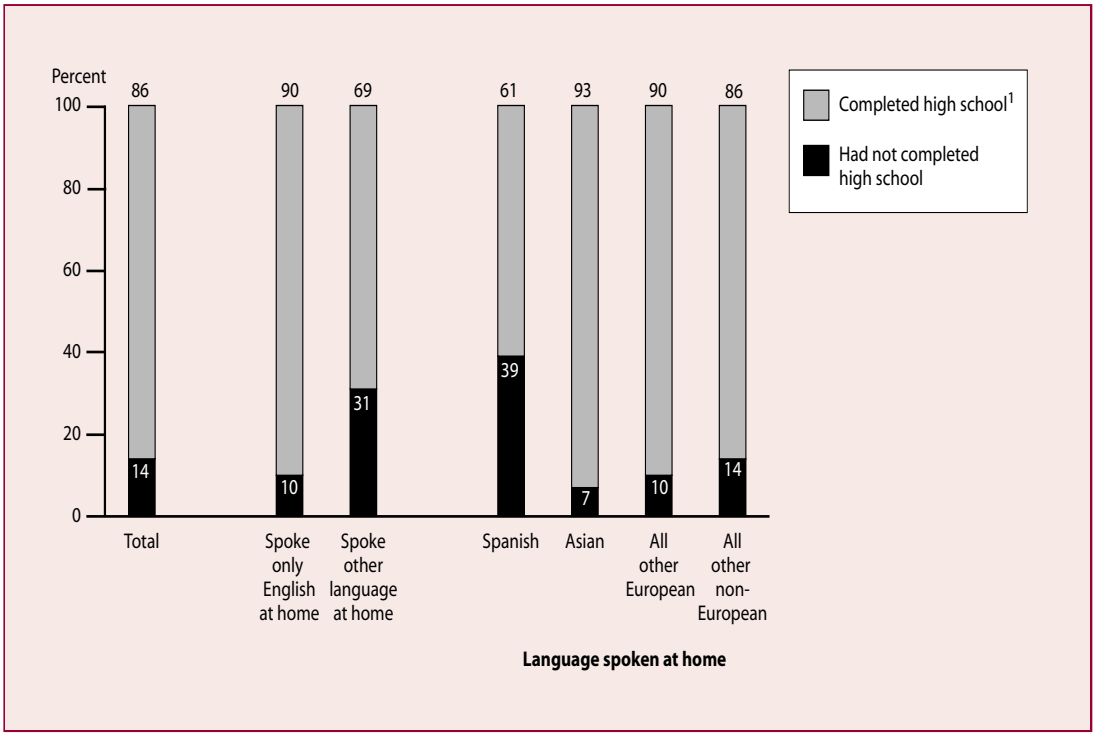
Among language minority groups, Spanish-speaking young adults were less likely than members of any other group to have completed high school. Among language minorities who spoke English very well, Spanish speakers graduated at lower rates than did speakers of other languages (figure C).

Figure B. Percentage of 5- to 17-year-olds enrolled in school who had ever repeated a grade, by language characteristics: 1999



SOURCE: U.S. Department of Commerce, Bureau of the Census, Current Population Survey (CPS), October 1999.

Figure C. Percentage distribution of 18- to 24-year-olds who were not enrolled in school according to their high school completion status, by language characteristics: 1999



[1]High school completers include those who completed high school by means of an equivalency test such as a General Education Development (GED) credential.

NOTE: Detail may not sum to totals because of rounding.

SOURCE: U.S. Department of Commerce, Bureau of the Census, Current Population Survey (CPS), October 1999.

Postsecondary enrollment

Overall, language minority 18- to 24-year-olds were less likely than their peers who spoke only English at home to be enrolled in a postsecondary institution in 1999 (28 percent vs. 37 percent). However, there were no detectable differences in enrollment between language minority young adults who spoke English very well and those who spoke only English at home (38 percent and 37 percent, respectively).

Among language minority groups, Spanish-speaking young adults were less likely than all other groups to be enrolled in a postsecondary institution. However, enrollment rates for Spanish speakers were associated with their English-speaking ability. For example, 31 percent of Spanish-speaking young adults who spoke English very well were enrolled in a postsecondary institution, compared with 6 percent of their counterparts who spoke English with difficulty.

Among high school completers, disparities in postsecondary enrollment between language minority young adults and persons who spoke only English at home diminish. Approximately 43 percent of language minority young adults and 44 percent of persons who spoke only English at home reported being enrolled in a postsecondary institution. Furthermore, among language minorities, those who spoke English very well were substantially more likely than those who spoke English with difficulty to be enrolled (49 percent vs. 29 percent).

Educational attainment

Among those 18- to 24-year-olds who completed high school and enrolled in postsecondary education, there were no detectable differences in educational attainment by whether a person spoke a language other than English at home. For example, 11 percent of those who spoke only English and 10 percent of language minorities received a bachelor's degree or higher.

However, differences in educational attainment persisted among language minority groups. Young adults who spoke Spanish were less likely than those from all other language minority groups to have attained either some college or a bachelor's degree or more (figure D).

Economic Indicators

Family income

Of 18- to 24-year-olds who lived with family members, language minorities were more likely than those who spoke only English at home to be in a low-income family. For example, 32 percent of language minority young adults resided in low-income homes in 1999, compared with 18 percent of those who spoke only English at home. In addition, among language minorities, speaking English very well was associated with a greater likelihood of living in a high-income family. For instance, 14 percent of language minority young adults who spoke English very well lived in a high-income family, compared with 5 percent of their counterparts who spoke English with difficulty.

Spanish-speaking language minorities were generally less likely than all other language minority groups to live in a high-income family. This difference between Spanish speakers and other language minorities was observed among those who spoke English very well as well as among the other English language ability groups.

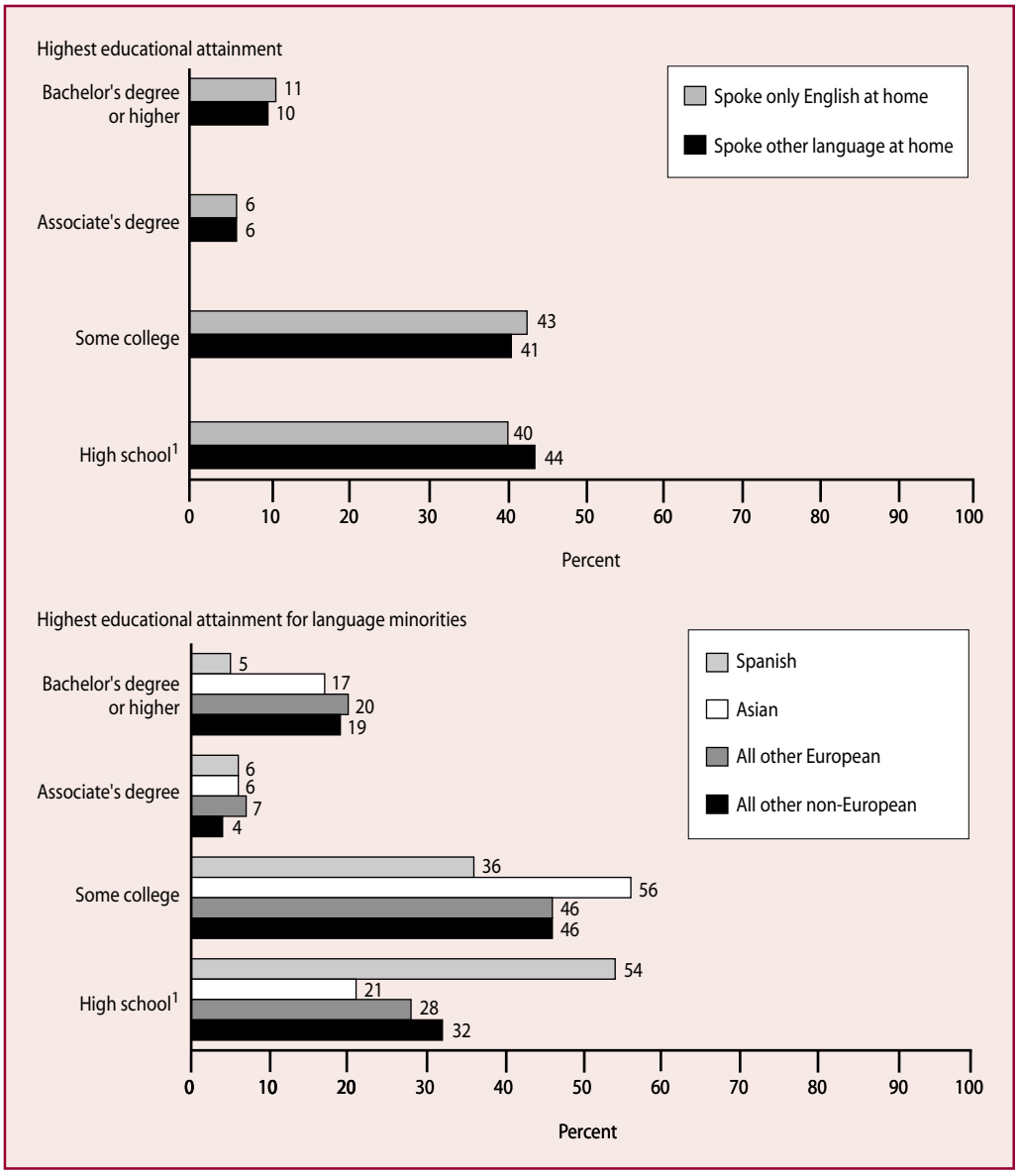
Employment and occupation

Although there were no detectable differences between 1979 and 1999 in the percentage of employed 18- to 24-year-olds (61 percent in 1979 and 60 percent in 1999), the number who were employed doubled (1.4 million and 2.9 million, respectively). Nevertheless, language minority 18- to 24-year-olds were less likely than their peers who spoke only English at home to be employed (60 percent vs. 67 percent). In addition, language minority young adults were more likely than other young adults to find work in such traditionally low-wage occupations as operator/fabricator occupations. These findings were especially true for those who spoke English with difficulty and for those who spoke Spanish at home.

Conclusions

This analysis indicates that language minorities trail behind their English-speaking counterparts in high school completion, enrollment in postsecondary institutions, and educational attainment. However, there were no detectable differences in postsecondary enrollment rates and in educational attainment between language minorities who completed high school and reported speaking English very well and persons who spoke only English.

Figure D. Percentage distribution of 18- to 24-year-olds who completed high school, by highest educational attainment and by language characteristics: 1999



[1]High school completers include those who completed high school by means of an equivalency test such as a General Education Development (GED) credential.

NOTE: Detail may not sum to totals because of rounding.

SOURCE: U.S. Department of Commerce, Bureau of the Census, Current Population Survey (CPS), October 1999.

The data also indicate that language minority young adults are more likely than other young people to live in low-income families and work in traditionally lower paying occupations. Employment rates and income were higher among language minority persons who spoke English very well.

Data source: U.S. Department of Commerce, Bureau of the Census, Current Population Survey (CPS), 1979, 1989, 1992, 1995, and 1999.

For technical information, see the complete report:

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Data Products

CD-ROM: School Survey on Crime and Safety (SSOCS) 2000 Public-Use Data Files, User's Manual, and Detailed Data Documentation

This CD-ROM contains the data and documentation for the School Survey on Crime and Safety (SSOCS), sponsored by NCES and conducted in the spring and summer of 2000. SSOCS:2000 is a survey of principals or school disciplinarians regarding the frequency of violence in schools, the nature of the school environment, and the characteristics of school violence prevention programs. Such national data are critical to knowing the true frequency of problems in schools.

This CD-ROM contains the raw, public-use data from SSOCS:2000, along with a user's manual and detailed data documentation. The data are provided in SAS, SPSS, STATA, and ASCII formats. The user's manual and detailed data documentation are provided as PDF files.

For questions about this CD-ROM, contact Kathryn A. Chandler (kathryn.chandler@ed.gov).

To obtain this CD-ROM (NCES 2004–306), call the toll-free ED Pubs number (877–433–7827).

Data File: CCD Public Elementary/Secondary School Universe Survey: School Year 2002–03

Part of the NCES Common Core of Data (CCD), the "Public Elementary/Secondary School Universe Survey" has two primary purposes: (1) to provide a complete listing of all public elementary and secondary schools located in the 50 states, District of Columbia, and five outlying areas, or operated by the Department of Defense or Bureau of Indian Affairs; and (2) to provide basic information and descriptive statistics on all schools, their students, and their teachers. Data are provided annually by state education agencies (SEAs) from their administrative records. The 2002–03 data set contains 99,635 records, one for each of the listed schools.

The following information is included for each school: NCES and state school ID numbers; name of the agency that operates the school; name, address, and phone number of the school; school type (regular, special education, vocational education, or alternative); operational status (open, closed, new, added, or changed agency); locale code; latitude and longitude; full-time-equivalent classroom teacher count; low/high grade span offered; school level; Title I and schoolwide Title I eligibility status; magnet school and charter school status (yes or no); free lunch–eligible, reduced-price lunch–eligible, and total free and reduced-price lunch–eligible students; migrant students enrolled in previous year; student totals and detail (by grade, race/ethnicity, and gender); and pupil/teacher ratio.

The data can be downloaded from the NCES Electronic Catalog either in SAS files or in flat files that can be used with other statistical processing programs, such as SPSS. Documentation is provided in separate files.

For questions about this data product, contact John P. Sietsema (john.sietsema@ed.gov).

To obtain this data product (NCES 2004–333), visit the NCES Electronic Catalog (http://nces.ed.gov/pubsearch).

Data File: CCD Local Education Agency Universe Survey: School Year 2002–03

Part of the NCES Common Core of Data (CCD), the "Local Education Agency Universe Survey" provides (1) a complete listing of every education agency in the United States responsible for providing free public elementary/secondary instruction or education support services; and (2) basic information about all education agencies and the students for whose education the agencies are responsible. Most of the agencies listed are school districts or other local education agencies (LEAs). Data are provided annually by state education agencies (SEAs) from their administrative records. The 2002–03 data set contains 17,761 records, one for each public elementary/secondary education agency in the 50 states, District of Columbia, five outlying areas, Department of Defense, and Bureau of Indian Affairs.

The following information is included for each listed agency: NCES and state agency ID numbers; agency name, address, and phone number; location address; agency type code; supervisory union number; FIPS county code; county name; CSA code; CBSA code; metropolitan/micropolitan code; metropolitan status code; district locale code; operational status code; low/high grade span offered; agency charter school code; number of schools; number of FTE teachers; number of ungraded students; number of PK–12 students; number of migrant students served in special programs; number

of special education-IEP students; number of English language learner students; instructional staff fields; support staff fields; number of diploma recipients (by race/ethnicity and gender); number of other high school completers (by race/ethnicity and gender); and imputation flags. Dropout counts (by grade, race/ethnicity, and gender) are published separately from the rest of the agency universe data.

The data can be downloaded from the NCES Electronic Catalog either in SAS files or in flat files that can be used with other statistical processing programs, such as SPSS. Documentation is provided in separate files.

For questions about this data product, contact John P. Sietsema (john.sietsema@ed.gov).

To obtain this data product (NCES 2004–335), visit the NCES Electronic Catalog (http://nces.ed.gov/pubsearch).

Data File: School District Finance Survey: FY 2001

The Common Core of Data (CCD) "School District Finance Survey (Form F-33)" provides finance data for all local education agencies (LEAs) that provide free public elementary and secondary education in the United States. The 2000–01 "School District Finance Survey: Fiscal Year 2001" contains 16,213 records representing public elementary and secondary education agencies in the 50 states and the District of Columbia.

For each state or jurisdiction, the data file includes revenues by source (local, state, and federal), current operation expenditures (elementary/secondary education instructional programs), capital outlay expenditures (e.g., construction and instructional equipment), other expenditures by LEAs (e.g., total salaries and wages), state payments on behalf of LEAs (employee benefits), long- and short-term debt, cash and investments held at the end of the fiscal year, total enrollment as of October 1, 2000, and special processing items.

The data can be downloaded from the NCES Electronic Catalog either as an Excel file or as a flat file that can be used with statistical processing programs, such as SPSS or SAS. Documentation is provided in separate files.

For questions about this data product, contact Frank H. Johnson (frank.johnson@ed.gov).

To obtain this data product (NCES 2004–337), visit the NCES Electronic Catalog (http://nces.ed.gov/pubsearch).

Data File: CCD State Nonfiscal Survey of Public Elementary/Secondary Education: School Year 2002–03

The "State Nonfiscal Survey of Public Elementary/Secondary Education" is part of the Common Core of Data (CCD) collection of surveys. This survey provides public elementary and secondary student, staff, and graduate counts for the 50 states, District of Columbia, five outlying areas, Bureau of Indian Affairs schools, and U.S. Department of Defense dependents (domestic and overseas) schools. The data are provided annually by state education agencies (SEAs) from their administrative records. The 2002–03 data set contains 59 records, one for each reporting state or jurisdiction.

For each state or jurisdiction, the data file includes the following information: name, address, and phone number of the SEA; number of teachers, by level; number of other staff, by occupational category; number of students, by grade and ungraded, as well as by race/ethnicity (five racial/ethnic categories); and number of high school completers (for school year 2001–02), by type of completion (diploma, high school equivalency, or other completion) and by race/ethnicity.

The data can be downloaded from the NCES Electronic Catalog either as an Excel file or as a flat file that can be used with statistical processing programs such as SPSS or SAS. Documentation is provided in separate files.

For questions about this data product, contact Lee M. Hoffman (lee.hoffman@ed.gov).

To obtain this data product (NCES 2004–334), visit the NCES Electronic Catalog (http://nces.ed.gov/pubsearch).

Data File: CCD National Public Education Financial Survey: Fiscal Year 2002

The Common Core of Data (CCD) "National Public Education Financial Survey" (NPEFS) provides detailed state-level data on public elementary and secondary education finances. Financial data are audited at the end of each fiscal year and then submitted to NCES by the state education agencies (SEAs) from their administrative records. This file provides data for fiscal year 2002 (school year 2001–2002). The data set contains 55 records, one for each of the 50 states, the District of Columbia, and four of the outlying areas (American Samoa, the Northern Marianas, Puerto Rico, and the Virgin Islands). (Guam did not report any data.)

For each state or jurisdiction, the data file includes revenues by source (local, intermediate, state, and federal); local revenues by type (e.g., local property taxes); current expenditures by function (instruction, support, and noninstruction) and by object (e.g., teacher salaries or food service supplies); capital expenditures (e.g., school construction and instructional equipment); average number of students in daily attendance; and total number of students enrolled.

The data can be downloaded from the NCES Electronic Catalog either as an Excel file or as a flat file that can be used with statistical processing programs, such as SPSS or SAS. Documentation is provided in separate files.

For questions about this data product, contact Frank H. Johnson (frank.johnson@ed.gov).

To obtain this data product (NCES 2004–336), visit the NCES Electronic Catalog (http://nces.ed.gov/pubsearch).

Data File, Public Use: Public Libraries Survey: Fiscal Year 2002

The Public Libraries Survey (PLS) is conducted annually by NCES through the Federal-State Cooperative System (FSCS) for Public Library Data. The data are collected by a network of state data coordinators appointed by the Chief Officers of State Library Agencies (COSLA). For fiscal year (FY) 2002, the PLS includes data from 9,141 public libraries in the 50 states, the District of Columbia, and the outlying area of the U.S. Virgin Islands.

Three database files were generated from the FY 2002 PLS: the Public Library Data File, the Public Library State Summary/State Characteristics Data File, and the Public Library Outlet Data File. The files include data on population of legal service area, service outlets, public service hours, library materials, total circulation, circulation of children's materials, reference transactions, library visits, children's program attendance, interlibrary loans, electronic services and information, full-time-equivalent staff, operating income and expenditures, and capital outlay.

The data and related documentation can be downloaded from the NCES Electronic Catalog in Microsoft Access or ASCII (flat file) formats.

For questions about this data product, contact P. Elaine Kroe (patricia.kroe@ed.gov).

To obtain this data product (NCES 2004–327), visit the NCES Electronic Catalog (http://nces.ed.gov/pubsearch).

Data File: State Library Agencies Survey: Fiscal Year 2002

The State Library Agencies (StLA) Survey is conducted annually by NCES as a cooperative effort with the Chief Officers of State Library Agencies (COSLA), the U.S. National Commission on Libraries and Information Science (NCLIS), and the U.S. Census Bureau. The StLA Survey provides state and federal policymakers, researchers, and other interested users with descriptive information about state library agencies in the 50 states and the District of Columbia. The StLA Survey for fiscal year 2002, the ninth in the series, collected data on 436 items, including state library agency identification, governance, public service hours, service outlets, collections, library service transactions, library development transactions, services to other libraries in the state, allied operations, staff, income, expenditures, and electronic services and information.

The StLA Survey file is available in both Microsoft Access and ASCII formats. The data and related documentation can be downloaded from the NCES Electronic Catalog.

For questions about this data product, contact P. Elaine Kroe (patricia.kroe@ed.gov).

To obtain this data product (NCES 2004–312), visit the NCES Electronic Catalog (http://nces.ed.gov/pubsearch).

1999–2000 Schools and Staffing Survey (SASS) CD-ROM: Public-Use Data With Electronic Codebook

The public-use version of the Schools and Staffing Survey (SASS) has four main surveys: the School Questionnaire, Teacher Questionnaire, Principal Questionnaire, and School District Questionnaire. These questionnaires were administered to all sectors of schools: traditional public, private, public charter, and Bureau of Indian Affairs/tribal schools. The public-use version of the data only contains information on traditional public and private schools and their principals and teachers, because the identity of any person linked to a school in the sample (in this case, the principals and teachers in public charter schools and Bureau of Indian Affairs/tribal schools) cannot be disclosed, per authorizing legislation for NCES. Responses of some teachers and principals in traditional public and private schools, as well as some of the

characteristics that could be used to identify specific schools, may have been altered to prevent the disclosure of the identity of those teachers and principals or schools. Public school district characteristics cannot be linked to principal, school, or teacher data, although the associated school district policies are included on each public school record.

SASS collects information on the following topics: teacher recruitment and retirement policies, teacher and administrator characteristics, school programs, general conditions in schools, principals' and teachers' perceptions of school climate and problems in their schools, teacher compensation, district hiring practices, and basic characteristics of the student population.

The public-use files provide data at the national and regional levels for analysis of both traditional public and private schools. Additionally, such characteristics as community type, school size, or type of private school are available. State-level data on traditional public schools or detailed association data for private schools can only be analyzed with the restricted-use version.

The public-use electronic codebook included in the CD-ROM contains the weighted and unweighted count of responses for each data item in each data file included with the public-use version. This codebook supplements the electronic codebook on the SASS CD-ROM by using the exact text and response categories of the questionnaire items and allowing for multiple ways to access the data to produce an output file for statistical analysis. Copies of the questionnaires are contained as PDF files on the CD-ROM in the "Documentation" directory or can be browsed or downloaded from http://nces.ed.gov/surveys/SASS/question9900.asp.

For questions about this CD-ROM, contact Kerry J. Gruber (kerry.gruber@ed.gov).

To obtain this CD-ROM (NCES 2004–372), call the toll-free ED Pubs number (877–433–7827).

Other Publications

Crime and Safety in America's Public Schools: Selected Findings From the School Survey on Crime and Safety

National Center for Education Statistics

This brief report presents analyses of the 2000 School Survey on Crime and Safety (SSOCS), a nationally representative sample of public elementary and secondary schools. Principals were asked about school crime and violence, disorder, disciplinary actions, violence prevention programs, teacher and parent involvement in prevention efforts, crime and safety practice, crisis management plans, and barriers to school safety. SSOCS collects a wide variety of information, and this report provides national estimates on the major topics.

For questions about content, contact Kathryn A. Chandler (kathryn.chandler@ed.gov).

To obtain this publication (NCES 2004–370), call the toll-free ED Pubs number (877–433–7827) or visit the NCES Electronic Catalog (http://nces.ed.gov/pubsearch).

Education Longitudinal Study of 2002: Base-Year Data File User's Manual

Steven J. Ingels, Daniel J. Pratt, James E. Rogers, Peter H. Siegel, and Ellen S. Stutts

This data file user's manual documents the procedures and methodologies employed during the Education Longitudinal Study of 2002 (ELS:2002) base year. The manual is designed to provide guidance and documentation for users of the public-use data. Included in the manual are the following: an overview of the study and its predecessor studies; an account of instrumentation (both the assessment battery and the various questionnaires); documentation of the sample design, weighting, design effects, and analyses of data quality; a summary of data collection methodology and results, including detailed response rates; a description of data preparation and processing activities; and an overview of the data file structure and contents. In addition, there are a number of appendixes.

Author affiliations: S.J. Ingels, D.J. Pratt, J.E. Rogers, P.H. Siegel, and E.S. Stutts, RTI International.

For questions about content, contact Jeffrey A. Owings (jeffrey.owings@ed.gov).

To obtain this user's manual (NCES 2004–405), visit the NCES Electronic Catalog (http://nces.ed.gov/pubsearch).

Forum Guide to Protecting the Privacy of Student Information: State and Local Education Agencies

National Forum on Education Statistics

The *Forum Guide to Protecting the Privacy of Student Information* gives a general overview of privacy laws and professional practices that apply to the information collected for, and kept in, student records. The book is not intended to give an authoritative interpretation of any law or policy. Instead, it provides background on the key principles and concepts in student privacy, summarizes federal privacy laws and any recent changes to them, and suggests good data management practices for schools, districts, and state education agencies.

For questions about content, contact Ghedam Bairu (ghedam.bairu@ed.gov).

To obtain this publication (NCES 2004–330), call the toll-free ED Pubs number (877–433–7827) or visit the NCES Electronic Catalog (http://nces.ed.gov/pubsearch).

Handbooks Online

ESP Solutions Group and Council of Chief State School Officers (CCSSO) Data Quality and Standards Project, and Beth A. Young

Handbooks Online is a searchable web tool that provides access to the NCES data handbooks for elementary, secondary, and early childhood education. These handbooks offer guidance on consistency in data definitions and in maintaining data so that they can be accurately aggregated and analyzed. The database includes data elements for students, staff, and education institutions.

Author affiliations: ESP Solutions Group and CCSSO Data Quality and Standards Project; Beth A. Young, NCES.

For questions about this data tool, contact Lee M. Hoffman (lee.hoffman@ed.gov).

To use this data tool (NCES 2004–374), visit the NCES Electronic Catalog (http://nces.ed.gov/pubsearch).

Paying for College: Changes Between 1990 and 2000 for Full-Time Dependent Undergraduates

Susan P. Choy

This examination of undergraduate financial aid was originally published as a special analysis in the 2004 edition of *The Condition of Education*, a congressionally mandated NCES annual report. Republished separately in this booklet, the analysis examines changes in undergraduate student aid between 1989–90 and 1999–2000, focusing on dependent students who were enrolled full time for the full academic year.

Author affiliation: S.P. Choy, MPR Associates, Inc.

For questions about content, contact John Wirt (john.wirt@ed.gov).

To obtain this publication (NCES 2004–075), call the toll-free ED Pubs number (877–433–7827) or visit the NCES Electronic Catalog (http://nces.ed.gov/pubsearch).

The Condition of Education 2004 in Brief

Andrea Livingston and John Wirt (editors)

The 2004 edition of *The Condition of Education*, a congressionally mandated NCES annual report, presents 38 indicators of the status and progress of education in the United States. *The Condition of Education 2004 in Brief* is a convenient reference brochure that contains a summary of 19 of the 38 indicators from the full-length report, including both graphics and descriptive text.

Topics covered in *The Condition of Education 2004 in Brief* include trends in full- and half-day kindergarten enrollments; the concentration of enrollment by race/ethnicity and poverty; students' gains in reading and mathematics achievement through third grade; trends in student achievement from the National Assessment of Educational Progress in reading, writing, and mathematics; the percentage of youth neither enrolled nor working; event dropout rates; degrees earned by women; and financial aid awarded to students by postsecondary institutions. The data presented are from many sources, both government and private.

Editor affiliations: A. Livingston, MPR Associates, Inc.; J. Wirt, NCES.

For questions about content, contact John Wirt (john.wirt@ed.gov).

To obtain this publication (NCES 2004–076), call the toll-free ED Pubs number (877–433–7827) or visit the NCES Electronic Catalog (http://nces.ed.gov/pubsearch).

To obtain the complete* Condition of Education *(NCES 2004–077), call the toll-free ED Pubs number (877–433–7827), visit the NCES Electronic Catalog (http://nces.ed.gov/pubsearch), or contact GPO (202–512–1800).

Pocket Projections of Education Statistics to 2013

William J. Hussar and Debra E. Gerald

Each year, NCES publishes this pocket summary of the *Projections of Education Statistics*. The pocket summary provides the reader with key information extracted from the full report. Included are data on actual and projected enrollment at all levels, numbers of high school graduates, and earned degrees conferred for postsecondary institutions. This year's edition of *Pocket Projections* includes 1990–91 institution data as well as estimates for 2001–02 and projections for 2012–13.

Author affiliations: W.J. Hussar and D.E. Gerald, NCES.

For questions about this pocket summary, contact William J. Hussar (william.hussar@ed.gov).

To obtain this pocket summary (NCES 2004–019), call the toll-free ED Pubs number (877–433–7827) or visit the NCES Electronic Catalog (http://nces.ed.gov/pubsearch).

Training and Funding Opportunities

Training

This winter, NCES will sponsor a 3-day advanced studies seminar on the use of the Early Childhood Longitudinal Study, Birth Cohort (ECLS-B) database. The ECLS-B is designed to support research on a wide range of topics pertaining to young children's cognitive, social, emotional, and physical development and their health status across multiple contexts (e.g., home and child care).

This seminar is open to advanced graduate students and faculty members from colleges and universities nationwide, and to researchers, education practitioners, and policy analysts from federal, state, and local education and human services agencies and professional associations. It will be held January 10–13, 2005, in Washington, DC.

Advanced studies seminars are designed for researchers in academic communities and other research communities (e.g., federal agencies, research organizations, and think tanks that are interested in quantitative studies). Each multiday seminar is held in the Washington, DC, metropolitan area and covers several topics, including the nature and content of the database, computer software for accessing and analyzing the data, and funding opportunities. Seminar activities include lectures, illustrations, demonstrations, and hands-on practice. At the end of each seminar, participants are expected to make a brief presentation describing their analyses and findings.

For more information, contact Beverly Coleman (beverly.coleman@ed.gov).

The AERA Grants Program

Jointly funded by the National Science Foundation (NSF), NCES, and the Institute of Education Sciences, this training and research program is administered by the American Educational Research Association (AERA). The program has four major elements: a research grants program, a dissertation grants program, a fellows program, and a training institute. The program is intended to enhance the capability of the U.S. research community to use large-scale datasets, specifically those of the NSF and NCES, to conduct studies that are relevant to educational policy and practice, and to strengthen communications between the educational research community and government staff.

Applications for this program may be submitted at any time. The application review board meets three times per year. The following are examples of grants recently awarded under the program:

Research Grants

- Marigee Bacolod, University of California, Irvine—Equalizing Educational Opportunities: Who Teaches and Where They Choose to Teach
- Thomas Dee, Swarthmore College—A Teacher Like Me: Does Race, Ethnicity or Gender Matter?
- David Figlio, University of Florida—Inside the "Black Box": School Responses to Accountability Pressure
- Janet Holt, Northern Illinois University—Racial and Gender Gaps in Math and Science Educational and Occupational Persistence: Exploring Critical Transitions Using Growth Mixture Modeling
- John Logan, University at Albany, SUNY—*Brown v. Board of Education* at 50: Desegregation Orders and Public School Integration

- Sean Reardon, Pennsylvania State University—Understanding the Growth of Achievement Inequality in the Early Years of Schooling
- Joanne Roberts, Wellesley College—The Influence of Early Care and Education on Children's Outcomes and Family Functioning: An Ecological Model
- Salvatore Saporito, College of William and Mary—Private Choices, Public Consequences: A Study of Racial and Economic Segregation in 50 School Districts
- James Williams, George Washington University—Socio-economic Status and the Effects of School Size on Student Performance: A Cross-National Multi-Level Analysis of PISA

Dissertation Grants

- Emily Beller, University of California, Berkeley—Explaining the Relationships Between Family Structure and Children's Educational Outcomes: Conceptual and Measurement Issues
- Katerina Bodovski, Pennsylvania State University—Instruction, Behavior, and Mathematics Learning in Elementary School
- Jacob Cheadle, Pennsylvania State University—Early Childhood Academic Achievement and the Family Environment: A Unified Methodological Approach using "GLAMMs" via MCMC
- Allison Gruner, Harvard University—Inclusion: What Is the Impact on Students Without Disabilities?
- Amy Langenkamp, University of Texas, Austin—The Effect of School Transitions on Math/Science Academic Achievement: Curriculum, Social Relationships, and School Context
- Kimberly Lowry, University of Central Florida—The Paths to Becoming a Mathematics Teacher
- Michelle Reininger, Stanford University—Do Community Colleges Increase the Supply of Teachers in Areas With Difficult-to-Staff Schools?
- Karen Ross, University of Michigan—Competition Versus Equity: The Effect of School Choice on Segregation in Michigan Public Schools

For more information, contact Edith McArthur (edith.mcarthur@ed.gov) or visit the AERA Grants Program website (http://www.aera.net/grantsprogram).

The NAEP Secondary Analysis Grant Program

The NAEP Secondary Analysis Grant Program was developed to encourage education researchers to conduct secondary analysis studies using data from the National Assessment of Educational Progress (NAEP) and the NAEP High School Transcript Studies. This program is open to all public or private organizations and consortia of organizations. The program is typically announced annually, in the late fall, in the *Federal Register*. Grants awarded under this program run from 12 to 18 months and awards range from $15,000 to $100,000. The following grants were awarded for fiscal year 2004:

- Motoko Akiba, University of Missouri—State Policy, Multicultural Teacher Education, and Student Learning
- Albert Beaton, Boston College—Analysis of the Fit of NAEP Scales for Specified Subpopulations
- Randy Bennett, Educational Testing Service—Toward Theoretically Meaningful Automated Essay Scoring
- Laura Desimone, Vanderbilt University—State Policy and Trends in Student Achievement: The Relationship Between Changes in State Standards-Based Reform Policy and Student Achievement
- Xin Ma, University of Kentucky—Understanding the Relationship Between Mathematics and Science Coursework With NAEP Data
- Lynn Stokes, Southern Methodist University—Use of Sampling Weights in Hierarchical Models Fit to NAEP Data
- John Warren, University of Minnesota—High School Exit Examinations and NAEP Long-Term Trends in Reading, Mathematics and Science: 1970–2004

For more information, contact Alex Sedlacek (alex.sedlacek@ed.gov).

AIR Grants Program

The Association for Institutional Research (AIR), with support from NCES and the National Science Foundation (NSF), has developed a grants program titled Improving Institutional Research in Postsecondary Educational Institutions. The goals of this program are to provide professional development opportunities to

doctoral students, institutional researchers, educators, and administrators, and to foster the use of federal databases for institutional research in postsecondary education. The program has the following four major components:

- dissertation research fellowships for doctoral students;
- research grants for institutional researchers and faculty;
- a Summer Data Policy Institute in the Washington, DC, area to study the national databases of NSF and NCES; and
- a senior fellowship program.

Calls for proposals go out in spring, and proposals are normally accepted through June 30 for work starting no later than September 1 of each year. Following are grants awarded for fiscal year 2004:

- Consuelo Arbona and Amaury Nora, University of Houston—Predicting College Attainment of Hispanic Students: Individual, Institutional, and Environmental Factors
- Kathryn Corder, Tracey Pattok, and Kevin Corder, Western Michigan University—College Financing and College Completion: Using Ecological Inference to Investigate How Types of Aid Received Affect Retention and Graduation Outcomes
- Wei-Cheng Mau, Randy Ellsworth, and Donna Hawley, Wichita State University—Finding Leakage in the Pipeline of Teacher Supply: Factors Influencing Youngsters to Aspire to and Stay in Teaching Careers
- Kevin Murphy, University of Massachusetts, Boston—Factors Affecting the Retention, Persistence, and Attainment of Undergraduate Students at Public Urban Four-Year Higher Education Institutions
- Ann Person, Northwestern University—Institutional Characteristics and Student Success in Sub-Baccalaureate Education
- Marvin Titus, North Carolina State University—Examining the Private Benefit of Graduate Education: A Two-Stage Approach
- Robert Toutkoushian, Indiana University—Using NSOPF:99 to Examine the Effects of Gender, Race, and Family Status on the Careers of Faculty
- Kjersten Bunker Whittington, Stanford University—Employment Sectors as Opportunity Structures: The Effects of Location on Male and Female Scientific Dissemination

For more information, contact Susan Broyles (susan.broyles@ed.gov) or visit the AIR website (www.airweb.org).

NPEC/AIR Focused Grants

The National Postsecondary Education Cooperative (NPEC) and the Association for Institutional Research (AIR) are pleased to announce the inaugural year of a focused grant program that will fund research and studies to increase understanding and knowledge in a specific issue area that has been identified by the NPEC Executive Committee as critically important to the postsecondary education community. This year the focus is on student success. Proposals are due January 15 of each year and the grant award period is June 1, 2004, through May 31, 2005.

In 2004, NPEC and AIR made seven 1-year grant awards ranging up to $15,000 for dissertation work and up to $30,000 for other activities. Grant recipients will make a presentation of their work at NPEC's national conference in 2006. Travel to the conference will be paid by NPEC.

Following are grants awarded for fiscal year 2004:

- Amy Caison, North Carolina State University—Analysis of Institutionally Specific Retention Research Methods: A Comparison Between Survey and Institutional Database Approaches
- Lora Cohen-Vogel, Florida State University—Allocating College Financial Aid on the Basis of Merit: Program Impact on Student Success in Terms of Whether and Where to Attend College
- James Cole and David Bergin, University of Missouri, Columbia—Association Between Motivation and General Education Standardized Test Scores
- Susan Kahn and Sharon Hamilton, Indiana University-Purdue University, Indianapolis—Enhancing Student Success Through Electronic Portfolios

- Fernando Lozano, University of California—High School Leadership Skills, Language Proficiency, and the Educational Attainment of Hispanic Students
- Josipa Roksa, New York University—States, Schools, and Students: Contextualizing Community College Outcomes
- Audrey Alforque Thomas, Harvard University—The Effect of the Immigrant Family Experience on College Application and Attendance

For more information, contact Roz Korb (roslyn.korb@ed.gov) or visit the AIR website (www.airweb.org) for more information and instructions for writing and submitting proposals.