

# EDUCATION STATISTICS QUARTERLY

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NATIONAL CENTER FOR  
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## *Education Statistics Quarterly* Volume 1, Issue 3, Fall 1999 NCES 1999-629

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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 will appear in the Winter issue (published each January). 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.



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# NOTE FROM THE ACTING COMMISSIONER

Gary W. Phillips

*Dr. Phillips was designated Acting Commissioner of the National Center for Education Statistics (NCES) effective June 22, 1999. He has been at NCES for 13 years, first as branch chief for the National Assessment of Educational Progress (NAEP), then as Division Director, and most recently as the Deputy Commissioner responsible for general management of the agency, including statistical standards and technology. In 1997, he took a leave of absence from NCES to serve as the Executive Director of President Clinton's Voluntary National Test (VNT) Initiative. Prior to joining NCES, Dr. Phillips was Director of Evaluation for the Maryland State Department of Education. Dr. Phillips has a Ph.D. from the University of Kentucky with an emphasis in statistics and psychometrics. He is nationally and internationally known for his expertise in large-scale assessments and complex surveys.*

## Future Directions for NCES

During my tenure at NCES, my main emphasis has been on the translation of statistical data into information that is understandable, useful, and timely for policymakers. Over the past several years, I have worked on reports that I think have been instrumental in informing the debate about our national education policy agenda. These include *The Lake Wobegone Effect—A Skeleton in the Testing Closet* (1988), *A World of Differences: The First International Assessment of Educational Progress* (1990), and *The State of Mathematics Achievement: The First NAEP State-by-State Assessment* (1991). The main purpose of each of these reports was to provide new and innovative information to help education researchers, policymakers, and the public better understand the condition of education in America. I've also been responsible for work that contributed to improvement in the methodology of educational measurement, such as *Toward World Class Standards: The First Linking Study Between NAEP and International Assessments* (1993) and *Technical Issues in Large-Scale Performance Assessment* (1995).

As Acting Commissioner, I recognize that my first goal is to “keep the train on track” and to continue the agency's solid record in the collection and dissemination of education statistics. However, it would be shortsighted of me to claim that there is no room for improvement, and in this spirit I would like to outline my vision for a better NCES.



My goals are to

- Focus on the fundamental mission of NCES, established in 1867 to “collect such statistics and facts as shall show the condition and progress of education in the several States and territories, and of diffusing such information respecting the organization and management of efficient school systems, and otherwise promote the cause of education throughout the United States.”
- Improve the basic NCES infrastructure to better support agency functions. This means a renewed commitment to quality, based on updated statistical standards, a wider dissemination of data and reports including vehicles such as the *Quarterly*, and continuous improvement in management, such as the use of more sophisticated technology.
- Support the reauthorization of NCES to make the agency more independent, customer oriented, and focused on high-quality, timely, and relevant data. This will be done within the context of the reauthorizing legislation for the Elementary and Secondary Education Act (ESEA), and the Office of Educational Research and Improvement (OERI).
- Increase the usefulness of the NCES Web Site by supporting more projects related to Web-based data collection, data harvesting, and online data analysis, as well as by continually expanding the Web site as a major means of releasing and disseminating reports.
- Work with colleges and universities, local and state agencies, associations, and other education constituency groups to help keep the Center’s data agenda relevant to the nation’s policy debates.

In my new role as Acting Commissioner, I intend to draw extensively on my experience at NCES to guide me in working toward these objectives in concert with NCES management and staff, the Department of Education, and other federal statistical agencies, as well as the broader education research and policy community.





# FEATURED TOPIC: LIFE AFTER COLLEGE

Life After College: A Descriptive Summary of 1992–93 Bachelor’s Degree Recipients in 1997, With an Essay on Participation in Graduate and First-Professional Education <i>Alexander C. McCormick, Anne-Marie Nuñez, Vishant Shah, and Susan P. Choy</i> .....	7
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## Life After College: A Descriptive Summary of 1992–93 Bachelor’s Degree Recipients in 1997, With an Essay on Participation in Graduate and First-Professional Education

*Alexander C. McCormick, Anne-Marie Nuñez, Vishant Shah, and Susan P. Choy*

*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 Second Follow-up of the Baccalaureate and Beyond Longitudinal Study (B&B).*

When followed up in 1997, 1992–93 college graduates as a group were well established in the labor force, with 89 percent employed (figure A). Not all had finished their formal education, however: 18 percent were enrolled for an advanced degree or certificate (13 percent combining school and work, and 5 percent enrolled only). The remaining 6 percent were neither working nor enrolled (with females about twice as likely as males to be in this situation).

This report uses data from the Second Follow-up of the Baccalaureate and Beyond Longitudinal Study (B&B:93/97) to describe the enrollment and employment experiences of 1992–93 bachelor’s degree recipients. At the beginning of the report, an essay examines a number of aspects of their experiences with graduate and first-professional education. Specific topics include their degree expectations in 1993; changes in their expectations between 1993 and 1997; steps they took to prepare for study at the graduate or first-professional level (taking the necessary examinations,

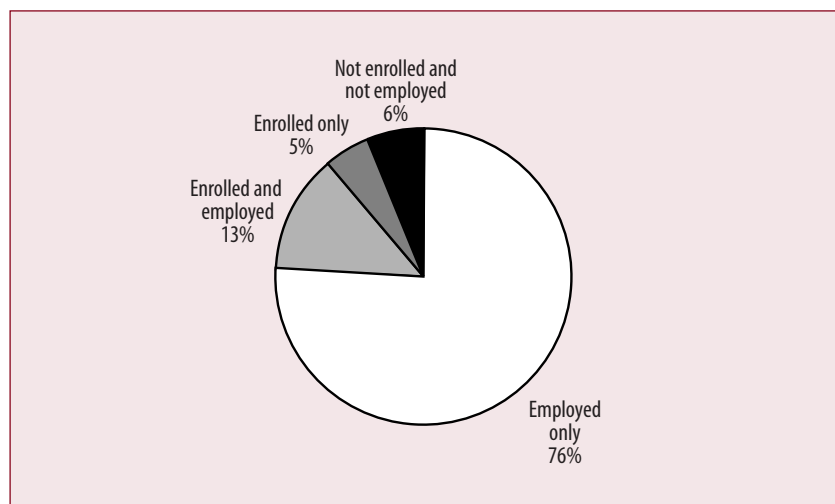
applying for admission, and being accepted); their enrollment; and their progress toward advanced degrees if they did enroll.

A compendium of tables and highlights following the essay details aspects of graduates’ employment in April 1997 (including how much they were working, their occupations, and their salaries), their experiences with unemployment since they graduated, and various characteristics of their primary jobs in April 1997.

### Graduate and First-Professional Education Educational expectations

When asked about their educational plans in 1993, a large majority of 1992–93 bachelor’s degree recipients (85 percent) reported that they expected to earn a graduate or first-professional degree sometime in the future. By 1997, the percentage with this expectation had declined to 72 percent.

**Figure A—Percentage distribution of 1992–93 bachelor’s degree recipients according to employment and enrollment status in 1997**



SOURCE: U.S. Department of Education, National Center for Education Statistics, 1993 Baccalaureate and Beyond Longitudinal Study, Second Follow-up (B&B: 93/97), Data Analysis System.

There were some differences by gender and race/ethnicity in terms of the percentages with advanced degree expectations and how expectations changed over time. In 1993, female graduates were slightly more likely than male graduates to have advanced degree expectations (87 percent versus 83 percent). By 1997, however, the difference had diminished, and they were about equally likely to expect to earn an advanced degree (73 percent of females and 71 percent of males).

In 1997, black and Hispanic graduates were more likely than white graduates to expect to earn an advanced degree (85 percent and 79 percent versus 70 percent, respectively). Advanced degree expectations dropped more for whites (15 percentage points) between 1993 and 1997 than for blacks (4 percentage points).

Undergraduate borrowing did not seem to discourage graduates from considering advanced degrees. In 1993, borrowers and nonborrowers had similar expectations, and in 1997, borrowers were actually more likely than nonborrowers to report advanced degree expectations (74 percent versus 70 percent).

Changes in graduates’ advanced degree expectations differed depending on their original degree expectations. The percentage of bachelor’s degree recipients who

expected to earn a master’s degree as their highest degree decreased slightly between 1993 and 1997 (from 58 percent to 54 percent), while the percentage expecting to complete a doctoral degree declined sharply (from 21 percent to 12 percent). The percentage expecting to earn a first-professional degree was similar in both years (about 6 percent).

### Progression to graduate and first-professional education

One of the first steps toward admission to an advanced degree program is to take one of the admissions exams, such as the Graduate Record Examination (GRE), Graduate Management Admissions Test (GMAT), Law School Admissions Test (LSAT), or Medical College Admission Test (MCAT). By 1997, 39 percent of all 1992–93 bachelor’s degree recipients had taken a graduate admissions exam and 41 percent had applied for admission to a graduate or first-professional program. Thirty-five percent had been accepted into at least one program, and 30 percent had enrolled (table A).

Students who applied to advanced degree programs had a good chance of being accepted somewhere. Among those who had applied by 1997, 87 percent were accepted into at least one program.

Undergraduate debt may discourage students from continuing their education. Bachelor’s degree recipients who had borrowed for their undergraduate education were slightly less likely than nonborrowers to have applied for admission to a graduate or first-professional program (38 percent versus 42 percent). The amount borrowed did not seem to make a difference, however.

Students’ performance in college was positively associated with applying, being accepted, and enrolling (table A). Graduates with cumulative grade-point averages (GPAs) of 3.5 or above at their baccalaureate institution were at least twice as likely as those with GPAs under 2.5 to apply, and about three times as likely to enroll.

Among the 50 percent of graduates with GPAs of 3.5 or above who applied for admission to a graduate or first-professional program, 91 percent were accepted. Eighty-three percent of those who were accepted enrolled.

#### Participation in graduate and first-professional education

Most postbaccalaureate enrollment by 1997 was at the master’s level. Of the 30 percent of the 1992–93 bachelor’s degree recipients who had enrolled in an advanced degree program by 1997, about three-quarters were pursuing a master’s degree (10 percent were seeking an MBA and 66 percent were working on other master’s degrees). Another 14 percent were enrolled in a first-professional degree program, and the remaining 10 percent were enrolled in a doctoral program.

Men and women were equally likely to enroll in a graduate or first-professional program, but gender differences in the types of degrees pursued were pronounced. Three-quarters of enrolled women were in a master’s degree program other than an MBA, compared with about half (54 percent) of enrolled men. In contrast, men were twice as likely as women to enroll in an MBA program (14 percent versus 6 percent). Men were also more likely than women to enroll in a first-professional program (18 percent versus 10 percent) or doctoral program (13 percent versus 7 percent).

Differences existed by race/ethnicity as well. For example, Asian/Pacific Islander graduates who continued their education were about twice as likely as graduates from other racial/ethnic groups to enroll in a first-professional program (35 percent versus 12–17 percent), and they were less likely to enroll in non-MBA master’s degree programs (46 percent versus 66–70 percent).

Overall, 49 percent of 1992–93 graduates who enrolled in a graduate or first-professional program by 1997 did so within a year of earning their bachelor’s degree, and another 23 percent enrolled within 2 years. Doctoral students were the most likely to have enrolled within a year of graduation (78 percent did so), followed by first-professional students (55 percent) and then those entering a master’s program other than an MBA (46 percent). MBA students were the least likely to enter this soon (29 percent), and one-third of them waited more than 3 years before enrolling.

**Table A—Percentages of 1992–93 bachelor’s degree recipients who took steps toward admission and enrolled: 1993–97**

	Graduate admission exams taken	Applied for admission	Accepted	Enrolled
Total	38.8	40.6	35.4	29.8
GPA at bachelor’s institution				
Under 2.5	25.6	21.6	16.3	13.5
2.5 to 2.99	34.8	36.1	30.7	25.5
3.0 to 3.49	43.7	46.0	40.2	33.6
3.5 or above	45.6	50.4	45.8	40.8

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1993 Baccalaureate and Beyond Longitudinal Study, Second Follow-up (B&B:93/97), Data Analysis System.

Education and business were the fields most commonly studied, chosen by 22 and 18 percent, respectively, of the 1992–93 bachelor's degree recipients who had enrolled in an advanced degree program by 1997. About one-third (31 percent) of students enrolled in a master's program other than an MBA sought a degree in education. At the doctoral level, about one-quarter (24 percent) of students were studying the life and physical sciences (compared with about 5 percent of those pursuing a master's degree).

Enrollment patterns varied markedly with degree program. Among those enrolled in April 1997, 94 percent of those working on a first-professional or doctoral degree were enrolled full time. In contrast, a majority of non-MBA master's students (59 percent) were enrolled part time. About two-thirds of MBA students attended part time. About three-quarters (77 percent) of all MBA students attended classes on weeknights.

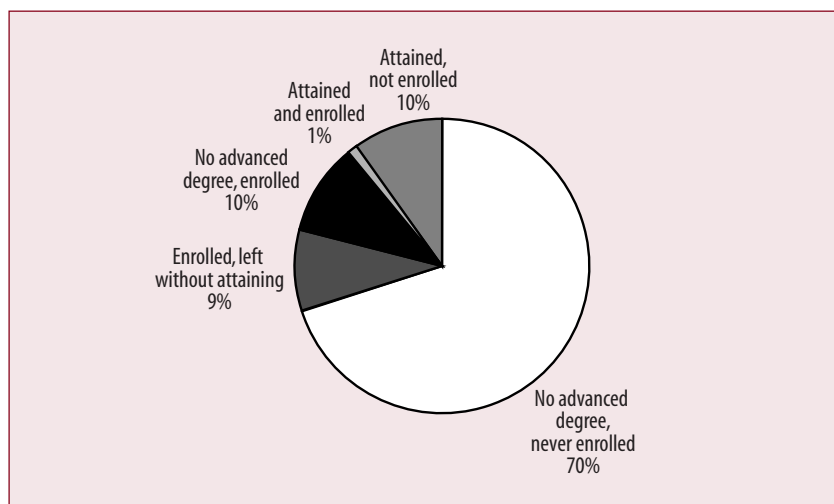
Progress toward an advanced degree reflects the combined effects of enrollment duration, enrollment intensity (full or part time), success in the courses taken, and program requirements. Of those who had enrolled for an advanced degree or certificate at any time since earning a bachelor's degree, 71 percent of doctoral students, 56 percent of MBA students, and 32 percent of non-MBA master's students were enrolled when interviewed in 1997. The rest had either completed their degree or left without completing.

Of doctoral students who enrolled within a year of earning their bachelor's degree, 57 percent had not completed their coursework by 1997, and 46 percent had not taken their exams. However, the majority (59 percent) had started on their thesis.

Just over one-half (56 percent) of 1992–93 bachelor's degree recipients who pursued an advanced degree received some type of financial aid to help pay for their education. Fifty-three percent of students in first-professional programs received loans but no grants, compared with 18–25 percent of students in other programs. Doctoral students were the most likely to receive an aid package that included grants and no loans (28 percent versus 5–12 percent of students in other degree programs). MBA seekers were the most likely to receive only employer benefits (18 percent versus no more than 4 percent for students in other degree programs).

As indicated above, 30 percent of 1992–93 graduates had enrolled in a graduate or first-professional program between the time they graduated and when they were interviewed in 1997. At the time of the 1997 interview, 21 percent had persisted—that is, they had either attained a graduate or first-professional degree or were enrolled and working toward a degree (figure B). The other 9 percent had left without a degree. Of the 21 percent who persisted, about half (10 percent) had attained a degree and were no longer enrolled. Another 1 percent had attained one degree and

**Figure B—Percentage distribution of 1992–93 bachelor's degree recipients according to attainment and enrollment status: 1997**



SOURCE: U.S. Department of Education, National Center for Education Statistics, 1993 Baccalaureate and Beyond Longitudinal Study, Second Follow-up (B&B: 93/97), Data Analysis System.

**Table B—Percentage distribution of 1992–93 bachelor's degree recipients according to graduate or first-professional degree enrollment and attainment when interviewed in 1997, by highest program enrolled**

	Attained graduate/first-professional degree or currently enrolled				
	No degree, not enrolled <sup>1</sup>	Total	No degree, enrolled	Attained, not enrolled	Attained and enrolled
Total	78.9	21.1	9.5	10.2	1.4
Highest program enrolled					
Master's other than MBA <sup>2</sup>	33.6	66.5	27.3	37.0	2.2
MBA	20.8	79.2	50.5	25.6	3.2
First-professional	21.2	78.8	36.6	38.2	4.1
Doctoral	19.9	80.1	37.5	19.3	23.3

<sup>1</sup>Includes those who enrolled but left before 1997.

<sup>2</sup>Includes post-master's certificate.

NOTE: Details may not sum to totals due to rounding.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1993 Baccalaureate and Beyond Longitudinal Study, Second Follow-up (B&B:93/97), Data Analysis System.

were enrolled for additional education, and the remaining 10 percent were enrolled but had not yet earned an advanced degree.

Persistence was lowest among students who had enrolled for a master's degree other than an MBA (table B). About one-quarter of doctoral students had completed one degree and were still enrolled.

## Employment Experiences

### Employment patterns

Among 1992–93 bachelor's degree recipients, 89 percent were employed in April 1997 (81 percent full time and 8 percent part time). An additional 3 percent were unemployed, and the remaining 8 percent were out of the labor force.

There were some gender differences in employment patterns. Men were slightly more likely than women to be employed (91 percent versus 88 percent), and women more likely than men to be working part time (11 percent versus 6 percent).

About three-quarters of the bachelor's degree recipients had held more than one job since graduation. The average number was 2.8.

### Occupation types and salaries

About one-fifth (21 percent) of the 1992–93 graduates who were employed in April 1997 had jobs in business and management, and 16 percent were working as teachers. Fourteen percent had administrative jobs, and 11 percent had jobs in professional fields other than education, business, health, or engineering.

The overall average annual salary for graduates working full time was \$34,252, but average salaries varied considerably by undergraduate major. Engineering majors, for example, were earning an average of \$44,524 in April 1997, while education majors were earning an average of \$26,513.

### Experience with unemployment

For 1992–93 bachelor's degree recipients, the unemployment rate in April 1997 (calculated excluding those out of the labor force) was 2.9 percent. As a point of reference, the U.S. unemployment rate for adults 25 years and older was 3.7 percent at that time.



### Job characteristics

Among the 1992–93 bachelor's degree recipients who were working in April 1997, 56 percent reported that their job was closely related to their degree, and 57 percent reported that their job had definite career potential. Five percent had part-time jobs but would have preferred to be working full time.

Most (80 percent) of those employed in April 1997 were very satisfied with their coworkers. Sixty percent were very satisfied with their supervisor, and 56 percent with their working conditions. The proportion reporting that they were very satisfied with their working conditions ranged from 42 percent of those in military/protective service occupations to 66 percent for those in engineering occupations.

Bachelor's degree recipients had found their April 1997 jobs in a variety of different ways, including referrals (35 percent), want ads (22 percent), and employment agencies (8 percent).

### Summary

When they graduated from college, 85 percent of 1992–93 bachelor's degree recipients expected to earn an advanced degree. By 1997, 30 percent had actually enrolled. Twenty-

one percent had either attained a degree or were still enrolled, and 9 percent had left without a degree.

Overall, 89 percent were employed in April 1997—76 percent were working only, and another 13 percent were combining school and work. Relatively few (5 percent) were enrolled only. The remaining 6 percent were neither working nor enrolled.

**Data source:** The 1993 Baccalaureate and Beyond Longitudinal Study, Second Follow-up (B&B:93/97).

**For technical information,** see the complete report:

McCormick, A.C., Nuñez, A.M., Shah, V., and Choy, S.P. (1999). *Life After College: A Descriptive Summary of 1992–93 Bachelor's Degree Recipients in 1997, With an Essay on Participation in Graduate and First-Professional Education* (NCES 1999–155).

For details on B&B:93/97 methodology, see

Green, P., Myers, S., Veldman, C., and Pedlow, S. (1999). *Baccalaureate and Beyond Longitudinal Study: 1993/97 Second Follow-up Methodology Report* (NCES 1999–159).

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**To obtain the complete report (NCES 1999–155),** call the toll-free ED Pubs number (877–433–7827), visit the NCES Web Site (<http://nces.ed.gov>), or contact GPO (202–512–1800).

## Invited Commentary: Part-Time Study Plus Full-Time Employment: The New Way to Go to Graduate School

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*This commentary represents the opinions of the author and does not necessarily reflect the views of the National Center for Education Statistics.*

### Introduction

Using data from the Baccalaureate and Beyond Longitudinal Study, Second Follow-up (B&B:93/97), the featured report tells an important story about contemporary graduate education in the United States. Rather than following the traditional path of attending graduate school directly after earning the bachelor's degree, many Americans are going to work first, then attending graduate school while their careers progress. This new attendance pattern has important implications for U.S. graduate education—a system built when the traditional pattern of full-time attendance was the norm.

According to the featured report, three-quarters of those 1992–93 bachelor's degree recipients who had enrolled in graduate school by 1997 were pursuing master's degrees, and the remainder were about evenly divided between doctoral and first-professional programs. More importantly, while over 90 percent of the doctoral and first-professional students were attending full time, the majority of master's students were attending part time. These part-time students were almost all employed, advancing their careers while pursuing advanced degrees. In addition, many baccalaureate recipients not already enrolled expect to return to school for advanced education sometime during their careers. This “new majority” of working adults involved in graduate and first-professional education requires a set of services—both academic and administrative—quite different from those required for the traditional graduate student.

### Implications for Future Demand for Postsecondary Education

Responses to B&B:93/97 indicate that one-fifth of 1992–93 bachelor's degree recipients either had already obtained an advanced degree or were participating in advanced study 4 years after college graduation. While that group represents an important segment of graduate enrollment, many of those who do not enter graduate school soon after receiving

a bachelor's degree also have graduate degree expectations. In fact, 4 years after college graduation, 72 percent of the 1992–93 bachelor's degree recipients expected to earn a graduate or first-professional degree sometime during their careers. Most of these students expected to earn a master's degree and are likely to attend part time while employed full time.

Considering that approximately 1.2 million bachelor's degrees are granted in the United States each year, those expectations represent a substantial source of demand for graduate education. Of course, not all expectations will come to fruition, but even if one-half of all bachelor's degree recipients were to become involved in graduate or first-professional education, then this demand would push graduate and first-professional enrollment well above the current total of 2 million students.

### Diversity and the New Majority

The B&B expectations data also reveal that the new majority graduate students are more diverse than the traditional group. Traditional graduate students are younger, are more likely to be male, and tend to be enrolled in doctoral or first-professional programs. In contrast, the new majority students are older, are more likely to be female, and are pursuing graduate-level certificates and master's degrees in a wide range of fields. According to the 1995–96 National Postsecondary Student Aid Study (NPSAS:96), the average age of master's degree students is 32, and more than a third are over the age of 35.

Both majority and minority group members recognize the need for postbaccalaureate education. In fact, black and Hispanic bachelor's degree recipients were more likely than white graduates to report expectations for advanced degrees. Four years after college, women and men had similar expectations, with 73 percent of women and 71 percent of men expecting to earn a graduate or first-professional degree.

## Responding to the Needs of the New Majority Graduate Student

The part-time enrolled/full-time employed graduate student presents many challenges to the university community. Most student-related systems were established during the period of rapid institutional expansion of the 1960s and early 1970s, when full-time attendance was the norm. Institutions have responded to the demands of the new majority students in a variety of ways, from the modification of university procedures and student services, to the creation of new graduate programs, to the founding of entire new institutions.

Admissions criteria are changing as well. Returning adult students are judged more on their undergraduate records and work experience than on standardized test scores. Responses to B&B:93/97 reflect the importance of undergraduate GPA, with bachelor's recipients with high grade-point averages twice as likely to apply as those with low grade-point averages and three times as likely to enroll. In addition, admissions offices increasingly need to work with students who may have earned graduate credits at other institutions and want to transfer credit to the new graduate program.

Providing services to students with full-time jobs often involves extending office hours in order to accommodate working adults. According to B&B:93/97, well over one-half of all master's students attend courses on weeknights or weekends. Many institutions are making increasing use of the Internet for publishing graduate school catalogs, for online admissions forms, and for course delivery.

There are many other services demanded by new majority students. These include, for example, child care, campus and parking facilities safe for nighttime access, career counseling, and financial aid for students attending on a part-time basis. Providing academic advising and mentoring and encouraging the formation of peer study groups are challenges for programs serving part-time students.

Not surprisingly, most financial support for graduate and first-professional study goes to full-time students. According to B&B:93/97, more than 60 percent of part-time students received no institutional, state, or federal support for graduate study and consequently financed their education from personal resources. The limited support that is available comes from employer-provided educational benefits, as well as from loans and fellowships. Universities,

employers, and government agencies need to work together to streamline financial aid regulations to maximize the use of the modest amounts of support that are available for the part-time student.

## New Programs, New Institutions

Because adult students have different expectations for program availability and content than their younger counterparts, institutions are developing new programs and degrees at the graduate level. One of the most exciting new programs is the graduate certificate. This certificate is designed for bachelor's degree recipients who are seeking a focused program of advanced study but who are not interested in committing the time necessary for a full master's degree program. The graduate certificate program is typically 12 to 18 credits in duration and is offered in a wide variety of fields, including information technology, gerontology, and women's studies.

Recognizing the growing demand for postbaccalaureate education, entire new institutions have been established to serve the working student. Walden University and the University of Phoenix are two examples of these new institutions. Walden was founded in 1970 to provide graduate-level education to working professionals. Using distance learning methods, students can earn master's and doctoral degrees from Walden without sacrificing family and career commitments.

The University of Phoenix, one of the best known institutions of this type, was established in 1976 as a for-profit institution with a mission to provide education to working adult students. Many University of Phoenix graduate programs require that the students be employed, especially the business and education programs. These programs have proved to be enormously popular, and today the University of Phoenix ranks first in the nation in total head count graduate enrollment, with over 13,000 graduate students.

## Will Institutions Supply What Graduate Students Demand?

Over the past 30 years, U.S. graduate education has been transformed from an elite system for the few into a mass system for the many, enrolling more than 2 million students and annually granting more than 500,000 master's, doctoral, and professional degrees. The traditional view of graduate students as newly minted bachelor's degree recipients engaged full time in graduate study no longer reflects the current reality. To be sure, there are many graduate

students—especially in doctoral and first-professional programs—that fit the traditional model. However, the decided majority of students pursuing graduate study are quite different from the traditional student. They are older, more often women, typically married, and have family and career responsibilities. These students present significant challenges and opportunities for U.S. graduate education.

For federal and state policymakers, the issue is fairly straightforward—how can we help make advanced education available for the working adult? For American universities, the questions are more complex and impact the central mission of these institutions. Universities need to review their missions to decide what kind of population they want to serve. Should institutions try to be all things to all people or focus their efforts somewhere along the continuum between preparing doctoral scholars and providing career training for the working professional?

Many institutions are caught between the interest of the faculty in preparing the next generation of doctoral scholars and the needs of the local community for career-related training. A university may decide to focus on doctoral training, but that will cede a substantial segment of the market to other providers, such as corporate universities and institutions like the University of Phoenix.

One of the most difficult issues faced by graduate schools is the maintenance of program quality in a part-time environment. The core values of graduate education—close student-faculty interaction, access to outstanding research facilities, advanced research on a focused topic, and peer-to-peer contact—are typically associated with full-time, campus-based programs. How can these values be maintained in a part-time, off-campus setting?

While the new part-time graduate and professional students present many challenges for the university community, they also present a number of opportunities. Institutions have the opportunity to serve a new and diverse population of students, expanding outreach to underrepresented populations. They have the opportunity to experiment with new programs and new delivery systems. And they have the opportunity to develop a new group of constituents interested in supporting their higher education system.

The B&B study provides an important set of data on the transition from bachelor's degree to graduate school and career. Used in combination with other NCES data sources such as NPSAS and the Integrated Postsecondary Education Data System (IPEDS), B&B provides a rich view of the changing face of U.S. graduate education.

# Tracking Long-Term Outcomes

## Invited Commentary: Baccalaureate and Beyond: Tracking Long-Term Outcomes for Bachelor's Degree Recipients

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*This commentary represents the opinions of the author and does not necessarily reflect the views of the National Center for Education Statistics.*

For several decades, the question of the value of a postsecondary education has been debated. Numerous studies have been conducted to establish measures that reflect the worth of a college degree. The featured report, *Life After College: A Descriptive Summary of 1992–93 Bachelor's Degree Recipients in 1997*, does not attempt to estimate the value of a bachelor's degree but rather provides another chapter in describing the story of individuals who achieve at least a bachelor's degree. The report includes extensive data on these individuals' enrollment and employment experiences. Four years after completing their baccalaureate degrees, for example, 30 percent of the 1992–93 bachelor's degree recipients had enrolled in graduate or professional school, 21 percent had either attained a degree or were currently enrolled, and 89 percent were employed. Only a very small percentage of individuals were neither employed nor enrolled in graduate or professional school. In fact, the unemployment rate for these bachelor's degree recipients was 2.9 percent, somewhat below that of the overall U.S. unemployment rate for adults ages 25 and older.

The value of the 1993 Baccalaureate and Beyond Longitudinal Study, Second Follow-up (B&B:93/97), is that it provides another milepost in our examination and understanding of life after college. Initial mileposts were provided with B&B's predecessors, the National Longitudinal Study of the Class of 1972 (NLS:72/86) and High School and Beyond (HS&B:80/92). It will prove to be a valuable exercise to examine whether and how the experiences of bachelor's degree recipients have changed or remained similar over the past 2 decades. In addition, B&B is the first longitudinal study specifically intended to track bachelor's degree recipients. B&B includes a larger number of bachelor's degree recipients than its predecessors and will follow them for a greater number of years after college graduation.

One of the major advantages of a national longitudinal study of this type is that it provides an accurate description that is based on a nationally representative sample rather

than on anecdotal information. Furthermore, the value of a baccalaureate degree transcends time: not all individuals march to the same drummer and pursue advanced training or careers in a lock-step pattern. Because individuals' paths vary substantially, it is extremely useful to examine behaviors (both career histories and postbaccalaureate pursuits) at various points after initial receipt of the baccalaureate degree.

If the choice is made not to view outcomes at various points in time, the conclusions one draws may in fact be quite flawed. When 1992–93 bachelor's degree recipients were interviewed in 1993, for example, a higher percentage of women than of men intended to pursue advanced degrees; 4 years later, however, the percentage of men and women who had actually enrolled was comparable. Will this situation remain constant, or will the proportions change again? Among those who had actually enrolled in advanced degree programs by 1997, men were more likely than women to be pursuing an MBA, doctoral, or first-professional degree. It is interesting to contemplate whether the next 10 years will find a larger share of enrolled women pursuing MBA, doctoral, and first-professional degrees. Will there eventually be a homeostasis, with equal proportions of men and women obtaining comparable advanced degrees in similar programs? The B&B study has the potential to address such unanswered questions.

B&B:93/97 data lend themselves to a description of student degree aspirations at the time of graduation, changes in these aspirations after 4 years, and steps taken to prepare for advanced training. However, it is unfortunate that the data do not lend themselves to answering the question of *why* individuals decided to pursue graduate and first-professional degrees. While there appears to be a relationship between type of institution attended, undergraduate academic performance, the pursuit of training beyond the baccalaureate level, and retention within the graduate program, one wonders if there are also relationships between initial motivations for pursuing an advanced degree, actual pursuit of that degree, and ultimate attainment of the degree.



What is somewhat perplexing is that 85 percent of 1992–93 bachelor's degree recipients indicated at the time of graduation that they intended to complete a graduate or professional degree, but 4 years later only 21 percent had either attained an advanced degree or were currently enrolled in a program. In all likelihood, additional 1992–93 bachelor's degree recipients will reenter higher education. Thus, it seems critical, if not imperative, that the longitudinal aspect of this study be continued in order to determine the proportion of bachelor's degree recipients who ultimately achieve their educational aspirations. It would be most worthwhile to carry through with plans to survey these individuals again in 2002 and perhaps also in 2005.

While the data are somewhat deficient in providing critical information regarding individuals' reasons for pursuing graduate training, B&B:93/97 does provide valuable information from which one is able to gain insights about why individuals selected their current jobs and how they obtained these jobs, as well as how satisfied they are with their current employment situations. In addition, this second follow-up of B&B provides a wealth of information for researchers who are interested in examining the relationships between undergraduate major and employability, field of employment, and average earnings. While some work has been done, using data from the first B&B follow-up (B&B:93/94), to examine the relationships among undergraduate majors, career choices, and average salaries, it will be interesting to determine whether similar relationships continue to exist over time. The B&B:93/97 data seem to support the notion that one's undergraduate major does have an impact on average salary 4 years after graduation and that arts and science majors earn less than those with degrees in professional fields. However, it will be important to determine whether the long-term earning potential of individuals will vary according to their choice of undergraduate major or whether other intervening variables will have a stronger long-term impact on earnings.

Given that this cohort was part of the 1993 National Postsecondary Student Aid Study (NPSAS:93), the level of detail regarding the financing of these individuals' undergraduate education is extensive. B&B:93/97 provides an opportunity to examine the impact of loans on both postbaccalaureate and career choices. While it appears that the amount of money borrowed to finance undergraduate education is not related to employment choices, it will be very interesting to explore whether any relationships exist between borrowing, amount of borrowing, career choices, and satisfaction with one's career. We may also learn that over time loan indebtedness will have less of an impact on further educational pursuits, putting to rest the conventional wisdom that loans have a major impact on the pursuit of advanced training. Although borrowers were slightly less likely than nonborrowers to have applied to graduate and professional schools as of 1997, perhaps more borrowers will apply after they have been repaying their loans for several years and have reduced their undergraduate debt. As of 1997, borrowing did not seem to be related to enrollment rates among those individuals who had applied. Analyzing relationships among these and other variables will provide a greater understanding of the impact of undergraduate borrowing on major life choices.

The higher education community is indeed fortunate to have a data set that will afford innumerable opportunities to examine a host of questions regarding the outcomes of bachelor's degree recipients over an extended period of time. This rich source of information not only provides data that are useful to inform public policy decisions, but also provides comparative data for individual institutions. There is no doubt that B&B:93/97 will be mined extensively and will yield volumes describing life after the baccalaureate.



# ELEMENTARY AND SECONDARY EDUCATION

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## Before- and After-School Care Participation of Kindergartners Through Third-Graders in Before- and After-School Care

—DeeAnn W. Brimhall, Lizabeth M. Reaney, and Jerry West

*This article was originally published as a Statistics in Brief report. The sample survey data are from the “Early Childhood Program Participation” (ECP) component of the National Household Education Survey (NHES). Methodology and technical notes from the original report have been omitted, along with supplementary tables.*

Approximately 39 percent of the nation’s primary school children (i.e., kindergartners through third-graders) receive some form of nonparental care before and/or after school on a weekly basis. They spend an average of 14 hours per week in this care. These findings come from the National Center for Education Statistics (NCES) 1995 National Household Education Survey (NHES:95) and highlight the importance of looking at before- and after-school care for children during their early school years.

The care children receive before and after school concerns parents, practitioners, researchers, and policymakers. The major concern centers on how children spend their out-of-school time. The majority of children’s waking hours (70 to 90 percent) is spent outside of school (Miller 1995; Seppanen et al. 1993). This time represents an enormous opportunity for learning social skills and developing interests, and the way this time is spent has been linked to achievement (Seligson 1997). Organized programs for the

provision of this care and enrichment have been noted to be especially vital for kindergartners through third-graders (Seppanen et al. 1993). Before- and after-school care for kindergartners is of special interest, because many of these children are only in school for part of the day, so the care and education they receive for the rest of the day is of great concern.

School-age children's care and developmental needs differ greatly from those of younger children, and the type of care they receive may impact their social, emotional, and cognitive development, as well as their school performance (Miller and Marx 1990; Pierce, Hamm, and Vandell 1999; Vandell and Corasaniti 1988). Before- and after-school care has the potential to have both positive and negative effects on children's development, depending on the characteristics of the care arrangement. Children's successful school adjustment is related to their experiences in after-school programs. For example, first-grade boys attending programs where the staff was positive were rated by school teachers as having fewer internalizing and externalizing problems (Pierce, Hamm, and Vandell 1999). First-grade girls experiencing positive interaction with after-school staff also exhibited fewer internalizing behaviors in school (Pierce, Hamm, and Vandell 1999). On the other hand, other research has found that third-graders (predominately middle class) in center-based care have lower scores on standardized tests and lower grades in school than children in other types of care (Vandell and Corasaniti 1988). In this study, though, center quality was not controlled; it was, in fact, noted to be questionable at many sites, perhaps explaining the negative findings.

Findings from research examining the potential effects of self-care are contradictory as well. School performance has been shown to decline with unsupervised care, and less peer contact after school seems to contribute to feelings of isolation and loneliness (Miller and Marx 1990). However, Vandell and Corasaniti (1988) found middle-class third-graders in self-care to be comparable to children solely in maternal care for school grades and test scores.<sup>1</sup>

While prior research indicates that self-care is more prevalent in middle childhood (e.g., Hofferth et al. 1991; Seppanen et al. 1993), it is of equal interest in the primary grades. Self-care seems to be an established arrangement as early as 7 or 8 years of age (Seppanen et al. 1993 citing

Divine-Hawkins 1992). It tends to increase during the school years, varying with maternal employment status (i.e., full versus part time) (Casper, Hawkins, and O'Connell 1994; Hofferth et al. 1991).

Several changes in family employment have contributed to an increasing demand for before- and after-school care for children of all ages. The growing number of women in the labor force, as well as an increase in single-parent families, impacts the need for before- and after-school care by limiting the ability of parents to care for their children immediately before and after school (Hofferth et al. 1991; Seppanen et al. 1993).

This report contains information from NHES:95 on the before- and after-school care arrangements of children in kindergarten through third grade. It examines characteristics of these arrangements that are of key public interest—participation rates, average time spent in care, and out-of-pocket expenses.

First, this report describes children's overall participation in before- and/or after-school care by type of arrangement (i.e., home-based relative care, home-based nonrelative care, center-based care, and self-care). Included in the description of care that takes place after school is an examination of the characteristics of children (e.g., race/ethnicity and grade level) and their families (e.g., mother's education and employment status) that have been shown to be related to participation rates in prior research (Casper, Hawkins, and O'Connell 1994; Hofferth et al. 1998; Hofferth et al. 1991; Seppanen et al. 1993).

Second, this report describes the amount of time primary school children spend in care on a weekly basis. The amount of time children under the age of 6 spend in care varies by such characteristics as family type, maternal employment, and race/ethnicity (Hofferth et al. 1998). Time in care is a critical issue for school-age children, especially kindergartners, since a significant amount of their time is spent outside of school.

Finally, this report describes the out-of-pocket expense to families for before- and after-school care. Cost is one constraint on parents' decisions on the type of care chosen, and it varies by several child and family characteristics, including maternal employment, family type, and income. For example, families with higher incomes tend to pay more for care (Hofferth et al. 1991).

<sup>1</sup>For a more extensive review of the influence of early child care and education programs on children's development, refer to Hofferth et al. (1998) or Seppanen et al. (1993).

## National Data on Participation in Before- and After-School Care

The “Early Childhood Program Participation” component of NHES was developed to collect information on children’s experiences in a wide range of care settings, including their homes, the homes of others, and formal group settings. This component was first fielded in 1991 and repeated in 1995. However, the 1995 survey was the first to include significant information on the before- and after-school care of primary school children. Because parents are considered by definition to be their children’s primary care providers, NHES does not include parents as providers of supplemental care. Instead, it seeks to provide data to estimate how many children receive care on a regular basis from *persons other than their parents*.<sup>2,3</sup>

### Participation in nonparental before- and after-school care by grade

Children may receive before- and after-school care in home-based or in center-based settings. Home-based arrangements may take place either in a child’s own home or in the home of someone else. This care may be provided by a relative (other than the child’s parents) or a nonrelative, or in some cases, the child may be caring for himself or herself. Center-based programs, on the other hand, provide children with care in a nonresidential setting.<sup>4</sup>

There are many ways of calculating children’s participation rates in various before- and after-school care arrangements. This report uses a prevalence rate that represents the percentage of children receiving care in each type of arrangement on a weekly basis. In calculating this aggregate rate, no consideration is given to either the number of hours a child spends in one setting as compared to others or a parent’s activities (e.g., whether or not a child’s mother works) while the child is in nonparental care. Moreover, a child may be counted under several arrangements, if he or she spends time in more than one setting.

During the spring of 1995, approximately 39 percent of kindergartners through third-graders were receiving some type of before- and/or after-school care on a weekly basis from persons other than their parents (table 1). This

translates to more than 6.1 million primary school children. Overall, these children are more likely to spend time in nonparental care after school than before school. When in the care of someone other than their parents, they are most likely to be cared for by a relative and least likely to be cared for by a nonrelative. Overall, very few children care for themselves before and/or after school.

In general, a greater proportion of part-day<sup>5</sup> kindergartners than of children in the first through third grades participate in some form of nonparental care arrangements. With regard to care that takes place before school, 23 percent of part-day kindergartners receive some type of nonparental care in comparison to 15 percent of first-graders, 15 percent of second-graders, and 14 percent of third-graders. For after-school care, there is no significant difference between kindergartners and first- and second-graders.

Kindergartners are no more likely than first- through third-graders to be cared for by a relative before or after school. Part-day kindergartners are, however, more likely to be cared for by a nonrelative in a private home than first- through third-graders. This is true overall (15 percent versus 9 percent each for first- through third-graders) and for care taking place after school (13 percent versus 8 percent each for first- through third-graders). Part-day kindergartners are also more likely to be cared for by a nonrelative than first- and second-graders (7 percent versus 4 percent each for first- and second-graders) before school. The apparent differences in participation rates in nonrelative care between part-day and full-day kindergartners are not statistically significant. With regard to center-based care, there are no significant differences in participation rates between kindergartners, first-graders, and second-graders.

Only a small percentage of primary school children are in self-care before or after school. Overall, 2 percent of first- through third-graders care for themselves. There are no significant differences in self-care between second- and third-graders (2 and 3 percent, respectively). In 1990, the National Child Care Survey found that 2.2 percent of 5- to 7-year-olds cared for themselves (Hofferth et al. 1991); thus, the numbers found here are similar (2 percent of first- through third-graders).

<sup>2</sup>Throughout this report, “parents” represent biological, adoptive, step, and foster parents.

<sup>3</sup>For a review of other national data on before- and after-school care, see the end of the complete report.

<sup>4</sup>In this report, the term “center-based programs” refers to all nonresidential care programs, including those programs located in or sponsored by a public or private school, a church, or an employer, and programs that are independent.

<sup>5</sup>In this report, “part-day kindergarten programs” include those identified as morning-only or afternoon-only programs.



**Table 1—Percentage of children in kindergarten through third grade participating in before- and after-school care on a weekly basis, by type of arrangement and grade: 1995**

Grade	Children		Type of nonparental care arrangement <sup>1</sup>					No nonparental care arrangement (percent)
	Number (in thousands)	Percent	Total (percent)	In relative care (percent)	In nonrelative care (percent)	In center-based program (percent)	Self-care <sup>2</sup> (percent)	
Kindergarten–third grade	15,663	100						
Total			39	17	10	14	2	61
Before school			16	6	5	5	N/A	84
After school			35	16	9	13	N/A	65
Kindergarten								
Part day	2,082	13						
Total			43	15	15	16	N/A	57
Before school			23	8	7	8	N/A	77
After school			40	13	13	15	N/A	60
Full day	1,982	13						
Total			42	18	11	17	N/A	58
Before school			18	6	5	7	N/A	82
After school			40	17	10	16	N/A	60
First grade	3,935	25						
Total			38	16	9	14	—	62
Before school			15	6	4	5	N/A	85
After school			35	15	8	13	N/A	65
Second grade	3,716	24						
Total			39	18	9	13	2	61
Before school			15	6	4	4	N/A	85
After school			35	17	8	12	N/A	65
Third grade	3,947	25						
Total			36	16	9	12	3	64
Before school			14	5	5	4	N/A	86
After school			32	15	8	11	N/A	68

N/A: Not available.

<sup>1</sup>Columns do not add up to total because some children participated in more than one type of nonparental arrangement.

<sup>2</sup>The item regarding self-care was not asked of respondents whose sampled child was in kindergarten, and information on self-care is not available separately for before- and after-school care.

NOTE: — indicates that the estimate has been suppressed because it is based on fewer than 30 cases. Details may not add to total due to rounding.

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Household Education Survey (NHES), "Early Childhood Program Participation" (ECPP) component, 1995.

### Participation in after-school care by child and family characteristics

As shown in table 1, during the spring of 1995 the majority of nonparental care took place after school. Consequently, this report focuses on the after-school care arrangements of kindergartners through third-graders when discussing participation rates by child and family characteristics.<sup>6,7</sup>

Black children are more likely to receive after-school care than children of any other race or ethnicity. About 45

percent of black children, compared with 34 percent of white children and 31 percent of Hispanic children, receive care after school on a weekly basis from persons other than their parents (table 2).<sup>8</sup>

While participation in after-school care does not differ by household income, there are differences by family type. Children living with only one parent or no parents<sup>9</sup> are more likely than children living with both a mother and

<sup>6</sup>The characteristics discussed are likely to be highly interrelated. While acknowledging this, this report will look at each separately when examining the relationship between child and family characteristics and before- and after-school care.

<sup>7</sup>For information on participation rates for before-school care and for before- and after-school care combined, see tables A1 and A2 at the back of the complete report.

<sup>8</sup>If an interviewer contacted an individual who preferred to conduct the interview in Spanish, a Spanish-speaking interviewer and survey instrument were used. Also, in this report, the terms "white" and "black" are used to describe "white, non-Hispanic" and "black, non-Hispanic" children.

<sup>9</sup>"No parents" includes children living with one or more nonparental guardians (e.g., grandparents or siblings).

**Table 2—Percentage of children in kindergarten through third grade participating in after-school care on a weekly basis, by type of arrangement and child and family characteristics: 1995**

Characteristic	Children		Type of nonparental care arrangement <sup>1</sup>				No nonparental care arrangement (percent)
	Number (in thousands)	Percent	Total (percent)	In relative care (percent)	In nonrelative care (percent)	In center-based program (percent)	
Total	15,663	100	35	16	9	13	65
Race/ethnicity							
White, non-Hispanic	10,637	68	34	13	10	12	66
Black, non-Hispanic	2,318	15	45	24	5	19	55
Hispanic	1,928	12	31	19	7	7	69
Other	780	5	34	12	—	18	66
Income							
\$10,000 or less	2,758	18	31	18	5	10	69
\$10,001 to \$20,000	1,938	12	33	18	9	10	67
\$20,001 to \$30,000	2,563	16	35	18	7	10	65
\$30,001 to \$40,000	2,332	15	37	17	10	12	63
\$40,001 to \$50,000	1,774	11	36	15	11	11	64
\$50,001 to \$75,000	2,457	16	39	13	10	18	61
More than \$75,000	1,841	12	38	8	11	20	62
Family type							
Two parents	11,202	72	30	12	8	11	70
One or no parents	4,460	28	48	24	10	17	52
Mother's education <sup>2</sup>							
Less than high school	1,968	13	21	12	3	7	79
High school/GED	5,496	36	34	18	8	10	66
Vocational/technical or some college	4,491	30	38	17	10	13	62
College graduate	2,325	15	37	11	10	17	63
Graduate or professional degree	941	6	46	9	14	25	54
Mother's employment status <sup>2</sup>							
35 hours or more per week	6,046	40	61	25	15	23	39
Less than 35 hours per week	3,258	21	31	15	9	9	69
Looking for work	817	5	20	—	—	9	80
Not in labor force	5,100	34	9	5	2	3	91

<sup>1</sup>Columns do not add up to total because some children participated in more than one type of nonparental arrangement.

<sup>2</sup>Children without mothers are not included in estimates dealing with mother's education or mother's employment status.

NOTE: — indicates that the estimate has been suppressed because it is based on fewer than 30 cases. Details may not add to total due to rounding.

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Household Education Survey (NHES), "Early Childhood Program Participation" component, 1995.

father to participate in an after-school care arrangement (48 percent compared to 30 percent).

Children whose mothers did not complete high school are less likely to receive after-school care (21 percent) than children whose mothers graduated from high school or earned a GED (34 percent), attended some college (38 percent), graduated from college (37 percent), or earned a graduate degree (46 percent).

Children are also more likely to participate in after-school care when their mothers work. About 61 percent of children whose mothers work full time (35 hours or more per week) and 31 percent of children whose mothers work part time

(less than 35 hours per week) receive after-school care on a weekly basis from a nonparental caregiver. In contrast, 9 percent of kindergartners through third-graders whose mothers are not in the workforce receive after-school care from persons other than their parents.

#### Participation in different types of after-school care by child and family characteristics

The setting in which children receive care after school is related to children's race/ethnicity (table 2). Black (24 percent) and Hispanic (19 percent) children are more likely than white children (13 percent) to be in relative care, while they are less likely to be in nonrelative care (5 and 7 percent, respectively, versus 10 percent). Nineteen percent

of black children are enrolled in a center-based program after school—an enrollment rate greater than that of both white (12 percent) and Hispanic (7 percent) children (rates that are also significantly different from each other).

Differences in children's after-school care participation rates are also related to household income. Eight percent of children living in households with annual incomes of more than \$75,000 are cared for by a relative after school. This participation rate is significantly less than the rates for children in other income groups, except for those children in the \$50,001 to \$75,000 group. Children living in households with an annual income of \$10,000 or less are less likely to be cared for by a nonrelative in a private home than children in other income groups, except for those in the \$20,001 to \$30,000 group. With regard to care taking place in a center-based setting, children living in households with incomes over \$50,000 are more likely than children living in households with incomes of \$50,000 or less to be enrolled in a center-based program after school, except for those living in households with incomes between \$30,001 and \$40,000.

Children living in two-parent families are less likely than children living with one parent or with no parents to be cared for after school by a relative (12 percent versus 24 percent) or to be enrolled in a center-based program (11 percent versus 17 percent).

A mother's education is also significantly related to children's participation in nonparental after-school care arrangements. Children whose mothers did not graduate from high school are less likely than those whose mothers graduated from high school or attended some college to be cared for by either a relative (12 percent versus 18 and 17 percent, respectively) or a nonrelative (3 percent versus 8 and 10 percent, respectively) after school. Fewer children whose mothers graduated from college with a bachelor's or an advanced degree (11 and 9 percent, respectively) are cared for by a relative after school than children whose mothers graduated from high school or attended some college (18 and 17 percent, respectively). The difference in participation rates for nonrelative care is also significant for children whose mothers graduated from high school (8 percent) and those whose mothers obtained an advanced degree (14 percent). Children whose mothers did not graduate from high school are also less likely to be cared for by a nonrelative after school than children whose mothers graduated from college with a bachelor's or an advanced degree.

Finally, in regard to participation in center-based care programs, there are also several significant differences by a mother's education. Children whose mothers obtained an advanced degree are more likely than children whose mothers did not obtain at least a bachelor's degree to attend a center-based program after school. Similarly, children whose mothers obtained a bachelor's degree are also more likely than children whose mothers did not attend school beyond high school to participate in a center-based program, and children whose mothers attended some college are more likely than children whose mothers did not graduate from high school to participate in a center-based after-school care program (13 percent versus 7 percent).

With few exceptions, all comparisons of participation rates between children by mother's employment status are significant. Children whose mothers work 35 hours or more per week are the most likely, while children whose mothers are not in the labor force are the least likely, to spend time with a nonparental caregiver after school, regardless of who provides the care or the setting in which the care takes place.

### **Average Number of Hours Children Spend in Nonparental Care per Week**

NHES:95 collected information on the number of hours per week children spend in nonparental care. As respondents were not asked to distinguish time spent in care before school versus time spent in care after school, the data on average hours presented in this report are for the combined total of time spent in nonparental care before and after school. Children who did not spend any time with a nonparental caregiver on a weekly basis are excluded from this discussion.

Kindergartners through third-graders participating in care spend an average of 14 hours per week being cared for by someone other than their parents, either before or after school (table 3). Some first-, second-, and third-graders care for themselves before or after school 1 or more days a week. On the average, this self-care takes place about 5 hours a week.

When all types of care arrangements are considered, both part-day (20 hours) and full-day (15 hours) kindergartners spend more time than first-, second-, and third-graders (12 hours, 13 hours, and 12 hours, respectively) in nonparental care before and after school. However, when the settings and types of caregivers are examined separately, only the average hours spent in nonparental care by part-

**Table 3—Average number of hours children in kindergarten through third grade spend in before- and after-school care on a weekly basis, by type of arrangement and child and family characteristics: 1995**

Characteristic	Children		Type of nonparental care arrangement <sup>1</sup>				
	Number (in thousands)	Percent	Total (avg. hours)	In relative care (avg. hours)	In nonrelative care (avg. hours)	In center-based program (avg. hours)	Self-care <sup>2</sup> (avg. hours)
Total	5,548	100	14	14	13	12	5
Grade							
Kindergarten							
Part day	823	15	20	18	16	21	N/A
Full day	797	14	15	15	13	13	N/A
First grade	1,366	25	12	13	12	11	—
Second grade	1,289	23	13	13	12	10	6
Third grade	1,273	23	12	13	11	10	5
Race/ethnicity							
White, non-Hispanic	3,634	65	13	12	12	13	5
Black, non-Hispanic	1,040	19	16	18	14	11	—
Hispanic	607	11	15	14	17	13	—
Other	267	5	16	18	—	13	—
Income							
\$10,000 or less	851	15	14	14	13	13	—
\$10,001 to \$20,000	644	12	17	16	15	14	—
\$20,001 to \$30,000	891	16	15	15	14	12	—
\$30,001 to \$40,000	864	16	14	13	12	12	—
\$40,001 to \$50,000	635	11	13	12	15	13	—
\$50,001 to \$75,000	958	17	12	13	9	13	—
More than \$75,000	705	13	13	13	13	12	—
Family type							
Two parents	3,418	62	12	12	12	12	5
One or no parents	2,130	38	16	16	14	13	6
Mother's education <sup>3</sup>							
Less than high school	410	7	15	15	15	13	—
High school/GED	1,872	34	14	13	14	12	5
Vocational/technical or some college	1,726	31	14	14	12	13	—
College graduate	864	16	13	13	11	12	—
Graduate or professional degree	433	8	13	14	11	11	—
Mother's employment status <sup>3</sup>							
35 hours or more per week	3,694	67	15	14	14	13	6
Less than 35 hours per week	1,005	18	11	12	8	10	—
Looking for work	164	3	15	—	—	11	—
Not in labor force	440	8	11	11	9	10	—

N/A: Not available.

<sup>1</sup>The averages presented in the table are based only on those children receiving nonparental care.

<sup>2</sup>The item regarding self-care was not asked of respondents whose sampled child was in kindergarten.

<sup>3</sup>Children without mothers are not included in estimates dealing with mother's education or mother's employment status.

NOTE: — indicates that the estimate has been suppressed because it is based on fewer than 30 cases. Details may not add to total due to rounding.

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Household Education Survey (NHES), "Early Childhood Program Participation" (ECPP) component, 1995.

day kindergartners are significantly greater than those of first- through third-graders.

Overall, white children (13 hours) spend less time than black or Hispanic children (16 and 15 hours, respectively) in nonparental care. Black children (18 hours) spend more time than Hispanic and white children (14 and 12 hours, respectively) in relative care arrangements. On the other hand, white children (12 hours) spend less time in nonrelative care arrangements than Hispanic children

(17 hours) and more time in center-based before- and after-school care programs than black children (13 versus 11 hours).

When all types of arrangements are considered, children from lower income households spend more hours per week in nonparental care arrangements than children from higher income households. However, when looking at hours by type of arrangement, there are no statistically significant trends.

Kindergartners through third-graders who reside with only one parent or with no parents spend more hours per week in nonparental care arrangements than children living with two parents (16 hours versus 12 hours). This difference remains significant when looking at children participating in relative care and nonrelative care arrangements individually (16 versus 12 hours and 14 versus 12 hours, respectively).

While hours spent in care do not significantly vary by a mother's education, they do differ by a mother's employment status. Children whose mothers work full time (35 hours or more per week) spend more time in nonparental before- and after-school care arrangements than children whose mothers work part time or are not in the labor force (15 hours versus 11 and 11 hours, respectively). Only the difference between children whose mothers work full time and those whose mothers work part time remains significant when each type of care is considered individually (i.e., 14 hours versus 12 hours in relative care, 14 hours versus 8 hours in nonrelative care, and 13 hours versus 10 hours in a center-based program).

### Average Cost of Nonparental Care per Week

The out-of-pocket cost for families of before- and after-school care varies widely. Obviously, differences in the amount charged for care by care providers are a major source of the variation. Yet, there are also differences because some care providers do not charge a fee (e.g., grandparents and older siblings) and some families do not have to pay for all or a portion of the care because it is covered or subsidized by someone else (e.g., a local government agency or an employer). Because NHES:95 only collected data on families' out-of-pocket cost for nonparental care, the discussion of average cost of care in this report is limited to families who pay for at least part of their child's before- and after-school care. Children who did not spend any time with a nonparental caregiver on a weekly basis are excluded from this discussion.

Families who pay for the nonparental care of their kindergartners through third-graders spend an average of \$33 a week for before- and after-school care (table 4). Families pay less for relative care than they do for care in center-based programs. This difference would most likely be even larger if free care were included in the cost estimates, because a larger percentage of relative care arrangements have no cost for parents. To include this free care would dramatically decrease the average cost of relative care,

making the difference in cost between types even more striking.

There are not a lot of differences in cost of care by child and family characteristics. In fact, no significant differences are found when looking at children's race/ethnicity or their family type. When looking at children's grade in school, there are, however, some differences by grade in the average weekly cost of center-based programs. With an average expenditure of \$51 per week, families of part-day kindergartners pay more for care than families of full-day kindergartners (\$33), first-graders (\$30), second-graders (\$27), and third-graders (\$30). Most likely, this difference is due to the fact that part-day kindergartners spend more hours a week in nonparental care arrangements because they spend fewer hours a week in school.

Parents of children living in households with annual incomes of more than \$75,000 spend more for care per week than parents of children living in households with incomes between \$10,000 and \$50,000. While it appears that high-income households (i.e., more than \$75,000) pay more for care than households with annual incomes of \$10,000 or less (\$55 a week versus \$31), the difference is not statistically significant.

If a child's mother graduated from college, his or her family spends more for center-based care per week than the families of children whose mothers did not attend school beyond high school (\$40 a week versus \$28 a week).

When all care types are considered, families of children whose mothers work full time spend more per week for nonparental care than families of children whose mothers only work part time (\$35 versus \$25). This is almost exactly as reported by Hofferth et al. (1991).

### Summary

In general, part-day kindergartners are more likely to receive before- and after-school care than children in first through third grade. More children, overall, receive care after school than before school and in home-based relative care than in either home-based nonrelative or center-based arrangements. For home-based arrangements, the differences in participation rates between relative and nonrelative care vary depending on the characteristics of children and their families. Children who are members of a racial/ethnic minority group, who live in households with annual incomes of less than \$75,000, or whose mothers have a high school diploma or attended some college are more

**Table 4—Average weekly cost for nonparental before- and after-school care occurring on a weekly basis for children in kindergarten through third grade, by type of arrangement and child and family characteristics: 1995**

Characteristic	Children		Type of nonparental care arrangement <sup>1</sup>			
	Number (in thousands)	Percent	Total (avg. cost)	In relative care (avg. cost)	In nonrelative care (avg. cost)	In center-based program (avg. cost)
Total	2,482	100%	\$32.81	\$25.71	\$33.43	\$33.50
Grade						
Kindergarten						
Part day	473	19	38.35	26.18	30.77	50.78
Full day	356	14	37.43	—	40.82	32.96
First grade	590	24	31.40	26.61	33.71	30.37
Second grade	554	22	31.60	21.17	39.08	26.62
Third grade	509	21	27.40	24.88	24.58	30.18
Race/ethnicity						
White, non-Hispanic	1,826	73	33.55	22.21	34.56	34.66
Black, non-Hispanic	273	11	29.10	30.50	—	27.07
Hispanic	239	10	28.87	28.78	25.45	31.49
Other	145	6	36.96	—	—	33.04
Income						
\$10,000 or less	251	10	30.61	28.03	—	—
\$10,001 to \$20,000	255	10	26.90	23.44	26.15	29.33
\$20,001 to \$30,000	359	14	24.40	19.49	23.89	27.86
\$30,001 to \$40,000	385	16	28.99	24.42	26.47	32.29
\$40,001 to \$50,000	266	11	27.17	—	27.73	24.89
\$50,001 to \$75,000	557	22	31.19	29.37	23.63	36.60
More than \$75,000	409	16	54.71	—	67.95	40.66
Family type						
Two parents	1,780	72	33.10	24.53	33.82	33.64
One or no parents	703	28	32.09	27.46	32.23	33.12
Mother's education <sup>2</sup>						
Less than high school	126	5	24.47	—	—	—
High school/GED	769	31	28.67	26.84	28.54	28.47
Vocational/technical or some college	755	30	28.27	19.79	24.39	35.02
College graduate	492	20	37.22	28.32	33.82	40.46
Graduate or professional degree	247	10	52.07	—	75.76	27.71
Mother's employment status <sup>2</sup>						
35 hours or more per week	1,724	69	35.24	27.06	38.23	33.68
Less than 35 hours per week	482	19	24.92	18.74	24.86	27.19
Looking for work	—	—	—	—	—	—
Not in labor force	128	5	25.78	—	—	—

<sup>1</sup>The averages presented in the table are based only on those children receiving nonparental care. The averages also exclude families who do not pay for nonparental care.

<sup>2</sup>Children without mothers are not included in estimates dealing with mother's education or mother's employment status.

NOTE: — indicates that the estimate has been suppressed because it is based on fewer than 30 cases. Details may not add to total due to rounding.

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Household Education Survey (NHES), "Early Childhood Program Participation" component, 1995.

likely to be cared for by relatives after school. Children who live in households with annual incomes of \$30,000 or more, or who are white, are more likely to be cared for by nonrelatives after school. Participation in nonrelative care after school also varies by maternal education; children whose mothers have at least a high school education are more likely to be cared for by a nonrelative after school than those whose mothers did not graduate from high school. Children's participation in center-based programs after

school increases with household income and mother's education.

Rates of participation in after-school care are higher for children who do not live with two parents or who have mothers employed full time than for children who live with two parents or whose mothers are not in the labor force. And while self-care occurs rarely with primary school children, it increases as children get older.



Time in nonparental care before and after school and the cost of this care also vary by the characteristics of children and their families. Part-day kindergartners spend more time in care overall than other primary school children (including full-day kindergartners), most likely because they are in school fewer hours per week. Children who are members of a racial/ethnic minority group, who do not live with two parents, or who have mothers who are employed full time are more likely to spend a greater number of hours in nonparental care than children who live with two parents, who are not members of a racial/ethnic minority group, or whose mothers work part time or are not in the labor force at all. Time spent in care does not vary by mother's education. With regard to cost, families pay less for relative care than for center-based care. The cost of center-based care varies by grade, with more dollars per week spent on the care of part-day kindergartners than other primary school children. Families spend more money on nonparental care for children who live in higher income households (more than \$75,000) or whose mothers work full time, while no differences exist in the cost of care by race/ethnicity or family type.

This report presents descriptive data on the participation of primary school children in before- and after-school care. NHES:95 data, however, can be used to answer other questions about before- and after-school care and its relationship to a wide range of child and family characteristics. For example, the differences in participation by race/ethnicity may be related to the number of black children living in single-parent families where the mother, as the sole provider, is required to work more hours (U.S. Department of Health and Human Services 1998). Data from NHES:95 can be used to answer the question, are black children more likely to receive after-school care because they are more likely to live in single-parent homes? And, regardless of race/ethnicity, are children in single-parent families more likely to have a parent who is employed full time, impacting the type of care used, the number of hours children spend in care, and the cost of the care?

Another area that can be further investigated with this national data set concerns the differences in before- and after-school participation across levels of maternal education. These differences may be in part related to differences in employment status of women with more or less education. Not only are mothers with a higher level of education more likely to be in the labor force, but they are more likely to be working full time and at a higher level of pay (Rindfuss, Morgan, and Offutt 1996; Women's Bureau

1999). These differences may relate to the number of children requiring care before or after school, the number of hours in care, and the type of care chosen based on its affordability and other factors.

Finally, NHES:95 data can be used to answer questions about public and private before- and after-school care. For example, what percentage of children receive before- and/or after-school care from public versus private providers? What are the characteristics of children and families who receive care from private as compared to public providers? These questions and those cited above represent only a small sample of the diverse questions that can be addressed with this national data set in order to further describe the care of primary school children before and after school.

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**Data source:** The NCES 1995 National Household Education Survey (NHES:95), "Early Childhood Program Participation" (ECP) component.

**For technical information,** see the complete Statistics in Brief:

Brimhall, D.W., Reaney, L.M., and West, J. (1999). *Participation of Kindergartners Through Third-Graders in Before- and After-School Care* (NCES 1999–013).

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# Computer Use

## Student Computer Use

This article was originally published as an Indicator of the Month, taken from *The Condition of Education: 1998*. The sample survey data are from the National Assessment of Educational Progress (NAEP) and the U.S. Census Bureau's October Current Population Survey (CPS).

Computers have become an essential tool in our society. Early exposure to computers may help students gain the computer literacy that will be crucial for future success in the workplace. Access to computers at school and at home allows students to retrieve information, manipulate data, and produce results efficiently and in innovative ways. Examining the extent to which students have access to computers at school and at home may be an indicator of how well prepared students will be to enter an increasingly technological workplace.

- Between 1984 and 1996, the percentage of 4th-, 8th-, and 11th-graders who reported using a computer at school at least once a week increased substantially.
- The youngest students were more likely than older students to report that they used computers at school. In 1996, 72 percent of 4th-graders reported using a computer at school at least once a week, compared to 47 percent of 8th-graders and 50 percent of 11th-graders. However, 8th- and 11th-graders were more likely than 4th-graders to report using computers every day.
- In 1996, 79 percent of 4th-graders, 91 percent of 8th-graders, and 96 percent of 11th-graders reported using a computer at home or at school to write stories or papers, a substantial increase from 1984. The percentage of students who used a computer to learn

**Percentage of students who reported using a computer at school, by grade and frequency of use: 1984–96**

Frequency of use	Grade 4						Grade 8						Grade 11					
	1984	1988	1990	1992	1994	1996	1984	1988	1990	1992	1994	1996	1984	1988	1990	1992	1994	1996
Never	61.2	29.8	18.9	16.5	14.0	11.4	66.7	41.8	40.5	37.6	27.7	23.3	55.0	44.7	44.9	27.2	26.1	16.0
Less than once a week	12.5	17.4	14.5	22.0	15.8	16.3	17.0	22.2	19.3	23.9	26.9	29.2	20.9	24.0	26.5	31.5	30.9	34.2
Once a week	15.5	34.2	41.1	37.0	39.6	36.0	8.1	13.9	12.9	12.8	16.1	14.5	5.7	6.4	6.6	10.8	8.0	15.3
Two or three times a week	7.6	15.0	17.7	18.6	22.8	26.5	4.6	12.2	16.0	15.1	14.5	16.2	6.3	9.7	8.3	11.3	12.4	16.5
Every day	3.2	3.6	7.8	5.9	7.7	9.9	3.6	9.8	11.3	10.5	14.9	16.7	12.1	15.2	13.7	19.2	22.6	18.1

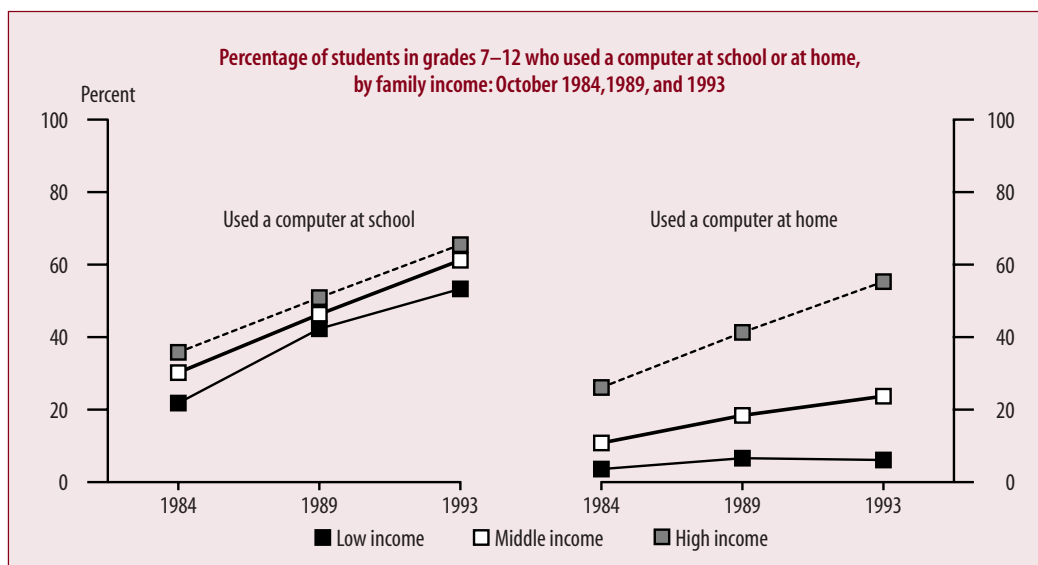
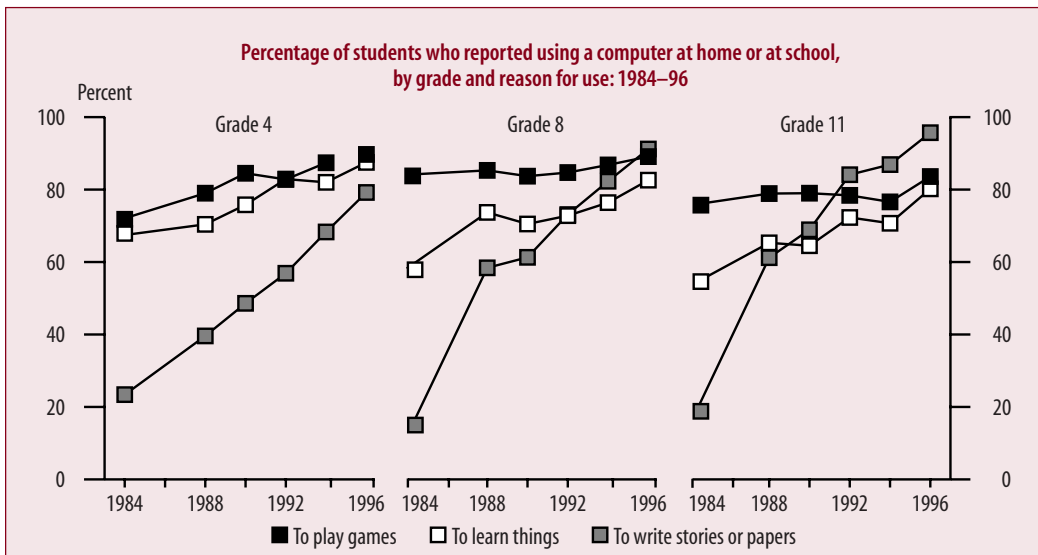
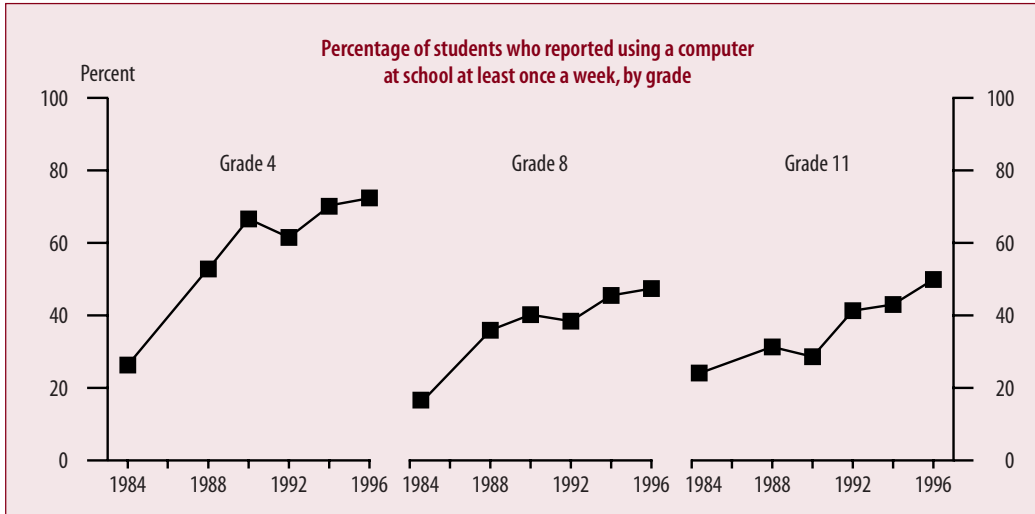
**Percentage of students who used a computer at home or at school, by grade and reason for use: 1984–96**

Reason for use	Grade 4						Grade 8						Grade 11					
	1984	1988	1990	1992	1994	1996	1984	1988	1990	1992	1994	1996	1984	1988	1990	1992	1994	1996
To play games	71.8	79.0	84.5	82.8	87.4	89.7	84.1	85.3	83.7	84.7	86.8	89.1	75.7	78.9	79.0	78.4	76.6	83.6
To learn things	67.9	70.4	75.8	82.9	82.0	87.5	58.2	73.7	70.5	72.8	76.4	82.6	54.6	65.3	64.5	72.3	70.7	80.2
To write stories or papers	23.4	39.6	48.6	56.9	68.3	79.2	15.0	58.4	61.3	73.1	82.3	91.2	18.8	61.2	68.9	84.1	86.9	95.7

NOTE: Details may not add to 100.0 due to rounding.

SOURCE: U.S. Department of Education, National Center for Education Statistics, *NAEP 1996 Trends in Academic Progress* (NCES 97–985).

Percentage of students who reported using a computer



SOURCE: U.S. Department of Education, National Center for Education Statistics, NAEP 1996 Trends in Academic Progress (NCES 97–985); and data from U.S. Department of Commerce, Bureau of the Census, Current Population Survey (CPS), October (various years).

things also increased between 1984 and 1996 for all three grades.

- Students from high-income families were more likely to report using a computer at home or at school than students from low-income families. Between 1984 and 1993, the percentage of students who reported using a computer at school increased by similar amounts across family income levels. However, the increase in the percentage of students who used a computer at home was higher for students from families with higher incomes.

**Data sources:** NAEP 1996 Trends in Academic Progress (NCES 97–985); and the U.S. Census Bureau’s Current Population Survey (CPS), October (various years).

**For technical information, see**

Wirt, J., Snyder, T., Sable, J., Choy, S.P., Bae, Y., Stennett, J., Gruner, A., and Perie, M. (1998). *The Condition of Education: 1998* (NCES 98–013).

For complete supplemental and standard error tables, see either

- the electronic version of *The Condition of Education: 1998* (<http://nces.ed.gov/pubs98/condition98/index.html>), or
- volume 2 of the printed version (1999): *The Condition of Education: 1998 Supplemental and Standard Error Tables* (NCES 1999–025).

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# 100 Largest School Districts

## Characteristics of the 100 Largest Public Elementary and Secondary School Districts in the United States: 1997–98

Beth Aronstamm Young

*This article was originally published as the introductory discussion from the report of the same name. The universe data are from the NCES Common Core of Data (CCD).*

### Introduction

This report provides basic descriptive information about the 100 largest school districts<sup>1</sup> in the United States, Department of Defense schools, and outlying areas (American Samoa, Guam, the Northern Marianas, Puerto Rico, and the Virgin Islands). Almost one in every four public school students in this nation is served by one of these 100 districts. They are distinguished from smaller districts by characteristics in addition to sheer size, such as average and median school size, pupil/teacher ratios, number of high school graduates, number of pupils receiving special education services, and minority enrollment as a proportion of total enrollment.

The tables in this report provide information about the characteristics cited above. To establish a context for the information on the 100 largest districts, national school district data are also included, as are basic data on the 500 largest school districts.

### Overview of the 100 Largest Districts

In the 1997–98 school year, there were 16,411 public school districts in the United States and its outlying areas, over 91,000 schools, and 46.9 million students in public education. There were 2.8 million full-time-equivalent (FTE) teachers in the 1997–98 school year and 2.6 million high school graduates in the 1996–97 school year. The 100 largest school districts made up less than 1 percent of all public school districts but served 23 percent of all public elementary and secondary school students (table A).

The 100 largest school districts represent more than 16 percent of schools and employ 20 percent of all teachers. The 500 largest districts make up 3 percent of all school districts and serve 20.1 million students, or 43 percent of the total public elementary and secondary school student population in the United States.

All of the 100 largest school districts have at least 40,000 students, and 26 of these school districts have over 100,000 students. The largest school district in the country is the New York City Public Schools, with 1,071,853 pupils enrolled in 1,153 schools. (The New York City Public

<sup>1</sup>School district size is defined as the number of pupils in membership as of October 1997.

**Table A—Selected statistics for the nation, the 100 largest, and the 500 largest school districts: School year 1997–98**

	National total*	100 largest districts		500 largest districts	
		Total	Percentage of national total	Total	Percentage of national total
Districts	16,411	100	0.6	500	3.0
Schools	91,340	15,152	16.6	28,984	31.7
Students	46,901,810	10,818,622	23.1	20,053,294	42.8
FTE teachers	2,792,813	568,545	20.4	1,063,860	38.1
Graduates (1996–97)	2,617,960	484,121	18.5	908,694	34.7
Pupil/teacher ratio	16.8	19.0	—	18.8	—
Average school size	513.5	714.0	—	691.9	—
Graduates as percentage of all students	5.6	4.5	—	4.5	—

— Not applicable.

\*Includes outlying areas and Department of Defense schools.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Common Core of Data (CCD), "Local Education Agency Universe Survey" and "State Nonfiscal Survey of Public Elementary/Secondary Education," 1997–98.



Schools district is so large it has more students than the 6th through 10th largest school districts added together.) The second largest school district is the Los Angeles Unified, with 680,430 students in 645 schools.

Ninety-one of the 100 largest districts reported staff by type. In 87 of those districts, 45 percent or more of their staff were teachers, and in 10 of the districts over 60 percent were teachers. Only 14 of the districts had over 1 percent of their staff assigned to district administration.

### Where Are the 100 Largest School Districts?

The District of Columbia, Hawaii, and Puerto Rico each have only one school district for the entire jurisdiction, and each is represented among the 100 largest school districts. There are 34 states that contain at least one of the 100 largest school districts. Two states, Florida and Texas, each have 14 districts among the 100 largest; California has 11. Only a few other states have more than one district represented in the 100 largest: Georgia and Maryland have 5; Louisiana, North Carolina, Tennessee, Utah, and Virginia have 4; Ohio has 3; and Arizona, Colorado, Minnesota, Nevada, and New York have 2. The following states each have one school district among the 100 largest: Alabama, Alaska, Illinois, Kansas, Kentucky, Massachusetts, Michigan, Missouri, Nebraska, New Mexico, Oregon, Pennsylvania, South Carolina, Washington, and Wisconsin (table B).

As expected, these 100 largest districts tend to be in cities and counties having large populations, with administrative offices typically located in large cities and their environs. Many of the districts are in states where the school districts are coterminous with counties. Over 70 percent of these districts are located in coastal and gulf coast states.

### How Do These Districts Compare With the Average School District?

#### General characteristics

By definition, the 100 largest school districts are large, and when compared to the membership distribution of all school districts, they are considerably larger than most. In the 1997–98 school year, 73 percent of all regular school districts<sup>2</sup> had memberships of fewer than 2,500 students. All of the 100 largest school districts had memberships of

at least 40,000 students. Even though only 13 percent of regular school districts had 5,000 or more students, 66 percent (or 2 out of 3) students were served by these districts (table C).

The average school district in America has 5.6 schools compared to the 100 largest school districts, which average 151.5 schools per district (table A). Two of the largest school districts, New York City Public Schools and the Puerto Rico Department of Education, have over 1,000 schools in their districts. The 100 largest school districts, on average, serve considerably more students (108,186 compared to 2,858) and employ more teachers (5,685 compared to 170) per district than the average school district (table A).

#### School characteristics

The 100 largest school districts have more students per school than the average school district (714 compared to 514) (table A). In fact, 15 of the 100 largest school districts had an average regular school size of over 1,000 students. In addition to larger school sizes, the 100 largest school districts also have a high mean pupil/teacher ratio, 19.0 to 1 compared to 16.8 to 1 for the average school district. Among the 100 largest districts, the Garden Grove Unified School District, California, has the highest pupil/teacher ratio at 23.6 to 1, and the Northside Independent School District, Texas, has the lowest at 14.5 to 1.

The number of high school graduates as a percentage of all students in the 100 largest school districts was lower than that of the average school district: 4.5 percent of students were graduates in the 100 largest school districts compared to 5.6 percent for the average school district (table A).

#### Student body composition

The 100 largest school districts are not homogeneous, and certain student characteristics, such as race/ethnicity, poverty level, and disability status, vary across the districts.

A substantial number of the 100 largest school districts have a disproportionately high percentage of racial/ethnic minorities in their student population. The 100 largest districts, with 23 percent of the nation's public school students, served 38 percent of the 17.6 million minority public school students.<sup>3</sup> The proportion of minority

<sup>2</sup>Regular school districts are defined as agencies responsible for providing free public education for school-age children residing within their jurisdiction. This category excludes local supervisory unions that provide management services for a group of associated school districts; regional education service agencies that typically provide school districts with research, testing, or data processing services; state and federally operated school districts; and other agencies that do not fall into these groupings.

<sup>3</sup>The numbers of students in different racial/ethnic categories are reported at the school level and are aggregated up to the school district level. The national figure was calculated by taking the percentage of minority students among those districts that reported race/ethnicity (99.3 percent of districts) and applying this to the total number of public school students.

**Table B—Selected statistics for the 100 largest school districts in the United States: School year 1997–98**

Name of reporting district	City	State	County	Number of students*	Number of full-time-equivalent (FTE) teachers	Number of 1996–97 graduates	Number of schools
Total				10,818,622	568,549	484,121	15,152
New York City Public Schools	New York	NY	Kings	1,071,853	60,648	38,400	1,153
Los Angeles Unified	Los Angeles	CA	Los Angeles	680,430	30,905	25,474	645
Puerto Rico Dept. of Education	Hato Rey	PR	San Juan	616,470	38,976	56,155	1,543
City of Chicago School District 29	Chicago	IL	Cook	477,610	23,372	15,733	585
Dade County School District	Miami	FL	Dade	345,958	17,493	14,243	321
Broward County School District	Fort Lauderdale	FL	Broward	224,799	10,957	9,475	197
Philadelphia City School District	Philadelphia	PA	Philadelphia	212,865	10,999	9,055	259
Houston Independent School District	Houston	TX	Harris	210,988	11,606	6,559	299
Clark County School District	Las Vegas	NV	Clark	190,822	9,862	7,799	221
Hawaii Department of Education	Honolulu	HI	Honolulu	189,887	10,653	9,741	251
Detroit City School District	Detroit	MI	Wayne	174,730	8,666	6,403	271
Dallas Independent School District	Dallas	TX	Dallas	157,622	9,478	5,379	220
Hillsborough County School District	Tampa	FL	Hillsborough	152,781	9,109	6,196	169
Fairfax County Public Schools	Fairfax	VA	Fairfax	145,722	—	9,253	212
Palm Beach County School District	West Palm Beach	FL	Palm Beach	142,724	7,601	5,770	161
San Diego City Unified	San Diego	CA	San Diego	136,283	6,645	5,862	168
Orange County School District	Orlando	FL	Orange	133,826	7,781	5,472	160
Prince George's County Public Schools	Upper Marlboro	MD	Prince George's	128,347	7,216	6,951	182
Duval County School District	Jacksonville	FL	Duval	126,979	6,541	4,625	161
Montgomery County Public Schools	Rockville	MD	Montgomery	125,023	7,315	6,944	184
Memphis City School District	Memphis	TN	Shelby	111,227	6,225	4,207	163
Pinellas County School District	Largo	FL	Pinellas	109,309	6,060	4,747	145
Baltimore City Public School System	Baltimore	MD	Baltimore	107,416	6,048	3,843	182
Baltimore County Public Schools	Towson	MD	Baltimore	104,708	6,463	5,956	158
Jefferson (KY) County	Louisville	KY	Jefferson	104,338	5,408	5,173	165
Milwaukee School District	Milwaukee	WI	Milwaukee	101,253	5,846	3,035	206
Charlotte-Mecklenburg Schools	Charlotte	NC	Mecklenburg	95,795	6,007	4,432	130
Gwinnett County School District	Lawrenceville	GA	Gwinnett	93,509	5,609	4,142	78
De Kalb County School District	Decatur	GA	De Kalb	91,864	5,655	4,185	112
Wake County Schools	Raleigh	NC	Wake	89,772	5,432	4,158	105
Cobb County School District	Marietta	GA	Cobb	88,266	5,271	4,601	92
Jefferson (CO) County R-1	Golden	CO	Jefferson	88,006	4,178	4,547	156
Albuquerque Public Schools	Albuquerque	NM	Bernalillo	87,274	5,314	4,469	124
Long Beach Unified	Long Beach	CA	Los Angeles	85,908	3,599	3,660	86
Orleans Parish School Board	New Orleans	LA	Orleans	83,175	4,485	3,749	122
Fresno Unified	Fresno	CA	Fresno	78,166	3,713	3,034	90
Virginia Beach City Public Schools	Virginia Beach	VA	Virginia Beach City	77,521	—	4,091	83
District of Columbia Public Schools	Washington	DC	District of Columbia	77,111	—	2,853	171
Fort Worth Independent School District	Fort Worth	TX	Tarrant	76,901	4,314	2,695	132
Austin Independent School District	Austin	TX	Travis	76,606	4,616	2,760	101
Cleveland City School District	Cleveland	OH	Cuyahoga	76,504	4,621	1,958	125
Polk County School District	Bartow	FL	Polk	76,497	4,355	3,237	130
Granite School District	Salt Lake City	UT	Salt Lake	74,956	3,264	4,804	97
Anne Arundel County Public Schools	Annapolis	MD	Anne Arundel	73,363	4,065	3,777	113
Jordan School District	Sandy	UT	Salt Lake	73,181	3,074	4,617	72
Mesa Unified School District	Mesa	AZ	Maricopa	69,764	3,424	3,516	80
Brevard County School District	Melbourne	FL	Brevard	67,879	3,843	3,158	90
Denver County 1	Denver	CO	Denver	67,858	3,521	2,684	118
Nashville-Davidson County School District	Nashville	TN	Davidson	67,558	4,299	2,716	124
Mobile County School District	Mobile	AL	Mobile	65,230	3,683	3,314	89
Columbus City School District	Columbus	OH	Franklin	64,872	3,730	2,091	146
El Paso Independent School District	El Paso	TX	El Paso	63,909	4,062	3,050	82
Boston School District	Boston	MA	Suffolk	63,762	4,116	2,852	127
Fulton County School District	Atlanta	GA	Fulton	62,798	3,944	2,674	63
Tucson Unified District	Tucson	AZ	Pima	62,480	3,376	2,750	118
San Antonio Independent School District	San Antonio	TX	Bexar	61,112	3,797	2,260	108
San Francisco Unified	San Francisco	CA	San Francisco	61,007	3,556	3,325	113
Northside Independent School District	San Antonio	TX	Bexar	60,083	3,867	3,267	79
Atlanta City School District	Atlanta	GA	Fulton	60,024	3,631	2,072	98
Guilford County Schools	Greensboro	NC	Guilford	59,903	3,885	2,893	95

See footnotes on second page of this table.

**Table B—Selected statistics for the 100 largest school districts in the United States: School year 1997–98—Continued**

Name of reporting district	City	State	County	Number of students*	Number of full-time-equivalent (FTE) teachers	Number of 1996–97 graduates	Number of schools
Volusia County School District	Deland	FL	Volusia	59,310	3,490	2,611	82
Davis School District	Farmington	UT	Davis	59,220	2,502	4,315	80
East Baton Rouge Parish School Board	Baton Rouge	LA	East Baton Rouge	58,238	3,507	2,673	105
Greenville County School District	Greenville	SC	Greenville	56,967	3,575	2,822	91
Seminole County School District	Sanford	FL	Seminole	56,916	2,985	2,937	61
Cypress-Fairbanks ISD	Houston	TX	Harris	55,593	3,455	2,760	51
Portland School District 1J	Portland	OR	Multnomah	55,321	2,863	2,677	109
Arlington Independent School District	Arlington	TX	Tarrant	54,591	3,332	2,529	66
Jefferson Parish School Board	Harvey	LA	Jefferson	54,413	3,468	2,351	84
Santa Ana Unified	Santa Ana	CA	Orange	53,805	2,358	1,754	47
Lee County School District	Fort Myers	FL	Lee	53,790	2,972	2,533	72
Oakland Unified	Oakland	CA	Alameda	53,564	2,781	1,839	91
Washoe County School District	Reno	NV	Washoe	51,205	2,984	2,195	85
Knox County School District	Knoxville	TN	Knox	51,152	3,401	2,727	85
Sacramento City Unified	Sacramento	CA	Sacramento	51,042	2,268	2,055	76
Cumberland County Schools	Fayetteville	NC	Cumberland	51,014	2,909	2,600	75
Cincinnati City School District	Cincinnati	OH	Hamilton	50,332	3,181	1,323	82
Chesterfield County Public Schools	Chesterfield	VA	Chesterfield	50,173	—	2,890	58
Prince William County Public Schools	Manassas	VA	Prince William	49,905	—	2,781	66
Minneapolis	Minneapolis	MN	Hennepin	49,157	—	—	150
Fort Bend Independent School District	Sugar Land	TX	Fort Bend	49,093	2,808	2,391	48
Anchorage School District	Anchorage	AK	Anchorage	48,888	2,562	2,318	89
Aldine Independent School District	Houston	TX	Harris	48,585	3,223	1,808	51
Caddo Parish School Board	Shreveport	LA	Caddo	48,347	2,963	2,339	74
Seattle	Seattle	WA	King	47,883	2,461	—	115
San Juan Unified	Carmichael	CA	Sacramento	47,837	2,250	2,860	82
Ysleta Independent School District	El Paso	TX	El Paso	47,616	2,971	2,456	65
San Bernardino City Unified	San Bernardino	CA	San Bernardino	47,385	2,091	1,611	59
Buffalo City School District	Buffalo	NY	Erie	47,010	3,127	1,974	73
Wichita	Wichita	KS	Sedgwich	46,859	2,758	2,041	95
Garland Independent School District	Garland	TX	Dallas	46,632	2,733	1,975	63
North East Independent School District	San Antonio	TX	Bexar	46,550	3,052	2,616	59
St. Louis City	St. Louis	MO	St. Louis City	46,235	3,221	1,198	113
Escambia County School District	Pensacola	FL	Escambia	46,083	2,600	2,215	81
Shelby County School District	Memphis	TN	Shelby	45,899	2,455	2,353	46
Garden Grove Unified	Garden Grove	CA	Orange	45,776	1,919	2,220	64
St. Paul	St. Paul	MN	Ramsey	45,142	—	—	148
Omaha Public Schools	Omaha	NE	Douglas	45,046	2,811	2,082	80
Pasco County School District	Land O Lakes	FL	Pasco	44,770	2,551	1,731	47
Alpine School District	American Fork	UT	Utah	44,694	1,783	2,720	54

— Not available.

\*Count of students receiving educational services from school district may differ somewhat from the counts in tables 3 and 5 of the complete report, which reflect the count of students from the schools aggregated up to the school district.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Common Core of Data (CCD), "Public Elementary/Secondary School Universe Survey" and "Local Education Agency Universe Survey," 1997–98. (Originally published as table 1 on pp. 10–11 of the complete report from which this article is excerpted.)

**Table C—Number and percentage of districts and students by district membership size for regular public elementary and secondary school districts in the nation:<sup>1</sup> School year 1997–98**

District membership size	Districts			Students			Cumulative totals	
	Number	Percentage	Cumulative percentage	Number	Percentage	Cumulative percentage	Districts	Students
Total <sup>2</sup>	14,810	100.0		46,568,267	100.0			
100,000 or more	26	0.2	0.2	6,283,970	13.5	13.5	26	6,283,970
25,000 to 99,999	206	1.4	1.6	8,810,664	18.9	32.4	232	15,094,634
10,000 to 24,999	574	3.9	5.5	8,577,946	18.4	50.8	806	23,672,580
7,500 to 9,999	340	2.3	7.8	2,908,473	6.2	57.1	1,146	26,581,053
5,000 to 7,499	699	4.7	12.5	4,223,778	9.1	66.1	1,845	30,804,831
2,500 to 4,999	2,079	14.0	26.5	7,272,764	15.6	81.8	3,924	38,077,595
2,000 to 2,499	847	5.7	32.2	1,898,104	4.1	85.8	4,771	39,975,699
1,500 to 1,999	1,091	7.4	39.6	1,892,371	4.1	89.9	5,862	41,868,070
1,000 to 1,499	1,586	10.7	50.3	1,963,502	4.2	94.1	7,448	43,831,572
800 to 999	815	5.5	55.8	732,534	1.6	95.7	8,263	44,564,106
600 to 799	960	6.5	62.3	669,740	1.4	97.1	9,223	45,233,846
450 to 599	944	6.4	68.7	491,068	1.1	98.2	10,167	45,724,914
300 to 449	1,100	7.4	76.1	408,772	0.9	99.1	11,267	46,133,686
150 to 299	1,427	9.6	85.7	315,290	0.7	99.7	12,694	46,448,976
1 to 149	1,738	11.7	97.5	119,291	0.3	100.0	14,432	46,568,267
Zero <sup>3</sup>	292	2.0	99.4	0	0.0	100.0	14,724	46,568,267
Not reported	86	0.6	100.0	—	—	100.0	14,810	46,568,267

—Not applicable.

<sup>1</sup>Includes outlying areas and Department of Defense schools.

<sup>2</sup>Not included in this table are local supervisory unions, regional education service agencies, and state and federally operated agencies.

<sup>3</sup>Membership may be zero in two situations: (1) where the school district does not operate schools but pays tuition for its students in a neighboring district, and (2) where the district provides services for students who are accounted for in some other district(s).

SOURCE: U.S. Department of Education, National Center for Education Statistics, Common Core of Data (CCD), "Local Education Agency Universe Survey," 1997–98. (Originally published as table B on p. 3 of the complete report from which this article is excerpted.)

students in the 100 largest school districts is almost double the proportion of minority students in all public schools. In the 1997–98 school year, 66 percent of the students in the 100 largest school districts were minority students compared to 38 percent of students nationally (table D). In fact, 8 out of the 10 largest school districts had over 75 percent minority student membership.

Even with the relatively high minority membership in the 100 largest school districts, 46 of the 100 largest school districts report 50 percent or more of their students as white, non-Hispanic. Of these 46 districts, 14 report minority representation of less than 25 percent of their student body. In 19 of the 100 largest districts, half or more of the membership is black, non-Hispanic; 10 districts report that the majority of their students are Hispanic; and in 1 district, the majority of the students are Asian/Pacific Islander.

Students in the 100 largest school districts were also more likely to be eligible for the Free Lunch Program. Among schools that reported free lunch eligibility, 49 percent of students in the 100 largest school districts were eligible compared to 35 percent of all students (table D). Among the 88 of the 100 largest school districts that reported free lunch data, 38 districts reported over 50 percent of their students eligible for the Free Lunch Program.

Twelve percent of students in the 100 largest school districts had individualized education programs (IEPs) for students with disabilities. In the largest school district, New York City Public Schools, 13 percent, or 141,850 students, were reported to have IEPs. Most of these students were in regular schools, as only 3 percent of schools in the 100 largest school districts are special education schools.

**Table D—Percentage of students eligible for free lunch and percentage of minority enrollment in the 100 and 500 largest school districts: School year 1997–98**

	100 largest school districts	500 largest school districts	All school districts
Percentage of schools reporting free lunch	85.2	85.5	80.3
Membership eligible for free lunch, of those who reported free lunch	48.5	42.7	*34.6
Percentage of schools reporting minority membership	99.9	99.6	99.1
Total minority enrollment	66.4	56.2	37.5
American Indian/Alaska Native	0.5	0.7	1.1
Asian/Pacific Islander	6.5	5.9	3.9
Hispanic	28.6	24.1	15.6
Black, non-Hispanic	30.7	25.5	16.9
White, non-Hispanic	33.6	43.8	62.5

\*This percentage should be interpreted with caution; eight states (Arizona, the District of Columbia, Illinois, Massachusetts, New Mexico, Pennsylvania, Tennessee, and Washington) did not report free lunch eligibility and are not included in the national total.

NOTE: Details may not add to totals due to rounding.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Common Core of Data (CCD), "Public Elementary/Secondary School Universe Survey" and "Local Education Agency Universe Survey," 1997–98. (Originally published as table C on p. 5 of the complete report from which this article is excerpted.)

### Revenues and expenditures<sup>4</sup>

In school year 1995–96, \$290 billion were collected for public elementary and secondary education: 22 percent (\$65 billion) of this amount of revenue went to the 100 largest school districts. Of the \$65 billion revenue to the 100 largest school districts, a little less than one-third (\$19 billion) was received by the 5 largest school districts (New York City Public Schools, Los Angeles Unified, Puerto Rico Department of Education, City of Chicago School District, and Dade County School District). The dollars from the federal government received by 99 of the 100 largest school districts constituted from 2 to 15 percent of all revenues to the district; the exception was Puerto Rico (29 percent).

The 100 largest school districts spent \$58 billion (23 percent) of the \$257 billion in current expenditures spent on the nation as a whole. The two largest school districts, New York City Public Schools and Los Angeles Unified,

spent one out of five of the dollars expended by the 100 largest school districts. All of the 100 largest school districts devoted more than 50 percent of their current expenditures to instruction, with the exception of District of Columbia Public Schools (49 percent). New York City Public Schools spent the greatest proportion, 72 percent, on instruction among the 100 largest school districts.

The national average current expenditures per pupil were \$5,646 for all districts, slightly higher than the \$5,513 in the 100 largest school districts. Of the 100 largest school districts, 8 districts spent more than \$7,000 per pupil (with Newark City spending the most, at \$11,266 per pupil), and one school district, Puerto Rico Department of Education, spent less than \$3,000 per pupil.

### Changes in the 100 largest school districts between 1987 and 1997

While there was a lot of movement within the 100 largest school districts over time, between the 1987–88 and 1997–98 school years, the 100 largest districts remained very similar. Only 12 of the 100 largest districts in the 1997–98 school year were not in the 100 largest in the 1987–88 school year. Clark County School District in

<sup>4</sup>National revenue and expenditure data were calculated from the state-level "National Public Education Financial Survey" (NPEFS) and can be found in *Revenues and Expenditures for Public Elementary and Secondary Education: School Year 1995–96* (Johnson 1998). The percentage distribution was based on school district-level data found on the Census Bureau's Annual Survey of Government Finances: School Systems (F-33 survey). Department of Defense schools are not included in these national totals.

Nevada was the only district to move into the largest 10 districts between these years (it moved from a rank of 19 in 1987–88 to 9 in 1997–98). Clark County includes the Las Vegas metropolitan area, which was the fastest growing metropolitan area in the country in the early nineties (Bureau of the Census 1997).

The number of students in the 100 largest school districts increased by 16 percent between 1987–88 and 1997–98,

the number of teachers increased by 18 percent, and the number of schools by 7 percent. While the numbers of students, teachers, and schools have increased between these 2 years, the proportion of the national total that the 100 largest school districts made up did not change. For example, the number of students in the 100 largest school districts went from 23.3 percent of all districts in 1987–88 to 23.1 percent in 1997–98 (table E).

**Table E—Number of students, teachers, and schools in the 100 largest school districts in the United States in school years 1987–88 and 1997–98**

	1987–88		1997–98	
	100 largest districts	Percentage of national total	100 largest districts	Percentage of national total
Students	9,349,527	23.3	10,818,622	23.1
Full-time-equivalent (FTE) teachers	480,554	20.7	568,545	20.4
Schools	14,211	17.1	15,152	16.6

SOURCE: U.S. Department of Education, National Center for Education Statistics, Common Core of Data (CCD), "Local Education Agency Universe Survey" and "State Nonfiscal Survey of Public Elementary/Secondary Education," 1987–88 and 1997–98. (Originally published as table D on p. 6 of the complete report from which this article was excerpted.)

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Bureau of the Census. (1997). *Statistical Abstract of the United States, 1997: The National Data Book*. U.S. Department of Commerce. Washington, DC: U.S. Government Printing Office.

Johnson, F. (1998). *Revenues and Expenditures for Public Elementary and Secondary Education: School Year 1995–96* (NCES 98–205). U.S. Department of Education. Washington, DC: U.S. Government Printing Office.

### Data sources:

NCES: The following components of the Common Core of Data (CCD): "Local Education Agency Universe Survey," 1987–88 and 1997–98; "State Nonfiscal Survey of Public Elementary/Secondary Education," 1987–88 and 1997–98; "Public Elementary/Secondary School Universe Survey," 1997–98; and "National Public Education Financial Survey," 1996–97.

Bureau of the Census: Annual Survey of Government Finances: School Systems, 1996.

**For technical information**, see the complete report:

Young, B.A. (1999). *Characteristics of the 100 Largest Public Elementary and Secondary School Districts in the United States: 1997–98* (NCES 1999–318).

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# Schools and Districts

## Overview of Public Elementary and Secondary Schools and Districts: School Year 1997–98

—Lee Hoffman

*This article was originally published as a Statistics in Brief report. The universe data are from the Common Core of Data (CCD). Technical notes and definitions from the original report have been omitted.*

### Types of Public Schools

In the 1997–98 school year, the 50 states and the District of Columbia reported almost 90,000 public schools. Most of these were regular schools, which offer a comprehensive curriculum and may provide a range of other programs and services as well. Considerably smaller numbers of schools focused primarily on special education, vocational/technical or career education, or alternative programs. Students in these specialized schools are often also enrolled in a regular school and reported only in the membership of that regular school.

#### Public Elementary and Secondary Schools in 1997–98

	Regular	Special	Vocational	Alternative
Total schools in United States	82,660	2,068	930	3,850
Number reporting membership	82,127	1,764	360	3,380
Number not reporting membership	533	304	570	470

Only those schools that reported membership are included in the following discussion and tables.

### Schools With Students in Membership

In the 1997–98 school year, 87,631 public schools provided instruction to 46.1 million students in the United States (table 1).<sup>1</sup> This was an increase of about 1.2 percent from the previous year's 45.6 million students and a gain of 1.8 percent from the 86,058 schools in 1996–97.<sup>2</sup> Most of these 1997–98 school-year institutions were regular schools (82,127). Among the total number of schools for which student membership was reported were 1,764 schools

<sup>1</sup>Although the outlying areas and the Department of Defense Dependents Schools (overseas) are included in the tables, national totals are limited to the 50 states and the District of Columbia.

<sup>2</sup>Comparisons are based on the previous edition of this Statistics in Brief, which covers the 1996–97 school year: *Overview of Public Elementary and Secondary Schools and Districts: School Year 1996–97* (Hoffman 1998).

whose major function was to provide special education for students with disabilities and 360 identified as vocational, technical, or career schools. Some 3,380 schools were reported to offer other alternative programs. While this is a relatively small number, there are one-sixth again as many of these schools as there were last year.

The great majority of public school students, 98.1 percent, were enrolled in regular schools. An additional 0.5 percent were in special education schools, 0.4 percent in vocational schools, and 1.0 percent in alternative schools. These distributions were unchanged from the previous year. Mississippi, New Hampshire, and North Dakota reported only regular schools. With 8.1 percent of its pupils enrolled in nonregular schools, Delaware had the greatest proportion of students in these specialized settings.

### Schools and Community Size

Table 2 shows that while one in eight schools was located in a large city, one in six students attended large-city schools. There were about the same number of schools in rural areas and the urban fringes of large cities: about one in four. However, schools in cities' urban fringes accounted for twice as many students as did rural schools.

### Primary, Middle, and High Schools

Among the 87,631 public schools with students in membership during the 1997–98 school year, about 58.5 percent spanned the traditional primary grades, typically beginning with prekindergarten or kindergarten and going no higher than grade 8 (table 3). About half (50.1 percent) of the nation's public school students were enrolled in these schools. An additional 17.3 percent of the schools covered the upper elementary and middle grades and offered instruction to 19.6 percent of public school students.

High schools represented 18.9 percent of the schools reported and enrolled 27.1 percent of the total number of students. About 5.3 percent of schools followed some other grade configuration, including schools that spanned all of grades kindergarten through 12 and those that were ungraded.

## School District Grade Spans

In 1997–98, there were 15,035 public education agencies providing education services directly to students in the United States. Some 608 of these were operated directly by state or federal agencies, or had a primary role other than that of administering regular educational services. However, the majority of public education agencies (14,427) were regular school districts providing education to children within their jurisdiction (table 4).

States vary in the organization of their regular education agencies. Hawaii and the District of Columbia each consist of a single K–12 school district. Sixteen other states also reported 100 percent of their students enrolled in comprehensive K–12 school districts. On the other hand, in Montana and Vermont less than one-third of the students were served in this type of school district.

Among the 14,427 regular school districts with pupils in membership, 3,153 were responsible for only the elementary grades, beginning with grades prekindergarten, kindergarten, or 1 and ending at grade 8 or below (table 4). These districts enrolled 5.9 percent of the nation's public school students. An additional 557 agencies could be characterized as secondary school districts, with a low grade of 7 or higher and a high grade of 12. Some 2.3 percent of all students attended schools in these districts. An additional 137 districts had some other grade configuration. However, almost three out of four districts (10,580) provided instruction from the beginning of school through graduation. Fully 91.8 percent of all students were enrolled in these comprehensive school districts.

## School District Size

School districts ranged greatly in size, as measured by the number of students in membership. A very few districts (25) enrolled 100,000 or more students, while a larger number (1,738) reported fewer than 150 students (table 5). While small in number, the largest districts served a considerable portion of students in America's public schools. Although only 1.6 percent of districts served 25,000 or more students, fully 31.5 percent of students received their education in these largest districts. To show the contrast from a different perspective, almost half of the school districts in the United States had fewer than 1,000 students in 1997–98. At the same time, about half of the public school students in this country attended schools in districts of 10,000 students or more.

## Student Characteristics

Because participation in the Free Lunch Program depends on income, eligibility for this program is often used to estimate student needs. Nine states did not report free lunch eligibility data for at least 70 percent of their schools, so national totals could not be calculated (table 6). Within those states and schools that did provide this information, the proportion of students who were reported as eligible to receive a free lunch ranged from a low of 11.3 percent in New Hampshire to a high of 55.6 percent in Mississippi. (The District of Columbia had an eligibility rate of 69.3 percent in the previous year, but did not report these data in 1997–98.)

Nationally, about one in every eight students was reported to have an individualized education program (IEP), meaning that they participate in special education services. The percentage of students with IEPs ranged from 4.1 percent in Michigan to 17.7 percent in Rhode Island.

About two-thirds of the public school students in the United States in 1997–98 were white, non-Hispanic, and about one-sixth were black, non-Hispanic. American Indians/Alaska Natives constituted about one in four students in Alaska, while over two-thirds of the students in Hawaii were in the Asian/Pacific Islander category. More than one-third of the students were Hispanic in California, New Mexico, and Texas. Over half of the students were black, non-Hispanic, in the District of Columbia (87.0 percent) and Mississippi (50.9 percent). White, non-Hispanic students made up less than half of the student membership in six states, and represented 90 percent or more of the students in five other states. At the national level, none of the racial/ethnic groups changed by as much as 1 percentage point over the previous year.

## Dropouts

Thirty-two states reported dropout statistics in agreement with the Common Core of Data definition (table 7).<sup>3</sup> Among these jurisdictions, Louisiana and Nevada reported that more than 10 percent of students in grades 9–12 had dropped out during the preceding school year. Iowa, North Dakota, and South Carolina reported dropout rates among these grades at less than 3 percent. Fifteen of the

<sup>3</sup>A dropout was defined as a student who was enrolled at any time during 1996–97, was not enrolled at the beginning of 1997–98, and had not graduated or transferred to another school.

reporting states, or about half, had dropout rates somewhere between 4.0 and 6.0 percent. Dropouts were more likely to be male than female. In Ohio and South Carolina, at least three out of five of the grade 9–12 dropouts were male. In California, Hawaii, New Mexico, and Texas, which have relatively high proportions of minority enrollments, 70 percent or more of the dropouts were minority students, that is, other than white, non-Hispanic.

## Reference

Hoffman, L. (1998). *Overview of Public Elementary and Secondary Schools and Districts: School Year 1996–97* (NCES 98–204). U.S. Department of Education. Washington, DC: U.S. Government Printing Office.

**Data sources:** The following components of the NCES Common Core of Data (CCD): “Public Elementary/Secondary School Universe Survey,” 1996–97 and 1997–98; “Local Education Agency Universe Survey,” 1997–98; and “State Nonfiscal Survey of Public Elementary/Secondary Education,” 1996–97 and 1997–98.

**For technical information,** see the complete Statistics in Brief:

Hoffman, L. (1999). *Overview of Public Elementary and Secondary Schools and Districts: School Year 1997–98* (NCES 1999–322).

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**Table 1—Number of public elementary and secondary schools with membership and percentage of students in membership, by type of school and by state: School year 1997–98**

State	Schools having membership	Total students	Type of school							
			Regular		Special education		Vocational education		Alternative education	
			Number of schools	Percentage of students	Number of schools	Percentage of students	Number of schools	Percentage of students	Number of schools	Percentage of students
United States	87,631	46,127,194	82,127	98.1	1,764	0.5	360	0.4	3,380	1.0
Alabama	1,345	749,187	1,310	99.7	16	0.1	3	0.0	16	0.2
Alaska	497	132,123	451	95.0	2	0.3	4	0.5	40	4.3
Arizona	1,384	814,113	1,295	97.6	13	0.1	5	0.5	71	1.8
Arkansas	1,112	456,497	1,111	99.5	0	0.0	1	0.5	0	0.0
California	8,178	5,803,734	7,246	96.5	128	0.5	0	0.0	804	3.0
Colorado	1,497	687,167	1,428	98.8	7	0.0	3	0.1	59	1.1
Connecticut	1,058	535,164	977	96.6	22	0.6	17	1.8	42	1.0
Delaware	185	111,960	149	91.8	28	2.9	5	5.0	3	0.2
District of Columbia	170	77,111	153	96.2	10	2.4	0	0.0	7	1.5
Florida	2,877	2,294,077	2,431	97.5	108	0.9	44	0.2	294	1.5
Georgia	1,823	1,375,980	1,817	100.0	0	0.0	0	0.0	6	0.0
Hawaii	250	189,887	246	99.9	3	0.0	0	0.0	1	0.1
Idaho	636	244,403	569	98.2	15	0.2	0	0.0	52	1.6
Illinois	4,228	1,998,289	3,863	97.2	246	1.3	26	0.7	93	0.9
Indiana	1,859	987,483	1,803	99.5	19	0.2	1	0.0	36	0.3
Iowa	1,548	501,054	1,501	98.9	13	0.2	0	0.0	34	0.9
Kansas	1,453	468,687	1,439	99.6	1	0.0	0	0.0	13	0.3
Kentucky	1,352	669,322	1,292	99.6	8	0.1	1	0.0	51	0.3
Louisiana	1,476	776,813	1,383	98.5	36	0.3	5	0.1	52	1.1
Maine	697	212,526	694	100.0	3	0.0	0	0.0	0	0.0
Maryland	1,298	830,744	1,210	97.3	49	0.9	11	1.1	28	0.6
Massachusetts	1,858	949,006	1,783	96.1	1	0.0	42	3.4	32	0.5
Michigan	3,625	1,702,672	3,387	98.0	120	1.0	17	0.2	101	0.8
Minnesota	2,012	853,621	1,552	96.2	64	0.3	2	0.0	394	3.5
Mississippi	874	504,792	874	100.0	0	0.0	0	0.0	0	0.0
Missouri	2,194	910,654	2,083	99.1	59	0.4	5	0.3	47	0.2
Montana	889	162,335	884	99.9	2	0.0	0	0.0	3	0.1
Nebraska	1,353	292,681	1,295	99.6	58	0.4	0	0.0	0	0.0
Nevada	448	296,621	415	98.2	11	0.4	2	0.6	20	0.8
New Hampshire	513	201,629	513	100.0	0	0.0	0	0.0	0	0.0
New Jersey	2,313	1,250,276	2,184	97.5	81	0.7	48	1.8	0	0.0
New Mexico	744	331,673	694	98.4	15	0.5	0	0.0	35	1.1
New York	4,204	2,861,823	4,014	97.0	88	0.7	25	1.2	77	1.0
North Carolina	2,048	1,236,083	1,970	99.3	26	0.3	3	0.0	49	0.4
North Dakota	565	118,572	565	100.0	0	0.0	0	0.0	0	0.0
Ohio	3,841	1,847,035	3,748	98.0	28	0.2	43	1.6	22	0.2
Oklahoma	1,818	623,681	1,806	99.7	12	0.3	0	0.0	0	0.0
Oregon	1,252	541,346	1,180	98.1	17	0.5	0	0.0	55	1.4
Pennsylvania	3,115	1,815,151	3,078	98.3	12	1.0	14	0.6	11	0.1
Rhode Island	314	153,321	304	98.6	4	0.4	3	0.5	3	0.4
South Carolina	1,055	659,256	1,029	99.6	9	0.1	0	0.0	17	0.3
South Dakota	814	142,443	797	98.9	8	0.3	0	0.0	9	0.8
Tennessee	1,522	893,020	1,498	99.7	15	0.2	0	0.0	9	0.0
Texas	7,053	3,891,877	6,312	98.1	237	0.4	20	0.1	484	1.3
Utah	759	482,957	687	98.0	22	0.5	2	0.1	48	1.5
Vermont	355	105,984	321	98.8	33	1.2	0	0.0	1	0.0
Virginia	1,811	1,110,815	1,739	99.4	31	0.2	0	0.0	41	0.5
Washington	2,016	991,235	1,801	97.8	56	0.2	5	0.1	154	1.9
West Virginia	819	301,419	797	99.6	9	0.2	3	0.0	10	0.2
Wisconsin	2,112	881,780	2,055	99.5	14	0.1	0	0.0	43	0.4
Wyoming	412	97,115	394	98.8	5	0.3	0	0.0	13	1.0
<b>Outlying areas</b>										
DOD Dependents Schools	160	78,254	160	100.0	0	0.0	0	0.0	0	0.0
American Samoa	31	15,214	29	98.0	1	0.2	1	1.7	0	0.0
Guam	36	32,444	36	100.0	0	0.0	0	0.0	0	0.0
Northern Marianas	26	9,246	26	100.0	0	0.0	0	0.0	0	0.0
Puerto Rico	1,516	617,322	1,477	98.5	29	0.3	10	1.2	0	0.0
Virgin Islands	35	22,136	33	99.5	0	0.0	0	0.0	2	0.5

NOTE: Table excludes 1,905 schools (28 of these in outlying areas) for which no students were reported in membership. Type of school is a mutually exclusive category. Special education, vocational education, and alternative programs may reside in other types of schools. U.S. totals exclude outlying areas. Percentages are rounded to the nearest tenth and may not add to 100. Percentages of less than 0.05 are rounded to 0.0. Number of students in membership is reported on the "State Nonfiscal Survey of Public Elementary/Secondary Education."

SOURCE: U.S. Department of Education, National Center for Education Statistics, Common Core of Data (CCD), "Public Elementary/Secondary School Universe Survey" and "State Nonfiscal Survey of Public Elementary/Secondary Education," 1997–98.

**Table 2—Number and percentage of schools with membership and percentage of students in membership, by community type: School year 1997–98**

<b>Community type</b>	<b>Number of schools</b>	<b>Percentage of schools</b>	<b>Percentage of students</b>
United States	87,631	100.0	100.0
Large city	11,350	13.0	17.5
Midsized city	12,785	14.6	16.2
Urban fringe, large city	21,385	24.4	29.9
Urban fringe, midsized city	7,762	8.9	9.6
Large town	1,484	1.7	1.6
Small town	11,229	12.8	10.9
Rural	21,636	24.7	14.3

NOTE: Community types classify the location of a school relative to populous areas. Table includes the 50 states and the District of Columbia. Table excludes 1,877 schools without membership. Percentages are rounded to the nearest tenth and may not add to 100.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Common Core of Data (CCD), "Public Elementary/Secondary School Universe Survey," 1997–98.

**Table 3—Percentage of public elementary and secondary schools providing instruction and percentage of students in membership, by specified level of instruction and by state: School year 1997–98**

State	Number of schools having membership	Percentage by instructional level							
		Primary		Middle		High		Other	
		Schools	Students	Schools	Students	Schools	Students	Schools	Students
United States	87,631	58.5	50.1	17.3	19.6	18.9	27.1	5.3	3.1
Alabama	1,345	51.4	44.5	16.6	16.5	19.8	25.7	12.2	13.4
Alaska	497	36.8	46.1	6.8	13.2	14.5	24.7	41.9	16.0
Arizona	1,384	60.4	55.3	16.3	17.6	17.1	25.6	6.2	1.5
Arkansas	1,112	51.6	47.1	16.8	19.8	29.0	28.2	2.5	4.9
California	8,178	63.3	53.1	14.8	17.9	17.6	26.6	4.3	2.4
Colorado	1,497	59.0	50.3	17.8	20.7	19.3	26.6	3.9	2.5
Connecticut	1,058	61.8	51.8	17.0	20.5	16.6	26.5	4.5	1.2
Delaware	185	46.5	40.8	22.7	27.2	18.4	29.5	12.4	2.5
District of Columbia	170	64.7	62.4	13.5	14.2	13.5	18.6	8.2	4.7
Florida	2,877	55.9	49.3	16.2	21.0	13.0	21.5	14.9	8.2
Georgia	1,823	62.3	51.2	18.3	20.0	15.4	24.8	4.1	4.1
Hawaii	250	69.6	55.5	12.0	13.7	14.0	28.3	4.4	2.4
Idaho	636	53.8	48.1	16.7	21.4	25.3	28.1	4.2	2.3
Illinois	4,228	61.3	55.4	16.9	15.2	17.8	26.9	4.1	2.5
Indiana	1,859	62.0	49.9	16.7	18.0	18.7	29.7	2.6	2.4
Iowa	1,548	54.4	45.7	19.1	20.1	24.2	32.2	2.3	2.0
Kansas	1,453	57.7	49.7	17.0	19.6	24.4	30.1	0.8	0.5
Kentucky	1,352	58.4	49.2	17.1	19.9	20.0	30.2	4.5	0.7
Louisiana	1,476	53.9	47.8	19.3	19.8	16.4	25.7	10.4	6.6
Maine	697	63.6	48.5	18.1	21.9	15.8	27.9	2.6	1.7
Maryland	1,298	65.6	51.8	17.6	20.6	14.2	26.6	2.5	1.0
Massachusetts	1,858	65.1	51.6	16.8	19.7	15.6	25.5	2.4	3.2
Michigan	3,625	58.4	49.3	17.2	20.4	18.8	27.6	5.6	2.7
Minnesota	2,012	51.6	47.5	13.3	18.8	28.6	31.6	6.5	2.0
Mississippi	874	50.0	43.9	19.2	19.2	20.5	25.3	10.3	11.7
Missouri	2,194	54.9	49.1	16.3	19.8	22.6	29.1	6.2	2.0
Montana	889	53.1	48.4	27.0	20.3	19.7	30.7	0.2	0.6
Nebraska	1,353	67.3	50.7	8.1	15.0	23.0	33.6	1.7	0.7
Nevada	448	65.0	52.4	14.3	20.8	17.4	25.1	3.3	1.6
New Hampshire	513	66.5	49.1	18.3	23.3	15.2	27.6	0.0	0.0
New Jersey	2,313	62.8	52.5	17.6	18.4	13.5	25.9	6.1	3.2
New Mexico	744	58.1	48.5	20.6	22.0	17.7	27.1	3.6	2.4
New York	4,204	58.2	49.8	16.7	18.8	18.2	27.1	6.9	4.3
North Carolina	2,048	60.0	51.1	20.3	21.5	16.3	25.8	3.4	1.7
North Dakota	565	58.4	50.8	6.7	11.9	33.6	34.8	1.2	2.5
Ohio	3,841	57.7	47.4	19.1	20.1	18.9	30.4	4.3	2.1
Oklahoma	1,818	54.2	51.2	19.3	21.2	25.4	25.5	1.2	2.2
Oregon	1,252	60.7	47.8	17.5	21.0	16.9	28.5	4.9	2.6
Pennsylvania	3,115	61.9	47.8	17.3	19.9	19.2	30.0	1.6	2.3
Rhode Island	314	68.8	50.5	16.2	21.7	13.4	27.6	1.6	0.3
South Carolina	1,055	56.0	46.7	22.9	23.9	18.1	28.0	2.9	1.4
South Dakota	814	51.0	47.5	24.2	21.3	23.3	31.0	1.5	0.2
Tennessee	1,522	61.5	52.8	16.3	17.1	18.3	27.0	3.9	3.1
Texas	7,053	50.9	48.5	20.9	22.9	19.3	25.7	8.9	2.9
Utah	759	58.9	50.2	16.5	21.6	19.6	26.1	5.0	2.1
Vermont	355	69.9	52.9	6.8	9.0	13.2	29.5	10.1	8.5
Virginia	1,811	61.9	48.8	18.2	21.6	16.5	28.4	3.5	1.2
Washington	2,016	56.6	49.5	16.9	20.2	20.4	27.3	6.2	3.0
West Virginia	819	64.5	48.5	16.1	20.3	15.9	28.4	3.5	2.8
Wisconsin	2,112	58.7	48.0	17.7	19.5	21.2	30.9	2.5	1.6
Wyoming	412	56.1	46.3	22.8	24.2	18.4	28.5	2.7	1.1
<b>Outlying areas</b>									
DOD Dependents Schools	160	56.9	59.1	11.3	11.4	23.8	21.4	8.1	8.1
American Samoa	31	74.2	72.7	3.2	4.6	19.4	22.5	3.2	0.2
Guam	36	69.4	52.1	19.4	21.7	11.1	26.2	0.0	0.0
Northern Marianas	26	84.6	64.3	3.8	11.4	11.5	24.4	0.0	0.0
Puerto Rico	1,516	59.6	46.1	14.3	16.8	11.3	20.3	14.8	16.7
Virgin Islands	35	65.7	53.4	20.0	17.1	11.4	28.0	2.9	1.5

NOTE: Instructional levels are primary (low grade prekindergarten to 3, high grade up to 8); middle (low grade 4 to 7, high grade 4 to 9); high (low grade 7 to 12, high grade 12 only); and other (any configuration not falling within the previous three, including ungraded schools). Table excludes 1,905 schools (28 in outlying areas) for which no students were reported in membership. U.S. totals exclude outlying areas. Percentages are rounded to the nearest tenth and may not add to 100.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Common Core of Data (CCD), "Public Elementary/Secondary School Universe Survey," 1997–98.



**Table 4—Number of regular public elementary and secondary school districts providing instruction and percentage of students in membership, by grade span and by state: School year 1997–98**

State	Total districts	Grade span							
		PK, K, 1 to 8 or below		PK, K, 1 to 9–12		7, 8, 9 to 7–12		Other	
		Number of districts	Percentage of students	Number of districts	Percentage of students	Number of districts	Percentage of students	Number of districts	Percentage of students
United States	14,427	3,153	5.9	10,580	91.8	557	2.3	137	0.1
Alabama	127	0	0.0	127	100.0	0	0.0	0	0.0
Alaska	53	0	0.0	53	100.0	0	0.0	0	0.0
Arizona	307	146	28.8	101	61.3	38	9.4	22	0.5
Arkansas	311	0	0.0	311	100.0	0	0.0	0	0.0
California	994	584	21.2	312	69.5	96	9.1	2	0.2
Colorado	176	2	0.0	174	100.0	0	0.0	0	0.0
Connecticut	166	46	4.9	112	93.6	8	1.5	0	0.0
Delaware	19	0	0.0	15	94.2	4	5.8	0	0.0
District of Columbia	1	0	0.0	1	100.0	0	0.0	0	0.0
Florida	67	0	0.0	67	100.0	0	0.0	0	0.0
Georgia	180	7	0.2	173	99.8	0	0.0	0	0.0
Hawaii	1	0	0.0	1	100.0	0	0.0	0	0.0
Idaho	112	5	0.1	106	99.9	0	0.0	1	0.0
Illinois	927	387	25.4	408	63.9	123	10.6	9	0.1
Indiana	292	1	0.0	291	100.0	0	0.0	0	0.0
Iowa	377	24	0.9	353	99.1	0	0.0	0	0.0
Kansas	304	2	0.1	302	99.9	0	0.0	0	0.0
Kentucky	176	6	0.3	170	99.7	0	0.0	0	0.0
Louisiana	66	0	0.0	66	100.0	0	0.0	0	0.0
Maine	227	108	12.2	113	86.7	5	1.1	1	0.0
Maryland	24	0	0.0	24	100.0	0	0.0	0	0.0
Massachusetts	245	67	5.1	176	94.8	2	0.2	0	0.0
Michigan	659	88	0.8	535	98.8	17	0.1	19	0.3
Minnesota	373	30	0.5	334	99.2	8	0.2	1	0.0
Mississippi	152	0	0.0	149	99.8	3	0.2	0	0.0
Missouri	524	74	1.3	450	98.7	0	0.0	0	0.0
Montana	457	282	61.0	52	11.8	113	27.1	10	0.1
Nebraska	624	312	3.6	266	94.8	21	1.5	25	0.0
Nevada	17	1	0.0	16	100.0	0	0.0	0	0.0
New Hampshire	165	89	19.5	65	74.6	9	4.1	2	1.8
New Jersey	581	290	18.6	214	73.3	51	6.6	26	1.5
New Mexico	89	0	0.0	89	100.0	0	0.0	0	0.0
New York	705	42	1.0	646	98.4	9	0.6	8	0.0
North Carolina	117	0	0.0	117	100.0	0	0.0	0	0.0
North Dakota	231	47	2.5	174	96.8	7	0.6	3	0.1
Ohio	611	1	0.0	610	100.0	0	0.0	0	0.0
Oklahoma	547	115	3.5	430	96.5	0	0.0	2	0.1
Oregon	198	18	0.1	177	99.9	1	0.0	2	0.0
Pennsylvania	500	2	0.0	498	100.0	0	0.0	0	0.0
Rhode Island	36	4	1.5	31	97.5	0	0.0	1	1.0
South Carolina	90	2	0.1	86	99.6	1	0.1	1	0.2
South Dakota	173	7	1.0	166	99.0	0	0.0	0	0.0
Tennessee	137	15	2.7	122	97.3	0	0.0	0	0.0
Texas	1,042	68	0.3	974	99.7	0	0.0	0	0.0
Utah	40	0	0.0	40	100.0	0	0.0	0	0.0
Vermont	250	184	43.4	35	32.3	30	22.5	1	1.8
Virginia	132	1	0.0	131	100.0	0	0.0	0	0.0
Washington	296	47	1.0	248	99.0	0	0.0	1	0.0
West Virginia	55	0	0.0	55	100.0	0	0.0	0	0.0
Wisconsin	426	47	2.6	368	96.2	11	1.2	0	0.0
Wyoming	48	2	0.6	46	99.4	0	0.0	0	0.0
<b>Outlying areas</b>									
DOD Dependents Schools	12	0	0.0	12	100.0	0	0.0	0	0.0
American Samoa	1	0	0.0	1	100.0	0	0.0	0	0.0
Guam	1	0	0.0	1	100.0	0	0.0	0	0.0
Northern Marianas	1	0	0.0	1	100.0	0	0.0	0	0.0
Puerto Rico	1	0	0.0	1	100.0	0	0.0	0	0.0
Virgin Islands	1	0	0.0	1	100.0	0	0.0	0	0.0

NOTE: Grade span is determined by the highest and lowest grades for which student membership is reported among all schools associated with the district. "Other" includes all grade configurations not represented in the other categories and includes ungraded districts. Table excludes 378 regular school districts for which no students were reported in membership. U.S. totals exclude outlying areas. Table includes 12 Defense Department school districts for military personnel overseas, which are technically federally operated agencies. Percentages are rounded to the nearest tenth and may not add to 100. Percentages of less than 0.05 are rounded to 0.0.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Common Core of Data (CCD), "Local Education Agency Universe Survey" and "Public Elementary/Secondary School Universe Survey," 1997–98.

**Table 5—Distribution of regular public elementary and secondary school districts and students, by district membership size: School year 1997–98**

<b>District membership size</b>	<b>Number of districts</b>	<b>Percentage of districts</b>	<b>Percentage of students</b>
United States	14,427	100.0	100.0
100,000 or more	25	0.2	12.4
25,000 to 99,999	205	1.4	19.1
10,000 to 24,999	572	4.0	18.6
7,500 to 9,999	339	2.3	6.3
5,000 to 7,499	699	4.8	9.2
2,500 to 4,999	2,079	14.4	15.9
2,000 to 2,499	847	5.9	4.1
1,500 to 1,999	1,091	7.6	4.1
1,000 to 1,499	1,586	11.0	4.3
800 to 999	815	5.6	1.6
600 to 799	960	6.7	1.5
450 to 599	944	6.5	1.1
300 to 449	1,100	7.6	0.9
150 to 299	1,427	9.9	0.7
1 to 149	1,738	12.0	0.3

NOTE: Table includes the 50 states and the District of Columbia, and excludes 378 regular school districts for which no students were reported in membership. Percentages are rounded to the nearest tenth and may not add to 100.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Common Core of Data (CCD), "Local Education Agency Universe Survey," 1997–98.

**Table 6—Selected characteristics of public elementary and secondary school membership as a percentage of school membership by state: School year 1997–98**

State	Eligible for free lunch	With individualized education program	American Indian/ Alaska Native	Asian/ Pacific Islander	Hispanic	Black, Non-Hispanic	White, Non-Hispanic
United States	—	11.9	1.2	3.9	14.5	17.1	63.4
Alabama	38.2	13.2	0.8	0.7	0.8	36.0	61.7
Alaska	24.5	13.7	24.8	4.8	3.0	4.7	62.8
Arizona	—	10.1	7.0	1.8	30.8	4.4	56.0
Arkansas	37.1	10.5	0.4	0.8	2.2	23.7	72.9
California	47.0	10.7	0.9	11.1	40.5	8.8	38.8
Colorado	21.9	9.9	1.1	2.7	19.3	5.6	71.3
Connecticut	19.7	13.6	0.2	2.5	12.1	13.7	71.5
Delaware	30.5	12.2	0.2	1.9	4.6	30.1	63.2
District of Columbia	—	10.0	0.0	1.5	7.5	87.0	4.0
Florida	36.4	14.2	0.2	1.8	16.4	25.4	56.2
Georgia	43.1	10.0	0.1	1.9	2.9	38.0	57.1
Hawaii	27.3	9.2	0.4	70.7	4.7	2.6	21.6
Idaho	23.4	10.7	1.3	1.2	9.2	0.7	87.6
Illinois	—	11.8	0.2	3.1	13.2	21.3	62.3
Indiana	22.4	14.0	0.2	0.8	2.6	11.3	85.1
Iowa	20.6	13.5	0.5	1.6	2.6	3.5	91.8
Kansas	32.3	14.9	1.1	2.0	7.0	8.6	81.3
Kentucky	39.6	12.9	0.1	0.5	0.5	10.3	88.5
Louisiana	50.8	12.1	0.6	1.3	1.2	46.7	50.2
Maine	24.2	14.4	0.6	0.9	0.5	0.9	97.1
Maryland	25.5	13.0	0.3	4.0	3.7	36.1	55.9
Massachusetts	—	17.2	0.2	4.1	9.7	8.5	77.5
Michigan	25.4	4.1	1.0	1.6	2.8	19.1	75.4
Minnesota	19.2	12.0	2.0	4.4	2.5	5.6	85.5
Mississippi	55.6	12.6	0.5	0.6	0.4	50.9	47.6
Missouri	27.9	15.2	0.3	1.1	1.3	16.7	80.6
Montana	22.8	11.6	10.0	0.8	1.5	0.5	87.1
Nebraska	21.8	14.5	1.5	1.4	5.3	6.2	85.7
Nevada	32.9	10.7	1.9	4.8	20.5	9.7	63.2
New Hampshire	11.3	13.6	0.2	1.1	1.4	1.0	96.3
New Jersey	24.5	6.2	0.2	5.7	14.0	18.3	61.9
New Mexico	—	17.2	10.6	1.0	48.0	2.4	38.0
New York	36.6	14.2	0.5	5.4	17.8	20.4	55.9
North Carolina	31.2	12.9	1.5	1.6	2.7	31.0	63.2
North Dakota	21.5	10.9	8.3	0.8	1.1	0.9	88.9
Ohio	22.2	11.9	0.1	1.0	1.5	15.5	81.9
Oklahoma	36.4	12.4	15.5	1.3	4.5	10.6	68.1
Oregon	24.8	10.7	2.1	3.5	8.1	2.6	83.7
Pennsylvania	—	11.0	0.1	1.8	3.9	14.5	79.7
Rhode Island	28.0	17.7	0.5	3.4	11.5	7.5	77.2
South Carolina	42.3	12.9	0.2	0.8	1.0	42.2	55.8
South Dakota	32.3	11.4	14.4	0.8	0.9	1.0	82.9
Tennessee	—	13.6	0.1	1.0	0.9	23.2	74.8
Texas	38.9	12.1	0.3	2.4	37.9	14.4	45.0
Utah	19.0	11.3	1.5	2.5	6.6	0.8	88.6
Vermont	—	10.6	0.5	1.1	0.4	0.9	97.1
Virginia	25.6	13.3	0.2	3.6	3.6	27.0	65.5
Washington	—	10.7	2.8	6.9	8.6	4.9	76.8
West Virginia	40.3	16.1	0.1	0.3	0.5	4.1	95.1
Wisconsin	20.0	12.8	1.4	3.0	3.6	9.8	82.2
Wyoming	19.9	12.3	2.9	0.8	6.6	1.1	88.6
<b>Outlying areas</b>							
DOD Dependents Schools	—	8.5	1.0	10.1	8.5	21.9	58.5
American Samoa	94.9	3.1	0.0	100.0	0.0	0.0	0.0
Guam	27.6	5.9	0.1	95.9	0.3	0.6	3.1
Northern Marianas	38.8	3.6	0.0	99.1	0.0	0.0	0.9
Puerto Rico	80.9	8.2	0.0	0.0	100.0	0.0	0.0
Virgin Islands	66.4	7.7	0.0	0.3	14.1	84.7	0.9

NOTE: Data are shown as — if reported for less than 70 percent of schools or agencies. Percentages are based on schools and agencies reporting. National percentages are shown as — if data were missing for one or more states. U.S. totals exclude outlying areas. Percentages are rounded to the nearest tenth and may not add to 100.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Common Core of Data (CCD), "Public Elementary/Secondary School Universe Survey" and "Local Education Agency Universe Survey," 1997–98.

**Table 7—Number and percentage of students dropping out of grades 9 through 12 and percentage of dropouts who are male or minority, by reporting states: School year 1996–97**

State	Grade 9–12 number of dropouts	Grade 9–12 percentage dropouts	Percentage dropouts who were male	Percentage dropouts who were minority
Alabama	10,910	5.3	58.7	40.7
Alaska	1,728	4.9	57.2	47.6
Arkansas	6,748	5.0	58.8	29.4
California	51,403	3.3	55.5	74.3
Connecticut	5,390	3.9	57.5	48.6
Delaware	1,464	4.5	58.2	45.5
Georgia	29,294	8.2	59.9	48.6
Hawaii	2,525	4.8	53.1	77.0
Indiana	9,246	3.2	58.9	20.6
Iowa	4,621	2.9	57.4	15.1
Kansas	6,323	4.6	56.6	33.7
Louisiana	25,087	11.6	57.9	55.7
Maine	1,845	3.2	58.1	3.1
Massachusetts	8,423	3.4	57.5	37.6
Minnesota	13,449	5.5	57.4	32.9
Mississippi	8,309	6.0	59.8	58.0
Missouri	15,020	5.8	57.3	29.8
Montana	2,140	5.1	56.9	18.6
Nebraska	3,773	4.3	59.6	28.9
Nevada	7,600	10.2	54.5	43.8
New Mexico	7,230	7.5	55.8	72.4
New York	27,280	3.4	56.2	64.1
North Dakota	1,004	2.7	57.9	31.1
Ohio	28,507	5.2	60.1	32.2
Oregon	10,573	6.9	56.2	23.7
Pennsylvania	20,463	3.9	57.9	42.6
Rhode Island	1,933	4.7	59.7	31.5
South Carolina	5,049	2.7	61.9	50.6
Texas	36,521	3.6	54.8	70.5
Utah	6,807	4.5	52.9	20.8
West Virginia	3,851	4.1	57.5	5.0
Wyoming	1,963	6.2	57.2	17.8

NOTE: Membership in ungraded districts reporting dropouts is prorated across grades. Table includes all districts reporting zero or more dropouts in any of grades 9 through 12.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Common Core of Data (CCD), "Local Education Agency Universe Survey," 1997–98; "State Nonfiscal Survey of Public Elementary/Secondary Education" and "Public Elementary/Secondary School Universe Survey," 1996–97.

# Revenues and Expenditures

## Revenues and Expenditures for Public Elementary and Secondary Education: School Year 1996–1997

—Frank Johnson

*This article was originally published as a Statistics in Brief report. The universe data are from the “National Public Education Financial Survey” (NPEFS), part of the NCES Common Core of Data (CCD). Technical notes and definitions from the original report have been omitted.*

About \$305 billion of revenues were raised by local, state, and federal governments to fund public education for pre-kindergarten through the 12th grade in school year (SY) 1996–97. Current expenditures (those excluding construction, equipment, and debt financing) came to \$270 billion. Three out of every five dollars were spent on teachers, textbooks, and other instructional services and supplies. An average of \$5,923 was spent on each student—an increase of 4.1 percent from \$5,689 in school year 1995–96.

These and other financial data on public elementary and secondary education are collected and reported each year by the National Center for Education Statistics (NCES), U.S. Department of Education. The data are part of the “National Public Education Financial Survey” (NPEFS), one of the components of the Common Core of Data (CCD) collection of surveys.

### Revenues for Public Elementary and Secondary Education

About \$305 billion were collected for public elementary and secondary education in SY 1996–97 in the 50 states and the District of Columbia (table 1). Revenues ranged from a high of around \$34 billion in California, which serves about 1 out of every 8 students in the nation, to a low of about \$643 million in North Dakota, which serves about 1 out of every 380 students. Nationally, revenues increased an average of 6.0 percent over last year’s revenues of \$288 billion (in unadjusted dollars).

By far, the greatest part of education revenues came from nonfederal sources (state, intermediate, and local governments),\* which together provided about \$285 billion, or 93.4 percent of all revenues. The federal government contribution to education revenues made up the remaining \$20 billion. The relative contributions from these levels of government can be expressed as portions of the typical education dollar (figure 1). Local and intermediate sources

made up 45 cents of every dollar in revenue; state revenues 48 cents; and the remaining 7 cents came from federal sources.

Revenues from local sources made up between 2.4 percent and 89.5 percent of all revenues (table 2). As might be expected, revenues from state sources also showed a wide distribution in their share of total revenues. The state revenue share of total revenues was less than 30 percent in three states: New Hampshire (7.4 percent), Illinois (27.0 percent), and Vermont (28.6 percent); and more than 70 percent in Hawaii (89.5 percent) and New Mexico (73.1 percent). Hawaii and the District of Columbia have only one school district each. Federal revenues ranged from 3.5 percent in Connecticut, New Hampshire, and New Jersey to 14.0 percent in Mississippi.

### Current Expenditures for Public Elementary and Secondary Education

Current expenditures for public education in SY 1996–97 totaled about \$270 billion (table 3). This represents a \$15 billion (5.9 percent) increase over expenditures in the previous school year (\$255 billion in unadjusted dollars). About \$167 billion in current expenditures went for instruction. Another \$91 billion were expended for a cluster of services that support instruction. Nearly \$12 billion were spent on noninstructional services.

Instructional expenditures accounted for about 62 cents out of the education dollar (figure 2). These expenditures include teachers’ salaries and benefits, supplies (such as textbooks), and purchased services. Another 34 cents of the education dollar went for support services, which include operation and maintenance of buildings, school administration, transportation, and other student and school support activities (e.g., student counseling, libraries, and health services). About 4 cents of every dollar went to non-instructional activities, which include school meals and enterprise activities such as bookstores.

\*Definitions for each term, including state and local revenues, are provided in the complete report.

Most states were closely clustered around the national average in terms of the share of current expenditures that were spent on instruction; all but five states and the District of Columbia spent more than 59 percent of their current expenditures on instruction (table 4). Three states spent more than two-thirds of their current expenditures on instruction. These were Maine (68.2 percent), New York (67.6 percent), and Rhode Island (67.0 percent).

### Current Expenditures per Student

In SY 1996–97, the 50 states and the District of Columbia spent an average of \$5,923 for every pupil in membership (table 5). This represents a 4.1 percent increase from the previous year (\$5,689). Four states expended more than \$8,000 per pupil. These were New Jersey (\$9,588), Connecticut (\$8,580), New York (\$8,525), and Alaska (\$8,231). The District of Columbia, which comprises a single urban district, spent \$8,048 per pupil. Only one state had expenditures of less than \$4,000 for each pupil in membership: Utah (\$3,783). The median per pupil

expenditure was \$5,734, indicating that half of the states educated students at a cost of less than \$5,734 per student.

On the average, for every student about \$3,665 was spent for instructional services, \$1,996 for support services, and \$262 for noninstructional purposes.

**Data source:** The Common Core of Data (CCD), "National Public Education Financial Survey" (NPEFS), 1996–97.

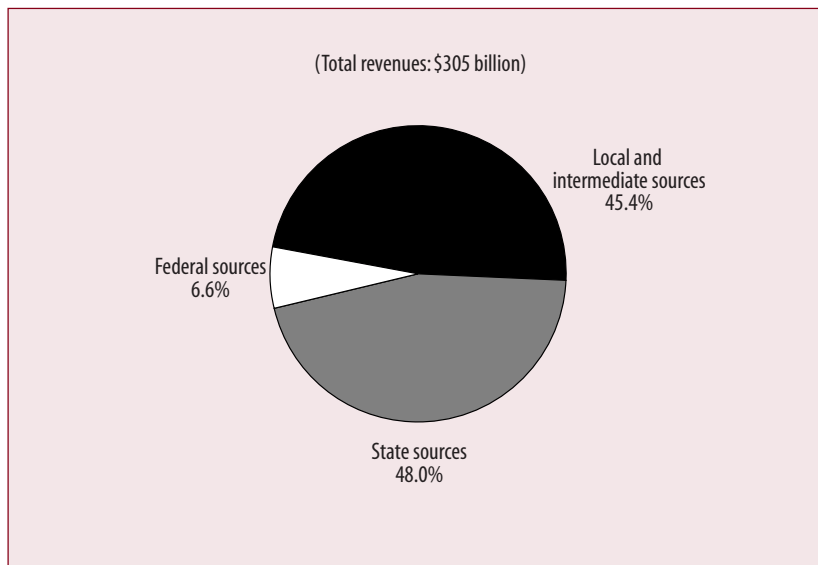
**For technical information,** see the complete Statistics in Brief: Johnson, F. (1999). *Revenues and Expenditures for Public Elementary and Secondary Education: School Year 1996–1997* (NCES 1999–301).

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**To obtain the complete report (NCES 1999–301),** call the toll-free ED Pubs number (877–433–7827) or visit the NCES Web Site (<http://nces.ed.gov>).

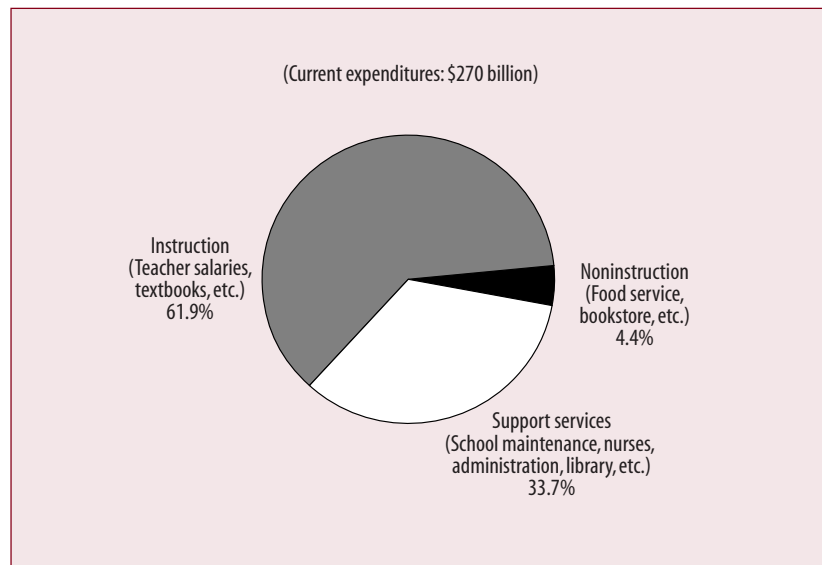
**Figure 1—The public education dollar: Revenues by source: School year 1996–97**



SOURCE: U.S. Department of Education, National Center for Education Statistics, Common Core of Data (CCD), "National Public Education Financial Survey" (NPEFS), 1996–97.



**Figure 2—The public education dollar: Current expenditures by functions: School year 1996–97**



SOURCE: U.S. Department of Education, National Center for Education Statistics, Common Core of Data (CCD), "National Public Education Financial Survey" (NPEFS), 1996–97.

**Table 1—Revenues for public elementary and secondary schools, by source and state: School year 1996–97**  
(In thousands of dollars)

State	Revenues, by source				
	Total	Local	Intermediate	State	Federal
United States	*\$305,051,963	*\$137,394,127	\$1,142,651	\$146,433,951	\$20,081,235
Alabama	3,955,039	1,070,751	7,449	2,498,675	378,164
Alaska	1,219,017	301,756	0	772,919	144,341
Arizona	4,400,591	1,840,643	170,221	1,981,318	408,410
Arkansas	2,371,834	757,795	3,073	1,424,952	186,015
California	34,477,895	10,980,086	0	20,679,410	2,818,398
Colorado	4,045,015	2,046,171	1,454	1,785,790	211,601
Connecticut	*4,899,850	*2,912,117	0	1,817,333	170,400
Delaware	878,326	242,436	0	569,041	66,850
District of Columbia	711,504	636,564	0	0	74,941
Florida	13,861,434	6,071,255	0	6,768,050	1,022,129
Georgia	8,129,250	3,206,675	0	4,366,411	556,165
Hawaii	1,215,924	29,588	0	1,088,411	97,925
Idaho	1,251,263	372,686	0	794,956	83,621
Illinois	13,161,954	8,774,537	0	3,559,351	828,066
Indiana	7,638,406	3,412,827	52,266	3,854,836	318,477
Iowa	3,167,763	1,351,584	8,378	1,646,510	161,291
Kansas	3,040,600	1,035,188	127,115	1,708,043	170,254
Kentucky	3,794,129	1,055,930	0	2,386,935	351,264
Louisiana	*4,154,494	*1,581,121	0	2,087,902	485,471
Maine	1,499,504	710,668	0	707,638	81,197
Maryland	6,042,059	3,386,302	0	2,343,421	312,336
Massachusetts	7,229,486	3,998,665	0	2,883,350	347,471
Michigan	13,437,615	3,734,174	14,461	8,805,410	883,570
Minnesota	6,109,916	2,265,400	220,572	3,359,840	264,105
Mississippi	2,259,053	689,288	1,335	1,253,205	315,226
Missouri	5,571,655	2,968,177	26,395	2,247,279	329,806
Montana	991,653	337,805	91,014	469,750	93,084
Nebraska	1,954,789	1,196,961	13,629	627,428	116,772
Nevada	1,705,232	1,090,914	0	543,409	70,908
New Hampshire	1,282,509	1,143,633	0	94,542	44,334
New Jersey	12,376,750	7,149,307	16	4,793,226	434,201
New Mexico	1,829,725	261,207	0	1,336,628	231,891
New York	26,564,743	14,546,815	103,325	10,467,969	1,446,633
North Carolina	6,515,608	1,786,312	0	4,258,020	471,276
North Dakota	642,984	291,385	8,072	266,289	77,238
Ohio	12,587,117	6,679,202	14,070	5,126,180	767,665
Oklahoma	3,251,302	899,017	58,272	2,025,586	268,428
Oregon	3,472,609	1,381,650	48,748	1,826,146	216,065
Pennsylvania	14,441,126	7,972,204	27,791	5,652,779	788,351
Rhode Island	1,193,754	645,048	0	484,813	63,893
South Carolina	3,889,383	1,521,335	0	2,040,324	327,724
South Dakota	747,324	400,520	8,662	265,378	72,764
Tennessee	4,411,971	1,894,063	0	2,141,593	376,315
Texas	22,372,808	11,541,933	85,507	9,026,103	1,719,266
Utah	2,198,285	678,724	0	1,381,527	138,034
Vermont	812,166	541,899	0	232,561	37,706
Virginia	*7,204,510	*4,507,631	0	2,338,962	357,917
Washington	6,642,158	1,797,283	18	4,455,423	389,435
West Virginia	2,082,049	596,192	886	1,312,732	172,240
Wisconsin	6,701,115	2,855,644	0	3,557,024	288,447
Wyoming	656,713	245,065	49,924	318,570	43,153
<b>Outlying areas</b>					
American Samoa	47,430	73	95	10,389	36,873
Guam	168,835	152,607	0	0	16,228
Northern Marianas	56,010	616	0	42,899	12,494
Puerto Rico	1,832,790	568	0	1,312,650	519,572
Virgin Islands	141,786	117,532	0	0	24,253

\*Value contains imputation for missing data. Imputed value is less than 2 percent of total revenues in any one state.

NOTE: Details may not add to total due to rounding. National figures do not include outlying areas.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Common Core of Data (CCD), "National Public Education Financial Survey" (NPEFS), 1996–97.

**Table 2—Percentage distribution of revenues for public elementary and secondary schools, by source and state: School year 1996–97**

State	Within-state percentage distribution			
	Local	Intermediate	State	Federal
United States*	45.0	0.4	48.0	6.6
Alabama	27.1	0.2	63.2	9.6
Alaska	24.8	0.0	63.4	11.8
Arizona	41.8	3.9	45.0	9.3
Arkansas	31.9	0.1	60.1	7.8
California	31.8	0.0	60.0	8.2
Colorado	50.6	0.0	44.1	5.2
Connecticut*	59.4	0.0	37.1	3.5
Delaware	27.6	0.0	64.8	7.6
District of Columbia	89.5	0.0	0.0	10.5
Florida	43.8	0.0	48.8	7.4
Georgia	39.4	0.0	53.7	6.8
Hawaii	2.4	0.0	89.5	8.1
Idaho	29.8	0.0	63.5	6.7
Illinois	66.7	0.0	27.0	6.3
Indiana	44.7	0.7	50.5	4.2
Iowa	42.7	0.3	52.0	5.1
Kansas	34.0	4.2	56.2	5.6
Kentucky	27.8	0.0	62.9	9.3
Louisiana*	38.1	0.0	50.3	11.7
Maine	47.4	0.0	47.2	5.4
Maryland	56.0	0.0	38.8	5.2
Massachusetts	55.3	0.0	39.9	4.8
Michigan	27.8	0.1	65.5	6.6
Minnesota	37.1	3.6	55.0	4.3
Mississippi	30.5	0.1	55.5	14.0
Missouri	53.3	0.5	40.3	5.9
Montana	34.1	9.2	47.4	9.4
Nebraska	61.2	0.7	32.1	6.0
Nevada	64.0	0.0	31.9	4.2
New Hampshire	89.2	0.0	7.4	3.5
New Jersey	57.8	0.0	38.7	3.5
New Mexico	14.3	0.0	73.1	12.7
New York	54.8	0.4	39.4	5.4
North Carolina	27.4	0.0	65.4	7.2
North Dakota	45.3	1.3	41.4	12.0
Ohio	53.1	0.1	40.7	6.1
Oklahoma	27.7	1.8	62.3	8.3
Oregon	39.8	1.4	52.6	6.2
Pennsylvania	55.2	0.2	39.1	5.5
Rhode Island	54.0	0.0	40.6	5.4
South Carolina	39.1	0.0	52.5	8.4
South Dakota	53.6	1.2	35.5	9.7
Tennessee	42.9	0.0	48.5	8.5
Texas	51.6	0.4	40.3	7.7
Utah	30.9	0.0	62.8	6.3
Vermont	66.7	0.0	28.6	4.6
Virginia*	62.6	0.0	32.5	5.0
Washington	27.1	0.0	67.1	5.9
West Virginia	28.6	0.0	63.0	8.3
Wisconsin	42.6	0.0	53.1	4.3
Wyoming	37.3	7.6	48.5	6.6
<b>Outlying areas</b>				
American Samoa	0.2	0.2	21.9	77.7
Guam	90.4	0.0	0.0	9.6
Northern Marianas	1.1	0.0	76.6	22.3
Puerto Rico	0.0	0.0	71.6	28.3
Virgin Islands	82.9	0.0	0.0	17.1

\*Value contains imputation for missing data. Imputed value is less than 2 percent of total revenues in any one state.

NOTE: Details may not add to total due to rounding. National figures do not include outlying areas.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Common Core of Data (CCD), "National Public Education Financial Survey" (NPEFS), 1996–97.

**Table 3—Current expenditures for public elementary and secondary schools, by function and state: School year 1996–97  
(In thousands of dollars)**

State	Current expenditures, by function			
	Total	Instruction	Support services	Noninstruction
United States	<sup>1</sup> \$270,151,583	<sup>2</sup> \$167,147,978	<sup>2</sup> \$91,041,936	<sup>1</sup> \$11,961,669
Alabama	3,436,406	2,105,541	1,079,076	251,788
Alaska	1,069,379	<sup>2</sup> 606,333	<sup>2</sup> 427,264	35,782
Arizona	3,527,473	<sup>2</sup> 2,025,072	<sup>2</sup> 1,281,780	220,621
Arkansas	2,074,113	1,293,081	656,551	124,481
California	29,909,168	18,121,365	10,529,510	1,258,293
Colorado	3,577,211	2,210,900	1,221,481	144,829
Connecticut	<sup>1</sup> 4,522,716	2,881,058	1,418,875	<sup>1</sup> 222,783
Delaware	788,715	487,517	261,787	39,411
District of Columbia	632,952	<sup>2</sup> 336,860	<sup>2</sup> 272,598	23,494
Florida	12,018,676	7,033,629	4,381,509	603,538
Georgia	7,230,405	4,514,587	2,287,757	428,060
Hawaii	1,057,069	665,808	321,074	70,187
Idaho	1,090,597	683,594	356,978	50,025
Illinois	11,720,249	7,049,329	4,273,482	397,438
Indiana	6,055,055	3,786,133	2,002,153	266,769
Iowa	2,885,943	1,766,300	978,025	141,618
Kansas	2,568,525	1,477,532	962,406	128,587
Kentucky	3,382,062	2,053,842	1,155,004	173,215
Louisiana	<sup>1</sup> 3,747,507	2,231,393	1,191,011	<sup>1</sup> 325,102
Maine	1,351,500	922,055	401,351	28,094
Maryland	5,529,309	3,363,092	1,897,410	268,807
Massachusetts	6,846,610	4,509,876	2,113,367	223,367
Michigan	11,686,124	6,916,820	4,424,697	344,607
Minnesota	5,087,353	3,265,753	1,611,327	210,273
Mississippi	2,035,675	1,249,098	634,860	151,717
Missouri	4,775,931	2,931,449	1,634,778	209,704
Montana	902,252	562,184	302,011	38,057
Nebraska	1,707,455	<sup>2</sup> 1,074,270	503,687	<sup>2</sup> 129,498
Nevada	1,434,395	859,392	526,838	48,165
New Hampshire	1,173,958	<sup>2</sup> 760,415	<sup>2</sup> 371,963	<sup>2</sup> 41,581
New Jersey	11,771,941	7,229,567	4,172,008	370,366
New Mexico	1,557,376	894,288	585,614	77,473
New York	24,237,291	16,375,194	7,186,590	675,506
North Carolina	5,964,939	3,704,917	1,869,514	390,508
North Dakota	577,498	353,165	175,106	49,228
Ohio	10,948,074	6,518,251	4,021,119	408,704
Oklahoma	2,990,044	1,786,857	1,018,612	184,576
Oregon	3,184,100	1,927,857	1,141,621	114,622
Pennsylvania	12,820,704	8,220,369	4,132,980	467,354
Rhode Island	1,151,888	771,635	347,402	32,850
South Carolina	3,296,661	1,965,815	1,121,812	209,034
South Dakota	627,109	384,756	208,437	33,915
Tennessee	4,145,380	2,687,981	1,242,078	215,321
Texas	20,167,238	12,426,613	6,655,923	1,084,702
Utah	1,822,725	1,205,721	511,223	105,781
Vermont	718,092	467,336	229,343	21,413
Virginia	<sup>1</sup> 6,343,766	3,852,822	2,154,071	<sup>1</sup> 336,873
Washington	<sup>2</sup> 5,587,808	<sup>2</sup> 3,351,236	1,970,285	266,286
West Virginia	1,847,560	1,144,463	591,395	111,702
Wisconsin	5,975,122	3,771,582	2,019,452	184,088
Wyoming	591,488	363,275	206,738	21,475
<b>Outlying areas</b>				
American Samoa	33,780	13,590	12,268	7,922
Guam	156,561	85,529	61,896	9,136
Northern Marianas	53,140	42,777	7,555	2,809
Puerto Rico	1,796,077	1,259,605	351,038	185,434
Virgin Islands	122,188	69,435	45,967	6,786

<sup>1</sup>Value contains imputation for missing data. Imputed value is less than 2 percent of total current expenditures in any one state.

<sup>2</sup>Value affected by redistribution of reported values for missing data items.

NOTE: Details may not add to total due to rounding.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Common Core of Data (CCD), "National Public Education Financial Survey" (NPEFS), 1996–97.

**Table 4—Percentage distribution of current expenditures for public elementary and secondary schools, by function and state: School year 1996–97**

State	Within-state percentage distribution		
	Instruction	Support services	Noninstruction
United States*	61.9	33.7	4.4
Alabama	61.3	31.4	7.3
Alaska*	56.7	40.0	3.3
Arizona*	57.4	36.3	6.3
Arkansas	62.3	31.7	6.0
California	60.6	35.2	4.2
Colorado	61.8	34.1	4.0
Connecticut*	63.7	31.4	4.9
Delaware	61.8	33.2	5.0
District of Columbia*	53.2	43.1	3.7
Florida	58.5	36.5	5.0
Georgia	62.4	31.6	5.9
Hawaii	63.0	30.4	6.6
Idaho	62.7	32.7	4.6
Illinois	60.1	36.5	3.4
Indiana	62.5	33.1	4.4
Iowa	61.2	33.9	4.9
Kansas	57.5	37.5	5.0
Kentucky	60.7	34.2	5.1
Louisiana*	59.5	31.8	8.7
Maine	68.2	29.7	2.1
Maryland	60.8	34.3	4.9
Massachusetts	65.9	30.9	3.3
Michigan	59.2	37.9	2.9
Minnesota	64.2	31.7	4.1
Mississippi	61.4	31.2	7.5
Missouri	61.4	34.2	4.4
Montana	62.3	33.5	4.2
Nebraska*	62.9	29.5	7.6
Nevada	59.9	36.7	3.4
New Hampshire*	64.8	31.7	3.5
New Jersey	61.4	35.4	3.1
New Mexico	57.4	37.6	5.0
New York	67.6	29.7	2.8
North Carolina	62.1	31.3	6.5
North Dakota	61.2	30.3	8.5
Ohio	59.5	36.7	3.7
Oklahoma	59.8	34.1	6.2
Oregon	60.5	35.9	3.6
Pennsylvania	64.1	32.2	3.6
Rhode Island	67.0	30.2	2.9
South Carolina	59.6	34.0	6.3
South Dakota	61.4	33.2	5.4
Tennessee	64.8	30.0	5.2
Texas	61.6	33.0	5.4
Utah	66.1	28.0	5.8
Vermont	65.1	31.9	3.0
Virginia*	60.7	34.0	5.3
Washington*	60.0	35.3	4.8
West Virginia	61.9	32.0	6.0
Wisconsin	63.1	33.8	3.1
Wyoming	61.4	35.0	3.6
<b>Outlying areas</b>			
American Samoa	40.2	36.3	23.5
Guam	54.6	39.5	5.8
Northern Marianas	80.5	14.2	5.3
Puerto Rico	70.1	19.5	10.3
Virgin Islands	56.8	37.6	5.6

\*Distribution affected by imputations and redistribution of reported values to correct for missing items.

NOTE: Details may not add to 100 percent due to rounding.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Common Core of Data (CCD), "National Public Education Financial Survey" (NPEFS), 1996–97.

**Table 5—Student membership and current expenditures per pupil in membership for public elementary and secondary schools, by function and state: School year 1996–97**

State	Fall 1996 student membership	Current expenditures per pupil in membership			
		Total	Instruction	Support services	Noninstruction
United States	<sup>1</sup> 45,611,046	<sup>1</sup> \$5,923	<sup>1</sup> \$3,665	<sup>1</sup> \$1,996	<sup>1</sup> \$262
Alabama	<sup>1</sup> 747,932	<sup>1</sup> 4,595	<sup>1</sup> 2,815	<sup>1</sup> 1,443	<sup>1</sup> 337
Alaska	129,919	8,231	<sup>2</sup> 4,667	3,289	275
Arizona	799,250	4,413	<sup>2</sup> 2,534	1,604	276
Arkansas	457,349	4,535	2,827	1,436	272
California	<sup>1</sup> 5,686,198	<sup>1</sup> 5,260	<sup>1</sup> 3,187	<sup>1</sup> 1,852	<sup>1</sup> 221
Colorado	673,438	5,312	3,283	1,814	215
Connecticut	527,129	<sup>1</sup> 8,580	5,466	2,692	<sup>1</sup> 423
Delaware	110,549	7,135	4,410	2,368	357
District of Columbia	78,648	8,048	<sup>2</sup> 4,283	<sup>2</sup> 3,466	299
Florida	2,242,212	5,360	3,137	1,954	269
Georgia	1,346,761	5,369	3,352	1,699	318
Hawaii	187,653	5,633	3,548	1,711	374
Idaho	245,252	4,447	2,787	1,456	204
Illinois	1,973,040	5,940	3,573	2,166	201
Indiana	982,876	6,161	3,852	2,037	271
Iowa	502,941	5,738	3,512	1,945	282
Kansas	466,293	5,508	3,169	2,064	276
Kentucky	656,089	5,155	3,130	1,760	264
Louisiana	793,296	<sup>1</sup> 4,724	2,813	1,501	<sup>1</sup> 410
Maine	213,593	6,327	4,317	1,879	132
Maryland	818,583	6,755	4,108	2,318	328
Massachusetts	933,898	7,331	4,829	2,263	239
Michigan	1,685,714	6,932	4,103	2,625	204
Minnesota	847,204	6,005	3,855	1,902	248
Mississippi	503,967	4,039	2,479	1,260	301
Missouri	900,517	5,304	3,255	1,815	233
Montana	164,627	5,481	3,415	1,835	231
Nebraska	291,967	5,848	<sup>2</sup> 3,679	1,725	<sup>2</sup> 444
Nevada	282,131	5,084	3,046	1,867	171
New Hampshire	198,308	5,920	<sup>2</sup> 3,835	<sup>2</sup> 1,876	<sup>2</sup> 210
New Jersey	1,227,832	9,588	5,888	3,398	302
New Mexico	332,632	4,682	2,689	1,761	233
New York	2,843,131	8,525	5,760	2,528	238
North Carolina	1,210,108	4,929	3,062	1,545	323
North Dakota	120,123	4,808	2,940	1,458	410
Ohio	1,844,698	5,935	3,534	2,180	222
Oklahoma	620,695	4,817	2,879	1,641	297
Oregon	537,854	5,920	3,584	2,123	213
Pennsylvania	1,804,256	7,106	4,556	2,291	259
Rhode Island	151,324	7,612	5,099	2,296	217
South Carolina	<sup>1</sup> 652,816	<sup>1</sup> 5,050	<sup>1</sup> 3,011	<sup>1</sup> 1,718	<sup>1</sup> 320
South Dakota	143,331	4,375	2,684	1,454	237
Tennessee	<sup>1</sup> 904,818	<sup>1</sup> 4,581	<sup>1</sup> 2,971	<sup>1</sup> 1,373	<sup>1</sup> 238
Texas	3,828,975	5,267	3,245	1,738	283
Utah	481,812	3,783	2,502	1,061	220
Vermont	106,341	6,753	4,395	2,157	201
Virginia	1,096,093	<sup>1</sup> 5,788	3,515	1,965	<sup>1</sup> 307
Washington	974,504	<sup>2</sup> 5,734	<sup>2</sup> 3,439	2,022	273
West Virginia	304,052	6,076	3,764	1,945	367
Wisconsin	879,259	6,796	4,290	2,297	209
Wyoming	99,058	5,971	3,667	2,087	217
<b>Outlying areas</b>					
American Samoa	14,766	2,288	920	831	537
Guam	33,393	4,688	2,561	1,854	274
Northern Marianas	9,041	5,878	4,731	836	311
Puerto Rico	618,861	2,902	2,035	567	300
Virgin Islands	22,385	5,458	3,102	2,053	303

<sup>1</sup>Value contains imputation for missing expenditure data.<sup>2</sup>Value affected by redistribution of reported expenditure values for missing data items.

NOTE: Details may not add to total due to rounding.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Common Core of Data (CCD), "National Public Education Financial Survey" (NPEFS), 1996–97.





# POSTSECONDARY EDUCATION

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## Students With Disabilities

### Students With Disabilities in Postsecondary Education: A Profile of Preparation, Participation, and Outcomes

— *Laura Horn and Jennifer Berktd.*

*This article was originally published as the Executive Summary of the Statistical Analysis Report of the same name. The sample survey data are from several surveys, which are listed at the end of this article.*

This report provides a comprehensive profile of students with disabilities enrolled in postsecondary education. It is based on an analysis of four different surveys conducted by the National Center for Education Statistics, which were used to address the following four issues: (1) How are students with disabilities represented in postsecondary education? (2) Who among high school students with disabilities gains access to postsecondary education? (3) Among those students with disabilities who enroll in postsecondary education, how well do they persist to degree attainment? and (4) Among college graduates, what are the early labor market outcomes and graduate school enrollment rates of students with disabilities? The following is a summary of the key findings for each of the four main issues addressed in the report.

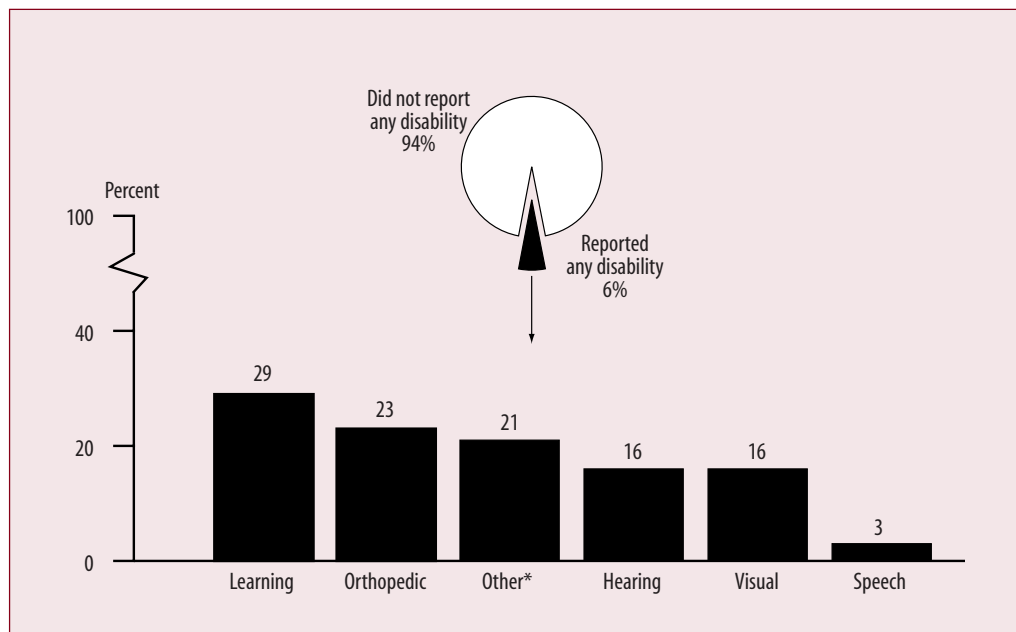
#### How Are Students With Disabilities Represented in Postsecondary Education?

In the 1995–96 academic year, as part of the National Postsecondary Student Aid Study (NPSAS:96), a nationally

representative sample of about 21,000 undergraduates were asked: “Do you have any disabilities, such as hearing, speech, mobility impairment, or vision problems that can’t be corrected with glasses?” About 6 percent replied “yes” (figure A). When asked about specific disabilities, among the 6 percent of undergraduates who reported any disabilities, 29 percent said they had a learning disability; 23 percent reported having an orthopedic impairment; 16 percent reported a noncorrectable vision impairment; 16 percent were hearing impaired or deaf; and 3 percent reported a speech impairment. One in five (21 percent) reported having some “other health-related” disability. Compared with students without disabilities, students with disabilities were more likely to be men, to be older, and to be white, non-Hispanic.

Compared with their counterparts who reported no disabilities, students with disabilities differed in the types of institutions they attended. They were less likely to be enrolled in public 4-year institutions, about as likely to be

**Figure A—Percentage of 1995–96 undergraduates who reported a disability, and among those with disabilities, the percentage reporting each disability type**



\*Any other health-related disability or impairment.

NOTE: Percentages do not sum to 100 because some students reported multiple disabilities.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1995–96 National Postsecondary Student Aid Study (NPSAS: 96), Undergraduate Data Analysis System.

enrolled in private, not-for-profit 4-year institutions, and more likely to be enrolled in subbaccalaureate institutions such as public 2-year colleges. There were no apparent differences, however, between undergraduates with and without disabilities with respect to their general fields of study. For example, roughly one-fifth of students with and without disabilities (17 and 20 percent, respectively) were in business-related fields; 18 and 15 percent, respectively, were in humanities; and 11 and 13 percent, respectively, were in health fields.

With respect to financing their education, students with and without disabilities did not differ to a great extent in either the likelihood of receiving financial aid or in the average total amount of aid received. However, when examining specific institutional sectors and specific types of financial aid received, differences did emerge, especially among students enrolled in public 4-year colleges. For example, among dependent students (i.e., those who are financially dependent on their parents) in public 4-year colleges, students with disabilities were less likely to receive financial aid (48 versus 59 percent), whether in the form of grants (31 versus 42 percent), loans (29 versus 38 percent), or

work study (4 versus 8 percent). Since the award of federal financial aid is based on a student budget made up of the student's financial need and the price of the institution, it is possible that dependent students with disabilities attending public 4-year colleges were enrolled in lower priced institutions than their counterparts without disabilities. Differences may also be due in part to the fact that some students with disabilities receive supplemental income such as Supplemental Security Income (SSI) and Social Security Disability Insurance (SSDI).

### Who Gets to College?

Based on data from a nationally representative sample of students who were in the eighth grade in 1988, the National Education Longitudinal Study of 1988 (NELS:88/94), students with disabilities were less likely to enroll in postsecondary education among those who completed high school by 1994 (table A). As of 1994, about 2 years after most finished high school, approximately 63 percent of students with disabilities had enrolled in some form of postsecondary education, compared with about 72 percent of students without disabilities. Among those who enrolled, nearly one-half of students with disabilities (45 percent)

enrolled in public 2-year institutions, compared with one-third of students without disabilities. Conversely, students with disabilities were less likely to enroll in the 4-year sector (42 percent) than their counterparts without disabilities (62 percent).

When students were ranked according to how qualified they were for admission to a 4-year college, students with disabilities were much less likely to be even minimally qualified.\* Among those who were qualified, students with and without disabilities were just as likely to enroll in some form of postsecondary education. Students with and without disabilities who were very to highly qualified for admission to a 4-year college (had scores in the top 10 to 25 percent of entering 4-year college students) enrolled at similar rates. However, among students who were ranked as “minimally to somewhat” qualified for admission to a 4-year college (had scores in the top 50 to 75 percent of entering 4-year college students), students with disabilities were less likely than their counterparts without disabilities to enroll in the 4-year sector (41 versus 54 percent) and more likely to enroll in public 2-year institutions (35 versus

25 percent). In other words, despite being at least minimally qualified for admission to a 4-year institution, students with disabilities were less likely to enroll in the 4-year sector. Research has shown that a majority of students who enroll in the 2-year sector with the intention of later transferring to a 4-year institution do not transfer. Therefore, these students may be reducing their chances of earning a bachelor’s degree.

Taking a closer look at the students who enrolled in any postsecondary education, there were a number of apparent differences with respect to high school academic preparation and performance between students with and without disabilities. Those with disabilities were more likely to have taken remedial mathematics and English courses in high school, less likely to have taken advanced placement courses, had lower high school GPAs, and had lower average SAT entrance exam scores.

Overall, with respect to gaining access to higher education, the data indicate that students with disabilities fall behind their counterparts without disabilities in their high school academic preparation for college. As a consequence, students with disabilities are less likely to be academically qualified for admission to a 4-year college and, among those who enroll in postsecondary education, students with disabilities may be less prepared to undertake college-level courses.

\*This was based on an index score of grades, rank in school, GPA, NELS composite test scores, and SAT/ACT scores of the top 75 percent of students actually admitted to a 4-year institution. To be minimally qualified, students had to be ranked at or above the 54th percentile in their class, have a GPA of 2.7 or higher in academic courses, have a combined SAT score of 820 or above (or ACT composite of 19 or above), or score at the 56th percentile or higher on the 1992 NELS mathematics and reading aptitude tests.

**Table A—Among 1988 eighth-graders who completed high school, the percentage who enrolled in postsecondary education by 1994, and percentage distribution according to type of institution, by disability status and type**

	4-year institutions				Other institutions		
	Total enrolled	Total	Public	Private, not-for-profit	Total	Public 2-year	Other <sup>1</sup>
Total	70.4	59.4	39.8	19.6	40.6	34.4	6.2
Does not have a disability	71.7	61.5	41.3	20.2	38.6	33.3	5.3
Has a disability	62.8	42.0	28.1	14.0	58.0	44.9	13.1
Visual impairment	70.4	48.4	30.9	17.6	51.6	44.2	7.4
Hearing impairment or deaf	60.2	39.8	33.5	6.3	60.2	47.0	13.2
Speech impairment	58.5	49.0	34.5	14.5	51.0	47.6	3.5
Orthopedic impairment	73.9	71.4	53.6	17.8	28.7	23.6	5.1
Learning disability	57.5	28.2	17.6	10.5	71.8	53.9	17.9
Other disability or impairment <sup>2</sup>	65.9	44.3	28.4	15.9	55.7	42.8	13.0

<sup>1</sup>Students enrolled in private, for-profit institutions; public less-than-2-year institutions; or private, not-for-profit less-than-4-year institutions.

<sup>2</sup>Student had any other disability, including health problems, emotional problems, mental retardation, or other physical disabilities, and had received services for it.

NOTE: Percentages may not sum to 100 due to rounding.

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Education Longitudinal Study of 1988, Third Follow-up Survey, 1994 (NELS:88/94), Data Analysis System.

## Who Stays in College?

A survey of undergraduates who enrolled in postsecondary education for the first time in 1989–90 and who were last surveyed in 1994, the Beginning Postsecondary Students Longitudinal Study (BPS:90/94), indicates that students who reported any disabilities were less likely than their counterparts without disabilities to have stayed enrolled or earned a postsecondary degree or credential within 5 years (figure B). As of 1994, 53 percent of students with disabilities had attained a degree or vocational certificate or were still enrolled, compared with 64 percent of their counterparts without disabilities. Among students with disabilities, 16 percent attained a bachelor's degree; 6 percent attained an associate's degree; and 19 percent earned a vocational certificate. The corresponding percentages for students without disabilities were 27 percent, 12 percent, and 13 percent, respectively.

The postsecondary outcomes of students with disabilities, however, may not be directly comparable to those students without disabilities. Compared to their counterparts without disabilities, those with disabilities who first enrolled in postsecondary education in 1989–90 were more likely to have attributes associated with lower rates of persistence and degree attainment. For example, students with disabilities were more likely to have delayed their postsecondary enrollment a year or more after finishing high school (43 versus 32 percent). They were also more likely to have completed high school through earning a GED (i.e., they passed the General Education Development exam) or alternative high school credential (12 versus 6 percent). Corresponding to being older, students with disabilities were also more likely to have dependents other than a spouse (25 versus 13 percent). All of these attributes are associated with lower persistence and degree attainment rates. Thus, in addition to the obstacles they may have experienced related to their disabilities, students with disabilities were also more likely to have other experiences and circumstances that potentially conflicted with their schooling. Despite such impediments, however, more than half of students with disabilities had persisted in postsecondary education: 41 percent had earned a credential and an additional 12 percent were still enrolled in 1994.

## How Do College Graduates Fare?

While students with disabilities are less likely to persist in postsecondary education and attain a credential, those who earn a bachelor's degree appear to have relatively similar early labor market outcomes and graduate school enrollment rates as their counterparts without disabilities. Based on data from a cohort of students who earned bachelor's degrees in 1992–93, the Baccalaureate and Beyond Longitudinal Study (B&B:93/94) found that as of April 1994, most students, regardless of disability status, reported that they were working (figure C). Students with disabilities however, were more likely to be unemployed (11 versus 4 percent). Among college graduates who were working, the annual full-time salaries of students with and without disabilities did not differ significantly. There was also no difference in the likelihood of college graduates with and without disabilities reporting that their job was related to their degree: 58 percent of students with disabilities and 55 percent of those without disabilities reported that their job was closely related to their bachelor's degree. Finally, similar proportions of college graduates with and without disabilities had enrolled in graduate school within 1 year after earning their bachelor's degrees.

**Data sources:** The 1995–96 National Postsecondary Student Aid Study (NPSAS:96); the National Education Longitudinal Study of 1988, Third Follow-up Survey, 1994 (NELS:88/94); the 1990 Beginning Postsecondary Students Longitudinal Study, Second Follow-up (BPS:90/94); and the 1993 Baccalaureate and Beyond Longitudinal Study, First Follow-up (B&B:93/94).

**For technical information,** see the complete report:

Horn, L., and Berkold, J. (1999). *Students With Disabilities in Postsecondary Education: A Profile of Preparation, Participation, and Outcomes* (NCES 1999–187).

For additional details on survey methodology, see

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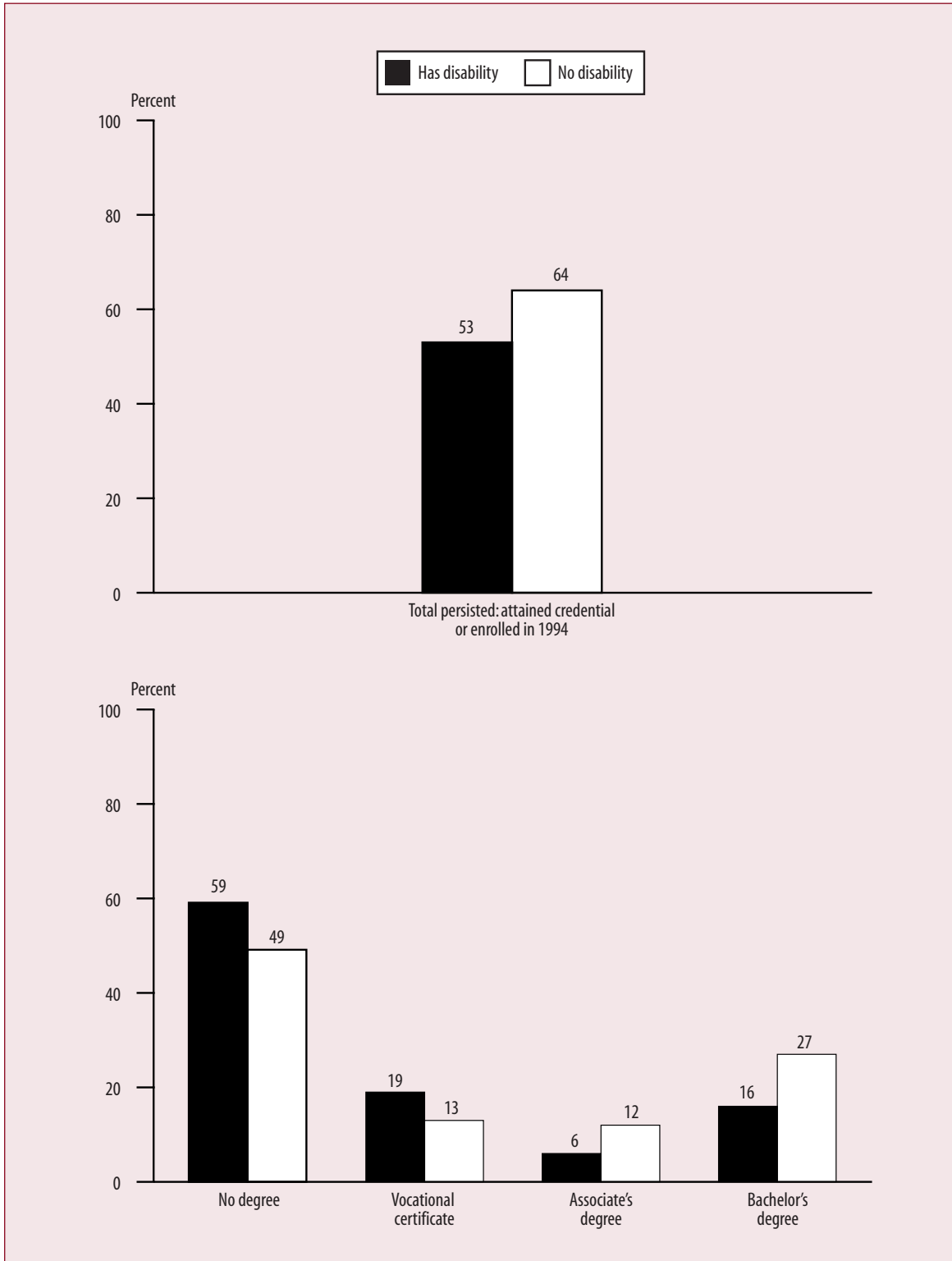
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**Figure B—Percentage of 1989–90 beginning postsecondary students according to their persistence status in 1994 and highest degree attained, by disability status**

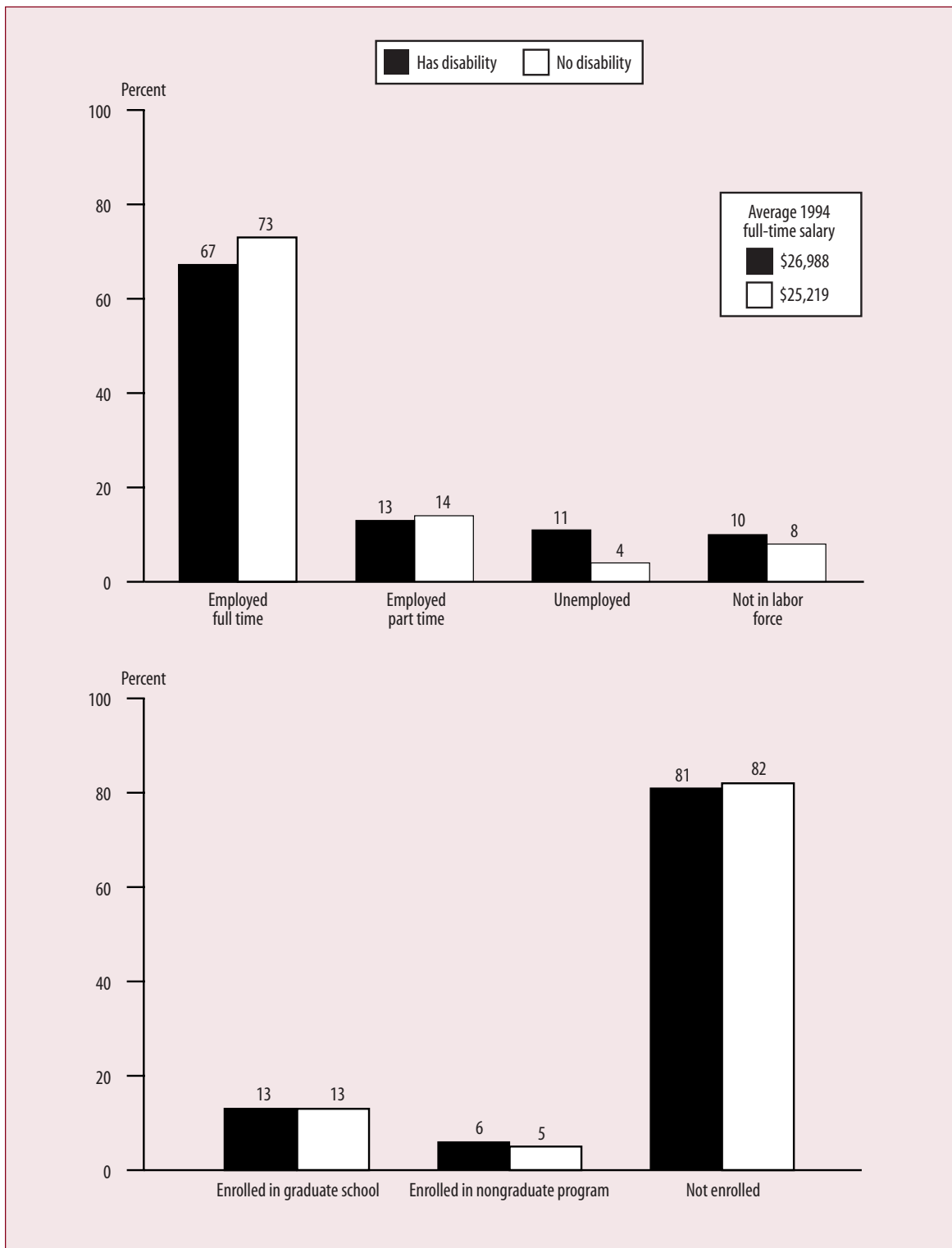


NOTE: Percentages may not sum to 100 due to rounding.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1990 Beginning Postsecondary Students Longitudinal Study, Second Follow-up (BPS:90/94), Data Analysis System.



**Figure C—Among 1992–93 bachelor’s degree recipients, percentage distribution according to employment status and graduate school enrollment, by disability status**



NOTE: Percentages may not sum to 100 due to rounding.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1993 Baccalaureate and Beyond Longitudinal Study, First Follow-up (B&B: 93/94), Data Analysis System.

# Institutions and Disabilities

## An Institutional Perspective on Students With Disabilities in Postsecondary Education

Laurie Lewis and Elizabeth Farris

*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 "Survey on Students With Disabilities at Postsecondary Education Institutions," conducted through the NCES Postsecondary Education Quick Information System (PEQIS).*

Key legislation, such as the Americans with Disabilities Act (ADA) and the Individuals with Disabilities Education Act (IDEA), has prompted numerous questions regarding access, support, and accommodations for students with disabilities in postsecondary education institutions. These institutions are required by law to provide reasonable accommodations to students with disabilities to ensure equal access to educational opportunities for these students. However, there have been no nationally representative data available from postsecondary institutions about the enrollment of students with disabilities and the support services and accommodations these institutions provide to students with disabilities. Moreover, since no information has been available about the recordkeeping and reporting capabilities of postsecondary institutions regarding students with disabilities, it has been difficult to assess the extent to which postsecondary institutions can provide information about these students.

In response, this study, requested by the Office of Special Education and Rehabilitative Services (OSERS), U.S. Department of Education, provides nationally representative data from 2-year and 4-year postsecondary education institutions about students with disabilities. Specifically, the survey, undertaken by the National Center for Education Statistics (NCES) using the Postsecondary Education Quick Information System (PEQIS), includes information about (1) enrollments of postsecondary students with disabilities, (2) institutions enrolling students with disabilities, (3) support services and accommodations designed for students with disabilities, (4) education materials and activities designed to assist faculty and staff in working with students with disabilities, and (5) institutional records and reporting about students with disabilities. Information contained in this report is restricted to those students who had identified themselves in some way to the institution as having a disability, since these are the only students about whom the institutions could report. Note that students who identify themselves to the institution as having a disability are a subset of all students with disabilities, since some

students with disabilities may choose not to identify themselves to their institutions.

### Key Findings

#### Number of postsecondary students with disabilities

An estimated 428,280 students with disabilities were enrolled at 2-year and 4-year postsecondary education institutions in 1996–97 or 1997–98. Most of the students were enrolled at public 2-year and public 4-year institutions, and at medium and large institutions. Learning disabilities were the most frequent disability, with almost half of the students with disabilities (195,870 out of 428,280 students) in this category. Institutions reported 59,650 students with mobility or orthopedic impairments, 49,570 students with health impairments or problems, and 33,260 students with mental illnesses or emotional disturbances. Institutions also reported 23,860 students with hearing impairments, 18,650 students who were blind or visually impaired, and 4,020 students who had speech or language impairments. The remaining 38,410 students were reported by the institutions in the "other (specify)" category.

#### Institutions enrolling students with disabilities

About three-quarters (72 percent) of the nation's 5,040 2-year and 4-year postsecondary education institutions enrolled students with disabilities in 1996–97 or 1997–98. Almost all (98 percent) public 2-year and public 4-year institutions enrolled students with disabilities, compared with 63 percent of private 4-year and 47 percent of private 2-year institutions. Virtually all medium and large institutions (99 and 100 percent, respectively) enrolled students with disabilities, compared with 63 percent of small institutions.

#### Support services and accommodations for students with disabilities

Almost all (98 percent) of the institutions that enrolled students with disabilities in 1996–97 or 1997–98 had provided at least one support service or accommodation to

a student with disabilities. Most institutions (88 percent) had provided alternative exam formats or additional time, and 77 percent provided tutors to assist with ongoing coursework (table A). Readers, classroom notetakers, or scribes were provided by 69 percent of the institutions, and registration assistance or priority class registration was provided by 62 percent. Institutions also frequently provided adaptive equipment or technology, such as assistive listening devices or talking computers (58 percent), and textbooks on tape (55 percent). Sign language interpreters/transliterators were provided by 45 percent of the institutions, and course substitutions or waivers by 42 percent. Various other support services were provided by one-third or fewer of the institutions.

In general, public 2-year and 4-year institutions were more likely than private 2-year and 4-year institutions to have provided a service or accommodation (table A), and medium and large institutions were more likely than small institutions to have provided a service or accommodation. Large institutions were also more likely than medium institutions to have provided many of the services.

#### **Materials and activities designed for working with students with disabilities**

Almost all (95 percent) of the institutions that enrolled students with disabilities in 1996–97 or 1997–98 provided at least one kind of education material or activity for faculty and staff designed to assist them in working with students with disabilities. Most of these institutions (92 percent) provided one-on-one discussions with faculty and staff who request information and assistance, 63 percent provided workshops and presentations to faculty groups, 62 percent had information resources available for faculty and staff use, 41 percent had a faculty/staff handbook, and 32 percent did annual mailings to faculty and staff.

#### **Records about students with disabilities**

Twenty-eight percent of the institutions indicated that their counts of students with disabilities included only those students to whom services or accommodations were provided; 38 percent reported that their counts were based on students who provided verification of their disabilities, regardless of whether services or accommodations were provided; 22 percent included students who identified themselves to the disability support services office or

coordinator, regardless of verification or provision of services; and 12 percent said that their counts were based on all students that had been reported to the disability support services office or coordinator, regardless of whether that office had any contact with them.

About three-quarters of the institutions maintaining records about students with disabilities indicated that their records currently contained information about level (undergraduate/graduate), and about two-thirds indicated that their records contained information about sex, age or date of birth, and major field of study/program. Attendance status (full or part time) was included by 59 percent of the institutions, race/ethnicity by 49 percent, and certificates or degrees awarded by 45 percent. About a third of the institutions included information about whether a student receives financial aid. Information not currently contained in the records about students with disabilities could be added or merged to the records by almost all the institutions without the information on their records.

Half of the institutions reported that their records about students with disabilities are maintained only in paper files by the office or person responsible for providing support services to students with disabilities, and 20 percent indicated that the records are maintained in a separate computerized database by the disability support services office or coordinator. Records are maintained in a computerized database as part of the general student record system and are accessible to various institutional offices at 13 percent of the institutions. They are part of the general student record system but accessible only to the disability support services office or coordinator at 8 percent of the institutions. Nine percent of the institutions reported that they maintained no formal records about students with disabilities.

#### **Related Report**

This PEQIS study complements another NCES report, *Students With Disabilities in Postsecondary Education: A Profile of Preparation, Participation, and Outcomes* (Horn and Berkold 1999; see previous article). That report, also requested by OSERS, profiles *students* with disabilities, while this PEQIS report profiles *postsecondary institutions*. That is, the other report is based on student self-reports, while this PEQIS study is based on institutional reports.

**Table A—Percent of 2-year and 4-year postsecondary education institutions enrolling students with disabilities that provided various services or accommodations to students with disabilities during 1996–97 or 1997–98, by institutional characteristics**

Institutional characteristic	Sign language interpreters/transliterators	Oral interpreters/transliterators	Adaptive equipment and technology	Readers, classroom notetakers, or scribes	Paratransit for on-campus mobility	Personal attendants	Independent living skills training	Textbooks on tape	Tutors to assist with ongoing coursework
All institutions	45	22	58	69	13	10	5	55	77
Institutional type									
Public 2-year	66	33	81	82	12	11	10	66	87
Private 2-year	10	(+)	30	18	3	9	(+)	11	51
Public 4-year	68	39	80	93	31	9	6	85	82
Private 4-year	29	14	39	66	11	9	1	49	75
Geographic region									
Northeast	40	17	59	78	13	7	2	59	84
Southeast	39	21	56	60	12	9	6	46	72
Central	49	21	57	76	11	14	4	62	83
West	51	29	61	64	17	8	7	55	70
Size of institution									
Less than 3,000	28	12	43	55	6	11	4	40	71
3,000 to 9,999	71	37	86	93	22	7	6	82	90
10,000 or more	96	56	97	*100	41	8	10	93	84

**Table A—Percent of 2-year and 4-year postsecondary education institutions enrolling students with disabilities that provided various services or accommodations to students with disabilities during 1996–97 or 1997–98, by institutional characteristics—Continued**

Institutional characteristic	Alternative exam formats or additional time	Course substitution or waiver	Adaptive physical education courses or sports	Registration assistance or priority class registration	Special orientation	Disability resource handbook	Special career or placement services targeted for disabled students	Disability benefits counseling	Other
All institutions	88	42	21	62	32	24	22	33	19
Institutional type									
Public 2-year	94	48	26	77	46	35	32	51	17
Private 2-year	55	15	4	26	16	5	10	19	11
Public 4-year	100	69	42	83	46	47	34	43	26
Private 4-year	90	35	14	53	19	10	10	16	20
Geographic region									
Northeast	93	50	18	64	37	23	21	30	25
Southeast	87	46	22	64	29	22	24	42	14
Central	91	37	17	58	31	24	20	28	19
West	82	36	27	61	32	26	20	29	18
Size of institution									
Less than 3,000	82	29	13	48	21	11	13	26	16
3,000 to 9,999	99	61	30	88	48	39	32	45	21
10,000 or more	100	81	56	95	66	68	51	49	30

(+) Less than 0.5 percent.

\*Rounds to 100 percent for presentation in the table.

NOTE: Percentages are based on institutions that enrolled students with disabilities in 1996–97 or 1997–98. Information about students with disabilities represents only those students who identified themselves to their institution as having a disability, since these are the only students about whom the institutions could report. The accommodations listed in the table are not the only accommodations a student may need.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Postsecondary Education Quick Information System (PEQIS), "Survey on Students With Disabilities at Postsecondary Education Institutions," 1998. (Originally published as table 10 on p. 14 of the complete report from which this article is excerpted.)

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**Data source:** The NCES Postsecondary Education Quick Information System (PEQIS), "Survey on Students With Disabilities at Postsecondary Education Institutions," 1998.

**For technical information,** see the complete report:

Lewis, L., and Farris, E. (1999). *An Institutional Perspective on Students With Disabilities in Postsecondary Education* (NCES 1999-046).

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# Student Borrowing

## Trends in Student Borrowing

This article was originally published as an Indicator of the Month, taken from *The Condition of Education: 1998*. The sample survey data are from the NCES National Postsecondary Student Aid Study (NPSAS).

The proportion of student financial aid that consists of loans has increased over time. Federal loan programs are the major source of student financial aid. While loans allow some students to attend a postsecondary institution who otherwise could not, many are concerned that some students are increasingly burdened with high debts after graduation. The cumulative amount of loans incurred while students progress through their undergraduate studies is one measure of burden.

- The percentage of undergraduate students attending 4-year institutions who borrowed from federal loan programs during the academic year increased by about 11 percentage points at public 4-year and by about 10 percentage points at private, not-for-profit 4-year institutions between 1992–93 and 1995–96. The average amount borrowed in each year also increased, from \$3,000 to \$4,100 at public 4-year institutions, and from \$3,600 to \$4,500 at private, not-for-profit 4-year institutions.
- The percentage of dependent undergraduates with family incomes of \$50,000 or more who ever borrowed from federal loan programs increased between 1992–93 and 1995–96 at both public and private, not-for-profit 4-year institutions. For example, in 1992–93, 21 percent of dependent undergraduates at public 4-year institutions from families making between \$50,000 and \$59,999 had ever borrowed. By 1995–96, 44 percent of undergraduates from families in that income range had borrowed.
- In both years, differences in attendance costs between public and private, not-for-profit 4-year institutions were reflected in the higher amounts borrowed by undergraduates attending private, not-for-profit institutions. At each class level, undergraduate students at private institutions borrowed more than those at public institutions.

**Percentage of undergraduates who borrowed, and the average amount and average cumulative amount borrowed from federal loan programs, by control and type of institution and class level: Academic years 1992–93 and 1995–96**

Control and type of institution and class level <sup>1</sup>	1992–93				1995–96			
	Current year		Percent who ever borrowed	Average cumulative amount borrowed	Current year		Percent who ever borrowed	Average cumulative amount borrowed
	Percent who borrowed	Average amount borrowed			Percent who borrowed	Average amount borrowed		
Total	19.2%	\$3,186	30.6%	\$5,439	25.3%	\$4,041	37.7%	\$7,047
Public 4-year	24.5	3,007	36.0	5,915	35.4	4,130	47.2	7,904
Freshman	22.4	2,472	30.2	3,281	35.0	2,777	41.1	3,547
Sophomore	24.3	2,676	34.4	4,493	32.9	3,538	44.0	5,674
Junior	26.6	3,196	37.3	6,093	37.9	4,569	49.5	8,244
Senior <sup>2</sup>	25.7	3,385	40.9	7,793	36.8	4,970	52.1	11,038
Private, not-for-profit 4-year	34.6	3,591	44.9	6,984	44.3	4,499	53.7	8,682
Freshman	33.9	3,041	41.5	3,566	43.5	3,237	49.5	4,017
Sophomore	33.8	3,083	42.1	5,611	45.8	3,970	52.6	6,945
Junior	37.6	3,915	47.5	7,722	48.5	5,287	58.0	9,880
Senior <sup>2</sup>	35.4	4,193	48.7	10,023	42.9	5,564	56.4	13,159
Public 2-year	6.0	2,542	18.2	3,987	6.0	2,840	20.5	4,605
First year	5.2	2,346	16.3	3,510	5.1	2,546	17.8	4,188
Second year	6.9	2,768	19.9	3,943	8.6	3,175	26.2	4,987

<sup>1</sup>Class level is based on credit accumulation.

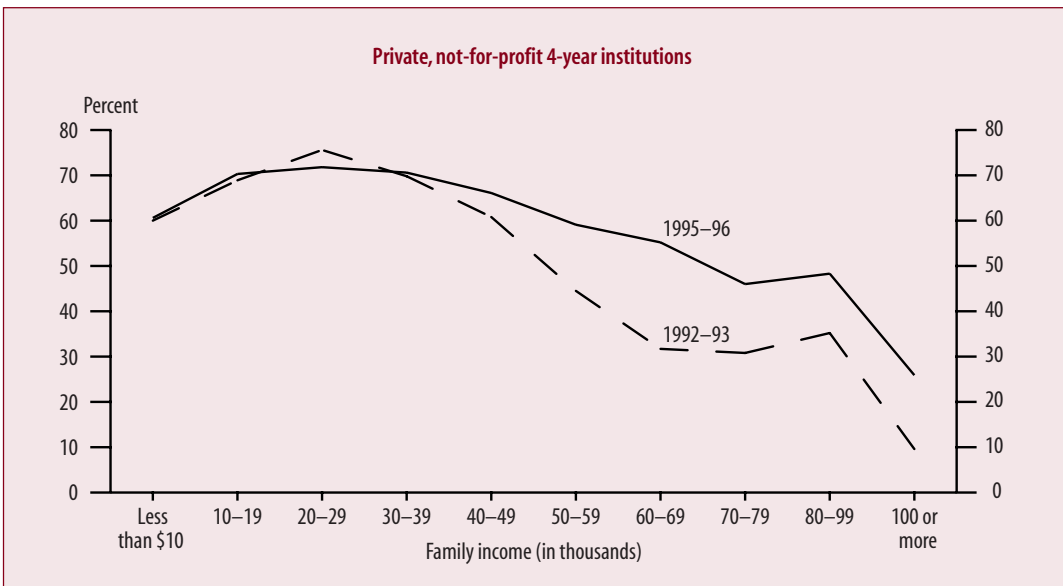
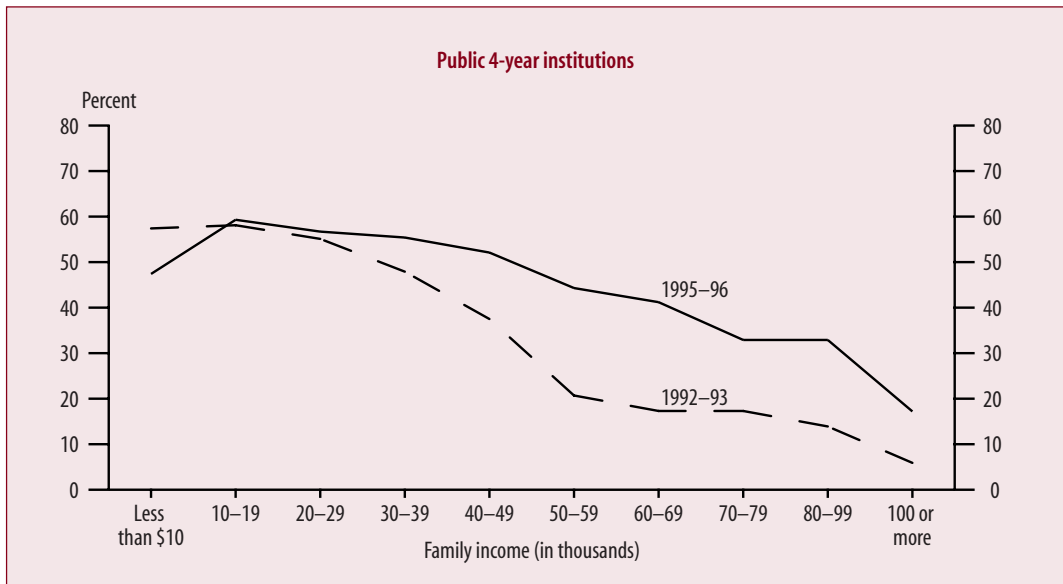
<sup>2</sup>Includes 4th- and 5th-year seniors.

NOTE: Students attending more than one institution are excluded. Percentages and amounts for federal loan programs exclude Parent Loans to Undergraduate Students (PLUS).

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Postsecondary Student Aid Study (NPSAS:93 and NPSAS:96).



**Percentage of dependent undergraduates who ever borrowed from federal loan programs, by family income: Academic years 1992–93 and 1995–96**



NOTE: Percentages and amounts for federal loan programs exclude Parent Loans to Undergraduate Students (PLUS).

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Postsecondary Student Aid Study (NPSAS:93 and NPSAS:96).

**Data source:** The NCES National Postsecondary Student Aid Study (NPSAS:93 and NPSAS:96).

**For technical information, see**

Wirt, J., Snyder, T., Sable, J., Choy, S.P., Bae, Y., Stennett, J., Gruner, A., and Perie, M. (1998). *The Condition of Education: 1998* (NCES 98-013).

Berkner, L., and Malizio, A.G. (1998). *Student Financing of Undergraduate Education: 1995-96, With an Essay on Student Loans* (NCES 98-076).

For complete supplemental and standard error tables, see either

- the electronic version of *The Condition of Education: 1998* (<http://nces.ed.gov/pubs98/condition98/index.html>), or

- volume 2 of the printed version (1999): *The Condition of Education: 1998 Supplemental and Standard Error Tables* (NCES 1999-025).

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# Postsecondary Institutions

## Postsecondary Institutions in the United States: 1997–98

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*This article was originally published as an E.D. Tabs report. The universe data are from the “Institutional Characteristics Survey” (IC), part of the NCES Integrated Postsecondary Education Data System (IPEDS). The Methodology section from the original report has been omitted.*

This report presents tabulations for the 1997–98 academic year that describe postsecondary education institutions in the United States (50 states and the District of Columbia). The data are from the “Institutional Characteristics Survey” (IC), a component of the Integrated Postsecondary Education Data System (IPEDS) of the U.S. Department of Education’s National Center for Education Statistics (NCES).

IPEDS defines a postsecondary institution as an organization that is open to the public and whose primary mission is to provide education and/or training beyond the high school level. In 1997–98, 9,632 institutions that fit this definition constituted the IPEDS universe (table 1). Each year a concerted effort is made to identify any postsecondary institutions that might have opened during the year as well as to identify those that closed. That effort includes contacting state IPEDS coordinators about new institutions in their states and scrutinizing lists of postsecondary institutions to identify any that are not already in the IPEDS universe. It may be, however, that there are more postsecondary institutions in the nation than the 9,632 institutions IPEDS has identified. An area search conducted during the 1995–96 academic year indicated that IPEDS may be underestimating the postsecondary institutional universe by as much as 13 percent (Jan Plotczyk, U.S. Census Bureau—unpublished correspondence 1997).

IPEDS sorts the over 9,600 postsecondary institutions in the nation into several classes for descriptive purposes as well as for data collection purposes. One of the first considerations in classifying a postsecondary institution is whether or not the institution is eligible to participate in the Title IV federal student financial aid programs, such as Pell Grants or Stafford Loans. As table 1 indicates, over two-thirds (6,808, or 71 percent) of all postsecondary institutions in IPEDS were eligible to participate in Title IV programs in 1997–98.\*

\*Institutions are eligible to participate in Title IV programs if they meet all of the following conditions: They are accredited by an agency or organization recognized by the U.S. Department of Education, they have a program of over 600 clock hours, they have been in business for at least 2 years, and they have signed a participation agreement with the Office of Postsecondary Education (OPE) in the Department of Education. Title IV eligibility was verified with OPE’s list of participating institutions for the 1997–98 academic year. In this report, the term “eligible institution” means an institution that is eligible to participate in Title IV programs.

A second consideration in classifying institutions is the institution’s degree-granting status. Institutions are considered as degree granting if they awarded at least one associate’s or higher degree in the previous academic year (1996–97). As table 1 indicates, fewer than half of the postsecondary institutions in the 1997–98 IPEDS universe (4,495, or 47 percent) granted a degree in 1996–97. Table 1 also indicates that more than 90 percent of the degree-granting institutions in IPEDS participated in Title IV programs, but about half (53 percent) of the non-degree-granting institutions participated in Title IV programs. The 4,096 institutions that are eligible for Title IV programs and that grant degrees constitute the current universe of higher education institutions.

When postsecondary institutions are further classified by highest level of offering and control, some additional findings emerge. Forty-seven percent of all postsecondary institutions in the country are operated on a for-profit basis; 29 percent are private, non-profit institutions; and 23 percent are public. Among for-profit institutions, 57 percent participated in Title IV programs; 73 percent of the private, non-profit institutions participated in Title IV programs; and all but 80 (i.e., all but 4 percent) of the public postsecondary institutions participated in Title IV programs. On the other hand, 70 percent (1,988 institutions) of all institutions that were not eligible for Title IV participation were for-profit institutions. Among degree-granting institutions, 84 percent of non-eligible institutions were private, non-profit institutions.

About 3 in 10 postsecondary institutions in the nation offer a program of 4 years or longer. More than half the postsecondary institutions in the country (56 percent) have relatively short programs of 2 years or less (table 1). The distribution of Title IV eligible institutions by length of longest program is quite similar to that of all postsecondary institutions in the nation except that a smaller percentage of the eligible schools have only very short programs of less than 1 year. Among eligible degree-granting institutions, 43 percent do not grant bachelor’s degrees, and among all non-degree-granting institutions, 21 percent have programs longer than 2 years (table 1).

**Table 1—Number of postsecondary institutions, by Title IV eligibility and control of institution, and by degree-granting status and highest level of offering: 50 states and the District of Columbia, academic year 1997–98**

Highest level of offering	All Institutions	Eligible				Not eligible			
		Total	Public	Private		Total	Public	Private	
				Non-profit	For-profit			Non-profit	For-profit
All institutions	9,632	6,808	2,172	2,052	2,584	2,824	80	756	1,988
Less than 1 year	1,843	311	14	17	280	1,532	22	132	1,378
One but less than 2 years	2,213	1,668	297	86	1,285	545	31	57	457
Associate's degree	1,378	1,343	746	161	436	35	4	18	13
Two but less than 4 years	1,381	1,109	492	210	407	272	20	165	87
Bachelor's degree	761	655	64	501	90	106	1	100	5
Postbaccalaureate certificate	151	89	28	51	10	62	2	54	6
Master's degree	903	820	194	565	61	83	0	77	6
Post-master's certificate	194	164	85	79	0	30	0	25	5
Doctor's degree	714	592	244	335	13	122	0	103	19
First-professional degree only <sup>1</sup>	79	52	7	43	2	27	0	17	10
First-professional certificate only <sup>2</sup>	8	4	1	3	0	4	0	2	2
Other/did not respond <sup>3</sup>	7	1	0	1	0	6	0	6	0
<b>Degree granting</b>	<b>4,495</b>	<b>4,096</b>	<b>1,707</b>	<b>1,720</b>	<b>669</b>	<b>399</b>	<b>5</b>	<b>337</b>	<b>57</b>
Associate's degree	1,378	1,343	746	161	436	35	4	18	13
Two but less than 4 years	451	433	346	23	64	18	0	15	3
Bachelor's degree	761	655	64	501	90	106	1	100	5
Postbaccalaureate certificate	44	40	21	16	3	4	0	4	0
Master's degree	903	820	194	565	61	83	0	77	6
Post-master's certificate	163	160	85	75	0	3	0	2	1
Doctor's degree	714	592	244	335	13	122	0	103	19
First-professional degree only <sup>1</sup>	79	52	7	43	2	27	0	17	10
Other/did not respond <sup>4</sup>	2	1	0	1	0	1	0	1	0
<b>Non-degree granting</b>	<b>5,137</b>	<b>2,712</b>	<b>465</b>	<b>332</b>	<b>1,915</b>	<b>2,425</b>	<b>75</b>	<b>419</b>	<b>1,931</b>
Less than 1 year	1,843	311	14	17	280	1,532	22	132	1,378
One but less than 2 years	2,213	1,668	297	86	1,285	545	31	57	457
Two but less than 4 years	930	676	146	187	343	254	20	150	84
Postbaccalaureate certificate	107	49	7	35	7	58	2	50	6
Post-master's certificate	31	4	0	4	0	27	0	23	4
First-professional certificate only <sup>2</sup>	8	4	1	3	0	4	0	2	2
Other/did not respond <sup>5</sup>	5	0	0	0	0	5	0	5	0

<sup>1</sup>These institutions offer only first-professional degrees or certificates.

<sup>2</sup>These institutions offer only first-professional certificates.

<sup>3</sup>Includes schools that offer a 4- or 5-year diploma program that may or may not offer an associate's degree.

<sup>4</sup>Includes schools that offer a 4- or 5-year diploma program and offer an associate's degree.

<sup>5</sup>Includes schools that offer a 4- or 5-year diploma program.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Integrated Postsecondary Education Data System (IPEDS), "Institutional Characteristics Survey" (IC), 1997–98.

Tables 2 and 3 in conjunction with table 1 demonstrate that many postsecondary institutions offer several levels of degrees or awards. For example, table 1 indicates that for 1,378 institutions, an associate's degree is their highest level of offering. Tables 2 and 3 indicate that 2,718 Title IV eligible institutions in the nation offer an associate's degree, suggesting that about 1,300 institutions that offer an associate's degree also offer a higher level of degree or other formal award.

Most public institutions (73 percent) are under some level of state control (table 4). However, 29 percent of all Title IV eligible public institutions (table 4) and 19 percent of eligible degree-granting public institutions (table 5) are also under some level of local control (school district, township, county, or city). Indeed, among those eligible public institutions that offer an associate's degree (i.e., 2-but-less-than-4-year institutions), 29 percent are under some level of local control (table 5), and the majority (69 percent) of less-than-2-year public institutions are under some level of local

**Table 2—Number of Title IV eligible postsecondary institutions, by control, offering each level of degree or award: 50 states and the District of Columbia, academic year 1997–98**

Level of offering	Total	Public	Private	
			Non-profit	For-profit
All institutions	6,808	2,172	2,052	2,584
Less than 1 year	3,267	1,079	333	1,855
One but less than 2 years	3,884	1,504	443	1,937
Associate's degree	2,718	1,358	736	624
Two but less than 4 years	1,298	543	342	413
Bachelor's degree	2,001	592	1,270	139
Postbaccalaureate certificate	543	193	336	14
Master's degree	1,543	522	947	74
Post-master's certificate	416	224	192	0
Doctor's degree	592	244	335	13
First-professional degree	536	148	386	2
First-professional certificate	92	34	58	0
Other	3	0	3	0

NOTE: Details within columns do not add to totals because institutions offer programs at more than one level.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Integrated Postsecondary Education Data System (IPEDS), "Institutional Characteristics Survey" (IC), 1997–98.

**Table 3—Number of Title IV eligible degree-granting postsecondary institutions, by control, offering each level of degree: 50 states and the District of Columbia, academic year 1997–98**

Level of offering	Total	Public	Private	
			Non-profit	For-profit
All institutions	4,096	1,707	1,720	669
Less than 1 year	1,348	808	250	290
One but less than 2 years	1,840	1,083	334	423
Associate's degree	2,718	1,358	736	624
Two but less than 4 years	619	397	152	70
Bachelor's degree	2,001	592	1,270	139
Postbaccalaureate certificate	491	186	298	7
Master's degree	1,543	522	947	74
Post-master's certificate	412	224	188	0
Doctor's degree	592	244	335	13
First-professional degree	536	148	386	2
First-professional certificate	86	33	53	0
Other	3	0	3	0

NOTE: Details within columns do not add to totals because institutions offer programs at more than one level.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Integrated Postsecondary Education Data System (IPEDS), "Institutional Characteristics Survey" (IC), 1997–98.

control (table 4). Eligible non-profit institutions are split pretty evenly among those that are independent (have no religious affiliation) and those that have a religious affiliation (table 4). Among eligible 4-year and higher non-profit institutions, the majority have some religious affiliation, as do the majority of degree-granting eligible non-profit institutions (tables 4 and 5).

The mix of postsecondary institutions by level and control in the states (tables 6 and 7) is quite variable but does not

necessarily reflect the distribution of enrollments or resources. For example, in Tennessee about half of all higher education institutions are private 4-year schools, 12 percent are public 4-year schools, and 17 percent are public 2-year schools (derived from table 7). In terms of enrollment, however, 47 percent of all students attending higher education institutions in Tennessee are enrolled in public 4-year institutions, 32 percent are enrolled in public 2-year institutions, and 20 percent are enrolled in private 4-year institutions (Barbett 1998, table B23).

**Table 4—Number of Title IV eligible postsecondary institutions, by level and control or affiliation of institution: 50 states and the District of Columbia, academic year 1997–98**

Control or affiliation	Total	4 years and above	2 but less than 4 years	Less than 2 years
All institutions	6,808	2,377	2,452	1,979
Public, total <sup>1</sup>	2,172	623	1,238	311
Federal	29	14	14	1
State	1,597	596	862	139
Territorial	0	0	0	0
School district	381	1	203	177
County	203	2	171	30
Township	3	0	2	1
City	36	6	22	8
Special district	154	0	146	8
Other	56	7	41	8
Private, total	4,636	1,754	1,214	1,668
Non-profit	2,052	1,578	371	103
Independent <sup>2</sup>	1,028	673	265	90
Religious affiliation	1,024	905	106	13
Catholic	287	221	59	7
Jewish	72	63	4	5
Protestant	648	607	40	1
Other	17	14	3	0
For-profit	2,584	176	843	1,565

<sup>1</sup>Institutions may indicate more than one level of public control.

<sup>2</sup>No religious affiliation.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Integrated Postsecondary Education Data System (IPEDS), "Institutional Characteristics Survey" (IC), 1997–98.

**Table 5—Number of Title IV eligible degree-granting postsecondary institutions, by level and control or affiliation of institution: 50 states and the District of Columbia, academic year 1997–98**

Control or affiliation	Total	4 years and above	2 but less than 4 years
All institutions	4,096	2,320	1,776
Public, total <sup>1</sup>	1,707	615	1,092
Federal	24	12	12
State	1,371	593	778
Territorial	0	0	0
School district	142	1	141
County	155	1	154
Township	2	0	2
City	21	4	17
Special district	144	0	144
Other	45	7	38
Private, total	2,389	1,705	684
Non-profit	1,720	1,536	184
Independent <sup>2</sup>	777	643	134
Religious affiliation	943	893	50
Catholic	240	216	24
Jewish	65	63	2
Protestant	624	601	23
Other	14	13	1
For-profit	669	169	500

<sup>1</sup>Institutions may indicate more than one level of public control.

<sup>2</sup>No religious affiliation.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Integrated Postsecondary Education Data System (IPEDS), "Institutional Characteristics Survey" (IC), 1997–98.

**Table 6—Number of Title IV eligible postsecondary institutions, by level and control of institution and by state: Academic year 1997–98**

State or other area	Total	4 years and above			2 but less than 4 years			Less than 2 years		
		Public	Private		Public	Private		Public	Private	
			Non-profit	For-profit		Non-profit	For-profit		Non-profit	For-profit
All institutions	6,808	623	1,578	176	1,238	371	843	311	103	1,565
Alabama	93	18	17	3	32	7	5	0	0	11
Alaska	11	3	3	0	1	0	1	1	0	2
Arizona	108	5	11	10	20	4	22	1	2	33
Arkansas	87	10	10	0	24	5	1	7	0	30
California	671	34	148	37	114	25	65	13	28	207
Colorado	98	14	12	14	17	2	16	3	1	19
Connecticut	98	7	19	1	15	6	5	11	0	34
Delaware	14	2	4	0	3	2	0	0	0	3
District of Columbia	27	4	14	3	0	1	0	0	1	4
Florida	278	10	46	19	63	4	46	4	5	81
Georgia	165	20	35	8	55	4	7	1	0	35
Hawaii	25	3	5	2	7	2	2	0	0	4
Idaho	27	4	4	1	3	1	13	0	1	0
Illinois	278	12	87	11	50	17	15	5	7	74
Indiana	142	14	39	2	16	8	24	3	0	36
Iowa	97	3	37	1	17	10	26	0	0	3
Kansas	87	11	21	1	29	3	5	1	1	15
Kentucky	139	8	27	1	35	1	46	15	2	4
Louisiana	140	14	12	1	51	3	10	1	0	48
Maine	45	8	13	0	7	4	6	0	2	5
Maryland	100	16	21	1	20	6	6	0	2	28
Massachusetts	208	15	83	1	19	14	9	8	4	55
Michigan	202	16	59	1	29	11	8	1	3	74
Minnesota	142	12	36	3	48	6	18	0	2	17
Mississippi	67	9	12	0	22	3	11	0	0	10
Missouri	203	14	55	5	25	10	18	33	3	40
Montana	39	6	5	0	12	5	10	0	0	1
Nebraska	59	7	16	0	9	5	18	0	0	4
Nevada	24	2	1	2	4	0	12	0	1	2
New Hampshire	37	5	13	1	4	2	1	0	1	10
New Jersey	158	14	20	0	21	15	10	8	0	70
New Mexico	59	6	8	6	21	1	3	0	0	14
New York	499	44	175	5	49	55	42	32	14	83
North Carolina	162	16	43	0	59	6	3	0	1	34
North Dakota	29	6	4	0	9	1	9	0	0	0
Ohio	315	28	65	2	38	17	81	49	4	31
Oklahoma	137	14	14	0	36	1	4	26	0	42
Oregon	86	8	23	3	17	1	26	0	0	8
Pennsylvania	451	45	110	0	23	55	78	38	7	95
Rhode Island	31	2	9	0	1	1	0	0	0	18
South Carolina	83	12	23	0	22	1	5	0	0	20
South Dakota	30	8	6	4	6	4	2	0	0	0
Tennessee	156	10	43	3	19	7	13	21	0	40
Texas	366	43	54	6	68	7	33	2	2	151
Utah	51	5	2	2	5	1	27	5	0	4
Vermont	29	5	15	1	1	4	1	0	0	2
Virginia	158	15	33	9	25	10	23	8	3	32
Washington	115	9	24	3	33	2	22	1	0	21
West Virginia	74	13	12	0	8	2	17	12	5	5
Wisconsin	95	13	30	3	19	9	14	1	1	5
Wyoming	13	1	0	0	7	0	4	0	0	1

SOURCE: U.S. Department of Education, National Center for Education Statistics, Integrated Postsecondary Education Data System (IPEDS), "Institutional Characteristics Survey" (IC), 1997–98.

**Table 7—Number of Title IV eligible degree-granting postsecondary institutions, by level and control of institution, and by state: Academic year 1997–98**

State or other area	Total	4 years and above			2 but less than 4 years		
		Public	Private		Public	Private	
			Non-profit	For-profit		Non-profit	For-profit
All institutions	4,096	615	1,536	169	1,092	184	500
Alabama	80	18	17	3	32	6	4
Alaska	8	3	3	0	1	0	1
Arizona	70	5	11	9	20	4	21
Arkansas	47	10	10	0	23	3	1
California	400	33	147	36	109	24	51
Colorado	71	14	12	12	15	2	16
Connecticut	43	7	18	1	12	3	2
Delaware	10	2	4	0	3	1	0
District of Columbia	20	4	13	3	0	0	0
Florida	142	10	44	19	28	3	38
Georgia	105	20	33	8	36	4	4
Hawaii	20	3	5	2	7	2	1
Idaho	15	4	4	1	3	1	2
Illinois	173	12	84	11	49	7	10
Indiana	97	14	39	2	14	6	22
Iowa	64	3	36	1	17	2	5
Kansas	60	11	21	0	23	2	3
Kentucky	63	8	26	1	14	1	13
Louisiana	85	14	11	1	49	1	9
Maine	35	8	13	0	7	1	6
Maryland	60	15	21	1	20	2	1
Massachusetts	129	15	82	1	18	8	5
Michigan	111	15	59	1	29	6	1
Minnesota	116	11	35	3	46	3	18
Mississippi	46	9	11	0	22	2	2
Missouri	112	13	54	5	20	5	15
Montana	28	6	5	0	12	3	2
Nebraska	37	7	16	0	9	1	4
Nevada	14	2	1	2	4	0	5
New Hampshire	26	5	13	1	4	2	1
New Jersey	59	14	20	0	19	3	3
New Mexico	45	6	8	6	21	1	3
New York	324	44	167	5	47	29	32
North Carolina	122	16	43	0	58	3	2
North Dakota	23	6	4	0	9	1	3
Ohio	180	28	65	2	36	4	45
Oklahoma	46	14	14	0	16	1	1
Oregon	54	8	23	3	17	1	2
Pennsylvania	258	45	102	0	21	18	72
Rhode Island	12	2	9	0	1	0	0
South Carolina	61	12	23	0	21	1	4
South Dakota	26	8	6	4	6	2	0
Tennessee	84	10	42	2	14	3	13
Texas	195	41	52	5	68	5	24
Utah	21	5	2	2	4	1	7
Vermont	25	5	14	1	1	3	1
Virginia	92	15	31	9	24	1	12
Washington	73	8	24	3	33	1	4
West Virginia	34	13	10	0	4	0	7
Wisconsin	66	13	29	3	19	1	1
Wyoming	9	1	0	0	7	0	1

SOURCE: U.S. Department of Education, National Center for Education Statistics, Integrated Postsecondary Education Data System (IPEDS), "Institutional Characteristics Survey" (IC), 1997–98.



In addition to offering postsecondary instructional services to students, many postsecondary institutions provide other types of services to students as well, such as remedial instruction, employment counseling, and even on-campus day care for children of students. The most prevalent of the services listed in tables 8 and 9 is academic and career counseling services (84 percent of all Title IV eligible institutions), followed by placement services for program completers (table 8). More than half (57 percent) of all eligible postsecondary institutions (table 8) and over three-

fourths of all higher education institutions (table 9) provide remedial instructional services to their students. Indeed, except for private, for-profit 2- and less-than-2-year institutions, more than half of the eligible institutions in each of the institutional sectors provide remedial instructional services, with 84 percent of public 4-year and over 96 percent of public 2-year institutions leading the way. In general, public 2- and 4-year institutions are more likely to provide each of the services listed in tables 8 and 9 than are other postsecondary institutional sectors.

**Table 8—Number and percentage of Title IV eligible postsecondary institutions offering selected student services, by level and control of institution: 50 states and the District of Columbia, academic year 1997–98**

Student services	Total	4 years and above			2 but less than 4 years			Less than 2 years		
		Public	Private		Public	Private		Public	Private	
			Non-profit	For-profit		Non-profit	For-profit		Non-profit	For-profit
<b>Number of institutions</b>										
All institutions	6,808	623	1,578	176	1,238	371	843	311	103	1,565
Remedial instructional services	3,881	523	1,046	106	1,194	201	296	172	55	288
Academic/career counseling services	5,729	609	1,471	144	1,206	316	654	190	73	1,066
Employment services for current students	4,587	563	1,230	126	1,089	204	539	148	57	631
Placement services for program completers	5,416	571	1,212	125	1,071	170	727	173	68	1,299
Assistance for the visually impaired	2,472	523	670	15	987	49	76	73	11	68
Assistance for the hearing impaired	2,467	517	632	21	1,015	52	61	85	9	75
Access for the mobility impaired	4,337	592	1,211	136	1,156	176	413	146	34	473
On-campus day care for children of students	1,351	347	231	4	611	57	27	52	8	14
None of the above	167	5	27	0	2	26	32	7	4	64
<b>Percent</b>										
All institutions	100	100	100	100	100	100	100	100	100	100
Remedial instructional services	57.0	83.9	66.3	60.2	96.4	54.2	35.1	55.3	53.4	18.4
Academic/career counseling services	84.2	97.8	93.2	81.8	97.4	85.2	77.6	61.1	70.9	68.1
Employment services for current students	67.4	90.4	77.9	71.6	88.0	55.0	63.9	47.6	55.3	40.3
Placement services for program completers	79.6	91.7	76.8	71.0	86.5	45.8	86.2	55.6	66.0	83.0
Assistance for the visually impaired	36.3	83.9	42.5	8.5	79.7	13.2	9.0	23.5	10.7	4.3
Assistance for the hearing impaired	36.2	83.0	40.1	11.9	82.0	14.0	7.2	27.3	8.7	4.8
Access for the mobility impaired	63.7	95.0	76.7	77.3	93.4	47.4	49.0	46.9	33.0	30.2
On-campus day care for children of students	19.8	55.7	14.6	2.3	49.4	15.4	3.2	16.7	7.8	0.9
None of the above	2.5	0.8	1.7	0.0	0.2	7.0	3.8	2.3	3.9	4.1

NOTE: Details within columns do not add to totals because institutions may offer more than one service to students.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Integrated Postsecondary Education Data System (IPEDS), "Institutional Characteristics Survey" (IC), 1997–98.

**Table 9—Number and percentage of Title IV eligible degree-granting postsecondary institutions offering selected student services, by level and control of institution: 50 states and the District of Columbia, academic year 1997–98**

Student services	Total	4 years and above			2 but less than 4 years		
		Public	Private		Public	Private	
	Non-profit		For-profit	Non-profit		For-profit	
<b>Number of institutions</b>							
All institutions	4,096	615	1,536	169	1,092	184	500
Remedial instructional services	3,125	523	1,044	106	1,078	137	237
Academic/career counseling services	3,864	606	1,449	139	1,081	171	418
Employment services for current students	3,437	562	1,217	121	994	137	406
Placement services for program completers	3,442	571	1,200	120	960	123	468
Assistance for the visually impaired	2,225	523	668	15	907	43	69
Assistance for the hearing impaired	2,196	517	630	21	931	42	55
Access for the mobility impaired	3,408	590	1,198	131	1,046	124	319
On-campus day care for children of students	1,193	346	229	3	574	18	23
None of the above	31	4	21	0	1	2	3
<b>Percent</b>							
All institutions	100	100	100	100	100	100	100
Remedial instructional services	76.3	85.0	68.0	62.7	98.7	74.5	47.4
Academic/career counseling services	94.3	98.5	94.3	82.2	99.0	92.9	83.6
Employment services for current students	83.9	91.4	79.2	71.6	91.0	74.5	81.2
Placement services for program completers	84.0	92.8	78.1	71.0	87.9	66.8	93.6
Assistance for the visually impaired	54.3	85.0	43.5	8.9	83.1	23.4	13.8
Assistance for the hearing impaired	53.6	84.1	41.0	12.4	85.3	22.8	11.0
Access for the mobility impaired	83.2	95.9	78.0	77.5	95.8	67.4	63.8
On-campus day care for children of students	29.1	56.3	14.9	1.8	52.6	9.8	4.6
None of the above	0.8	0.7	1.4	0.0	0.1	1.1	0.6

NOTE: Details within columns do not add to totals because institutions may offer more than one service to students.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Integrated Postsecondary Education Data System (IPEDS), "Institutional Characteristics Survey" (IC), 1997–98.

The median and mean charges of Title IV eligible postsecondary institutions for the 1997–98 academic year are listed in tables 10 and 11. Of all types of eligible degree-granting institutions, public 2-but-less-than-4-year institutions have the lowest tuition and required fees for in-state undergraduate students (table 11). Public 4-year higher education institutions' charges for in-state undergraduate students are about twice as high as those of 2-year publics. Among all 4-year higher education institutions, public 4-year institutions' tuition and required fees charges for in-state undergraduate students are about 25 percent of

what 4-year private, non-profit institutions charge and about 37 percent of what 4-year private, for-profits charge. Four-year publics charge out-of-state undergraduate students about 70 percent of what 4-year private, non-profits charge, and they charge about the same as private, for-profit institutions. Public 2-year higher education institutions charge in-state students between 20 and 24 percent of what private higher education 2-year institutions charge, and public 2-year institutions charge their out-of-state students between 55 and 62 percent of what 2-year privates charge (derived from table 11).

**Table 10—Average institutional charges (not weighted by enrollment) for tuition and required fees and room and board charges, for full-time, full-year students at Title IV eligible postsecondary institutions, by level and control of institution: 50 states and the District of Columbia, academic year 1997–98**

Item	Total	4 years and above			2 but less than 4 years			Less than 2 years
		Public	Private		Public	Private		
			Non-profit	For-profit		Non-profit	For-profit	
<b>Undergraduate tuition and required fees (in-state)</b>								
Number of institutions responding	4,036	589	1,232	138	1,141	306	480	150
Mean charges	\$6,027	\$3,073	\$11,239	\$8,012	\$1,652	\$5,938	\$7,227	\$2,616
Median charges	\$4,615	\$2,838	\$10,995	\$7,650	\$1,350	\$5,913	\$6,988	\$1,961
<b>Undergraduate tuition and required fees (out-of-state)</b>								
Number of institutions responding	4,036	589	1,232	138	1,141	306	480	150
Mean charges	\$7,425	\$7,966	\$11,257	\$8,032	\$3,934	\$6,094	\$7,229	\$3,170
Median charges	\$6,600	\$7,923	\$11,000	\$7,650	\$3,898	\$6,000	\$6,988	\$2,526
<b>Graduate tuition and required fees (in-state)</b>								
Number of institutions responding	1,489	516	893	80	—	—	—	—
Mean charges	\$6,833	\$3,397	\$8,676	\$8,410	—	—	—	—
Median charges	\$5,562	\$3,062	\$7,560	\$6,610	—	—	—	—
<b>Graduate tuition and required fees (out-of-state)</b>								
Number of institutions responding	1,489	516	893	80	—	—	—	—
Mean charges	\$8,393	\$7,879	\$8,689	\$8,410	—	—	—	—
Median charges	\$7,518	\$7,610	\$7,560	\$6,610	—	—	—	—
<b>Dormitory facilities</b>								
Number providing facilities	1,711	427	952	16	183	91	42	—
Mean charges	\$2,325	\$2,241	\$2,523	\$3,413	\$1,380	\$1,952	\$3,211	—
Median charges	\$2,164	\$2,106	\$2,335	\$3,767	\$1,250	\$1,791	\$3,350	—
<b>Meal plan facilities</b>								
Number providing facilities	1,434	393	832	7	151	43	7	1
Mean charges	\$2,102	\$1,859	\$2,322	\$1,549	\$1,590	\$2,028	\$1,900	\$437
Median charges	\$2,100	\$1,852	\$2,350	\$1,410	\$1,545	\$2,090	\$1,564	\$437
Mean meals per week	18	18	19	15	17	19	15	12
Median meals per week	19	19	19	17	18	19	15	12

— Not applicable.

NOTE: Undergraduate tuitions represent all responding institutions that offer undergraduate programs and have full-time undergraduate students. Graduate tuitions represent all responding institutions that offer graduate programs and have full-time graduate programs. In-district tuition and required fees are not included. Institutions that report tuitions by program are not included.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Integrated Postsecondary Education Data System (IPEDS), "Institutional Characteristics Survey" (IC), 1997–98.

**Table 11—Average institutional charges (not weighted by enrollment) for tuition and required fees and room and board charges, for full-time, full-year students at Title IV eligible degree-granting postsecondary institutions, by level and control of institution: 50 states and the District of Columbia, academic year 1997–98**

Item	Total	4 years and above			2 but less than 4 years		
		Public	Private Non-profit	Private For-profit	Public	Private Non-profit	Private For-profit
<b>Undergraduate tuition and required fees (in-state)</b>							
Number of institutions responding	3,560	589	1,228	137	1,027	170	409
Mean charges	\$6,359	\$3,073	\$11,259	\$8,052	\$1,705	\$6,974	\$7,243
Median charges	\$5,000	\$2,838	\$11,000	\$7,650	\$1,430	\$6,420	\$7,021
<b>Undergraduate tuition and required fees (out-of-state)</b>							
Number of institutions responding	3,560	589	1,228	137	1,027	170	409
Mean charges	\$7,859	\$7,966	\$11,277	\$8,072	\$4,055	\$7,085	\$7,245
Median charges	\$6,960	\$7,923	\$11,000	\$7,650	\$4,053	\$6,502	\$7,021
<b>Graduate tuition and required fees (in-state)</b>							
Number of institutions responding	1,446	510	862	74	—	—	—
Mean charges	\$6,943	\$3,419	\$8,885	\$8,612	—	—	—
Median charges	\$5,592	\$3,091	\$7,683	\$6,588	—	—	—
<b>Graduate tuition and required fees (out-of-state)</b>							
Number of institutions responding	1,446	510	862	74	—	—	—
Mean charges	\$8,544	\$7,936	\$8,898	\$8,612	—	—	—
Median charges	\$7,630	\$7,629	\$7,717	\$6,588	—	—	—
<b>Dormitory facilities</b>							
Number providing facilities	1,657	427	944	16	177	53	40
Mean charges	\$2,341	\$2,241	\$2,527	\$3,413	\$1,385	\$2,037	\$3,234
Median charges	\$2,182	\$2,106	\$2,340	\$3,767	\$1,254	\$1,890	\$3,350
<b>Meal plan facilities</b>							
Number providing facilities	1,422	393	830	7	148	37	7
Mean charges	\$2,104	\$1,859	\$2,321	\$1,549	\$1,588	\$2,045	\$1,900
Median charges	\$2,105	\$1,852	\$2,349	\$1,410	\$1,548	\$2,126	\$1,564
Mean meals per week	18	18	19	15	17	19	15
Median meals per week	19	19	19	17	18	19	15

— Not applicable.

NOTE: Undergraduate tuitions represent all responding institutions that offer undergraduate programs and have full-time undergraduate students. Graduate tuitions represent all responding institutions that offer graduate programs and have full-time graduate programs. In-district tuition and required fees are not included. Institutions that report tuitions by program are not included.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Integrated Postsecondary Education Data System (IPEDS), "Institutional Characteristics Survey" (IC), 1997–98.

## Reference

Barbett, S. (1998). *Fall Enrollment in Postsecondary Institutions, 1996* (NCES 1999–239). U.S. Department of Education. Washington, DC: U.S. Government Printing Office.

**Data source:** The Integrated Postsecondary Education Data System (IPEDS), "Institutional Characteristics Survey" (IC), 1997–98.

**For technical information,** see the complete report:

Korb, R.A., and Lin, A.F. (1999). *Postsecondary Institutions in the United States: 1997–98* (NCES 1999–174).

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**To obtain the complete report (NCES 1999–174),** call the toll-free ED Pubs number (877–433–7827), visit the NCES Web Site (<http://nces.ed.gov>), or contact GPO (202–512–1800).

# CROSSCUTTING STATISTICS

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## Earnings by Attainment

### Annual Earnings of Young Adults, by Educational Attainment

*This article was originally published as an Indicator of the Month, taken from The Condition of Education: 1998. The sample survey data are from the March Current Population Survey (CPS), conducted by the U.S. Census Bureau.*

Wages and salaries are influenced by many factors, including the employer's perception of the productivity and availability of workers with different levels of education and the economic conditions in the industries that typically employ workers with different levels of education. Annual earnings are influenced by the number of weeks worked in a year and the usual hours worked each week. The ratio of annual earnings of high school dropouts or

college graduates to the annual earnings of high school completers is affected by all of these factors: it is a measure of the earnings disadvantage of not finishing high school and the earnings advantage of completing college.

- In 1996, the median annual earnings of young adults ages 25–34 who had not completed high school were substantially lower than those of their counterparts who had completed high school (31 and 36 percent

**Ratio of median annual earnings of wage and salary workers ages 25–34 whose highest education level was grades 9–11, some college, and a bachelor's degree or higher to those with a high school diploma or GED, by sex: 1970–96**

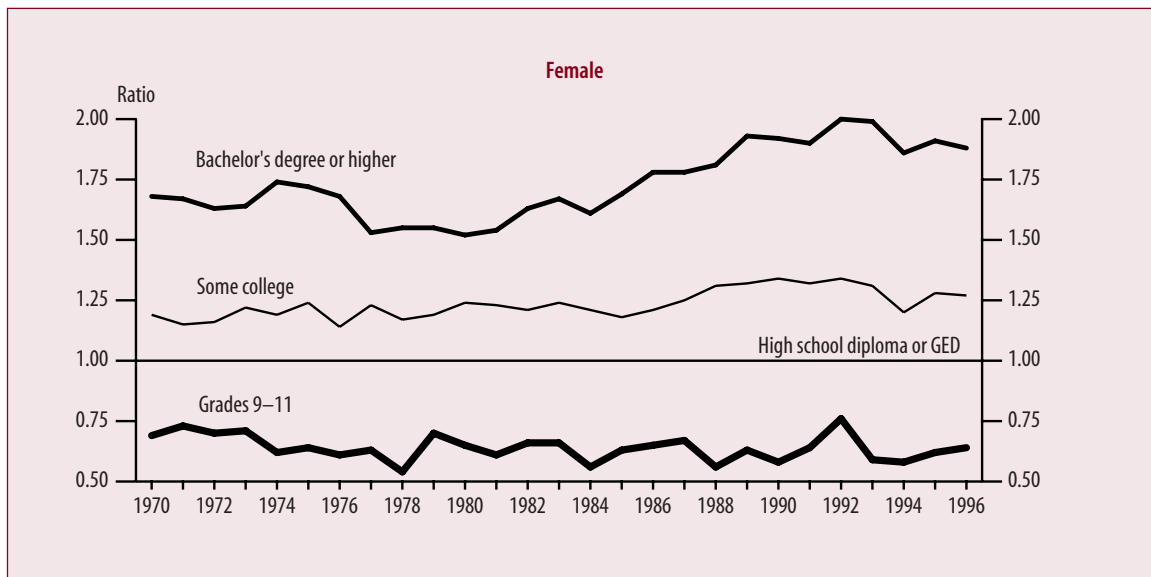
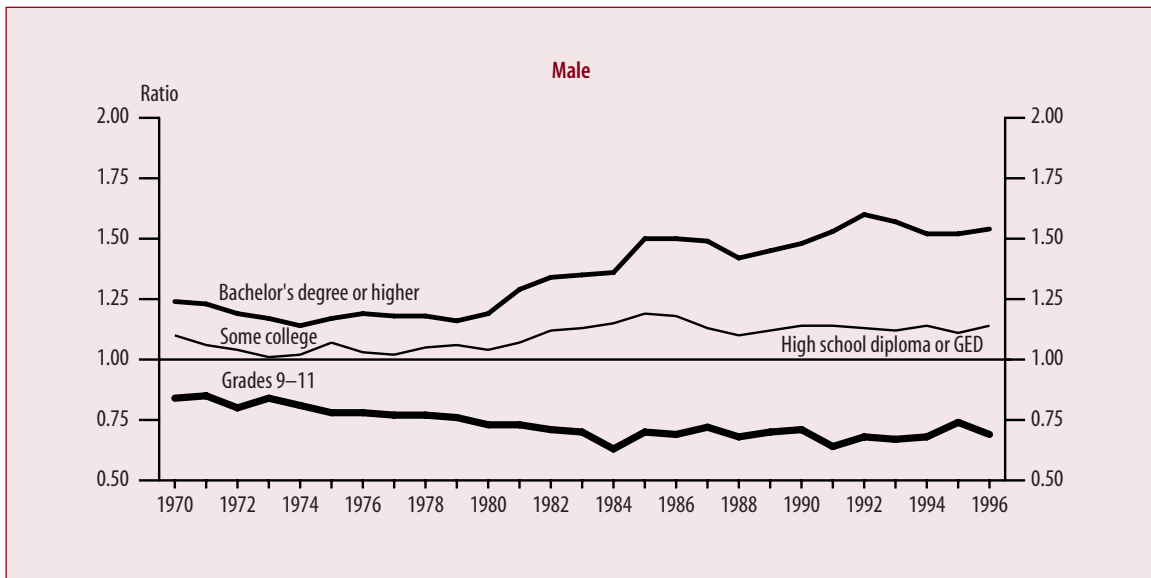
Year	Grades 9–11		Some college		Bachelor's degree or higher	
	Male	Female	Male	Female	Male	Female
1970	0.84	0.69	1.10	1.19	1.24	1.68
1972	0.80	0.70	1.04	1.16	1.19	1.63
1974	0.81	0.62	1.02	1.19	1.14	1.74
1976	0.78	0.61	1.03	1.14	1.19	1.58
1978	0.77	0.54	1.05	1.17	1.18	1.55
1980	0.73	0.65	1.04	1.24	1.19	1.52
1982	0.71	0.66	1.12	1.21	1.34	1.63
1984	0.63	0.56	1.15	1.21	1.36	1.61
1986	0.69	0.65	1.18	1.21	1.50	1.78
1988	0.68	0.56	1.10	1.31	1.42	1.81
1990	0.71	0.58	1.14	1.34	1.48	1.92
1991	0.64	0.64	1.14	1.32	1.53	1.90
1992	0.68	0.76	1.13	1.34	1.60	2.00
1993	0.67	0.59	1.12	1.31	1.57	1.99
1994	0.68	0.58	1.14	1.20	1.52	1.86
1995	0.74	0.62	1.11	1.28	1.52	1.91
1996	0.69	0.64	1.14	1.27	1.54	1.88

NOTE: This ratio is most useful when compared to 1.0. For example, the ratio of 1.54 in 1996 for males whose highest education level was a bachelor's degree or higher means that they earned 54 percent more than males who had a high school diploma or GED. The ratio of 0.69 in 1996 for males whose highest education level was grades 9–11 means that they earned 31 percent less than males who had a high school diploma or GED.

The Current Population Survey (CPS) questions used to obtain educational attainment data were changed in 1992.

SOURCE: U.S. Department of Commerce, Bureau of the Census, Current Population Survey, March (various years).

**Ratio of median annual earnings of wage and salary workers ages 25–34 whose highest education level was grades 9–11, some college, and a bachelor’s degree or higher to those with a high school diploma or GED, by sex: 1970–96**



NOTE: This ratio is most useful when compared to 1.0. For example, the ratio of 1.54 in 1996 for males whose highest education level was a bachelor’s degree or higher means that they earned 54 percent more than males who had a high school diploma or GED. The ratio of 0.69 in 1996 for males whose highest education level was grades 9–11 means that they earned 31 percent less than males who had a high school diploma or GED.

The Current Population Survey (CPS) questions used to obtain educational attainment data were changed in 1992.

SOURCE: U.S. Department of Commerce, Bureau of the Census, Current Population Survey, March (various years).

lower for males and females, respectively). Young adults who had completed a bachelor's degree or higher earned substantially more than those who had earned no more than a high school diploma or GED (54 and 88 percent more for males and females, respectively).

- Between 1980 and 1996, the earnings advantage of obtaining a bachelor's degree or higher increased for males, rising from 19 to 54 percent.
- Since 1980, the earnings advantage of 25- to 34-year-olds with some college or a bachelor's degree or higher (relative to their counterparts who had completed high school) was generally greater for females than for males.

**Data source:** The U.S. Census Bureau's Current Population Survey (CPS), March (various years).

**For technical information,** see

Wirt, J., Snyder, T., Sable, J., Choy, S.P., Bae, Y., Stennett, J., Gruner, A., and Perie, M. (1998). *The Condition of Education: 1998* (NCES 98-013).

For complete supplemental and standard error tables, see either

- the electronic version of *The Condition of Education: 1998* (<http://nces.ed.gov/pubs98/condition98/index.html>), or
- volume 2 of the printed version (1999): *The Condition of Education: 1998 Supplemental and Standard Error Tables* (NCES 1999-025).

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# Condition of Education

## The Condition of Education: 1999

*This article was excerpted from the Commissioner's Statement and the Overview from 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.*

*The Condition of Education* is an annual report to Congress that focuses on 60 indicators. These indicators represent a consensus of professional judgment on the most significant national measures of the condition and progress of education at this time, but are tempered necessarily by the availability of current and valid information. Unlike most other statistics, an indicator is policy relevant and problem oriented; it usually incorporates a standard against which to judge progress or regression. Indicators cannot, however, identify causes or solutions and should not be used to draw conclusions without other evidence.

In addition to a basic core of indicators that can be repeated with updated information on a yearly or cyclical basis, each edition of the *Condition* contains a more limited set of indicators based on infrequent or special studies. This year's edition contains 22 new indicators, which are integrated throughout the report.

In this year's edition of the *Condition*, the individual indicators are preceded by a 25-page essay providing an overview of key information from the indicators. The purpose of this essay is to create links between the numerous topics discussed in this report and construct a comprehensive statistical picture of the condition of education. Like the indicators themselves, the overview essay is organized by topic into five major sections. The essay's introduction and conclusions provide additional context for the topical discussions.

### Introduction

Providing a quality education for all students is widely viewed as crucial to the future success of the nation. In *A Nation at Risk* (1983), the National Commission on Excellence in Education warned of a "rising tide of mediocrity" in elementary and secondary education in the United States and made a series of recommendations to improve its quality. These recommendations stimulated a school reform movement that continues to expand and evolve. In recent years, international comparisons have shown U.S. students lagging behind those in many other developed nations. The

concerns raised by the Commission, coupled with these new studies, have kept improving the quality of education high on the national agenda.

Postsecondary education has not been the target of the same types of reform efforts as elementary and secondary education. However, the demands of changing technologies and maintaining a competitive position in the global economy are making postsecondary education increasingly important to individuals and society, and have led to federal and state policies designed to encourage participation in higher education. Consequently, issues related to access, attainment, affordability, and the quality of instruction are the focus of ongoing attention.

The following sections provide highlights of some of the evidence presented in the current and recent editions of the *Condition* on the progress that has been made in recent years in providing a quality education for all students and the problems that still exist. Although the evidence shows progress in improving the quality of education for all students in some areas, it also highlights areas in which further improvements are needed.

### I. Learner Outcomes

Examining learner outcomes can shed light on the quality of education. Outcomes include levels of student achievement and adult literacy, as well as economic consequences of educational attainment.

#### Academic performance

A first step in assessing the progress that has been made in improving the education of all students is to compare the academic performance of students today with that of students in the past. Data from the National Assessment of Educational Progress (NAEP) provide a common yardstick for making such comparisons at the state and national levels. The news is mixed.

- Between 1973 and 1996, mathematics performance improved overall, with stability or early declines followed by improved performance.

- Little change occurred in the long-term trends in students' reading performance between 1971 and 1996.
- In science, long-term achievement fell between 1970 and the early 1980s but then rose through 1996.

### Racial/ethnic differences in student performance

Between the early 1970s and the mid- to late 1980s, the performance scores of black students improved relative to those of white students in reading, mathematics, and science at all ages (9, 13, and 17). Since then, these differences in performance between blacks and whites have either widened again or remained the same.

### International comparisons

A different perspective on student performance can be gained from the assessments of science and mathematics conducted in 1995 by the Third International Mathematics and Science Study (TIMSS). In both mathematics and science, U.S. students scored above the international averages in grade 4, close to the international averages in grade 8, and considerably below the averages at the end of secondary school.

### Adult literacy

The knowledge and skills measured by student achievement tests are part of the larger educational goal of helping students become literate. The literacy skills developed in schools and colleges are intended to equip individuals for life in the modern world and provide them with the ability to earn a living and contribute to the welfare of society. Results from the 1992 National Adult Literacy Survey (NALS) indicate that adults in the population with more education have higher literacy skills that remain high across age groups.

### Economic outcomes

Education has a long-term effect on personal income. At least one reason for completing more education is to enter higher paying occupations and careers than are available to those with less education. Increases over time in the rates of employment and earnings for individuals with more education signal growing demand in the economy for these better educated people relative to their supply.

- Since 1971, the differences in the employment rates of those with more and less education have generally increased for both males and females.

- The difference between the earnings of 25- to 34-year-olds with a bachelor's degree or more and the earnings of their peers who have completed high school has increased for both males and females since 1980.

## II. Quality of Educational Environments (Elementary/Secondary)

Early approaches to school reform that followed publication of *A Nation at Risk* called for longer school days and years, more testing, more rigorous academic programs in high school, stricter certification requirements for teachers, higher salaries for teachers, and upgraded technology. More recently, reform efforts have shifted in emphasis from school inputs to what occurs in the classroom—in terms of curriculum, instructional practices, and methods of student assessment—and also how to prepare teachers to address the new demands being placed upon them.

### Course taking and standards

One recommendation in *A Nation at Risk* was that all high school students seeking a diploma be required to take a “New Basics” core curriculum consisting of 4 years of English and 3 years each of social studies, science, and mathematics.\* Since this recommendation was made, changes have occurred in course-taking patterns.

- High school students are taking more courses in core subject areas than previously taken.
- High school students are taking more difficult courses.

### Instructional practices

Recent reform efforts have called on teachers to adopt new goals for the classroom, change how they interact with students, and learn how to use new tools for learning and assessment (e.g., National Commission on Teaching and America's Future 1996).

- The majority of teachers report engaging their students in activities designed to promote higher level thinking skills.
- The majority of teachers report requiring students to participate actively in class.
- The majority of public elementary school teachers are using portfolios.

\*The “New Basics” curriculum also includes half a year of computer science. Two years of a foreign language are strongly recommended for college-bound students.

### Access to technology

The rapid growth in the use of new technologies in the workplace and society has put pressure on schools to acquire computers, software, and Internet access and on teachers to integrate this technology into their classroom activities.

- Access to the Internet in the schools has grown dramatically.
- Student use of computers is increasing at school and at home.

### Teacher preparedness

As new instructional practices and technologies make their way into the classroom, they are requiring fundamental changes in how teachers work and prepare themselves to teach. Helping teachers to meet these new demands has become a major focus of school reform efforts.

- Some students are being taught core academic subjects by teachers who are not certified to teach those subjects, but certification requirements have increased. Between 1990–91 and 1993–94, the increase was mainly in requirements for passing basic literacy or subject matter knowledge tests.
- Many teachers do not consider themselves very well prepared to handle some of the new demands being placed on them, but they are more likely to feel prepared after they have participated in related professional development activities.
- Teachers report that regular participation in collaborative activities improves their teaching.

### III. Quality of Educational Environments (Postsecondary)

The quality of undergraduate education has received considerable attention in recent years, with concerns raised about the quality of curriculum, faculty, and teaching methods. National data on these topics are limited, but data are available to describe several important issues.

- The majority of postsecondary education institutions offer remedial courses.
- Exposure to senior faculty was about the same across all types of 4-year colleges and universities in 1992, and did not change appreciably between fall 1987 and fall 1992.
- A majority of instructional faculty and staff at 2-year institutions are part time.

- Full-time faculty spent proportionately less time on teaching-related activities but more hours in the classroom in 1992 than in 1987.

### IV. Social Support for Learning

The support that families and society at large provide for learning significantly affects the quality of educational opportunities available to children and postsecondary students and, thus, contributes to their ultimate success. Investments of both time and financial resources are important.

#### Family support

Parents are their children's first teachers. Even when children are very young, parents can assume a key role in preparing them for formal schooling by helping them to develop language and other skills and by enrolling them in early childhood programs. Once children enter school, their parents can continue to support learning by participating in school activities and helping with homework. In addition to participating directly in school- and learning-related activities with their children, parents and other family members sometimes support their children's education financially through tuition payments.

- Many parents report that their young children are engaging in early literacy activities.
- Many children are enrolled in early childhood programs.
- Most parents report attending meetings and events at their children's schools and helping with homework.
- Fathers' participation has a positive effect on children's success in school.
- The proportion of students enrolled in private education varies greatly across the preschool, elementary/secondary, and postsecondary levels.

#### Public financial support

There are a number of ways to assess public support for education. One way, for example, is to compare per student expenditures (adjusted for inflation) over time. Another is to examine the amount of funds raised per student for education relative to per capita income over time. Yet another is to compare the United States with other countries in terms of the share of national resources devoted to education.

- Per pupil expenditures for elementary/secondary education have increased slightly in recent years.
- At the higher education level, total per student expenditures are increasing, but not government appropriations.
- Financial aid to students helps to offset the cost of postsecondary education.
- According to one measure of effort (revenues per student divided by per capita income for the total population), public financial support has generally increased over time for elementary and secondary education and has remained stable since the early 1980s for higher education.
- The United States devotes more of its public resources to education than most G-7 countries.

## V. Educational Participation and Progress

Students' participation in and rates of progress through the educational system and their educational attainments are important aspects of the condition of education.

### Enrollment growth

In the aftermath of baby boom generation enrollment, total enrollments in elementary and secondary education declined during the 1970s through the early 1980s. Enrollments began to rise again as the children of baby boom parents began to enter the education system in large numbers. In addition to changes in total enrollments due to these population shifts, there have also been changes in rates of enrollment at all levels of formal education.

- Total enrollments in both elementary and secondary education have increased since the early 1980s to all-time highs.
- Since 1970, the largest increase in educational enrollment rates has been among those ages 3–5.
- Since 1970, the largest increase in postsecondary education enrollment rates has been among traditionally aged college students (19- to 24-year-olds) rather than among older individuals.

### High school dropouts and completions

Those who complete high school are more likely to be employed as young adults than noncompleters. Furthermore, the differences in employment rates and earnings between these two groups have been growing over the last

2 decades. These recent trends confirm the longstanding belief of parents and educators that completing high school is important.

More students may also be realizing the importance of completing high school. The high school completion rate of 25- to 29-year-olds has risen overall since 1971, with most of the gains occurring in the 1970s through the early 1980s.

### International comparisons

In recent years, other large, industrialized countries have invested heavily in the expansion of secondary schooling. As a result, secondary school completion rates are rising in other large, industrialized countries such that they are essentially catching up to the rates of the United States.

### Transition to college

After completing high school, the next educational transition for students is often entering college. Youth decide to enter college depending upon their life goals and the environment of expectations and opportunities in which they have grown up.

- The percentage of high school completers who enroll in college immediately after completing high school has risen since 1981, but not by as much for blacks and Hispanics as for whites.
- Students from different racial/ethnic and family income backgrounds who are academically well prepared for college and who take the steps necessary to enroll are accepted and subsequently enroll at about the same rates.

### College completion

A subsequent benchmark for gauging students' progress through the education system is the attainment of a bachelor's degree. Attainment of this degree represents a distinctly higher level of education than the completion of high school and opens doors to careers that are closed to those with less education.

The percentage of the population ages 25–29 who have completed a bachelor's degree has generally increased since the early 1970s; however, since the early 1980s, the completion rate for whites has been rising faster than the rates for blacks and Hispanics.

## Conclusions

Since the early 1980s, some progress has been made in improving education in the United States, but the directions of change are mixed. Reform efforts are more widespread in elementary and secondary education than in higher education, but many are concerned about issues of the cost, accessibility, and quality of higher education.

Student performance on the NAEP long-term trend assessments has improved since the early 1980s in mathematics and science, but not in reading. In addition, student performance on the main NAEP assessments has shown some improvements in mathematics and reading at some grade levels and no declines. At least two-thirds of 31 states participating in these mathematics assessments also showed improvements in student proficiency scores, and none had declining scores. In contrast, little change has occurred since the early 1970s in reading.

Although student performance on the NAEP mathematics and science assessments has improved in recent years, students do not fare as well internationally on the TIMSS assessments at the 12th-grade, or upper secondary, level as they do at the 4th-grade level. This low standing of U.S. high school students, coupled with the recent expansion of secondary schooling in other large, industrialized countries, informs the debate over improving the quality of secondary education as a particularly important goal of education reform.

Since the early 1980s, students have been taking more courses in core academic subjects in accordance with the recommendations of *A Nation at Risk*. The difficulty of these courses has increased as well. Student use of computers at home and at school has increased, and access to the Internet has expanded dramatically. Still, low- and middle-income students are far more likely to use a computer at school than at home.

At the college level, the literacy scores of college completers are higher than the scores of those with some college, and higher still than the literacy scores of high school completers. Internationally, the literacy scores of U.S. college graduates were exceeded by those in only one other country that participated in the 1994–95 International Adult Literacy Study (IALS) assessment.

Improving the quality of elementary and secondary education so that students learn more requires changes in methods of teaching and learning. Elementary and secondary teachers report using new methods of instruction intended to develop higher order thinking skills and capabilities for using knowledge, but many do not feel well prepared to put these new methods to use in their classrooms. However, teachers who have participated in professional development activities related to these new techniques, including collaboration with other teachers, feel better prepared.

At the postsecondary level, many are concerned about the quality of undergraduate education, but national data on change are limited. Undergraduate students are exposed to senior faculty in at least half of their courses, a proportion that is similar across all types of 4-year institutions. Full-time faculty are spending more time in the classroom teaching students and less time on related activities such as grading papers, preparing for class, or advising students.

More than half of postsecondary institutions of all types offer remedial courses, and nearly a third of college freshmen are required to enroll in at least one of them. These courses are intended to help students improve their mathematics, writing, or reading skills to at least the minimums required for college work. The extent of remediation in higher education raises further questions about the quality of secondary education.

Since the early 1970s, some progress has been made in closing the black-white gaps in student academic achievement in elementary and secondary schooling; however, the proficiency scores of blacks still remain behind those of whites. Most of the gains occurred between the early 1970s and mid- to late 1980s, largely preceding the academic reform movement. Since the mid- to late 1980s, the gaps between the achievement scores of blacks and whites have either stayed the same or widened some. The differences between Hispanic and white achievement have not narrowed to the same extent as they have for blacks.

Black rates of high school completion have risen more than those of whites since the early 1970s, closing the gap between the black and white rates significantly. Most of this improvement occurred before the late 1980s. Because



Hispanic rates of high school completion have not risen faster than those of whites, the gap between the rates remains the same.

Black and Hispanic rates of college enrollment have risen since the early 1980s, but not as fast as those for whites. Furthermore, the rates of attaining a bachelor's degree have increased faster among young white adults than among their black and Hispanic peers over the same period. Consequently, the gaps in higher education attainment between whites and Hispanics and between whites and blacks have grown.

Improving the quality of education for all students requires the support of parents and society at large. The investments of time and money these individuals make in education can significantly affect the quality of educational opportunities available to children in elementary and secondary education and to students when they enter higher education.

The education levels of parents contribute to their support of their children's education, and these levels are increasing. Parental education levels have increased and will continue to do so if the percentages of the population who complete college continue to increase. The children of parents who are college educated are more likely to read to their children, and these children, in turn, are more likely to attend college.

In 1995, the United States spent 3.5 percent of its gross national product (GNP) on elementary/secondary education, and 1.1 percent on higher education. Among large, industrialized countries, only Canada spent higher

proportions of its GNP on education. At the elementary/secondary level, the index of total institutional revenues per student divided by per capita income has generally increased over time, but it decreased slightly between 1994 and 1995. The national index for higher education was considerably higher in 1970 than it was in 1996 but has been relatively stable in recent years.

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**Data sources:** The *Condition* draws on many studies from NCES and other sources.

**For technical information,** see the complete report:

National Center for Education Statistics. (1999). *The Condition of Education: 1999* (NCES 1999-022).

For complete supplemental and standard error tables, see either

- the electronic version of *The Condition of Education: 1999* (<http://nces.ed.gov/pubs99/condition99/index.html>), or
- volume 2 of the printed version (forthcoming): *The Condition of Education: 1999 Supplemental and Standard Error Tables* (NCES 2000-016).

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**To obtain the complete report (NCES 1999-022),** call the toll-free ED Pubs number (877-433-7827), visit the NCES Web Site (<http://nces.ed.gov>), or contact GPO (202-512-1800).





# METHODOLOGY

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## NAEP 1996

### The NAEP 1996 Technical Report

*Nancy L. Allen, James E. Carlson, and Christine A. Zelenak*

*This article was excerpted from the Introduction to the technical report of the same name. The report describes the design and data analysis procedures of the 1996 National Assessment of Educational Progress (NAEP).*

#### Introduction

The 1996 National Assessment of Educational Progress (NAEP) monitored the performance of students in American schools in the subject areas of reading, mathematics, science, and writing. The purpose of this technical report is to provide details on the instrument development, sample design, data collection, and data analysis procedures of the 1996 national assessment. Detailed substantive results are not presented here but can be found in a series of NAEP reports on the status of and trends in student performance; several other reports provide additional information on how the assessment was designed and implemented.

The national sample involved nearly 124,000 public and nonpublic school students who were 9, 13, or 17 years old or in grades 4, 8, or 12. Additional samples of approximately 125,000 fourth- and 125,000 eighth-graders in 48 jurisdictions were assessed in the 1996 state assessment in mathematics. Also, a sample of approximately 125,000 fourth-graders in 47 states and jurisdictions was assessed as part of the 1996 state assessment in science. A representative sample of about 2,500 students was selected in each

jurisdiction for each subject at each grade level. The state-level sampling plan allowed for cross-state comparisons and comparisons with the nation in fourth-grade science and fourth- and eighth-grade mathematics achievement. Technical details of the state assessments are not presented in this technical report but can be found in the state technical reports.

#### An Overview of NAEP in 1996

For the 1996 assessment, NAEP researchers continued to build on the original design technology outlined in *NAEP Reconsidered: A New Design for a New Era* (Messick, Beaton, and Lord 1983). In order to maintain its links to the past and still implement innovations in measurement technology, NAEP continued its multistage sampling approach. Long-term trend and main assessment (short-term trend) samples use the same methodology and population definitions as in previous assessments. Main assessment samples use innovations associated with new NAEP technology and address current educational issues. Long-term trend data are used to estimate changes in performance from previous assessments; main assessment sample data are

used primarily for analyses involving the current student population, but also to estimate short-term trends for a small number of recent assessments. In continuing to use this two-tiered approach, NAEP reaffirms its commitment to maintaining long-term trends while at the same time implementing the latest in measurement technology.

A major new design feature was introduced for 1996 to permit the introduction of new inclusion rules for students with disabilities (SD) and limited English proficient (LEP) students, and the introduction of testing accommodations for those students. The 1996 national NAEP incorporated a multiple sampling plan that allowed for studies of the effects of these changes in NAEP inclusion and accommodation procedures. Under this sampling plan, students from different samples were administered the NAEP instruments using different sets of inclusion rules and accommodation procedures. In certain samples, testing accommodations were provided for SD and LEP students who could be assessed, but not with standard instruments or administration procedures.

In the 1996 assessment, many of the innovations that were implemented for the first time in 1988 were continued and enhanced. For example, a variant of the focused balanced incomplete block (focused-BIB) booklet design, which was used in 1988 and has continued to be used in other assessment years, was used in the 1996 main assessment samples in mathematics and science. In the focused-BIB design, an individual receives blocks of cognitive items in the same subject area. The focused-BIB design allows for improved estimation within a particular subject area, and estimation continues to be optimized for groups rather than individuals.

In 1996, NAEP continued to apply the plausible values approach to estimating means for demographic as well as curriculum-related subgroups. Proficiency estimates were based on draws from a posterior distribution that was based on an optimum weighting of two sets of information: students' responses to cognitive items and students' demographic and associated educational process variables. This Bayesian procedure was developed by Mislevy (see chapter 11 of the complete report or Mislevy 1991). The 1996 procedures continued to use an improvement that was

implemented first in 1988 and refined for the 1994 assessment. This is a multivariate procedure that uses information from all scales within a given subject area in the estimation of the proficiency distribution on any one scale in that subject area.

A major improvement used in the 1992 and 1994 assessments, and continued in 1996, was the use of the generalized partial credit model for item response theory (IRT) scaling. This allowed the incorporation of constructed-response questions that are scored on a multipoint rating scale into the NAEP scale in a way that utilizes the information available in each response category.

One important innovation in reporting the 1990 assessment data that was continued through 1996 was the use of simultaneous comparison procedures in carrying out significance tests for the differences across assessment years. Methods such as the Bonferroni allow one to control for the type I error rate for a fixed number of comparisons. In 1996, more powerful new procedures that control for the false discovery rate were implemented for some comparisons. Tests for linear and quadratic trends were also applied to the national trend data in reading, mathematics, science, and writing.

### Organization of the Technical Report

Part I of this report describes the design of the 1996 National Assessment, beginning with a summary. Individual chapters then present in more detail the development of the objectives and the items used in the assessment, the sample selection procedures, the assessment booklets and questionnaires, the administration of the assessment in the field, the processing of the data from the assessment instruments into computer-readable form, the professional scoring of constructed-response items, and the methods used to create a complete NAEP database.

The 1996 NAEP data analysis procedures are described in Part II of the report. Following a summary of the analysis steps, individual chapters provide a general discussion of the weighting and variance estimation procedures used in NAEP, an overview of NAEP scaling methodology, and details of the trend and main assessment analyses performed

for each subject area in the 1996 assessment. Basic data from the 1996 assessment, including the properties of the measuring instruments and characteristics of the sample, are also presented.

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**For technical information**, see the complete report:

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# B&B Second Follow-up

## Baccalaureate and Beyond Longitudinal Study: 1993/97 Second Follow-up Methodology Report

Patricia Green, Sharon Myers, Cynthia Veldman, and Steven Pedlow

*This article was excerpted from the technical report of the same name. The sample survey data are from the Second Follow-up to the Baccalaureate and Beyond Longitudinal Study (B&B).*

### Introduction

The Baccalaureate and Beyond Longitudinal Study (B&B) tracks the experiences of a cohort of college graduates who received their baccalaureate degree during the 1992–93 academic year and were first interviewed in 1993 as part of the National Postsecondary Student Aid Study (NPSAS:93). This group's experiences in the areas of academic enrollments, degree completions, employment, public service, and other adult decisions will be followed for about 12 years, in a series of four follow-up interviews.

### Schedule and purpose of the B&B interviews

The first follow-up interview (B&B:93/94) collected information from respondents in 1994, 1 year after they received their bachelor's degrees. This report concerns the second follow-up interview (B&B:93/97), which collected data 4 years after bachelor's degree receipt. The next interview is planned for 9 years after graduation. By the time of the final interview, most students who attend graduate or professional schools should have completed, or nearly completed, their education and be established in their careers.

The B&B study provides data to address issues in four major areas of education policy: outcomes of postsecondary attainment; access to graduate and professional schools; rates of return on investment in a bachelor's degree; and patterns of preparation for, and engagement in, teaching. With its wealth of data on the consequences of postsecondary education, B&B will contribute to the study of education as a lifelong process.

### Content of this report

This report documents B&B:93/97 methodology, examining sample design, instrument development and data collection, response rates, efficacy of the survey instrument, and weights and design effects. Also included in the report are reference materials such as letters and other information sent to members of the B&B:93/97 sample; a list of variables for B&B:93/97; and the survey instruments for NPSAS:93, B&B:93/94, and B&B:93/97.

### Sample Design

The B&B sample design represents all postsecondary students in the United States who completed a bachelor's degree in academic year 1992–93. The B&B sample is a subsample of the students selected for the NPSAS:93 sample, a nationally representative sample of all postsecondary students.<sup>1</sup>

### Sample for the first follow-up

The B&B:93/94 sample included those students in the NPSAS:93 sample who were identified either by the institution or during the student interview as having completed a bachelor's degree in the 1992–93 academic year (July 1, 1992, through June 30, 1993). In addition to retaining all 11,180 of the 1992–93 baccalaureate recipients who completed the NPSAS:93 interview, B&B:93/94 also retained subsamples of nonrespondents and of remaining eligible cases for which at least some data were available.<sup>2</sup> Altogether, the B&B:93/94 sample included 12,478 cases.

### Sample for the second follow-up

After B&B:93/94 data collection was complete, additional cases in the initial follow-up sample were found to be ineligible for B&B (Green et al. 1996). People were retained for follow-up in later rounds of the study if they were eligible either according to the student interview (10,080 people) or according to transcripts (an additional 1,094 people). Also included were 18 cases for which eligibility remained unknown in both the interview and the transcripts. Altogether, therefore, 11,192 cases were retained for future rounds, including B&B:93/97. During B&B:93/97 data collection, 30 of these cases were found to be either out of scope (29 cases) or ineligible (1 case), reducing the number of eligible cases to 11,162.<sup>3</sup>

<sup>1</sup>NPSAS:93 employed a stratified two-stage sample design with postsecondary institutions as the first-stage unit and students within schools as the second stage. For details on the NPSAS:93 sample design, see Loft et al. (1995).

<sup>2</sup>For details on the B&B:93/94 sample design, see Green et al. (1996).

<sup>3</sup>The 29 out-of-scope cases were sample members who had died since 1993; 1 case was identified as ineligible when it was determined that the respondent had never received a baccalaureate degree.

## Instrument Development

A modified version of the B&B:93/94 instrument was shortened and revised based on results of the B&B:93/97 field test, input from the 23-member Technical Review Panel, and additional review and testing.

### Revision of questionnaire items

Items were dropped mainly for lack of reliability or usefulness. Topics for descriptive reports were identified and then used as a guide to determine which questionnaire items could be dropped and which should be retained, revised, or clarified. Most of the items excluded from the second follow-up main study instrument were from the demographic section (e.g., questions about high school grades, income of other household members, and access to computers).

The most extensively revised portion of the instrument was the teaching section. A new definition of what constitutes the “teacher pipeline” was used to redesign the initial filter questions for this section. Another important revision was moving the teaching section to precede the employment section, so that data about teaching jobs were collected before data about other (nonteaching) jobs. The intended effect was to reduce respondent burden from the first follow-up, when data were first collected about all jobs and then again about teaching jobs.

### Incorporation of online coding systems

The B&B:93/97 instrument was designed to use five online coding systems developed by the National Center for Education Statistics (NCES). These coding systems enabled interviewers to code responses during the interview; they also guided interviewers’ probes of any unclear or incomplete answers. These systems were used to code (1) occupation, (2) industry, (3) major field of study, (4) postsecondary schools attended, and (5) for teachers, the elementary and secondary schools where they taught.

## Data Collection

In the spring of 1997, an advance mailing containing a letter and informational leaflet was sent to all 11,192 of the B&B:93/97 sample members. Data collection for the second follow-up began in early April, approximately 1 week after the advance mailing, and continued through December of 1997. Respondents were interviewed using one of two computer-assisted interviewing (CAI) systems. The majority of interviews were conducted by telephone interviewers located at a central facility using a computer-assisted

telephone interviewing (CATI) system. These interviews were completed between April and July of 1997. The remaining cases were completed by field interviewers using a computer-assisted personal interviewing (CAPI) and case management system (CMS) that was loaded into their individual laptop computers. Most of these interviews were also conducted by telephone, but some were administered in person. These cases were completed between July and December of 1997.

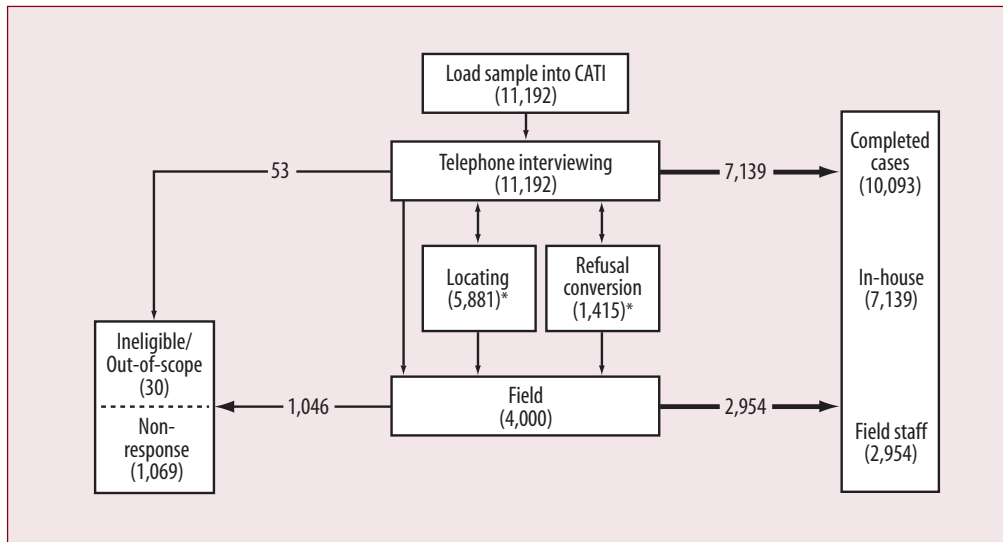
### Interviewer preparation and quality control

Following a training period, all interviewers completed a mock interview with a supervisor or field manager, who ensured that they were ready to begin working their cases. To ensure data quality, the following procedures were used throughout the data collection phase: monitoring CATI (telephone facility) interviews on a random basis; checking the quality of CAPI (field) interviews by recontacting and briefly questioning a random selection of respondents; recoding a sample of entries from each of the five online coding programs; producing and reviewing production statistics for both CATI and CAPI interviewers on a daily basis; and reviewing item frequencies as well as “time stamps” that show the amount of time taken to complete each section of the interview.

### CATI production

As shown in figure A, all case records for the sample were loaded into the CATI telephone number management system (TNMS), which automatically delivered the cases to interviewers, tracked progress on all cases, and categorized each case based on the outcome of the previous telephone call. Over a period of 16 weeks, approximately 100 telephone center interviewers completed a total of 7,139 cases (63.9 percent of the 11,162 eligible cases).

The number of calls per completed case is the best indicator of the level of effort required in the interviewing task. The number of CATI calls made to complete a case averaged 18.5 for the B&B:93/97 sample, compared to an average of 13.4 CATI calls for the B&B:93/94 sample. These data indicate that a much higher level of effort was required to complete cases in 1997. This was largely due to the much higher number of locating problems encountered (interviewers were much less likely to locate sample members at their preloaded phone numbers or still residing with their parents) and also reflects the busier lifestyles of the majority of sample members, who may have more career and family responsibilities than they had 3 years ago.

**Figure A—Paths toward case completion**

\*Cases could be designated as locating or refusal problems, or both.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1993 Baccalaureate and Beyond Longitudinal Study, Second Follow-up (B&B:93/97). (Originally published as figure 4.1 on p. 14 of the complete report from which this article is excerpted.)

### CAPI operations

After interviewing at the telephone center was halted, all pending cases were transferred to field staff working in different regions of the United States. In addition to 58 telephone field interviewers, a total of 112 in-person field interviewers were hired as needed for locally based assistance in locating respondents or contacting respondents in person.

A total of 4,000 cases (35.8 percent of the total sample) were sent to the field (figure A). All were cases that the telephone center had been unable to complete because the respondent refused, was evasive, or had not yet been located. Locating problems were the most significant deterrent to field production. About halfway through the field interviewing period, therefore, field staff were reconfigured into task-specific groups, which were able to handle the problems encountered more efficiently. Over a period of 23 weeks, field interviewers completed a total of 2,954 cases (73.8 percent of cases that were sent to the field and 26.5 percent of all eligible cases).

### Respondent locating

The B&B:93/97 field test experience was that more than half, rather than the expected third, of sample members had required locating. Prior to data collection, therefore, all cases were sent to a credit bureau database service to obtain updated phone and address information for each sample member. Cases for whom no phone number was available, either through this process or from an earlier interview, and cases whose updated phone number was subsequently identified as being incorrect, were sent to locating specialists. As figure A indicates, 5,881 cases (53 percent of the initial sample) required this intensive locating while in the telephone center. About half of these cases were eventually completed in the telephone center; the other half were sent to the field, where 429 additional locating problem cases were identified.

Despite the large number of cases with locating problems, efforts to locate sample members proved very successful: only 2.7 percent of cases with locating problems (only 1.5 percent of all cases) were never located. Interviews were



eventually completed with 86 percent of cases that had ever been identified as having locating problems. However, the refusal rate for cases with locating problems was twice as high as for cases without such problems, suggesting that some locating problems were actually hidden refusals.

### Refusal conversion

Although sample members' refusal to participate in the study presented less of a problem in the second follow-up than in the first follow-up, conversion remained difficult. Fifteen percent (1,679) of eligible sample members refused to participate at some time during the second follow-up, compared to 20 percent during B&B:93/94. The majority of these cases (1,415) were first identified as refusals in the telephone center. CATI refusal conversion specialists were able to complete interviews with about one-quarter of these sample members; three-quarters of these cases (1,050) had to be sent to the field, where interviewers could contact sample members in person if necessary. Field interviewers were able to convert an additional 782 reluctant sample members, producing a final response rate of 67 percent among those who had ever refused to participate.

### Response Rates

Interviews were completed with 10,093 of the 11,162 eligible B&B:93/97 cases, for a final unweighted response weight of 90.4 percent (table A). Just 1.5 percent of the sample were finalized as unlocatable, while only 2.6 percent of the sample were finalized as refusals. Much of the

remaining 5.5 percent nonresponse is attributable to sample members who were either out of the country or not available at any time during the time frame of this follow-up.

Among sample members who had refused to participate at some point in the production period, the response rate was lower in 1997 than in 1994 (67 percent versus 74 percent). This might seem to suggest that the hard-to-persuade are becoming more intransigent; however, only 39 B&B:93/97 sample members have been nonrespondents to all three waves of data collection (NPSAS:93, B&B:93/94, and B&B:93/97). For B&B:93/97, in fact, successful interviews were completed with 501 sample members who had been nonrespondents in the first follow-up and 351 sample members who had been nonrespondents in NPSAS:93. The 2.6 percent rate of final refusal in B&B:93/97 compares favorably to the 5.8 percent refusal rate in B&B:93/94.

### The B&B panel

For the second follow-up, more interviews were completed than in the first follow-up, despite the fact that 23 of the first follow-up respondents had since died. Table B shows the full response patterns for all 11,192 B&B sample members. This table describes each type of response combination to the three survey rounds (starting with NPSAS:93) and provides frequencies for each description. As shown, a full 83 percent of the sample responded to all three rounds; these 9,274 respondents are classified as the B&B panel.

**Table A—Response rates, by mode of interview**

B&B:93/97 sample		Phone	Field	Total
Total		7,192	4,000	11,192
Ineligible		23	7	30
Eligible		64.2%	35.8%	100.0%
		7,169	3,993	11,162
Complete	(percent)	63.9%	26.5%	90.4%
	(number)	7,139	2,954	10,093
Final refusal	(percent)	0.3%	2.3%	2.6%
	(number)	30	257	287
Unlocated	(percent)	0.0%	1.5%	1.5%
	(number)	0	168	168
Other non-response	(percent)	0.0%	5.5%	5.5%
	(number)	0	614	614

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1993 Baccalaureate and Beyond Longitudinal Study, Second Follow-up (B&B:93/97). (Originally published as table 5.1 on p. 28 of the complete report from which this article is excerpted.)



**Table B—Response patterns for B&B sample**

Description	Response status, by study			Frequency	Percent
	NPSAS:93	B&B:93/94	B&B:93/97		
Total	—	—	—	11,192	100.0
Respondents to all three rounds	Yes	Yes	Yes	9,274	82.9
NPSAS:93 and B&B:93/94 only	Yes	Yes	No	436	3.9
NPSAS:93 and B&B:93/97 only	Yes	No	Yes	468	4.2
B&B:93/94 and B&B:93/97 only	No	Yes	Yes	318	2.8
NPSAS:93 only	Yes	No	No	565	5.0
B&B:93/94 only	No	Yes	No	29	0.3
B&B:93/97 only	No	No	Yes	33	0.3
B&B:93/97 deceased* (B&B:93/94 respondents)	Yes	Yes	—	23	0.2
B&B:93/97 deceased* (B&B:93/94 nonrespondents)	Yes	No	—	7	0.1
Nonrespondents to all three rounds	No	No	No	39	0.3

— Not applicable.

\*B&B:93/97 discovered 29 deceased eligibles and one ineligible previously undiscovered.

NOTE: Due to rounding, details may not add up to 100 percent.

SOURCE: U.S. Department of Education, National Center for Education Statistics, *Baccalaureate and Beyond Longitudinal Study: 1993/94 First Follow-up Methodology Report* (NCES 96-149); and 1993 Baccalaureate and Beyond Longitudinal Study, *Second Follow-up (B&B:93/97)*. (Originally published as table 2.2 on p. 7 of the complete report from which this article is excerpted.)

### Response rates by demographic group

While response rates are similar across many demographic subgroups, some distinctive differences exist. Response rates decrease slightly with age (93.1 percent of those under 26 compared to 90.4 percent of those over 30 participated), but participation among males and females is approximately equal. Response rates are also similar among whites, blacks, and American Indians (ranging from 89.5 percent to 91.6 percent) but are substantially lower for Asian/Pacific Islanders (only 82.2 percent) and those identifying themselves as “other” (73.8 percent).

### Efficacy of Instrument

One can look at several factors in assessing the efficacy of the survey instrument. This report discusses the interview length, the accuracy of interviewer coding when using online coding utilities, and the level of individual item nonresponse.

### Interview length

The average length of a completed interview for B&B:93/97 was almost 33 minutes (only 1 minute longer than the average administration time in the first follow-up). Not counting the locating section, which gathered address and

telephone numbers for the respondent, parents, and other contacts, the average interviewing time was almost 28 minutes.

When looking at administration time by section, clearly the longest section was the one that collected data about employment since the last interview date, with an average time of 11.5 minutes. The next highest administration time (7.5 minutes) was for the final section—which collected demographic, civic participation, household, and debt information—but this is partially due to the fact that this section was the longest in terms of number of questions. A little over 6 minutes were spent collecting information about postbaccalaureate education and internships, and an average of about 2 minutes were spent gathering data on respondents’ teaching experiences.

### Online coding accuracy

Interviewers did a fairly good job in using the five online coding programs, and differences in coding accuracy between programs are relatively small. Three of the programs—used to code major field of study, industry, and occupation—required interviewers first to enter brief “verbatim” text supplied by the respondent and then to select from several possible codes suggested by the program.

Ten percent of each week's cases were recoded by specially trained coders, who selected a code based on the verbatim text entered by the interviewer. In cases where the verbatim text was sufficient to allow verification, the percentage of incorrect codes selected by the original interviewers ranged from 5.5 percent (for major field of study) to 2.7 and 2.6 percent (for industry and occupation).

Two of the online coding programs—for postsecondary institutions and elementary/secondary schools—involved searching through a multilevel database of states, cities within states, and finally, schools within the selected city. Expert coders examined only those cases where the interviewer entered text because the school could not be found in the coding program. In these cases, the expert coders were asked to judge whether the text entered was sufficiently complete to allow the school to be coded later. About 94 percent of interviewers provided sufficient information to allow coding of postsecondary institutions, while only 76 percent provided that level of information for elementary/secondary schools. It was discovered, however, that respondents had failed to provide the names of 18 percent of the inadequately documented elementary/secondary schools. In a significant portion of the remaining uncodable cases, moreover, the interviewer had not been able to select a city.

#### Item nonresponse

One of the goals of B&B:93/97 was to reduce item nonresponse, which results from respondents either refusing to answer a question or responding that they are unable to provide an accurate answer. This goal was accomplished by building respondent rapport through a variety of innovative techniques, such as conversational interviewing.

Although the number of items with significant rates of nonresponse was reduced in the second follow-up, some items were still answered by less than 90 percent of the respondents who were asked. Of the approximately 1,800 questions in the final data set, almost 50 had nonresponse rates over 10 percent. Almost half of these questions were asked of only five or fewer respondents, however, and many were the third or fourth iterations of a looped question.

As in the first follow-up (and similar surveys), refusal to answer income and salary questions accounted for a significant proportion of the nonresponse items. Nonetheless, the rate of refusal of such questions was lower than in the first follow-up. Items requiring specific dates—such

as those for emigration, employment, and school attendance—continued to have a high rate of “don't know” responses, as did items about spouse or partner income or debt.

### Weights and Design Effects

B&B:93/97 final weights were calculated by making a nonresponse adjustment to the baseline B&B weight calculated for B&B:93/94. This baseline B&B weight, in turn, was an adjustment of the baseline NPSAS:93 weight.<sup>4</sup>

#### Design effects

The design effect is defined as the ratio of the variance corrected for the sampling design to the variance based on a simple random sample (SRS). Most complex multistage sampling designs result in a design effect greater than 1; that is, the variance of an estimate is actually larger than the variance would be had the data been based on an SRS. For B&B:93/97, the Taylor Series procedure was used to calculate the standard errors.

Standard errors for 30 variables based on B&B:93/97 data were calculated, both for B&B:93/97 respondents and for B&B panel respondents (respondents to all three surveys: NPSAS:93, B&B:93/94, and B&B:93/97). The design effects for these variables were calculated for the entire population and estimated for subgroups by sex, race, and type of school attended. In addition, design effects for the B&B panel, B&B:93/94, and B&B:93/97 were compared for the overall population as well as subgroups. The panel respondents tend to have the lowest design effects, while the mean design effects tend to be highest for B&B:93/94. These are only slight differences, however, since the three sets of design effects are very similar.

Researchers who use the Data Analysis System prepared for use with B&B:93/97 will find that the program automatically produces design-corrected standard errors. Researchers using the restricted-use files are cautioned either to use a package (such as SUDAAN or OSIRIS) that can produce the design-corrected standard errors or to adjust the standard errors computed under SRS assumptions (as produced by typical packages such as SPSS or SAS) by multiplying them by the mean root design effect for that subgroup.<sup>5</sup>

<sup>4</sup>Documentation of NPSAS:93 sample development and weights calculation can be found in Whitmore, Traccarella, and Iannacchione (1995), while details on the development of weights for B&B:93/94 can be found in Green et al. (1996).

<sup>5</sup>For tables of design effects and standard errors, see the complete report.

### Nonresponse bias

To assess whether there are differences between groups in the frequency of refusing to answer particular questions, a subset of variables used in the examination of design effects was used in a nonresponse bias analysis. The analysis was conducted based on gender, date of interview, and race/ethnicity. No significant differences are evident based on gender; that is, males and females have approximately equal levels of missing data on the items included in this analysis.

Significant differences based on date of interview are present for 21 of the 25 variables examined. Cases completed during the April–June period when most of the CATI data collection took place have lower levels of missing data than cases completed during the July–December CAPI field period. While it is possible that this represents a mode effect, it seems likely that it is the result of the fact that difficult cases were completed during the CAPI field period, including respondents who had refused to complete an interview over the phone.

The analysis based on race and ethnicity shows some small level of nonresponse bias. In conducting *t*-tests between the percent valid and percent missing among white respondents, 13 of the 25 comparisons are significant. For all of these items, whites had high levels of valid data in comparison to missing data. Missing responses seem to be distributed more heavily among nonwhite than white cases.

In conclusion, the overall level of nonresponse is very low in this data file. The response bias noted here is not sufficiently grave to have a major impact on most analysis. However, it is important to note so that improvements can be made for the next round of data collection.

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**For additional technical information,** see the complete report:

Green, P., Myers, S., Veldman, C., and Pedlow, S. (1999). *Baccalaureate and Beyond Longitudinal Study: 1993/97 Second Follow-up Methodology Report* (NCES 1999–159).

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## Evaluation of the NCES State Library Agencies Survey: An Examination of Duplication and Definitions in the Fiscal Section

Laura Riley Aneckstein

*This article was excerpted from the foreword and chapter 1 of the technical report of the same name. The universe data are from the NCES State Library Agencies (STLA) Survey and the Office of Library Programs (OLP) Financial and Performance Report.*

### Introduction

This report was prepared for the National Center of Education Statistics (NCES) by the Governments Division of the U.S. Bureau of the Census. The report documents an evaluation that focused on the fiscal section of the NCES State Library Agencies (STLA) Survey,<sup>1</sup> Parts K, L, and M. The evaluation had two objectives: (1) to check for duplication of data collection between the survey and the compliance materials of the Office of Library Programs (OLP), a former agency of the U.S. Department of Education; and (2) to analyze selected definitions.

### Background for Part I: Duplication of Data Collection

Part I of this evaluation compares fiscal year (FY) 1995 data collected by the NCES survey with those collected by OLP, to determine whether OLP's Annual Financial and Performance Reports collected any of the data in items 154–163 or 190–200 of the NCES survey. The STLA Survey Steering Committee and NCES authorized this duplication analysis to address issues raised in an Office of Management and Budget memorandum written in 1994 (OMB No. 1850–0705). The memorandum had expressed concern that NCES and OLP may have been collecting the same data on Library Services and Construction Act (LSCA) funds,<sup>2</sup> thereby creating an excessive reporting burden for state library agencies (STLAs).

At the time this study began, Steering Committee and NCES officials were aware that to some extent there was an overlap in the collection of financial data between NCES and OLP. At the same time, they were aware that the two agencies collected the data in different groupings and that the data were collected according to different reporting periods. The duplication analysis was authorized to determine to what extent these and other differences prevented duplication and whether the differences were avoidable.

Part I of this study analyzes STLA data from FY 1995 only, for two reasons. First, because the forms used by each agency were essentially the same from FY 1994, when the survey began, through FY 1996, it was not necessary to scrutinize the data from all three years. Second, it was preferable to examine the most recent data possible, and at the time Part I began, the 1996 data were not yet complete.

The evaluation consulted the following reference sources for information about the survey and OLP materials: statutory and regulatory material, blank data collection instrument forms, instructions for form completion, actual respondent data, and phone interviews with selected respondents.

To understand this report, it is necessary to become familiar with the data collection objectives and methods of each agency. Because the main objective of each agency was different, the collection methods and data differed. A brief explanation of objectives and methods follows.

### The NCES survey

NCES publishes *State Library Agencies* (a publication tabulating and summarizing the NCES STLA survey) each year for STLA administrators, state legislators, and other policymakers. The purpose of the survey is to provide state and federal agency policymakers with information about STLAs. The data collected are useful to (1) the 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 federal, state, and local levels; (4) the American Library Association and its members or customers; and (5) library and public policy researchers. The survey asks each STLA about the kinds of services it provides, its staffing practices, its collections, income and expenditure data, and more. Decisionmakers use the NCES survey to obtain information about services and fiscal practices.

The NCES survey is conducted by the U.S. Census Bureau, under contract with NCES. The survey instrument is contained in a software program into which each STLA enters its responses electronically. The STLA may receive

<sup>1</sup>Throughout this report, the term "NCES survey" refers to the NCES STLA Survey.

<sup>2</sup>LSCA is the federal law that formerly governed the creation and funding of programs for library development.

the program either on floppy disk or by e-mail. After completing the survey, the STLA sends it back to the data collection unit.

### Office of Library Programs (OLP)

Until federal FY 1998, OLP was an agency within the Department of Education that funded the programs authorized by Titles I through III of the Library Services and Construction Act (LSCA).<sup>3</sup> OLP solicited grant applications from the STLAs, determined the amount to be awarded to each, dispersed the funds, and monitored the programs administered by the STLAs and their subgrantees. When the Library Services and Technology Act of 1996 (LSTA) passed, it ordered that all federal library programs be transferred to the new Institute of Museum and Library Services (IMLS) after FY 1997.

Unlike NCES, OLP did not compile data for publication and use by STLAs and other policymakers. Rather, OLP collected the LSCA information in order to evaluate the extent to which each STLA was adhering to the LSCA grant program regulations. The divergent objectives of the agencies have caused them to collect different data. NCES uses a broad focus, and collects information on many different aspects of STLA operation, only one of which is financial statistics. OLP had a much narrower scope, concentrating on each grant project and whether the related funds were expended properly.

### Background for Part II: Definitional Analysis of Income and Expenditures Items

Since the first NCES STLA Survey was conducted (FY 1994), some of the financial data (collected in Parts K, L, and M of the survey) returned by the respondents have been inconsistent and problematic. The Steering Committee and NCES requested this part of the evaluation in order to determine the causes of the anomalous data, and to revise the definitions for the affected items.

The ensuing study relied on the survey forms, instructions, and the respondent survey manuals; actual respondent data from survey years 1994–96; and phone interviews with 28 respondents.

While the phone interviews collected some important information, they also revealed an underlying problem: the respondents are too busy to spend much time completing the survey. As such, the respondents sometimes do not double-check the data they provide for obvious errors; they do not always investigate further if they do not understand a question or item definition; and they are often unable to explain why their data appear internally inconsistent.

Those conditions made Part II a difficult prospect. Often, during phone interviews, the respondents were uncertain about why equations were out of balance. When this occurred, it became necessary to use circumstantial evidence to draw conclusions about the data. In other words, the evaluation analyzed the respondent's data reporting pattern over 3 years to piece together the respondent's interpretations of the survey items. The necessity of relying on circumstantial evidence affected the strength of some of the findings. However, those findings, together with a close examination of Parts K, L, and M, did allow for a revision of the relevant questions, definitions, and notes.

The wording of suggested revisions took into account the fact that the Library Services and Construction Act (LSCA) will not be relevant to the FY 1998 survey. Instead, the Library Services and Technology Act (LSTA) will control the federal grants to STLAs. While it remains unknown exactly how STLA data will be collected under the LSTA regime, it is possible that the Institute of Museum and Library Services (IMLS) will collect fundamentally the same fiscal information as did OLP. Hence, the fiscal parts of the NCES survey may remain largely unaffected by the transfer of regimes.

The suggested definitional modifications were constructed with this in mind. Minor editing was done where required, to reflect the evolution from LSCA to LSTA. References to "LSCA" were changed to "LSTA," and references to Titles I, II, and III were changed to "Section 231(a) [20 U.S.C. § 9141(a)] of the Library Services and Technology Act," the subsection that reflects the Act's two main focuses.

<sup>3</sup>LSCA contained eight titles, each focusing on a particular area of concern to libraries and the public they serve. The most prominent of these were Titles I through III, which accounted for over 96 percent of LSCA funds.

## Recommendations

Because the data being collected by the NCES survey may be fundamentally similar to those that will be collected by the new Institute of Museum and Library Services (IMLS), Part I of this evaluation suggested that the Steering Committee might wish to consult with IMLS regarding the possibility of coordinating data collection in future years.

Because some STLAs were confused about how to measure income and how to classify expenditures, Part II suggested that the Steering Committee address these problems by making several changes and additions to survey questions, definitions, and notes. Details of these suggested revisions can be found in the complete report.

**Data source:** Parts K, L, and M of the NCES State Library Agencies (STLA) Survey, 1994, 1995, and 1996; and expenditures data from the Office of Library Programs (OLP) Financial and Performance Report, 1995.

**For technical information,** see the complete report:

Aneckstein, L.R. (1999). *Evaluation of the NCES State Library Agencies Survey* (NCES 1999-312).

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# ALS Coverage Evaluation

## Coverage Evaluation of Academic Libraries Survey (ALS)

— Christopher C. Marston

*This article was excerpted from the Introduction and the Summary of Findings and Recommendations in the technical report of the same name. The report evaluates the “Academic Libraries Survey” (ALS), part of the NCES Integrated Postsecondary Education Data System (IPEDS).*

### Introduction

Academic libraries are education resources that play a key role in the transfer of knowledge and information. Data on these important resources are provided by the “Academic Libraries Survey” (ALS), one component of the Integrated Postsecondary Education Data System (IPEDS). ALS collects data on the libraries in the entire universe of accredited higher education institutions and on the libraries in nonaccredited institutions with a program of 4 years or more. The survey provides policymakers and researchers with information on trends in total operating expenditures devoted to academic libraries, on services available to students, and on the adoption of new technologies, such as electronic access to bibliographic information. In addition, ALS provides information on the staffing of academic libraries.

### Objectives Covered in This Evaluation

This evaluation was conducted for the National Center for Education Statistics (NCES) by the Governments Division of the U.S. Census Bureau. It utilizes five distinct categories to evaluate ALS coverage: (1) policy, (2) survey design and data elements, (3) universe of participants, (4) coordinator interviews, and (5) public versus private institution reporting.

Policy is examined in terms of National Performance Review guidelines for “Best Practices” in government research and the importance of this survey in the complex environment associated with our National Information Infrastructure. Second, survey design is assessed to evaluate what kind of data are covered by ALS and how they measure up to professional standards set by the American Library Association (ALA) and other notable academic library research groups. Third, universe coverage is evaluated by comparing the list of IPEDS universe units to other lists applicable to academic library research. Sources for comparison were selected based on the professional respect that they command in the library field. Fourth, at the request of NCES, the evaluation examines the opinions of survey coordinators regarding instrument design and data covered by ALS. Finally, taking coverage a step further, private versus public institution reporting is examined.

### Overview of Findings and Recommendations

#### **Revisions are making the survey questions easier for respondents to understand.**

Instrument revisions are consistent with national performance objectives established by the Office of Management and Budget and the National Performance Review. As a result, IPEDS is creating a more efficient and effective instrument for data collection. By incorporating a reader-focused environment, erroneous reporting should be decreased, and editing (data cleaning) time should theoretically be reduced as well. Therefore, coverage quality should be increased or maintained based on policy and survey design initiatives currently in place.

#### **Earlier release of data might encourage more non–Title IV institutions to participate.**

Due to the size of the ALS universe, data gathering is extremely tedious and complex. Only those institutions that receive federal funding through Title IV student financial aid programs<sup>1</sup> are required to respond to the survey. Regardless of the presence or absence of federal funding, institution response is initiated within a self-paced environment. Electronic software and Web technologies are helping to reduce the time it takes for the institution to respond to ALS. As a mutual support mechanism to alleviate the timeliness issue, an early release policy for the data is envisioned. It is possible that, by reducing the time necessary for data collection, data dissemination could occur at an earlier date as well. If achieved, efficient reporting could directly affect the timeliness issue associated with data dissemination as well. Institutions that have the option of participating in ALS might elect to do so in light of these changes.

#### **Field coordinators should answer a brief questionnaire when submitting the data.**

Field coordinators collect ALS data from the institutions in their regions, then submit these data either by using IDEALS electronic reporting software or by returning the actual survey forms filled out by the institutions. Field

<sup>1</sup>Title IV of the Higher Education Act of 1965 authorizes programs such as Pell Grants, Stafford Loans, and the College Work Study Program.



coordinators are an excellent resource to assess the quality of institution coverage and instrument design. This evaluation proposes that a short questionnaire be included in the IDEALS software to assess this valuable resource for longitudinal and cross-sectional evaluation of ALS. By utilizing their firsthand experience, library representatives could help NCES maintain or increase the quality of data coverage and collection at the regional level.

**Universe coverage is generally excellent, but data on branch campuses and professional schools could be improved.**

The quality of institutional coverage remains excellent when compared to other institutional listings directly related to the academic libraries industry. Seven reputable listing types were compared:

Data type	Universe assembled by
Branches	<i>American Library Directory (ALD)</i> (1997–98, Volume 1)
Library Science Programs	<i>American Library Directory (ALD)</i> (1997–98, Volume 2)  American Library Association (Accredited Library Science Programs, as listed in <i>ALD</i> , Volume 2)
Associations	Association of Research Libraries  The Oberlin Group
World Wide Web Access	University of Florida's Web Listing of Colleges and Universities
Archives, Special Collections, and Archival Education Programs	U.S. Government Printing Office Web Listing of Federal Depositions  University of Idaho/Abraham's Listing of Special Collections  The Society of American Archivists
Professional School Libraries	American Bar Association List of Approved Law Schools
General	Peterson's Guides

Findings suggest that the ALS universe is superior (coverage gap of 1 to 3 percent in only two of the listings).<sup>2</sup> Regardless of this finding, future studies are needed to assess whether or not the data collected by ALS fully account for branch data associated with parent institution resources. The only resource that could come close to assessing this quality would be branch data compiled from the *American Library Directory* (1997).

<sup>2</sup>Of the 2,723 institutions listed in volume 1 of the *American Library Directory* (1997), 93 institutions were not covered in the IPEDS universe, representing a gap of about 3 percent. Of the 1,167 institutions in the University of Florida's Web listing, only 12 institutions (1 percent) were not covered by IPEDS.

A problem currently plaguing ALS data is uncertainty as to the presence or absence of professional school statistics in parent college or university data. Branch comparison could be valuable in light of this problem as well. In an effort to clarify parent institution reporting, the instrument could include questions indicating whether or not professional school resources are present or absent in aggregate institution statistics, a method already utilized by two professional academic library research associations, the Association of College and Research Libraries (ACRL) and the Association of Research Libraries (ARL).

**Nonresponse by Title IV institutions could be reduced by enforcing mandatory participation.**

Finally, based on the findings from the segment observation in this study (public versus private reporting), the most problematic institutional types associated with reporting would include the private, nonprofit, higher education, 4-year institutions (primarily of a religious affiliation). It is anticipated that the problem of nonresponse by Title IV institutions would be reduced if mechanisms to enforce participation were put into place nationally. The question remains: Where does ALS proceed from here?

**ALS should continue to change its questions to cover newly emerging technologies.**

Based on field coordinator response, ALS should continue to change along with the industry. Data coverage is a key factor in the assessment of institutional, regional, and national academic library resources. Without measuring current trends in procurement and management of resources, appropriations cannot be made to enhance resources and facilities that already exist.

**Data on libraries at non-degree-granting institutions would probably be useful to policymakers.**

Should resource statistics that do not pertain to "higher education institutions" in IPEDS data coverage be included in ALS reporting? Specifically, should library data for less-than-2-year institutions<sup>3</sup> (primarily vocational and trade schools) be reported along with academic library data? It is already known that by definition these institutions fall outside the defined ALS universe (1998) of participants. Given trends in nontraditional education, for public officials to adequately assess library resources covered in a community or region, it might be necessary to include

<sup>3</sup>Under the IPEDS classification of postsecondary institutions, these are the institutions in sectors 7, 8, and 9.

nontraditional library elements within the comprehensive sphere of resources available to areas and communities. Paralleling this argument, ALS field coordinators indicated in the national survey interview conducted as a part of this evaluation that vocational and nonacademic library resources do represent significant library resources in the United States.<sup>4</sup> If the amount of data on these resources would be increased by coverage of nonacademic institutions, then this expanded coverage would further the U.S. Department of Education goal of identifying as many of the nation's education resources as possible.

## Summary

Findings suggest that the data collected through ALS represent a high-quality product when compared to other surveys within the same field of study. Regardless of the problems with ALS outlined in this evaluation, it is the most comprehensive data source for academic libraries data of its kind in the United States. No other public or private association provides a more complete listing of resources offered by public and private colleges and universities. Because ALS data are functional in terms of policy assessment and resource allocation (funding), accurate statistics will provide for a more informed approach to planning and funding for academic libraries in the United States. Survey refinement and timely dissemination of ALS data will not only provide current statistics for the policymakers, but also provide a means for institutions to assess their own resources at the national, regional, and sector levels.

<sup>4</sup>Although coordinators felt that nontraditional library data coverage is important, descriptive statistics should be reported separately so as not to skew the data for higher education institutions.

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**For technical information**, see the complete report:

Marston, C.C. (1999). *Coverage Evaluation of Academic Libraries Survey (ALS)* (NCES 1999–330).

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# FEDERAL INTERAGENCY COLLABORATIVE ACTIVITIES

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## Well-Being of Children

### America's Children: Key National Indicators of Well-Being: 1999

Federal Interagency Forum on Child and Family Statistics

*This article was originally published as the Highlights and Summary List of Indicators from the report of the same name, prepared by the Federal Interagency Forum on Child and Family Statistics. Made up of 18 federal agencies, including NCES, the Forum fosters interagency coordination and collaboration in the collection and reporting of federal data on children and families. Forum agencies are listed at the end of this article, along with the report's numerous data sources.*

*America's Children: Key National Indicators of Well-Being: 1999* is the third annual report to the nation on the condition of our most precious resource, our children. Included are six contextual measures that describe the changing population and family context in which children are living and 23 indicators of well-being in the areas of economic security, health, behavior and social environment, and education. This year's report includes as a special feature an indicator on Children Who Have Difficulty Performing Everyday Activities.

#### Part I: Population and Family Characteristics

- America's children continue to grow in racial and ethnic diversity. In 1998, 65 percent were white, non-Hispanic; 15 percent were black, non-Hispanic; 15 percent were Hispanic; 4 percent were Asian/Pacific Islander; and 1 percent were American Indian/Alaska Native. Hispanic children slightly outnumber black, non-Hispanic children.
- The percentage of children living with two parents declined from 77 percent in 1980 to 68 percent in 1996, and has remained stable since then. There are

large differences across racial and ethnic groups, however. In 1998, 76 percent of white, non-Hispanic children lived with two parents, compared to 36 percent of black children and 64 percent of Hispanic children.

- The percentage of births that are to unmarried women has stabilized since 1994 at about 32 percent, after rising sharply from 18 percent in 1980.

#### Part II: Indicators of Children's Well-Being

##### Economic security indicators

- The poverty rate of children was 19 percent in 1997, about the same as it has been since 1980. The proportion of children living in families with high income increased from 17 percent in 1980 to 25 percent in 1997, while the proportion of children living in extreme poverty grew slightly, from 7 to 8 percent, over the same period. These shifts reflect a growing income disparity among children.
- The percentage of children living with their parents who had at least one parent working full time all year

increased 5 percentage points, to 76 percent, from 1993 to 1997. A large share of this increase was due to the increase in the percentage of children living with employed single mothers, which increased from 33 percent in 1993 to 41 percent in 1997.

- Most American children and adolescents had a diet that was poor or needed improvement in 1996. As children get older, the quality of their diet declines: 24 percent of 2- to 5-year-olds had a good diet, compared with only 6 percent of teenagers ages 13 to 18.
- Teenagers are also less likely than younger children to have a usual source of medical care. In 1996, 8 percent of all adolescents ages 12 to 17 lacked a usual source of care. Over 27 percent of uninsured adolescents in this age group lacked a usual source of care.

#### Health indicators

- The percentage of infants born with low birthweight (weighing less than about 5.5 pounds) continues to rise. In 1997, this percentage was the highest in over 20 years, at 7.5 percent. The increase in low birthweight is partly due to the rising number of twin and other multiple births.
- The percentage of children in families living in poverty who have received the combined series of vaccines increased between 1996 and 1997, from 69 to 71 percent.
- While the mortality rate for almost all groups of children continues to fall, it has fallen most dramatically among black children ages 1 to 4, from 67.6 per 1,000 in 1996 to 59.2 in 1997, according to preliminary data. This rate, however, remains almost twice the rate for whites, at 31.5 per 1,000 according to 1997 preliminary data.
- Death rates among adolescents, particularly among black males, have dropped dramatically after rising rapidly during the early 1990s. In 1996, the adolescent firearm mortality rate was at the lowest point since 1989 for both blacks and whites. The rate among black males dropped from 120.3 per 100,000 in 1995 to 108.7 in 1996, and the rate among white males dropped from 27.9 per 100,000 in 1995 to 23.1 in 1996.

- The birth rate for teenagers ages 15 to 17 dropped from 1991 to 1997, after rising during the late 1980s. In 1997, the rate was 32.1 live births per 1,000 females ages 15 to 17, down from 38.7 in 1991.

#### Behavior and social environment indicators

- The percentage of 10th- and 12th-grade students who reported smoking daily dropped in 1998 after generally increasing since 1992. Among 10th-graders, the percentage dropped from 18 percent in 1997 to 16 percent in 1998, and among 12th-graders it dropped from its recent high of 25 percent in 1997 to 22 percent in 1998. This rate is still high compared to previous years, however.
- Youth ages 12 to 17 were victims of serious violent crime at the rate of 27 crimes per 1,000 in 1997, down from 44 per 1,000 in 1993. Juveniles were identified as perpetrators of serious violent crimes at the rate of 31 crimes per 1,000 in 1997, down from 52 per 1,000 in 1993.

#### Education indicators

- A higher percentage of children were enrolled in preschool in 1997 than in 1996—48 percent compared to 45 percent. Preschool enrollment particularly increased among black, non-Hispanic children, from 45 to 55 percent, and among children living in poverty, from 34 to 40 percent.
- In 1998, about 8 percent of the nation's 16- to 19-year-olds were neither enrolled in school nor working, a significant decrease from 9 percent in 1997.

#### Special feature

- About 12 percent of children ages 5 to 17 have difficulty performing one or more everyday activities, including learning, communication, mobility, and self-care. Difficulty with learning is the most common of these four types of limitations. Children in families with lower socioeconomic status are at greater risk than other children of having difficulty performing everyday activities.

## Summary list of indicators

Indicator name	Description of indicator	Previous year of data Value (Year)	New data Value (Year)	Change between years
<b>Economic security</b>				
Child poverty and family income	Percentage of related children under age 18 in poverty	20 (1996)	19 (1997)	NS
Secure parental employment	Percentage of children under age 18 living with parents with at least one parent employed full time all year	75 (1996)	76 (1997)	NS
Housing problems	Percentage of households with children under age 18 that report any of three housing problems	36 (1995)	—	—
Food security	Percentage of children under age 18 in households experiencing food insecurity with moderate or severe hunger	6 (1996)	4 (1997)	▼
	Percentage of children ages 2 to 5 with a good diet	27 (1995)	24 (1996)	NS
Access to health care	Percentage of children under age 18 covered by health insurance	85 (1996)	85 (1997)	NS
	Percentage of children under age 18 with no usual source of health care	6 (1995)	6 (1996)	NS
<b>Health</b>				
General health status	Percentage of children under age 18 in very good or excellent health	81 (1995)	81 (1996)	NS
Activity limitation	Percentage of children ages 5 to 17 with any limitation in activity resulting from chronic conditions	7 (1995)	8 (1996)	NS
Low birthweight	Percentage of infants weighing less than 5.5 pounds at birth	7.4 (1996)	7.5 (1997)	▲
Infant mortality	Deaths before the first birthday per 1,000 live births	7.3 (1996)	7.1 (1997)	▼
Childhood immunizations	Percentage of children ages 19 to 35 months who received combined series immunization coverage	77 (1996)	76 (1997)	NS
Child mortality	Deaths per 100,000 children ages 1 to 4	38 (1996)	36 (1997)	▼
	Deaths per 100,000 children ages 5 to 14	22 (1996)	21 (1997)	▼
Adolescent mortality	Deaths per 100,000 adolescents ages 15 to 19	84 (1995)	79 (1996)	▼
Adolescent births	Births per 1,000 females ages 15 to 17	34 (1996)	32 (1997)	▼
<b>Behavior and social environment</b>				
Regular cigarette smoking	Percentage of 8th-grade students who reported smoking daily in the previous 30 days	9 (1997)	9 (1998)	NS
	Percentage of 10th-grade students who reported smoking daily in the previous 30 days	18 (1997)	16 (1998)	▼
	Percentage of 12th-grade students who reported smoking daily in the previous 30 days	25 (1997)	22 (1998)	▼

NS = No significant change.

▲ = Significant increase.

▼ = Significant decrease.

— = Not available.

## Summary list of indicators—Continued

Indicator name	Description of indicator	Previous year of data Value (Year)	New data Value (Year)	Change between years
Alcohol use	Percentage of 8th-grade students who reported having five or more alcoholic beverages in a row in the last 2 weeks	15 (1997)	14 (1998)	NS
	Percentage of 10th-grade students who reported having five or more alcoholic beverages in a row in the last 2 weeks	25 (1997)	24 (1998)	NS
	Percentage of 12th-grade students who reported having five or more alcoholic beverages in a row in the last 2 weeks	31 (1997)	32 (1998)	NS
Illicit drug use	Percentage of 8th-grade students who have used illicit drugs in the previous 30 days	13 (1997)	12 (1998)	NS
	Percentage of 10th-grade students who have used illicit drugs in the previous 30 days	23 (1997)	22 (1998)	NS
	Percentage of 12th-grade students who have used illicit drugs in the previous 30 days	26 (1997)	26 (1998)	NS
Youth victims and perpetrators of serious violent crimes	Rate of serious violent crime victimizations per 1,000 youth ages 12 to 17	30 (1996)	27 (1997)	NS
	Serious violent crime offending rate per 1,000 youth ages 12 to 17	36 (1996)	31 (1997)	▼
<b>Education</b>				
Family reading to young children	Percentage of children ages 3 to 5 who are read to every day by a family member	57 (1996)	—	—
Early childhood education	Percentage of children ages 3 to 4 who are enrolled in preschool	45 (1996)	48 (1997)	▲
Mathematics and reading achievement (0–500 scale)	Average mathematics scale score of 9-year-olds	231 (1996)	—	—
	Average mathematics scale score of 13-year-olds	274 (1996)	—	—
	Average mathematics scale score of 17-year-olds	307 (1996)	—	—
	Average reading scale score of 9-year-olds	212 (1996)	—	—
	Average reading scale score of 13-year-olds	259 (1996)	—	—
	Average reading scale score of 17-year-olds	287 (1996)	—	—
High school completion	Percentage of young adults ages 18 to 24 who have completed high school	86 (1996)	86 (1997)	NS
Youth neither enrolled in school nor working	Percentage of youth ages 16 to 19 who are neither in school nor working	9 (1997)	8 (1998)	▼
Higher education	Percentage of high school graduates ages 25 to 29 who have completed a bachelor's degree or higher	32 (1997)	31 (1998)	NS
<b>Special feature</b>				
Difficulty performing everyday activities	Percentage of children ages 5 to 17 who have difficulty performing at least one of four everyday activities	—	12.3 (1994)	—

NS = No significant change.

▲ = Significant increase.

▼ = Significant decrease.

— = Not available.



**Data sources:**

NCES: National Household Education Survey (NHES), various years; and National Assessment of Educational Progress (NAEP), various years.

Bureau of the Census: Current Population Survey (CPS), January–May and September–December, various years; and March Demographic, April Food Security, and October School Enrollment supplements to the CPS, various years.

Bureau of the Census and Department of Housing and Urban Development: Annual Housing Survey and American Housing Survey, various years.

National Center for Health Statistics: National Vital Statistics System, various years; National Health Interview Survey (NHIS), various years; NHIS Supplement on Disability, 1994; National Immunization Survey, 1994–97; National Linked File of Live Births and Infant Deaths, various years; and National Immunization Program, 1994–97.

Other: Monitoring the Future Survey (National Institute on Drug Abuse), various years; National Crime Victimization Survey (Bureau of Justice Statistics), various years; Uniform Crime Reporting Program, Supplementary Homicide Reports (Federal Bureau of Investigation), various years; and Continuing Survey of Food Intakes by Individuals (Center for Nutrition Policy and Promotion, U.S. Department of Agriculture), 1994–96.

**For technical information**, see the complete report:

Federal Interagency Forum on Child and Family Statistics. (1999).

*America's Children: Key National Indicators of Well-Being: 1999* (NCES 1999–019).

**Agencies in the Federal Interagency Forum on Child and Family**

**Statistics (by Department):** *Department of Agriculture*, Food Nutrition Service's Office of Analysis, Nutrition, and Evaluation; *Department of Commerce*, Bureau of the Census; *Department of Defense*, Office of the Assistant Secretary of Defense; *Department of Education*, National Center for Education Statistics; *Department of Health and Human Services*, Administration for Children and Families, Agency for Health Care Policy and Research, Maternal and Child Health Bureau, National Center for Health Statistics, National Institute of Child Health and Human Development, and Office of the Assistant Secretary for Policy Development; *Department of Housing and Urban Development*, Office of Policy Development and Research; *Department of Justice*, Bureau of Justice Statistics, National Institute of Justice, and Office of Juvenile Justice and Delinquency Prevention; *Department of Labor*, Bureau of Labor Statistics and Women's Bureau; *National Science Foundation*, Science Resources Studies Division; and *Office of Management and Budget*, Statistical Policy Office.

**For questions about content**, contact Laura Lippman ([laura\\_lippman@ed.gov](mailto:laura_lippman@ed.gov)).

**To obtain the complete report (NCES 1999–019),**

- contact the National Maternal and Child Health Clearinghouse (NMCHC) by mail, phone, or e-mail (2070 Chain Bridge Road, Suite 450, Vienna, VA 22182; 703–356–1964; [nmchc@circsol.com](mailto:nmchc@circsol.com));
- visit any of the following Web sites: NCES (<http://nces.ed.gov>), NMCHC (<http://www.nmchc.org>), or the Federal Interagency Forum on Child and Family Statistics (<http://childstats.gov>); or
- contact GPO (202–512–1800).





# OTHER PUBLICATIONS AND FUNDING OPPORTUNITIES

## OTHER PUBLICATIONS

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## Other Publications

### Selected Papers in School Finance: 1997–99

*William J. Fowler, Jr. (editor)*

This publication is the latest in the *Selected Papers in School Finance* series, for which NCES commissions papers that address issues of interest to the education finance research community. The papers are intended to promote the exchange of ideas and raise awareness of leading research in education finance.

There are five papers in this publication. Continuing the NCES tradition of commissioning papers to address problems of education finance measurement, the first two papers address advances in measuring and

adjusting for education inflation. The other papers examine the relationship between spending at the school-district and school levels; private sources of funding for public education, of which surprisingly little is known; and the existing attempts to estimate the cost of educational outcomes and the implications for policymakers and researchers.

**Editor affiliation:** W.J. Fowler, Jr., NCES.

**For questions about this publication,** contact William Fowler ([william\\_fowler@ed.gov](mailto:william_fowler@ed.gov)).

**To obtain this publication (NCES 1999–334),** call the toll-free ED Pubs number (877–433–7827), visit the NCES Web Site (<http://nces.ed.gov>), or contact GPO (202–512–1800).

## Federal Forecasters Directory: 1999

*Debra Gerald (editor)*

This directory is a publication of the Federal Forecasters Conference. The conference, a collaborative effort of forecasters from federal agencies in the U.S. government, provides a forum for sharing information on forecasting issues. One of the conference's objectives is to build a core network of forecasters whose cooperation furthers the use of forecasting as an important tool in the 21st century. The current directory lists forecasters from both federal agencies and the private sector as of June 24, 1999.

**Editor affiliation:** D. Gerald, NCES.

**For questions about this directory,** contact Debra Gerald ([debra\\_gerald@ed.gov](mailto:debra_gerald@ed.gov)).

**To obtain this directory (NCES 1999-070),** call the toll-free ED Pubs number (877-433-7827), visit the NCES Web Site (<http://nces.ed.gov>), or contact GPO (202-512-1800).

## Schools and Staffing Survey (SASS)

*Ullik Rouk*

The Schools and Staffing Survey (SASS) is the nation's largest sample survey of the characteristics and conditions of America's public and private schools and the teachers and principals who work in them. Additionally, SASS surveys the universe of Bureau of Indian Affairs (BIA) schools and, beginning with the 1999-2000 administration, will survey the universe of charter schools. Initiated by NCES in the mid-1980s, SASS offers a source of data for policymakers, educators, education researchers, and the general public.

For this, the fourth administration, SASS shifts emphasis from teacher supply and demand issues to the measurement of teacher capacity and school capacity, both central to the recent school reform agenda. At the same time, this new version retains or expands many of the topics covered in previous administrations, maintaining the capability for trend analysis.

This 31-page booklet provides an overview of survey components, sample characteristics, and operating procedures for the 1999-2000 SASS. The booklet outlines key elements of the SASS redesign, including the research and evaluation efforts that underlie the changes. A list of NCES publications about SASS is also included.

**Author affiliation:** U. Rouk, Policy Studies Associates.

**For questions about content,** contact Charles Hammer ([charles\\_hammer@ed.gov](mailto:charles_hammer@ed.gov)).

**To obtain this booklet (NCES 1999-352),** call the toll-free ED Pubs number (877-433-7827) or visit the NCES Web Site (<http://nces.ed.gov>).

## Snapshots of Public Schools in the United States: Results From the Schools and Staffing Survey

*Jin Kwon, Martha Naomi Alt, and Robin R. Henke*

In order to assemble a complete picture of K-12 schooling in the United States, the NCES Schools and Staffing Survey (SASS) asks for information from a random sample of public and private schools, their principals, and a subset of their teachers. Public schools' districts are also surveyed.

This 21-page booklet was written for respondents to the School District, Public School, and Public School Principal questionnaires. Using information from SASS, the booklet presents a few snapshots of public schools. It contains information about professional development for teachers, instruction for limited-English-proficient students, perceptions of problems in schools, principals' and teachers' influence on school policies, site-based decisionmaking, and average class size by state.

**Author affiliations:** J. Kwon, M.N. Alt, and R.R. Henke, MPR Associates, Inc.

**For questions about content,** contact Kerry Gruber ([kerry\\_gruber@ed.gov](mailto:kerry_gruber@ed.gov)).

**To obtain this booklet (NCES 1999-341),** call the toll-free ED Pubs number (877-433-7827) or visit the NCES Web Site (<http://nces.ed.gov>).

## Snapshots of Private Schools in the United States: Results From the Schools and Staffing Survey

Jin Kwon, Martha Naomi Alt, and Robin R. Henke

The NCES Schools and Staffing Survey (SASS) collects data from teachers, principals, and schools in both the public and private sectors. This 21-page booklet was written for respondents to the SASS Private School and School Principal questionnaires. The booklet contains overview information about types of private schools, school level and size, perceptions of problems in schools, principals' influence on school policies, influence of principals and others on establishing curriculum, high school graduation requirements, and college application rates.

**Author affiliations:** J. Kwon, M.N. Alt, and R.R. Henke, MPR Associates, Inc.

**For questions about content,** contact Kerry Gruber ([kerry\\_gruber@ed.gov](mailto:kerry_gruber@ed.gov)).

**To obtain this booklet (NCES 1999-340),** call the toll-free ED Pubs number (877-433-7827) or visit the NCES Web Site (<http://nces.ed.gov>).

## Teachers on Teaching: Results From the Schools and Staffing Survey

Jin Kwon, Martha Naomi Alt, and Robin R. Henke

The NCES Schools and Staffing Survey (SASS) is a set of integrated questionnaires that collect information about public and private schools and the staff who work in them. To help provide an accurate picture of K-12 schooling in the United States, a random sample of teachers at each surveyed school receives the Teacher Questionnaire. Written for respondents to the Teacher Questionnaire, this 21-page booklet provides a few snapshots of teachers' work lives at both public and private schools. It contains information about total working hours and time spent teaching core subjects, control and influence in the classroom and in the

school, professional development activities, job satisfaction, and average class size.

**Author affiliations:** J. Kwon, M.N. Alt, and R.R. Henke, MPR Associates, Inc.

**For questions about content,** contact Kerry Gruber ([kerry\\_gruber@ed.gov](mailto:kerry_gruber@ed.gov)).

**To obtain this booklet (NCES 1999-344),** call the toll-free ED Pubs number (877-433-7827) or visit the NCES Web Site (<http://nces.ed.gov>).

## The Condition of Education: 1998 Supplemental and Standard Error Tables

*The Condition of Education* is an annual, congressionally mandated report produced by NCES. For those people who wish to examine in greater detail the issues presented in the main volume of *The Condition*, this volume provides additional information. It includes all tables and notes that were prepared for *The Condition of Education: 1998*, including supplemental tables and notes that were omitted from the main volume due to space limitations. Standard errors for all survey estimates are also included in this supplemental volume. All supplemental information and standard errors are also contained in the electronic version of *The Condition of Education: 1998* (NCES 1999-022, available at <http://nces.ed.gov/pubs98/index.html>).

**For questions about this volume,** contact John Wirt ([john\\_wirt@ed.gov](mailto:john_wirt@ed.gov)).

**To obtain this volume (NCES 1999-025),** call the toll-free ED Pubs number (877-433-7827) or contact GPO (202-512-1800).

## Funding Opportunities

### The AERA Grants Program

Jointly funded by the National Science Foundation (NSF), NCES, and the Office of Educational Research and Improvement (OERI), 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 data sets, 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.

**For more information**, contact Edith McArthur ([edith\\_mcarthur@ed.gov](mailto:edith_mcarthur@ed.gov)) or visit the AERA Grants Program Web Site (<http://aera.ucsb.edu>).

### The AIR Grant Program—Information for the 2000 Grant Year

Officially entitled Improving Institutional Research in Postsecondary Educational Institutions, the annual grant program administered by the Association for Institutional Research (AIR) is supported by NCES and the National Science Foundation (NSF). This grant program fosters the use of national databases housed at NCES and NSF for institutional research in postsecondary education and for institutional decisionmaking. There are three types of awards:

- (1) fellowships for 1-week summer institutes—one institute each on the NCES and NSF databases—to be held in June 2000 in the Washington, DC, area;
- (2) dissertation support grants of up to \$15,000 each for research utilizing these data resources; and
- (3) research grants of up to \$30,000 each for post-secondary education research that promises to make an innovative contribution on the national level.

All awards require a written proposal, submitted electronically by January 17, 2000.

**For more information**, visit the AIR Web Site ([www.airweb.org](http://www.airweb.org)), contact Roslyn Korb ([roslyn\\_korb@ed.gov](mailto:roslyn_korb@ed.gov)), or contact the AIR Grant Coordinator ([air@mailers.fsu.edu](mailto:air@mailers.fsu.edu)).

### The NAEP Secondary Analysis Grant Program

The NAEP Secondary Analysis Grant Program was developed to encourage educational 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.

**For more information**, contact Alex Sedlacek ([alex\\_sedlacek@ed.gov](mailto:alex_sedlacek@ed.gov)).



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