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# EDUCATION STATISTICS QUARTERLY

*Volume 2 · Issue 2 · Summer 2000*



*Volume 2 · Issue 2 · Summer 2000*

NATIONAL CENTER FOR  
EDUCATION STATISTICS

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## National Center for Education Statistics

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

### *EDUCATION STATISTICS QUARTERLY*

#### **Purpose and goals**

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

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

#### **Content**

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

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

A complete annual index of NCES publications 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 NCES

*Marilyn McMillen, Chief Statistician*

## NCES Universe Surveys

The NCES data collections include a mixture of universe and sample surveys. Each universe survey is a census of all known entities in the specific universe (e.g., all elementary and secondary public schools or all public school districts in the country). In addition to providing basic descriptive data, the universe surveys frequently serve as sampling frames for cross-sectional and longitudinal sample surveys. In total, NCES conducts 12 recurring universe surveys.

One set of universe surveys, the Common Core of Data (CCD), is featured in this issue. The CCD is made up of six separate annual surveys that are sent to state education departments, where data are compiled from state administrative records for the 90,900 public elementary and secondary schools and the 14,500 regular school districts with students. The CCD surveys include public school fiscal and nonfiscal data aggregated at the state and at the school district levels, as well as school-level data. These surveys, plus the biennial Private School Survey (PSS) of data from 27,000 private schools, comprise the NCES universe surveys at the elementary and secondary school levels.

At the postsecondary level, the Integrated Postsecondary Education Data System (IPEDS) includes all 9,600 institutions and educational organizations that provide postsecondary education. As of fall 2000, IPEDS will consist of two annual surveys—a fall and a spring data collection—which will include data on institutional characteristics, completions, enrollments, graduation rates, finance, and the state of residence of first-time students. IPEDS data can be used to describe trends in postsecondary education at the institutional, state, and national levels. For example, researchers can use IPEDS data to analyze data on enrollments and completions of students at different levels by sex and race/ethnicity and by characteristics of postsecondary institutions such as tuition and room and board charges and institutional revenue and expenditure patterns. IPEDS data collection will be entirely Web based beginning in fall 2000.

The Library Statistics Program includes one biennial and two annual universe surveys. The Public Libraries Survey is an annual survey of 8,900 public libraries, with data ranging from usage, size of collection, staffing patterns, and finances to electronic access. The annual State Library Agencies Survey provides descriptive data on services related to library development and the administration of federal funds for libraries. The Academic Library Survey is a biennial universe survey that collects data from the 3,800 degree-granting postsecondary institutions to provide national and state overviews of academic libraries on topics similar to those reported for public libraries.



## NCES Data Cooperatives

To facilitate the collection of data, NCES coordinates three congressionally mandated cooperatives—on elementary and secondary education, postsecondary education, and libraries. The cooperatives are established in law “for the purpose of producing and maintaining, with the cooperation of the States, comparable and uniform data on elementary and secondary education, postsecondary education, and libraries, that are useful for policymaking at the Federal, State, and local levels.” To do this, “the Commissioner may provide technical assistance, and make grants and enter into contracts and cooperative agreements” (P.L. 103-382, sec. 410).

Although the three cooperatives operate separately, they share a number of common features:

- *Membership:* Each cooperative includes members from federal, state, and local education agencies with responsibilities for collecting and reporting education data. The members include data providers, data users, government employees, and representatives of public and private institutions and associations.
- *Utility:* The mission statement of each cooperative stresses the goal of meeting policymakers’ needs for data that support policy development, implementation, and evaluation.
- *Comparability:* In order to be useful, the data must be of high quality and must be comparable across reporting units; thus, quality and comparability are also keystones of each cooperative’s mission statement.
- *Coordination:* To meet these goals, each cooperative recognizes the need to work together to develop and adopt data standards, including common definitions, standards for the electronic exchange of data, guidelines to promote data collection, and data sharing processes that appropriately preserve confidentiality while permitting access and minimizing burden.

Each cooperative engages in projects designed to identify and define the core data for specific topics. These definitions are formalized in handbooks that provide frameworks to promote the coordination of data collections. At this point, the National Forum on Education Statistics (the elementary and secondary education cooperative) has released handbooks on core data elements, privacy, the use of technology, financial accounting, student data, and staff data. The National Postsecondary Education Cooperative has released one handbook on human resources and related reports on technology, student access, and outcomes data. The Federal-State Cooperative System for libraries is working on a Web-based project on data definitions. This definitional work, as well as additional projects designed to explore and promote the use of technology for data collection and data exchange, is supported by NCES.



# FEATURED TOPIC: THE COMMON CORE OF DATA

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## Introduction: The Common Core of Data Surveys

*Lee Hoffman, Elementary/Secondary Cooperative System and Institutional Surveys Program Director*

**Featured in this issue is the Common Core of Data (CCD), one of the NCES universe survey systems. This introduction and the two invited commentaries that follow provide some context for the CCD publications in this section.**

The Common Core of Data (CCD) survey system is among the oldest of the federal education information collections, and one that has benefited enormously from the last decade's developments in information technology. Technology, however, probably has had as much impact through the changes in state and school district systems that collect and

report data to the National Center for Education Statistics (NCES) as through its direct effects on the CCD. As the survey collection has moved from reliance on paper forms that were entered manually into a mainframe computer to file transfer over the Internet, both time and errors have been reduced.

## History of the CCD

The earliest responsibility of the CCD—and its predecessors—was to make available a list of public schools and the local education agencies that managed them. In the 1960s, publication of the *Directory of Public School Systems* began to follow a regular schedule as Part II of the Department of Education's Education Directory series. The corresponding universe of school names and addresses was maintained as an internal, unpublished listing. The next decade saw this system expand into the Elementary and Secondary Education General Information System. ELSEGIS was a more ambitious data system, collecting and publishing more extensive information on public schools and education agencies.

The current design of the CCD was introduced in 1986–87, with the first data of publishable quality collected in the following school year. In short order, the survey system acquired characteristics that distinguish it from its precursors and give the CCD its current identity.

Unlike earlier education directory systems, the CCD began in the late 1980s to edit the school and agency universe files with the same attention that had formerly been directed toward the state-level data collections. (These latter continued to stand as the official state statistics for the reported data.) At about the same time, the CCD discontinued the then-common practice among commercial listing services of maintaining “open” files: that is, allowing information to be updated as it became available, with the result that a file could include data from different years for different states. NCES decided that all CCD data reported by states would be those that were current as of October 1 of the school year. Old data could not be carried over from one year to the next, which made issues in the timeliness of state reporting more crucial than they had been in the past.

The CCD of the late 1980s expanded the content of the surveys as well as established new reporting and editing conventions. This expansion—and the process through which states agreed to report data items with common definitions—was accomplished in partnership with the Council of Chief State School Officers. CCSSO is a professional association representing the heads of state public education agencies, and it has a longstanding role in brokering the data interests between state data reporters and federal data collectors. In 1985, CCSSO began, under contract to NCES, to examine the completeness and comparability of data reported on the CCD as it was then

structured. The project initiated the practice of negotiation, consensus, and verification between state agencies and NCES that continues today.

## The Survey System

The CCD is a series of six separate annual data collections reporting information drawn from the administrative records of state education agencies. It encompasses the universe of public schools and local education agencies<sup>1</sup> and is limited to elementary and secondary school data.

Two surveys provide financial data. State-level information about revenues and expenditures is reported on the “National Public Education Financial Survey.” The “Annual Survey of Government Finances: School Systems” collects comparable information about individual local education agencies. More commonly known by its form number (F-33), this survey is supported jointly by the Bureau of the Census (Governments Division) and NCES.

Nonfiscal information about students, staff, and institutions is drawn from three CCD surveys. The “State Nonfiscal Survey of Public Elementary/Secondary Education” is the source of official state-level counts of public school students, teachers and other staff, and high school completers.

The “Local Education Agency Universe Survey” provides information about approximately 16,500<sup>2</sup> local agencies, in addition to the state education agencies, that are responsible for providing public education or services that support it. This survey includes information about institutional characteristics, numbers of education staff, numbers of students participating in selected education programs, dropouts, and high school completers.

The “Public Elementary/Secondary School Universe Survey” is similar. In 1997–98, it encompassed more than 90,000 public schools. Like its state and local agency counterparts, the school universe survey reports institutional characteristics and the numbers of teachers, student enrollment by grade (with detail on gender and racial/ethnic category), and students participating in selected education programs.

<sup>1</sup>Local education agencies include school districts, which manage schools and oversee the provision of education services to students within their jurisdiction, and other agencies that may provide specialized administrative, program management, data processing, or other services to school districts. For example, several small school districts in New England might designate one as the “supervisory union” responsible for administrative services to the group.

<sup>2</sup>In addition to the 14,500 regular school districts, this number includes special service districts.

All of these collections report data that are at least 1 year out of date—the information collected by the state that reflects conditions on October 1 may not be reported to NCES until the following September. The “Early Estimates of Public Elementary/Secondary Education Survey” offers a sample of more current data. This survey reports, before the end of each school year, the estimated numbers of students and teachers, high school graduates, and revenues and expenditures for education.

### Uses of the CCD

The CCD is accessible through a number of print and electronic products that reflect increasing numbers of uses and users. Its historic function as a directory of public schools and education agencies remains, and the CCD serves as a mailing list, institution registry, and sampling frame.

A *Directory of Public Elementary and Secondary Education Agencies* is printed each year.<sup>3</sup> The publication is also available on the NCES Web Site. The Internet has also enabled NCES to maintain a Public School and School District Locator, through which users can search for individual schools or districts and secure basic information such as address, telephone number, state and NCES identification codes, and some student and teacher data. The NCES identification code is important because it is used by applicants for Schools and Libraries Corporation e-rate (universal rate) telecommunications discount grants and for grants under the Safe Schools/Healthy Students program.

A Web product, the School District (Agency) and Public School Name and Address Files, is available. Vendors and marketers are particularly likely to rely on this product to prepare customized lists for their mailings.

The school and agency universe files are used in drawing samples for national studies. The CCD has been used recently in drawing samples for the NCES Schools and Staffing Survey and the National Assessment of Educational Progress. Its component school districts serve as the framework to which demographers are mapping extensive demographic data from the 2000 Decennial Census.

The CCD is a source of descriptive statistics about public schools and districts. This can be an important function for some education programs—for example, the state per pupil

expenditure drawn from the “National Public Education Financial Survey” is used to calculate allocations for Title I, Impact Aid, and other federal programs. Descriptive statistics are reported for general use through short Statistics in Brief publications (three of which are featured in this section) and through more detailed reports, such as the *Characteristics of the 100 Largest School Districts in the United States*, as well as other publications. Each edition of the *NCES Digest of Education Statistics* incorporates CCD data in 40 or so of its tables. The CCD serves as the only annual universe report of the numbers of students enrolled in public schools, the numbers of high school diplomas awarded, and the numbers of public school teachers. For the more than 40 states that participate in the dropout data collection (the number is growing over time), the CCD provides comparable statistics about how many students drop out of school each year.

One relatively new use of the CCD is that of research database. In the 1999 *Condition of Education*, the CCD was used to analyze changes in the racial/ethnic isolation of students in public schools over a 10-year period. This application of the CCD has been aided by work to reconstruct lost documentation and by making archived files available through the International Archive of Education Data. It has also relied on the development of a longitudinal education agency research file that matches school districts over time and includes imputed data for a number of missing responses.

### Issues in Quality

Administrative records data have had limited use in research and policymaking because they may not be considered trustworthy. The nonsampling errors to which administrative records are vulnerable include incomplete coverage, discrepancies in data definitions, varying periodicity, and inability to verify data quality.

A coverage evaluation of the elementary/secondary education agency universe concluded that the CCD did a good job of representing traditional types of education agencies (Owens 1997); a companion study of school coverage is currently in review. Nontraditional agencies, particularly those not administered by the state education agency, were more likely to be missed. These evaluations set the context for discussions with state data reporters about how to improve coverage and have led to changes that will ostensibly improve the surveys’ representation. As one example, schools and districts under the jurisdiction of the Bureau of

<sup>3</sup>The current edition of the *Directory* (McDowell and Sietsema 2000) is described later in this section, on p.65.

Indian Affairs (BIA) had been inconsistently reported by states. BIA schools and districts are now excluded from state reports and published as a separate reporting entity. Again, there was an explicit effort in the 1998–99 collection to improve the coverage of charter schools, whose governance structure varies widely across states. This was partially successful in capturing more schools. However, as long as the CCD continues to draw upon the administrative records of state education agencies, there will be some schools and agencies that fall outside its net.

Respondents may not follow definitions uniformly. For example, classification evaluations of the CCD, and subsequent technical review panels, found that states disagreed about when to classify an education agency as a supervisory union, a regional service agency, or a state operated agency. The survey continues to struggle with crafting a feasible and professionally acceptable definition of a vocational school. Definitional agreement in reporting has been approached in several ways. Topical technical review panels uncover possible sources of confusion (or inapplicability) in current item definitions, with resulting guidance to state data reporters through the CCD Home Page, direct mailings, and annual training. For the number of dropouts, a particularly high-stakes statistic, each CCD coordinator is questioned annually about the state's adherence to the CCD definition and reporting procedures.

Periodicity has been addressed by arbitrarily setting October 1 as the “as of” date for CCD counts. Current-year statistics are to be reported as they were observed on October 1; past-year statistics, such as the number of dropouts or the number of students receiving migrant education services, are reported as they were known to be on that day. Information collected from state CCD coordinators in the 1991–92 introduction of the dropout statistic found that the data from most states had been collected within a week of October 1, but that a few states reported data that had been collected 4 or 5 weeks earlier or later. This issue appears to be one that is improving due to developments in information technology. In past years, for example, the sum of students in the reported racial/ethnic categories often differed from the reported total of students—purportedly because the counts were taken at different times. Today this problem does not arise on the state-level survey.

The quality of data is promoted by attention to the conditions under which data are collected and reported—conditions that were discussed in the preceding paragraphs—and by editing data once they are received. A

recent evaluation concluded that the CCD survey processing included more edits than necessary, based on the number of data changes in response to edit challenges (Hamann 1999). The number of edit challenges reported to state CCD coordinators has been reduced. The “National Public Education Financial Survey” continues to send prior-year comparisons and add checks on all subtotals to the respondents, in part because sizable federal allocations are affected by the numbers. The state nonfiscal survey, which is Web based, incorporates soft edits that respondents can override with an explanatory note. Similar editing software for the school and education agency universe surveys is available to states. More comprehensive Web-based versions of this software are expected to be available by August 2000.

### Recent, Ongoing, and Upcoming Developments

The revised CCD school and education agency universe surveys that were introduced in the 1998–99 school year added a number of features that were intended to make the CCD more useful for sampling and program uses. The idea of “flags” was introduced. In addition to its traditional type code (e.g., regular, vocational), a school is now flagged as magnet, charter, or Title I, as appropriate. Additional detail provides school membership by gender and racial/ethnic category within each grade, and there are now reports of the numbers of students receiving migrant and limited English proficiency services.

The school locale code, originally developed by CCD staff at NCES, has been refined in the last year. The variable identifies the degree to which a school is located in an urban setting, with codes ranging from “large city” to “rural.” The addition of a “location address” (if this differs from the mailing address) has improved the assignment of locale codes on the basis of Census place. For example, if a rural school receives its mail at the post office in a neighboring town, the location address will ensure that the school is coded as “rural” rather than “small town.” And, the existing rural category has been broken into “rural (outside a metropolitan statistical area)” and “rural, urban fringe (within a metropolitan statistical area).”

CCD staff, in cooperation with state education agencies, have also reached consensus on a high school completion rate that is being introduced with 1998–99 data. This rate is the proportion of students leaving school who leave as completers. It is the number of high school completers in a given year divided by the number of completers plus the

number of dropouts from grades 12, 11, 10, and 9 in the current and 3 preceding years, respectively.

Because of the importance of the environment in which CCD data are first produced, NCES supports technical assistance activities that are peripheral to the CCD. These include comprehensive handbooks for elementary/secondary student and staff data. The *Student Data Handbook* was revised within the last year and will be updated annually.<sup>4</sup> The *Staff Data Handbook* (Malitz 1995) will be revised by January 2001, with the same provision for annual review and revision. *Financial Accounting for Local and State School Systems: 1990* (Fowler 1990) is undergoing substantial review in response to developments in program interests (e.g., better ability to reflect expenditures for technology or school safety) and new reporting recommendations from the Government Accounting Standards Board.

In the area of information technology, NCES participates actively in the development of national data standards. The X-12 subcommittee of the American National Standards Institute approves standards for the electronic exchange of information about people. The X-12 subcommittee has approved the format for electronic student record exchange developed by NCES and the members of the Center's elementary and secondary education and postsecondary education data cooperatives. At present, NCES participates in X-12, continues a project to develop electronic data interchange (EDI) standards for the CCD, and has joined an education and vendor group that is creating extensible markup language (XML) standards for the information typically collected and used by schools and school districts.

In the near future, NCES will be studying ways to better exploit the use of electronic data exchange in collecting and

reporting administrative records data. The challenge will be to increase the timeliness of CCD data without threatening quality or adding to response burden. This effort can potentially challenge several of the CCD's basic operating principles—for example, one suggestion has been to improve timeliness by publishing directory information before the statistical information is available—but it will result in a better and more responsive survey system.

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<sup>4</sup>The current edition of the *Student Data Handbook* (Cheung and Young 2000) is excerpted later in this section, beginning on p. 66.

# School Districts and CCD

## Invited Commentary: What Do School Districts Have in Common With the Common Core of Data?

—Andy Rogers, Administrator, Instructional Technology Applications,  
Los Angeles Unified School District

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

### Introduction

The Common Core of Data (CCD) is an organized set of information used throughout the United States to examine school, student, and teacher data. The CCD is also used to predict trends to assist policymakers. These uses of the CCD are almost certainly known to most readers of the *Education Statistics Quarterly*. Throughout the federal and state departments of education, the CCD is recognized as an important tool for educators and community stakeholders.

However, when representatives of school districts are asked about the CCD, the answers are less certain. Many have not even heard of the CCD. Does this mean that the data are not used by personnel at the district level? Not necessarily. CCD data are used; personnel just may not know the source of the information.

Even if school and district personnel have not heard of the CCD, they do know that they are required to collect information and send it on up “to the next level” of the education hierarchy. It seems as though, contrary to the law of gravity, *the data flow up*. On the other hand, people who are using the CCD may not be aware of the processes involved in getting the data to the state departments of education before they go to the National Center for Education Statistics (NCES) for the creation of the CCD.

One of the major purposes of this article is to discuss some of the processes involved in the data flow from America’s schools through America’s school districts and to examine what is involved in making the data as accurate as possible. Another purpose is to discuss how these data, now in the form of information, can flow back down to districts and schools and how that flow can be increased.

### Where Do the Data Come From?

The procedures leading up to the moment that a school district sends the data to the state or county agency are complex. A supportive internal infrastructure is required. This may seem simplistic, but each piece of data is gathered, or collected, in one way or another, and reviewed by staff to make certain that it is correct. Sometimes the data are collected through a sophisticated wide-area computer

network connecting schools to a central office. Sometimes the collection takes place using diskettes. Sometimes there is a paper collection. In all cases, however, the data that are collected have to be validated and checked for accuracy.

In the Los Angeles Unified School District, for example, more than 700,000 students will be reported on the date of the district “snapshot” in the fall of 2000. Information about each student and about teachers and schools has to be reported accurately. It is true that LA Unified is unusual in that it is the second largest district in the country. However, every district in the United States is responsible for collecting accurate information for each of the students, teachers, and schools within its jurisdiction. Every district has to go through the process of data collection and validation.

### The Infamous “Data Burden”

This reporting process is not without difficulties. The goal is to report accurate data. But what happens when a data element is missing or makes no sense? When an error is discovered, it must be corrected. If the error results from data entered at a school, that school will be contacted. The school could be contacted by telephone, or might receive a report indicating what needs to be done to fix the problem (or, usually, more than one problem). In any case, the information must be corrected.

For those in the business of collecting data, this doesn’t sound like a big issue. It seems clear: the school has made an error and must correct it. But the business of schools is not data collection or data entry. The business of schools is educating our students. Anything that detracts from this central task is not appreciated by school staff. They might complain that, to make such corrections, they have to take time away from responsibilities that appear to be more closely related to the education of the students in the school. Certainly, the correction of the data will take staff away from other tasks that need to be done.

Clerical staff in school offices are probably responsible for data entry and will be asked to make any necessary corrections. These office clerical staff are also still responsible for

all those things we remember from the days when we were in school. However, the addition of computers in these offices, connected to databases with thousands of data elements, has imposed added responsibilities on these staff. Someone has to enter the data. In addition, in many districts, the number of clerical staff in school offices has remained static over the years, while the number of data elements that need to be entered into the computer systems has increased. Thus, when someone from the “central office” calls or writes to the principal stating that data were entered incorrectly, these staff will not be happy.

These problems exemplify the infamous “data burden” imposed on schools. The burden is not merely the requirement to correct one data element. School personnel are responsible for entire databases. It is not unreasonable to assume that a moderately sized school might be responsible for more than 100,000 data elements. The burden at the school site is apparent when we recognize that staff are responsible for entering all of these data elements and updating them accurately.

Once the data are received from the schools on the day of the “snapshot,” there must be other staff in place who can review the initial submission of data, validate the information, and assist the schools in making corrections. This is the “data burden” at the school district level. Although no amount of technological advance will make it go away completely, one of our tasks is to reduce this burden as much as possible.

In fact, it is perceived that the “data burden” is decreased for a district and its schools when staff are able to see why data are collected. If the data flow down, back to the schools and districts in the form of information that can be used, staff will see the benefit from the work that they do to enter and validate the data. Information based on the data must get back to the place where the data were entered, or else staff will believe that the burden is too great. And, if this is the case, data accuracy will also suffer.

### Using the CCD

The phrase “data comparability” is used so often that it has almost become a mantra. The fact that the data in the CCD are comparable enables district staff, and other members of the education community, to be advocates for increased funding or for a redistribution of resources in states based on data, not on simple anecdotal stories.

The movement toward “accountability” in all aspects of education has grown. Schools and school districts across

the country are being held accountable for the results of their instructional programs. As Californians know, their method of financing education has changed. Since a vote of the populace some years ago reducing the local property taxes, expenditures for education have not kept pace with expenditures in many other states.

According to information from the 1998–99 CCD, California ranks near the bottom in per pupil expenditures for education in the United States and it has the second highest student/teacher ratio. These facts are important both to educators and to students in California. These data have also been used by educators to point out that if districts in the state are to be held accountable for the results of instructional programs, education needs to be funded more adequately.

To the credit of the California state government today, indications are that funding for education in the state will greatly increase in the near future.

Other examples of comparisons that can be made using the CCD are

- the number of migrant students in a school district,
- the number of limited-English-proficient (LEP) students in language programs, and
- diploma recipients by racial/ethnic category and sex.

These comparisons can be made between school districts for the 1998–99 collection. This information, among other available data within the CCD, is a valuable tool that can be used to examine trends and to plan for the future.

### Dissemination of the Data

Earlier, it was noted that many school and district personnel do not know about the CCD. In the past, dissemination was not adequate and information about the CCD often did not filter back down to schools and districts. This is changing rapidly. In recent years, the CCD has been placed on CD-ROM, greatly expanding awareness of it in the education community. The CD-ROM provides tools that enable users, not just computer programmers, to examine and compare the data.

But the real change in the dissemination of the CCD has occurred because of the growth of the Internet. Through the Internet, especially the World Wide Web, the CCD is available to schools, districts, and the public at large. Recently, the NCES Web Site was extensively revised. By going to <http://www.nces.ed.gov/ccd/aboutccd.html>, one is led

through an explanation of the CCD and the set of surveys. Reports are available along with data sets.

### **Conclusion**

Some people still believe that data are collected solely for the purpose of collecting; that is, data being collected for the sake of data and for nothing else. But staff involved in data collection at the state and national levels want to make the results of that collection available to those who are responsible for gathering the information at the school and district levels. Now, with the CCD easily accessible to educators throughout the country, people can see the results of their labor, and they can compare these results with those of other states, districts, or schools.

It is still true that data flow up. But the information and data sets that result from the data entered at schools also flow down. School district personnel responsible for making decisions will use the CCD as the dissemination improves through the use of the Internet. The data will be used because they are comparable and dependable. They are comparable because of the work of NCES. They are dependable because of the work and dedication of the education community: from schools, to school districts, to state departments of education.

## Invited Commentary: Common Core of Data: A Partnership of Federal, State, and Local Interests

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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

The interests of sound policies and decisions for governing public K–12 education in the United States are well served by the Common Core of Data (CCD), which is administered by the National Center for Education Statistics (NCES). The CCD is a good example of the critical importance of effective collaboration and partnerships between local, state, and federal levels of government. The basic data that define public schools in the United States exist because local school districts, state education agencies, and the U.S. Department of Education work together to establish common definitions, maintain regular data collection and reporting on core measures, and uphold policies on accurate, honest data.

The critical role of the CCD system for education policies at each level of our education system cannot be overestimated. The Department of Education has monitored some of the data elements of the CCD since the Department's inception in 1867. The current CCD system has experienced change and will experience further rapid change. Three main points on the uses of the CCD in education policy are emphasized in this commentary.

- The CCD offers important building blocks for education decisions as well as key starting points for other education surveys and data systems at all levels.
- The CCD depends on timely cooperation among educators and managers at each level of public education, and the mutual dependence underlying the common system must be recognized by parties at each level for the system to function effectively.
- Movement toward an electronic integrated data system will incorporate the current functions of the CCD and significantly expand the usefulness of the data currently reported.

### Recent Issues With the CCD

The data collections contributing to the CCD cover the most basic elements that describe education in the United States, including student enrollments, teachers, demographic characteristics, schools, revenues, and expenditures. School systems across the country play an active part in

ensuring that the data meet definitions and specifications established through the leadership of NCES. Over the past decade, improvements have been made that have strengthened the CCD system. Regarding the usefulness of CCD information for education policy, several issues can be identified.

Since the 1980s, one of the emphases for the CCD and other NCES data collections has been increasing the reliability and consistency of data. Under the leadership of Emerson Elliot, former NCES Commissioner, the statistics provided by NCES have improved when judged against these criteria. Some areas of data collection within NCES have expanded, such as the National Assessment of Educational Progress (NAEP), longitudinal studies, and the Schools and Staffing Survey. The work with the CCD has focused primarily on improving the quality of data, although several data items have been added to the system from existing administrative records. In the early 1980s, NCES was criticized for the lack of consistency, completeness, and timeliness of data and statistics. In the past decade, NCES has worked with states and school districts in a cooperative, collaborative manner to improve the quality of data and has focused on ensuring that reports are available on a regular, timely schedule.

Educators, administrators, and policymakers may have some frustration with the CCD on the issues of usefulness and flexibility. For example, the CCD does not collect or report any data that can be disaggregated or analyzed by program, curriculum, or subject area. State agency users, professional organizations, and local educators could see enormous potential benefit in being able to track trends in full-time-equivalent (FTE) teachers by teaching assignment and size of school. A survey that was discontinued in the 1980s tracked secondary course enrollments, and many potential users would argue that these data would now be very important to have in common across states and districts. In the CCD, detailed data are collected by school for student characteristics such as race/ethnicity and poverty. The data can be accessed by school code, but they have not often been linked to educational measures from other national or state-level surveys such as student

achievement or course enrollments. This is now an area of increased attention by NCES, and linking projects would increase the usefulness of the CCD.

Another issue is the method of reporting and availability of data. For example, the CCD collects detailed data at the district and state levels. Until the mid-1990s, aggregated statistics from the CCD were available in a small number of publications, notably the *Digest of Education Statistics* and *The Condition of Education*, as well as reports summarizing each of the CCD data collections' findings. Regular mailings were made to K–12 education agencies, postsecondary education institutions, and libraries. However, many other potential users often were not alerted to the availability of data, how they could be obtained, or how they might be used.

In the late 1990s, the advent of the Internet and the World Wide Web provided new avenues for CCD data to be made available to potential users, and methods of accessing data improved vastly. In addition, a series of short publications (*Statistics in Brief*) has alerted many educators and policymakers to the applications of the CCD series as well as other NCES surveys.

Access to data and information has become an expectation in American society and the world. The key products from the CCD need to continue to be disseminated in creative ways. New means of accessing these important data and statistics should become available as more users become attuned to methods of combining data from several sources for the purposes of educational policy analyses and producing reports on progress in our schools.

### Policy Applications of the CCD

What are the strengths of the CCD as educators and policymakers look into the 21st century and consider the priorities for spending to improve the infrastructure of educational systems? From the viewpoint of policy applications, I would elaborate on three main points.

1. *CCD as building blocks for education decisions and data systems.* States, local systems, and the public depend on the common definitions and data collection procedures provided through the CCD. With the refocusing on data quality in the 1980s, NCES has invested in a number of consensus-building projects to ensure that K–12 education has a common statistical foundation. The CCD depends on state and local funding and data systems to collect data. However, NCES efforts ensure that data collection and reporting

on central elements of educational systems—including school, teacher, administrator, student, graduate, and dropout—significantly ease the jobs of data managers at all levels and key users such as school boards and state legislatures.

Educational systems increasingly operate in a national market for students, teachers, and administrators. Decisions about school budgets and allocations in many jurisdictions involve the largest portion of spending of public tax dollars. Thus, decision makers have come to rely on comparable statistics from one school district to another and from one state to another. The CCD has proved an important starting point for data collection, analysis, and reporting by local school districts and states across the country. As school systems begin to redesign education data systems to meet the many new needs for data, NCES data definitions, coding systems, core data collections, and methods of aggregation and reporting provide the basic foundation for construction of education data and statistics.

The development of a common national dropout statistic in the 1990s provides a useful lesson in the role and relevance of the CCD. The reauthorization of the Elementary and Secondary Act in 1987 (the Hawkins-Stafford Act) called for a number of improvements in national education statistics. Among the provisions of the act was the creation of a comparable, reliable figure on the school dropout rate. Previously, school systems and states reported statistics on dropouts using a variety of methods of defining and counting a school “dropout” and various reference groups and periods of time to consider in computing a dropout “rate.” Constituencies and interest groups relied on a particular definition or rate of dropout, with some methods of computation producing much higher or lower rates than others. NCES sought expert advice from highly respected statisticians and educators in finalizing a common definition and began requesting dropout statistics from states in the early 1990s. Through the CCD system and the deliberative consensus process for developing a new data collection element “in common” among the states, there has been a gradual movement to adopt the CCD definition of dropout. As a result, data systems used in states have adapted to require schools to track and report dropouts using the recommended procedures.

The NCES/CCD dropout statistic is not yet universal. Even when states agree to the new definition, some states and school districts do not have adequate data systems for collecting the data and conducting the necessary data edits

and checks at the student level that are needed to meet the NCES/CCD definition. Thus, they are lacking the data needed for computing the standard rate. However, the common definition and reporting methods that were initiated, promoted, and supported through the CCD are likely to displace the noncomparable, local definitions of dropout. While the local definitions may meet some local reporting needs, they will not provide for methods of evaluating policies established to address the dropout problem that can be compared to policies and programs in other local systems and states.

*2. CCD based on cooperation and mutual dependence.* Many of the decisions regarding CCD surveys, definitions, and procedures have been made through cooperation with states and districts. The National Forum on Education Statistics, created a decade ago, consists of representatives from states and federal agencies involved with data collection and reporting of education statistics. Committees of the Forum have operated effectively to provide input into decisions about the CCD and other NCES data collection series. The Forum is part of the National Cooperative Education Statistics System of NCES with state departments of education. State education staff are supported with travel and expense funds for conferences and meetings with NCES staff, contractors, and others to plan and carry out the CCD. In turn, states collect and report data aggregated to the school, district, and state levels. NCES also sponsors a fellows program for state and district staff and provides some financial assistance to states to develop and improve their education data systems.

The cooperative approach to operation of the CCD has obvious benefits both for states and for NCES. It moves the data and statistics program toward a joint venture for data quality, accuracy, and timeliness. This approach does depend upon the cooperative intent in federal-state relations to ensure that data systems receive appropriate priority at the state and local levels. States still must allocate funds to support state-level design, management, and staffing of data systems, and they must provide leadership toward improving data quality with local school boards and administrators.

The cooperative system for the CCD has reaped real benefits in improving data quality and advancing the linkages between federal data collection and reporting and state and local data systems. Federal leadership of the cooperative system has been a plus. Two areas now need concentrated effort in the federal, state, and local partner-

ship to improve the usefulness of the CCD for policy purposes. First, timeliness of state and district reporting needs to be improved. For example, CCD nonfiscal data are now available at the close of the following school year. High standards for quality and completeness have been applied, but problems in some states continue to slow the release of complete 50-state data sets. NCES and other components of the Department of Education need to continue to take a strong leadership role in assisting state and local systems to improve their data systems and maintain deadlines. States need to retain well-qualified staff who can maintain continuity in data collection and reporting and ensure that standards of quality and timeliness are upheld.

On a broader level, a second area of need for federal, state, and local partnership is to improve state and local reports with education statistics and indicators of progress. All states now produce state accountability or indicator reports, and a majority of the states report indicators at the district and school levels. Many of the models for reporting provide basic statistics on student and teacher demographics, education finance, and student achievement results. Relatively few states use a range of data sources and data collections to provide reports that are useful to a variety of audiences, including decision makers, teachers, administrators, and parents. An area for further federal-state collaboration, with guidance from the National Forum on Education Statistics, should be in the areas of reporting, data analysis, and uses of data.

*3. Movement toward an electronic integrated data system.* The cooperative effort toward data and data system improvement that has been carried out through the National Forum on Education Statistics may change the nature of how the CCD collects and reports information. In the early 1990s, a group of state education agency and school district staff joined with postsecondary admissions officers in a Forum project to develop a format for the electronic transmission of student records. This system exists today as SPEEDE/ExPRESS (Standardization of Postsecondary Education Electronic Data Exchange/Exchange of Permanent Records Electronically for Students and Schools). The transaction sets making up SPEEDE/ExPRESS are approved by the American National Standards Institute (ANSI) and thus serve as national standards for electronic information exchange. With representation from the Forum, NCES remains an active member of ANSI's subcommittee for electronic data interchange. Through this activity, NCES has recently joined with states, districts, and the private sector in the Schools Interoperability Framework project, an effort

to develop extensible markup language (XML) formats for a range of information needs and data elements common at the school district level.

NCES has sponsored other pilot projects in the area of electronic data collection and transmission, often within the framework of the CCD data elements and always in collaboration with states and school districts. In the mid-1990s, several pairs of school districts that considered themselves “trading partners” for student enrollments tested the usefulness of SPEEDE/ExPRESS for forwarding migrant students’ education records. Addressing another need, NCES sponsored work in several states belonging to the Southern Regional Education Board. The project developed a multistate collaborative system for collecting, analyzing, and reporting education staff data from multiple administrative record systems (such as data on teacher certification, continuing education, and retirement). It demonstrated a regional approach with the capacity to model teacher supply and demand for state policy planning.

NCES also developed and pilot-tested with states a system for harvesting CCD data from state record systems. Although never widely adopted, this early effort at electronic data aggregation and reporting addressed many of the issues that current electronic data systems have had to address, including data comparability, security in electronic transmission, hardware compatibility, and student privacy rights.

Only one CCD survey (the “State Nonfiscal Survey of Public Elementary/Secondary Education”), which reports state-level nonfiscal data, is a fully Web-based collection at this time. The remaining surveys may develop Web-based collection strategies in the near future. Because of the increasing need for timely information on education outcomes, other programs in the federal government are

looking at the usefulness of existing state and local data for creating an integrated electronic reporting system.

For example, a current pilot project of the U.S. Department of Education’s Planning and Evaluation Service is working with a small group of states to test an integrated approach to reporting from state data systems to federal education agencies. The Council of Chief State School Officers (CCSSO) has provided assistance and advice to the project. The goal of the initial two-state test with Nebraska and Oregon was to determine if data reporting needs for a number of elementary and secondary education programs could be met by accessing the data systems maintained by states. The Integrated Performance and Benchmarking System (IPBS) is now being expanded to six more states: Delaware, Illinois, Massachusetts, Pennsylvania, South Carolina, and Texas. The IPBS, which is part of the Department’s overall information improvement strategy, is envisioned as an Internet-based system for gathering data from states about federal program activities at the school and district levels. The approach being tested by IPBS represents a new model that could be applicable for future use with CCD collections. The National Forum on Education Statistics could provide needed review and discussion of the IPBS model for electronic collaboration on education data.

## Conclusion

From the perspective of policy use, the CCD is valuable not only as a source of information, but also as a model for federal-state cooperation that can improve data collection, quality, and use overall. If the past 10 years are a good predictor, the CCD survey system can be expected to grow and influence other collections in interesting ways over the next decade.

## Early Estimates of Public Elementary and Secondary Education Statistics: School Year 1999–2000

Lena McDowell

*This article was originally published as an Early Estimates report. The universe data are from the NCES Common Core of Data (CCD), “Early Estimates of Public Elementary/Secondary Education Survey.” Technical notes and definitions from the original report have been omitted.*

### The Early Estimates System

The early estimates system is designed to allow the National Center for Education Statistics (NCES) to publish selected key statistics during the school year in which they are reported. The source of universe statistical information about public elementary and secondary education is the Common Core of Data (CCD)—data collected annually by NCES from state education agencies. The estimates included in this report were reported in December 1999 for the 1999–2000 school year.\*

In early October 1999, survey forms were sent to each state education agency. States were asked to complete the form and return it by mail or facsimile (fax). States that had not responded by mid-November were contacted by telephone. All data were checked for reasonableness against prior years’ reports, and follow-up calls were made to resolve any questions. When states did not supply a data item, NCES estimated a value. These values are footnoted in the tables. If one or more states required an estimated number, then the national total for that item is marked as estimated. Any state early estimate that indicated a change of greater than 10 percentage points more or less than the national growth rate was replaced with an adjusted early estimate.

Forty-eight states, the District of Columbia, and two outlying areas participated in the 1999–2000 “Early Estimates of Public Elementary/Secondary Education Survey.” The estimates reported here were provided by state education agencies and represent the best information on public elementary and secondary schools available to states at this stage of the school year. They are, however, subject to revision. All estimates for the two nonreporting states and the three outlying areas were calculated by NCES. (California, New Jersey, Guam, and Puerto Rico did not return the completed survey form. American Samoa’s survey form was received after the cut-off date.) NCES also estimated missing data items for a number of reporting states.

\*For other CCD surveys, in contrast, most nonfiscal data for school year 1999–2000 are reported to NCES from March 2000 through September 2000, after which they undergo NCES and state editing and are adjusted for missing data. High school graduate and fiscal data are reported a year later than student and teacher data.

The tables in this publication include three kinds of data. “Reported” data are previously published figures. “Preliminary” data have not been published previously by NCES; for these, data collection is complete, and processing and data adjustments are through all but the final stage of review. “Estimated” data are those for the current (1999–2000) school year.

Estimated data for the current school year are of three types: estimates derived by the states for NCES (most of the data are of this type); preliminary actual counts reported by individual states; and estimated values developed by NCES using a combination of state-specific and national data.

### Highlights

The estimates in this publication are key statistics reported during the 1999–2000 school year. They include the number of students in membership, teachers, and high school graduates for public elementary and secondary schools, and total revenues and expenditures for the operation of public elementary and secondary schools. Highlights of these statistics include the following:

- There were approximately 46.8 million prekindergarten through grade 12 students in the nation’s public elementary and secondary schools in fall 1999, compared with 46.5 million in fall 1998. Student membership has increased by 1.9 million since fall 1995 (table 1).
- Public school students were taught by an estimated 2.9 million teachers in school year 1999–2000 (table 2).
- The student membership and teacher count data show a pupil-to-teacher ratio of 16.2 for grades prekindergarten through 12 for public schools in school year 1999–2000 (table 7).
- An estimated 2.5 million public school students graduated from high school in the 1998–99 school year. In the 1999–2000 school year, 2.6 million students are expected to graduate from high school (table 3).

- Revenues for public elementary and secondary education in fiscal year (FY) 1999 are estimated to be \$337.0 billion, and they are expected to rise to approximately \$354.4 billion in FY 2000 (table 4).
- Current expenditures for public elementary and secondary education for FY 2000 are estimated to be \$308.0 billion, an increase of 3.3 percent over the FY 1999 estimate of \$298.2 billion. The per pupil expenditure is anticipated to be \$6,585 per student in membership for the 1999–2000 school year (tables 6 and 7).

**Data sources:** The NCES Common Core of Data (CCD), “Early Estimates of Public Elementary/Secondary Education Survey,” 1999–2000; “Public Elementary/Secondary School Universe Survey,” 1995–96 through 1997–98; “Local Education Agency Universe Survey,” 1995–96 through 1997–98; and “National Public Education Financial Survey,” 1995–96 through 1997–98.

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

McDowell, L. (2000). *Early Estimates of Public Elementary and Secondary Education Statistics: School Year 1999–2000* (NCES 2000–364).

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**To obtain the complete report (NCES 2000–364),** visit the NCES Web Site (<http://nces.ed.gov>) or contact Lena McDowell ([lenna\\_mcdowell@ed.gov](mailto:lenna_mcdowell@ed.gov)).

**Table 1.—Student membership in public elementary and secondary schools, by state, for grades prekindergarten through 12: Fall 1995 to Fall 1999**

State	Reported fall 1995	Reported fall 1996	Reported fall 1997	Preliminary fall 1998	Estimated fall 1999
United States	44,840,481	45,611,046	46,126,897	46,534,687	<sup>1</sup> 46,772,445
Alabama	746,149	747,932	749,207	747,970	<sup>3</sup> 730,342
Alaska	127,618	129,919	132,123	135,373	136,658
Arizona	743,566	799,250	814,113	848,262	872,428
Arkansas	453,257	457,349	456,497	452,256	426,984
California	5,536,406	5,686,198	5,803,887	5,925,964	<sup>1</sup> 6,050,609
Colorado	656,279	673,438	687,167	699,135	<sup>3</sup> 708,109
Connecticut	517,935	527,129	535,164	544,698	554,087
Delaware	108,461	110,549	111,960	113,262	113,622
District of Columbia	79,802	78,648	77,111	71,889	<sup>3</sup> 70,762
Florida	2,176,222	2,242,212	2,294,077	2,337,633	<sup>3</sup> 2,380,232
Georgia	1,311,126	1,346,761	1,375,980	1,401,291	1,422,762
Hawaii	187,180	187,653	189,887	188,069	<sup>3</sup> 185,036
Idaho	243,097	245,252	244,403	244,722	245,100
Illinois	1,943,623	1,973,040	1,998,289	2,011,530	2,035,450
Indiana	977,263	982,876	986,836	988,094	993,985
Iowa	502,343	502,941	501,054	498,214	498,836
Kansas	463,008	466,293	468,687	472,353	469,376
Kentucky	659,821	656,089	669,322	655,687	637,007
Louisiana	797,366	793,296	776,813	768,734	710,159
Maine	213,569	213,593	212,579	210,503	<sup>3</sup> 219,000
Maryland	805,544	818,583	830,744	841,671	846,709
Massachusetts	915,007	933,898	949,006	962,317	<sup>2</sup> 975,815
Michigan	1,641,456	1,685,714	1,702,717	1,720,266	1,712,300
Minnesota	835,166	847,204	853,621	855,119	857,023
Mississippi	506,272	503,967	504,792	502,379	499,359
Missouri	889,881	900,517	910,613	912,445	893,052
Montana	165,547	164,627	162,335	159,988	157,236
Nebraska	289,744	291,967	292,681	291,140	287,752
Nevada	265,041	282,131	296,621	311,061	326,616
New Hampshire	194,171	198,308	201,629	204,713	208,812
New Jersey	1,197,381	1,227,832	1,250,276	1,268,996	<sup>1</sup> 1,287,996
New Mexico	329,640	332,632	331,673	328,753	324,222
New York	2,813,230	2,843,131	2,861,823	2,877,143	2,884,000
North Carolina	1,183,090	1,210,108	1,236,083	1,254,821	<sup>3</sup> 1,256,063
North Dakota	119,100	120,123	118,572	114,597	<sup>3</sup> 111,705

See footnotes on second page of this table.

**Table 1.—Student membership in public elementary and secondary schools, by state, for grades prekindergarten through 12: Fall 1995 to Fall 1999—Continued**

State	Reported fall 1995	Reported fall 1996	Reported fall 1997	Preliminary fall 1998	Estimated fall 1999
Ohio	1,836,015	1,844,698	1,847,114	1,842,559	1,837,000
Oklahoma	616,393	620,695	623,681	628,492	633,361
Oregon	527,914	537,854	541,346	542,809	<sup>3</sup> 545,059
Pennsylvania	1,787,533	1,804,256	1,815,151	1,816,414	1,817,530
Rhode Island	149,799	151,324	153,321	154,785	156,458
South Carolina	645,586	652,816	659,273	664,592	646,850
South Dakota	144,685	143,331	142,443	132,495	130,863
Tennessee	893,770	904,818	893,044	905,442	908,722
Texas	3,748,167	3,828,975	3,891,877	3,945,367	4,025,923
Utah	477,121	481,812	482,957	481,176	<sup>3</sup> 477,775
Vermont	105,565	106,341	105,984	105,120	106,069
Virginia	1,079,854	1,096,093	1,110,815	1,124,022	<sup>3</sup> 1,133,994
Washington	956,572	974,504	991,235	998,053	1,002,044
West Virginia	307,112	304,052	301,419	297,530	<sup>3</sup> 290,936
Wisconsin	870,175	879,259	881,780	879,542	878,900
Wyoming	99,859	99,058	97,115	95,241	<sup>3</sup> 91,757
<b>Outlying areas</b>					
American Samoa	14,576	14,766	15,214	<sup>1</sup> 15,372	<sup>1</sup> 15,532
Guam	32,960	33,393	32,444	<sup>1</sup> 32,222	<sup>1</sup> 32,002
Northern Marianas	8,809	9,041	9,246	<sup>3</sup> 9,498	<sup>3</sup> 9,692
Puerto Rico	627,620	618,861	617,322	<sup>1</sup> 613,862	<sup>1</sup> 610,421
Virgin Islands	22,737	22,385	22,136	20,976	19,902

<sup>1</sup>Data imputed by NCES based on previous year's data.<sup>2</sup>Early estimate number reported by state, adjusted by NCES.<sup>3</sup>Actual count reported by state.

NOTE: All fall 1999 data are state estimates, except where noted. Estimates are as of December 1999. Fall 1996 and fall 1997 data are revised from earlier publications.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Common Core of Data, "Early Estimates of Public Elementary/Secondary Education Survey," 1999–2000, and "Public Elementary/Secondary School Universe Survey," 1995–96 through 1997–98.

**Table 2.—Number of teachers in public elementary and secondary schools, by state, for grades prekindergarten through 12: School years 1995–96 to 1999–2000**

State	Reported 1995–96	Reported 1996–97	Reported 1997–98	Preliminary 1998–99	Estimated 1999–2000
United States	2,598,220	2,667,419	2,746,157	<sup>1</sup> 2,826,146	<sup>1</sup> 2,887,233
Alabama	44,056	45,035	45,967	47,753	<sup>3</sup> 48,269
Alaska	7,379	7,418	7,625	8,118	7,992
Arizona	38,017	40,521	41,129	42,352	45,540
Arkansas	26,449	26,681	26,931	27,953	<sup>2</sup> 26,836
California	230,849	248,818	268,535	<sup>1</sup> 281,686	<sup>1</sup> 292,455
Colorado	35,388	36,398	37,840	39,434	41,104
Connecticut	36,070	36,551	37,658	38,772	39,918
Delaware	6,463	6,642	6,850	7,074	<sup>3</sup> 7,311
District of Columbia	5,305	5,288	4,388	5,187	<sup>1</sup> 5,192
Florida	114,938	120,471	124,473	126,796	131,249
Georgia	79,480	81,795	86,244	88,658	90,286
Hawaii	10,500	10,576	10,653	10,639	10,510
Idaho	12,784	13,078	13,207	13,426	14,600
Illinois	113,538	116,274	118,734	121,758	127,216
Indiana	55,821	56,708	57,371	58,084	58,843

See footnotes on second page of this table.

**Table 2.—Number of teachers in public elementary and secondary schools, by state, for grades prekindergarten through 12: School years 1995–96 to 1999–2000—Continued**

State	Reported 1995–96	Reported 1996–97	Reported 1997–98	Preliminary 1998–99	Estimated 1999–2000
Iowa	32,318	32,593	32,700	32,822	33,744
Kansas	30,729	30,875	31,527	32,003	32,240
Kentucky	39,120	39,331	40,488	40,803	39,813
Louisiana	46,980	47,334	48,599	49,124	47,363
Maine	15,392	15,551	15,700	15,890	17,170
Maryland	47,819	47,943	48,318	49,840	50,801
Massachusetts	62,710	64,574	67,170	69,752	<sup>2</sup> 71,922
Michigan	83,179	88,051	90,529	93,220	93,100
Minnesota	46,971	48,245	51,998	50,565	53,747
Mississippi	28,997	29,293	29,441	31,140	30,736
Missouri	57,951	59,428	60,889	62,222	63,500
Montana	10,076	10,268	10,228	10,221	10,200
Nebraska	20,028	20,174	20,065	20,310	<sup>3</sup> 20,609
Nevada	13,878	14,805	16,053	16,415	17,486
New Hampshire	12,346	12,692	12,931	13,290	13,559
New Jersey	86,706	87,642	89,671	<sup>1</sup> 92,264	<sup>1</sup> 95,223
New Mexico	19,398	19,971	19,647	19,981	19,802
New York	181,559	185,104	190,874	197,253	206,000
North Carolina	73,201	75,239	77,785	79,531	79,498
North Dakota	7,501	7,892	8,070	7,974	<sup>2</sup> 7,904
Ohio	107,347	108,515	110,761	113,986	114,600
Oklahoma	39,364	39,568	40,215	40,886	41,557
Oregon	26,680	26,757	26,935	27,152	<sup>3</sup> 30,086
Pennsylvania	104,921	106,432	108,014	111,065	111,250
Rhode Island	10,482	10,656	10,598	11,124	11,235
South Carolina	39,922	41,463	42,336	43,689	43,870
South Dakota	9,641	9,625	9,282	9,273	9,250
Tennessee	53,403	54,790	54,142	59,258	<sup>2</sup> 60,474
Texas	240,371	247,650	254,557	259,739	266,878
Utah	20,039	19,734	21,115	21,501	21,400
Vermont	7,676	7,751	7,909	8,221	8,549
Virginia	74,731	74,526	77,575	79,393	81,751
Washington	46,907	48,307	49,074	49,671	50,009
West Virginia	21,073	20,888	20,947	20,989	20,316
Wisconsin	55,033	54,769	55,732	61,176	57,670
Wyoming	6,734	6,729	6,677	6,713	6,600
<b>Outlying areas</b>					
American Samoa	728	734	762	<sup>1</sup> 764	<sup>1</sup> 785
Guam	1,802	1,552	1,363	<sup>1</sup> 1,052	<sup>1</sup> 1,062
Northern Marianas	422	441	483	<sup>3</sup> 496	<sup>3</sup> 469
Puerto Rico	39,328	39,743	38,953	<sup>1</sup> 39,849	<sup>1</sup> 40,293
Virgin Islands	1,622	1,580	1,559	1,567	1,485

<sup>1</sup>Data imputed by NCES based on previous year's data.

<sup>2</sup>Early estimate number reported by state, adjusted by NCES.

<sup>3</sup>Actual count reported by state.

NOTE: All school year 1999–2000 data are state estimates, except where noted. Estimates are as of December 1999. Fall 1996 and fall 1997 data are revised from earlier publications.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Common Core of Data, "Early Estimates of Public Elementary/Secondary Education Survey," 1999–2000, and "Public Elementary/Secondary School Universe Survey," 1995–96 through 1997–98.

Table 3.—Number of public high school graduates, by state: School years 1995–96 to 1999–2000

State	Reported 1995–96	Reported 1996–97	Preliminary 1997–98	Estimated 1998–99	Estimated 1999–2000
United States	2,273,109	2,401,791	2,457,658	<sup>1</sup> 2,502,320	<sup>1</sup> 2,556,184
Alabama	35,043	35,611	38,089	39,133	37,893
Alaska	5,945	6,133	6,462	6,450	6,975
Arizona	30,008	34,082	36,361	<sup>2</sup> 38,249	40,017
Arkansas	25,094	25,146	26,855	27,719	<sup>2</sup> 26,622
California	259,071	311,818	282,897	<sup>1</sup> 291,612	<sup>1</sup> 302,882
Colorado	32,608	34,231	35,794	36,958	<sup>2</sup> 38,078
Connecticut	26,319	27,009	27,885	28,587	29,858
Delaware	5,609	5,953	6,439	6,322	6,356
District of Columbia	2,696	2,853	2,777	2,675	2,530
Florida	89,242	95,082	98,498	98,933	99,930
Georgia	56,271	58,996	58,525	<sup>2</sup> 60,172	62,148
Hawaii	9,387	8,929	9,670	10,418	10,152
Idaho	14,667	15,407	15,523	15,704	15,700
Illinois	104,626	110,170	114,611	112,557	111,230
Indiana	56,330	57,463	58,899	58,341	58,364
Iowa	31,689	32,986	36,008	34,447	34,149
Kansas	25,786	26,648	27,856	28,621	28,964
Kentucky	36,641	36,941	37,270	36,956	36,956
Louisiana	36,467	36,495	38,030	37,440	<sup>2</sup> 35,184
Maine	11,795	12,019	12,171	12,671	12,871
Maryland	41,785	42,856	44,555	46,821	48,106
Massachusetts	47,993	49,008	50,452	<sup>3</sup> 50,452	50,537
Michigan	85,530	89,695	92,732	94,200	100,600
Minnesota	50,481	48,193	54,494	<sup>3</sup> 57,048	57,603
Mississippi	23,032	23,388	24,502	24,022	26,375
Missouri	49,011	50,543	52,031	51,796	53,500
Montana	10,139	10,322	10,656	10,877	10,893
Nebraska	18,014	18,636	19,719	20,173	22,093
Nevada	10,374	12,425	13,052	<sup>3</sup> 13,259	13,922
New Hampshire	10,094	10,487	10,843	10,211	10,383
New Jersey	67,704	70,028	65,106	<sup>1</sup> 66,713	<sup>1</sup> 68,880
New Mexico	15,402	15,700	16,529	<sup>3</sup> 17,317	17,254
New York	134,401	140,861	138,531	140,200	141,800
North Carolina	57,014	57,886	59,292	<sup>3</sup> 59,776	61,463
North Dakota	8,027	8,025	8,170	<sup>3</sup> 8,422	8,635
Ohio	102,098	107,422	111,211	115,000	115,000
Oklahoma	33,060	35,948	35,213	<sup>2</sup> 35,824	<sup>2</sup> 36,725
Oregon	26,570	27,720	27,754	<sup>3</sup> 28,678	28,700
Pennsylvania	105,981	108,817	110,919	112,310	114,160
Rhode Island	7,689	7,850	8,074	8,088	7,498
South Carolina	30,182	30,829	31,951	34,000	34,500
South Dakota	8,532	9,247	9,140	8,991	9,420
Tennessee	43,792	39,866	57,236	<sup>2</sup> 58,586	<sup>2</sup> 59,812
Texas	171,844	181,794	197,186	203,541	212,966
Utah	26,293	30,753	31,567	<sup>3</sup> 31,574	32,303
Vermont	5,867	6,181	6,469	<sup>3</sup> 6,482	6,763
Virginia	58,166	60,587	61,777	<sup>3</sup> 65,345	66,868
Washington	49,862	51,609	53,679	54,473	57,246
West Virginia	20,335	19,573	20,164	<sup>3</sup> 19,498	19,582
Wisconsin	52,651	55,189	57,607	58,330	59,438
Wyoming	5,892	6,381	6,427	<sup>3</sup> 6,348	6,300

See footnotes on second page of this table.

**Table 3.—Number of public high school graduates, by state: School years 1995–96 to 1999–2000—Continued**

State	Reported 1995–96	Reported 1996–97	Preliminary 1997–98	Estimated 1998–99	Estimated 1999–2000
<b>Outlying areas</b>					
American Samoa	719	710	665	<sup>1</sup> 679	<sup>1</sup> 698
Guam	987	1,103	923	<sup>1</sup> 926	<sup>1</sup> 936
Northern Marianas	325	309	374	<sup>2</sup> 388	<sup>2</sup> 403
Puerto Rico	29,499	29,692	29,881	<sup>1</sup> 30,026	<sup>1</sup> 30,373
Virgin Islands	937	937	1,069	<sup>2</sup> 1,024	<sup>2</sup> 988

<sup>1</sup>Data imputed by NCES based on previous year's data.

<sup>2</sup>Early estimate number reported by state, adjusted by NCES.

<sup>3</sup>Actual count reported by state.

NOTE: All school year 1998–99 and 1999–2000 data are state estimates, except where noted. Estimates are as of December 1999. Data for school years 1995–96 and 1996–97 are revised from earlier publications.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Common Core of Data, "Early Estimates of Public Elementary/Secondary Education Survey," 1999–2000, and "Local Education Agency Universe Survey," 1995–96 through 1997–98.

**Table 4.—Revenues for public elementary and secondary education, by state, for grades prekindergarten through 12: Fiscal years 1996 to 2000 (School years 1995–96 to 1999–2000)**  
(In thousands of dollars)

State	Reported FY 1996	Reported FY 1997	Preliminary FY 1998	Estimated FY 1999	Estimated FY 2000
United States	\$287,702,846	\$305,065,192	\$325,976,011	<sup>1</sup> \$336,971,907	<sup>1</sup> \$354,398,647
Alabama	3,771,940	3,955,039	4,146,629	<sup>4</sup> 4,242,621	<sup>4</sup> 4,335,526
Alaska	1,183,127	1,219,017	1,218,425	1,293,255	1,332,053
Arizona	4,151,421	4,400,591	4,731,675	4,982,454	5,246,524
Arkansas	2,204,845	2,371,834	2,600,655	<sup>3</sup> 2,411,108	2,476,620
California	30,858,564	34,477,895	38,142,613	<sup>1</sup> 39,912,340	<sup>1</sup> 42,649,382
Colorado	3,804,992	4,045,015	4,327,326	4,474,455	4,590,791
Connecticut	4,786,247	4,899,852	5,160,728	5,504,000	5,930,000
Delaware	822,226	878,326	913,616	1,010,531	1,102,422
District of Columbia	675,409	711,504	706,935	<sup>1</sup> 675,433	<sup>1</sup> 695,802
Florida	13,214,948	13,861,434	14,988,118	<sup>1</sup> 15,652,083	<sup>1</sup> 16,679,406
Georgia	7,627,823	8,129,250	9,041,434	<sup>2</sup> 9,436,484	<sup>2</sup> 10,027,199
Hawaii	1,201,888	1,215,924	1,282,702	1,301,942	1,321,471
Idaho	1,179,927	1,251,263	1,320,647	1,463,800	1,574,700
Illinois	12,290,140	13,161,954	14,194,654	14,497,766	14,932,699
Indiana	6,191,534	7,638,406	7,513,407	7,801,000	7,938,000
Iowa	3,033,687	3,167,763	3,346,481	3,487,033	3,602,105
Kansas	2,948,036	3,040,600	3,122,238	3,215,905	3,312,382
Kentucky	3,492,890	3,794,129	3,932,068	<sup>3</sup> 4,285,357	4,492,135
Louisiana	3,934,998	4,154,495	4,494,429	4,640,400	4,826,016
Maine	1,451,987	1,510,999	1,600,635	1,678,746	1,760,669
Maryland	5,695,850	6,042,059	6,454,696	6,600,598	6,923,995
Massachusetts	6,772,855	7,229,486	7,893,657	7,898,078	8,380,444
Michigan	12,698,697	13,437,615	14,329,715	14,591,949	14,858,981
Minnesota	5,939,765	6,109,916	6,529,420	6,465,603	6,835,139
Mississippi	2,225,798	2,259,053	2,407,954	2,469,737	2,593,223
Missouri	5,263,003	5,571,655	6,005,256	6,113,421	6,304,361
Montana	941,538	991,653	1,029,939	995,600	1,000,500
Nebraska	1,876,494	1,954,789	1,964,205	1,817,919	1,908,815
Nevada	1,554,888	1,705,232	1,910,794	2,017,118	2,168,402
New Hampshire	1,217,104	1,282,509	1,364,943	1,504,968	1,584,223
New Jersey	11,882,657	12,376,750	13,189,983	<sup>1</sup> 13,720,037	<sup>1</sup> 14,573,879
New Mexico	1,783,804	1,829,725	1,952,452	2,057,985	2,095,861
New York	25,849,431	26,564,743	27,782,468	<sup>3</sup> 29,171,591	30,630,171
North Carolina	6,154,971	6,515,608	7,188,615	7,904,648	8,260,357
North Dakota	618,322	642,984	682,419	647,150	675,198

See footnotes on second page of this table.

**Table 4.—Revenues for public elementary and secondary education, by state, for grades prekindergarten through 12: Fiscal years 1996 to 2000 (School years 1995–96 to 1999–2000)—Continued**

(In thousands of dollars)

State	Reported FY 1996	Reported FY 1997	Preliminary FY 1998	Estimated FY 1999	Estimated FY 2000
Ohio	11,794,089	12,587,117	13,458,095	13,732,000	14,508,000
Oklahoma	2,856,688	3,251,302	3,416,296	3,723,762	4,058,901
Oregon	3,366,831	3,472,609	3,883,939	3,602,000	4,071,000
Pennsylvania	14,047,905	14,441,126	14,837,945	15,706,000	16,590,000
Rhode Island	1,138,171	1,193,754	1,264,156	1,237,702	1,311,964
South Carolina	3,697,232	3,889,383	4,055,072	4,375,719	4,638,262
South Dakota	717,005	749,052	794,256	826,366	859,421
Tennessee	4,142,148	4,411,971	4,815,833	4,897,700	5,123,000
Texas	21,689,792	22,372,808	24,179,060	<sup>2</sup> 25,120,276	<sup>2</sup> 26,826,743
Utah	2,066,218	2,198,285	2,305,397	<sup>2</sup> 2,353,953	<sup>2</sup> 2,446,148
Vermont	773,448	812,166	861,643	<sup>1</sup> 875,848	<sup>1</sup> 924,906
Virginia	6,826,448	7,204,512	7,757,954	7,130,655	7,158,230
Washington	6,327,993	6,642,158	6,895,693	<sup>2</sup> 7,115,601	<sup>2</sup> 7,476,706
West Virginia	1,990,094	2,082,049	2,216,984	2,303,212	2,376,914
Wisconsin	6,304,318	6,701,115	7,059,759	7,270,000	7,659,000
Wyoming	662,660	656,713	702,001	<sup>3</sup> 757,998	750,000
<b>Outlying areas</b>					
American Samoa	45,087	47,430	49,677	<sup>1</sup> 51,439	<sup>1</sup> 54,394
Guam	171,464	168,835	173,339	<sup>1</sup> 176,430	<sup>1</sup> 183,381
Northern Marianas	44,418	56,010	58,239	53,548	<sup>2</sup> 57,186
Puerto Rico	1,821,858	1,832,790	2,094,025	<sup>1</sup> 2,134,015	<sup>1</sup> 2,220,864
Virgin Islands	142,016	141,786	152,499	<sup>1</sup> 148,097	<sup>1</sup> 147,057

<sup>1</sup>Data imputed by NCES based on previous year's data.<sup>2</sup>Data include adjusted estimates by NCES for a few specific local revenues, based on current-year data.<sup>3</sup>Actual amount reported by state.

NOTE: All FY 1999 and FY 2000 data are state estimates, except where noted. Estimates are as of December 1999. Detail may not add to totals due to rounding. FY 1997 and FY 1998 data are revised from earlier publications.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Common Core of Data, "Early Estimates of Public Elementary/Secondary Education Survey," 1999–2000, and "National Public Education Financial Survey," 1995–96 through 1997–98.

**Table 5.—Current expenditures for public elementary and secondary education, by state, for grades prekindergarten through 12: Fiscal years 1996 to 2000 (School years 1995–96 to 1999–2000)**

(In thousands of dollars)

State	Reported FY 1996	Reported FY 1997	Preliminary FY 1998	Estimated FY 1999	Estimated FY 2000
United States	\$255,106,683	\$270,174,298	\$285,489,511	<sup>1</sup> \$298,212,031	<sup>1</sup> \$307,980,824
Alabama	3,240,364	3,436,406	3,633,159	<sup>1</sup> 3,756,187	<sup>1</sup> 3,659,251
Alaska	1,045,022	1,069,379	1,092,750	1,156,534	1,191,230
Arizona	3,327,969	3,527,473	3,740,639	3,938,892	4,147,653
Arkansas	1,994,748	2,074,113	2,149,237	<sup>2</sup> 2,205,013	<sup>2</sup> 2,077,024
California	27,334,639	29,909,168	32,759,492	<sup>1</sup> 34,638,389	<sup>1</sup> 35,285,858
Colorado	3,360,529	3,577,211	3,886,872	4,019,026	4,123,521
Connecticut	4,366,123	4,522,718	4,765,077	5,077,000	5,470,000
Delaware	726,241	788,715	830,731	<sup>2</sup> 870,287	<sup>2</sup> 871,051
District of Columbia	679,106	632,951	647,202	<sup>1</sup> 624,836	<sup>1</sup> 613,630
Florida	11,480,359	12,018,676	12,737,325	<sup>1</sup> 13,440,859	<sup>1</sup> 13,654,410
Georgia	6,629,646	7,230,405	7,770,241	<sup>2</sup> 8,194,665	<sup>2</sup> 8,301,146
Hawaii	1,040,682	1,057,069	1,112,351	1,129,036	1,145,972
Idaho	1,019,594	1,090,597	1,153,778	<sup>2</sup> 1,196,380	<sup>2</sup> 1,195,480
Illinois	10,727,091	11,720,249	12,473,064	12,005,570	<sup>1</sup> 12,365,737
Indiana	5,493,653	6,055,055	6,234,563	6,609,000	7,006,000

See footnotes on second page of this table.

**Table 5.—Current expenditures for public elementary and secondary education, by state, for grades prekindergarten through 12: Fiscal years 1996 to 2000 (School years 1995–96 to 1999–2000)—Continued**

(In thousands of dollars)

State	Reported FY 1996	Reported FY 1997	Preliminary FY 1998	Estimated FY 1999	Estimated FY 2000
Iowa	2,753,425	2,885,943	3,005,421	3,131,649	3,234,993
Kansas	2,488,077	2,568,525	2,684,244	2,805,035	2,903,211
Kentucky	3,171,495	3,382,062	3,489,205	<sup>3</sup> 3,914,323	4,165,306
Louisiana	3,545,832	3,747,508	4,030,379	4,156,982	4,323,261
Maine	1,313,759	1,372,571	1,433,175	1,448,539	1,519,228
Maryland	5,311,207	5,529,309	5,843,685	5,837,401	<sup>1</sup> 6,178,289
Massachusetts	6,435,458	6,846,610	7,381,784	7,611,581	8,084,078
Michigan	11,137,877	11,686,124	12,003,818	12,223,488	12,447,178
Minnesota	4,844,879	5,087,353	5,452,571	<sup>3</sup> 6,191,284	<sup>1</sup> 6,500,848
Mississippi	2,000,321	2,035,675	2,164,592	<sup>3</sup> 2,295,662	2,410,445
Missouri	4,531,192	4,775,931	5,067,720	4,915,533	5,049,807
Montana	868,892	902,252	929,197	952,400	976,210
Nebraska	1,648,104	1,707,455	1,743,775	<sup>2</sup> 1,796,297	1,771,323
Nevada	1,296,629	1,434,395	1,570,576	1,694,275	1,828,123
New Hampshire	1,114,540	1,173,958	1,241,255	1,380,937	1,447,504
New Jersey	11,208,558	11,771,941	12,056,560	<sup>1</sup> 12,672,381	<sup>1</sup> 12,832,626
New Mexico	1,517,517	1,557,376	1,659,891	1,791,728	1,911,446
New York	23,522,461	24,237,291	25,332,735	<sup>2</sup> 26,374,317	<sup>2</sup> 26,376,550
North Carolina	5,582,994	5,964,939	6,497,648	<sup>2</sup> 6,830,788	<sup>2</sup> 6,821,869
North Dakota	557,043	577,498	599,443	633,810	664,503
Ohio	10,408,022	10,948,074	11,448,722	11,463,000	12,040,000
Oklahoma	2,804,088	2,990,044	3,138,690	3,468,253	3,504,670
Oregon	3,056,801	3,184,100	3,474,714	3,453,000	3,853,000
Pennsylvania	12,374,073	12,820,704	13,084,859	13,803,000	14,622,000
Rhode Island	1,094,185	1,151,888	1,215,595	1,227,301	1,300,939
South Carolina	3,085,495	3,296,661	3,507,017	3,717,438	3,940,484
South Dakota	610,640	628,753	665,082	698,366	708,842
Tennessee	3,728,486	4,145,380	4,409,338	4,550,641	4,800,000
Texas	18,801,462	20,167,238	21,188,676	22,439,673	23,633,280
Utah	1,719,782	1,822,725	1,916,688	1,860,000	1,907,000
Vermont	684,864	718,092	749,786	<sup>1</sup> 770,128	<sup>1</sup> 775,298
Virginia	5,969,608	6,343,768	6,739,003	7,699,176	7,839,713
Washington	5,394,507	5,587,808	5,986,649	6,037,573	<sup>1</sup> 6,527,044
West Virginia	1,806,004	1,847,560	1,905,940	2,218,396	2,360,792
Wisconsin	5,670,826	5,975,122	6,280,696	6,601,000	6,938,000
Wyoming	581,817	591,488	603,901	<sup>3</sup> 685,000	675,000
<b>Outlying areas</b>					
American Samoa	30,382	33,780	33,088	<sup>1</sup> 34,620	<sup>1</sup> 34,900
Guam	158,303	156,561	168,716	<sup>1</sup> 173,522	<sup>1</sup> 171,940
Northern Marianas	44,037	53,140	56,514	<sup>2</sup> 60,119	<sup>2</sup> 61,206
Puerto Rico	1,667,640	1,740,074	1,981,603	<sup>1</sup> 2,040,592	<sup>1</sup> 2,024,501
Virgin Islands	122,286	122,188	131,377	<sup>1</sup> 128,921	<sup>1</sup> 122,040

<sup>1</sup>Data imputed by NCES based on previous year's data.

<sup>2</sup>Data include imputations by NCES for food services and/or enterprise operations.

<sup>3</sup>Actual amount reported by state.

NOTE: All FY 1999 and FY 2000 data are state estimates, except where noted. Estimates are as of December 1999. Detail may not add to totals due to rounding. FY 1996 through FY 1998 data are revised from earlier publications.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Common Core of Data, "Early Estimates of Public Elementary/Secondary Education Survey," 1999–2000, and "National Public Education Financial Survey," 1995–96 through 1997–98.

Table 6.—Preliminary student membership and number of teachers, and estimates of revenues, expenditures, and pupil/teacher ratio, for public elementary and secondary schools, by state, for grades prekindergarten through 12: School year 1998–99/Fiscal year 1999

State	Preliminary		Estimated				
	Student membership	Number of teachers	Revenues (in thousands)	Current expenditures (in thousands)	Pupil/teacher ratio	Per pupil revenue	Per pupil expenditure
United States	46,534,687	<sup>1</sup> 2,826,146	<sup>1</sup> \$336,971,906	<sup>1</sup> \$298,212,031	16.5	\$7,241	\$6,408
Alabama	747,970	47,753	<sup>1</sup> 4,242,621	<sup>1</sup> 3,756,187	15.7	5,672	5,022
Alaska	135,373	8,118	1,293,255	1,156,534	16.7	9,553	8,543
Arizona	848,262	42,352	4,982,454	3,938,892	20.0	5,874	4,643
Arkansas	452,256	27,953	<sup>2</sup> 2,411,108	<sup>2</sup> 2,205,013	16.2	5,331	4,876
California	5,925,964	<sup>1</sup> 281,686	<sup>1</sup> 39,912,340	<sup>1</sup> 34,638,389	21.0	6,735	5,845
Colorado	699,135	39,434	4,474,455	4,019,026	17.7	6,400	5,749
Connecticut	544,698	38,772	5,504,000	5,077,000	14.0	10,105	9,321
Delaware	113,262	7,074	1,010,531	<sup>2</sup> 70,287	16.0	8,922	7,684
District of Columbia	71,889	5,187	<sup>1</sup> 675,433	<sup>1</sup> 624,836	13.9	9,395	8,692
Florida	2,337,633	126,796	<sup>1</sup> 15,652,083	<sup>1</sup> 13,440,859	18.4	6,696	5,750
Georgia	1,401,291	88,658	<sup>2</sup> 9,436,484	<sup>2</sup> 8,194,665	15.8	6,734	5,848
Hawaii	188,069	10,639	1,301,942	1,129,036	17.7	6,923	6,003
Idaho	244,722	13,426	1,463,800	<sup>2</sup> 1,196,380	18.2	5,981	4,889
Illinois	2,011,530	121,758	14,497,766	12,005,570	16.5	7,207	5,968
Indiana	988,094	58,084	7,801,000	6,609,000	17.0	7,895	6,689
Iowa	498,214	32,822	3,487,033	3,131,649	15.2	6,999	6,286
Kansas	472,353	32,003	3,215,905	2,805,035	14.8	6,808	5,938
Kentucky	655,687	40,803	<sup>3</sup> 4,285,357	<sup>3</sup> 3,914,323	16.1	6,536	5,970
Louisiana	768,734	49,124	4,640,400	4,156,982	15.6	6,036	5,408
Maine	210,503	15,890	1,678,746	1,448,539	13.2	7,975	6,881
Maryland	841,671	49,840	6,600,598	5,837,401	16.9	7,842	6,935
Massachusetts	962,317	69,752	7,898,078	7,611,581	13.8	8,207	7,910
Michigan	1,720,266	93,220	14,591,949	12,223,488	18.5	8,482	7,106
Minnesota	855,119	50,565	6,465,603	<sup>3</sup> 6,191,284	16.9	7,561	7,240
Mississippi	502,379	31,140	2,469,737	<sup>3</sup> 2,295,662	16.1	4,916	4,570
Missouri	912,445	62,222	6,113,421	4,915,533	14.7	6,700	5,387
Montana	159,988	10,221	995,600	952,400	15.7	6,223	5,953
Nebraska	291,140	20,310	1,817,919	<sup>2</sup> 1,796,297	14.3	6,244	6,170
Nevada	311,061	16,415	2,017,118	1,694,275	18.9	6,485	5,447
New Hampshire	204,713	13,290	1,504,968	1,380,937	15.4	7,352	6,746
New Jersey	1,268,996	<sup>1</sup> 92,264	<sup>1</sup> 13,720,037	<sup>1</sup> 12,672,381	13.8	10,812	9,986
New Mexico	328,753	19,981	2,057,985	1,791,728	16.5	6,260	5,450
New York	2,877,143	197,253	<sup>3</sup> 29,171,591	<sup>2</sup> 26,374,317	14.6	10,139	9,167
North Carolina	1,254,821	79,531	7,904,648	<sup>2</sup> 6,830,788	15.8	6,299	5,444
North Dakota	114,597	7,974	647,150	633,810	14.4	5,647	5,531
Ohio	1,842,559	113,986	13,732,000	11,463,000	16.2	7,453	6,221
Oklahoma	628,492	40,886	3,723,762	3,468,253	15.4	5,925	5,518
Oregon	542,809	27,152	3,602,000	3,453,000	20.0	6,636	6,361
Pennsylvania	1,816,414	111,065	15,706,000	13,803,000	16.4	8,647	7,599
Rhode Island	154,785	11,124	1,237,702	1,227,301	13.9	7,996	7,929
South Carolina	664,592	43,689	4,375,719	3,717,438	15.2	6,584	5,594
South Dakota	132,495	9,273	826,366	698,366	14.3	6,237	5,271
Tennessee	905,442	59,258	4,897,700	4,550,641	15.3	5,409	5,026
Texas	3,945,367	259,739	<sup>2</sup> 25,120,276	22,439,673	15.2	6,367	5,688
Utah	481,176	21,501	<sup>2</sup> 2,353,953	1,860,000	22.4	4,892	3,866
Vermont	105,120	8,221	<sup>1</sup> 875,848	<sup>1</sup> 770,128	12.8	8,332	7,326
Virginia	1,124,022	79,393	7,130,655	7,699,176	14.2	6,344	6,850
Washington	998,053	49,671	<sup>2</sup> 7,115,601	6,037,573	20.1	7,129	6,049
West Virginia	297,530	20,989	2,303,212	2,218,396	14.2	7,741	7,456
Wisconsin	879,542	61,176	7,270,000	6,601,000	14.4	8,266	7,505
Wyoming	95,241	6,713	<sup>3</sup> 757,998	<sup>3</sup> 685,000	14.2	7,959	7,192

See footnotes on second page of this table.

**Table 6.—Preliminary student membership and number of teachers, and estimates of revenues, expenditures, and pupil/teacher ratio, for public elementary and secondary schools, by state, for grades prekindergarten through 12: School year 1998–99/Fiscal year 1999—Continued**

State	Preliminary		Estimated				
	Student membership	Number of teachers	Revenues (in thousands)	Current expenditures (in thousands)	Pupil/teacher ratio	Per pupil revenue	Per pupil expenditure
<b>Outlying areas</b>							
American Samoa	<sup>1</sup> 15,372	<sup>1</sup> 764	<sup>1</sup> 51,439	<sup>1</sup> 34,620	20.1	3,346	2,252
Guam	<sup>1</sup> 32,222	<sup>1</sup> 1,052	<sup>1</sup> 176,430	<sup>1</sup> 173,522	30.6	5,475	5,385
Northern Marianas	<sup>3</sup> 9,498	<sup>3</sup> 496	53,548	<sup>2</sup> 60,119	19.1	5,638	6,330
Puerto Rico	<sup>1</sup> 613,862	<sup>1</sup> 39,849	<sup>1</sup> 2,134,015	<sup>1</sup> 2,040,592	15.4	3,476	3,324
Virgin Islands	20,976	1,567	<sup>1</sup> 148,097	<sup>1</sup> 128,921	13.4	7,060	6,146

<sup>1</sup>Data imputed by NCES based on previous year's data.

<sup>2</sup>Early estimate number reported by state, adjusted by NCES.

<sup>3</sup>Actual count/amount reported by state.

NOTE: All estimated data are state estimates, except where noted. Estimates are as of December 1999. Detail may not add to totals due to rounding.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Common Core of Data, "Early Estimates of Public Elementary/Secondary Education Survey," 1998–99.

**Table 7.—Estimated student membership, number of teachers, revenues, expenditures, and pupil/teacher ratio, for public elementary and secondary schools, by state, for grades prekindergarten through 12: School year 1999–2000/Fiscal year 2000**

State	Student membership	Number of teachers	Revenues (in thousands)	Current expenditures (in thousands)	Pupil/teacher ratio	Per pupil revenue	Per pupil expenditure
United States	<sup>1</sup> 46,772,445	<sup>1</sup> 2,887,233	<sup>1</sup> \$354,398,647	<sup>1</sup> \$307,980,824	16.2	\$7,577	\$6,585
Alabama	<sup>3</sup> 730,342	<sup>3</sup> 48,269	<sup>1</sup> 4,335,526	<sup>1</sup> 3,659,251	15.1	5,936	5,010
Alaska	136,658	7,992	1,332,053	1,191,230	17.1	9,747	8,717
Arizona	872,428	45,540	5,246,524	4,147,653	19.2	6,014	4,754
Arkansas	426,984	<sup>2</sup> 26,836	2,476,620	<sup>2</sup> 2,077,024	15.9	5,800	4,864
California	<sup>1</sup> 6,050,609	<sup>1</sup> 292,455	<sup>1</sup> 42,649,382	<sup>1</sup> 35,285,858	20.7	7,049	5,832
Colorado	<sup>3</sup> 708,109	41,104	4,590,791	4,123,521	17.2	6,483	5,823
Connecticut	554,087	39,918	5,930,000	5,470,000	13.9	10,702	9,872
Delaware	113,622	<sup>3</sup> 7,311	1,102,422	<sup>2</sup> 871,051	15.5	9,703	7,666
District of Columbia	<sup>3</sup> 70,762	<sup>2</sup> 5,192	<sup>1</sup> 695,802	<sup>1</sup> 613,630	13.6	9,833	8,672
Florida	<sup>3</sup> 2,380,232	131,249	<sup>1</sup> 16,679,406	<sup>1</sup> 13,654,410	18.1	7,007	5,737
Georgia	1,422,762	90,286	<sup>2</sup> 10,027,199	<sup>1</sup> 8,301,146	15.8	7,048	5,835
Hawaii	185,036	10,510	1,321,471	1,145,972	17.6	7,142	6,193
Idaho	245,100	14,600	1,574,700	<sup>2</sup> 1,195,480	16.8	6,425	4,878
Illinois	2,035,450	127,216	14,932,699	<sup>1</sup> 12,365,737	16.0	7,336	6,075
Indiana	993,985	58,843	7,938,000	7,006,000	16.9	7,986	7,048
Iowa	498,836	33,744	3,602,105	3,234,993	14.8	7,221	6,485
Kansas	469,376	32,240	3,312,382	2,903,211	14.6	7,057	6,185
Kentucky	637,007	39,813	4,492,135	4,165,306	16.0	7,052	6,539
Louisiana	710,159	47,363	4,826,016	4,323,261	15.0	6,796	6,088
Maine	<sup>3</sup> 219,000	17,170	1,760,669	1,519,228	12.8	8,040	6,937
Maryland	846,709	50,801	6,923,995	<sup>1</sup> 6,178,289	16.7	8,178	7,297
Massachusetts	<sup>2</sup> 975,815	<sup>2</sup> 71,922	8,380,444	8,084,078	13.6	8,588	8,284
Michigan	1,712,300	93,100	14,858,981	12,447,178	18.4	8,678	7,269
Minnesota	857,023	53,747	6,835,139	<sup>1</sup> 6,500,848	15.9	7,975	7,585
Mississippi	499,359	30,736	2,593,223	2,410,445	16.2	5,193	4,827
Missouri	893,052	63,500	6,304,361	5,049,807	14.1	7,059	5,655
Montana	157,236	10,200	1,000,500	976,210	15.4	6,363	6,209
Nebraska	287,752	<sup>3</sup> 20,609	1,908,815	<sup>2</sup> 1,771,323	14.0	6,634	6,156
Nevada	326,616	17,486	2,168,402	1,828,123	18.7	6,639	5,597
New Hampshire	208,812	13,559	1,584,223	1,447,504	15.4	7,587	6,932

See footnotes on second page of this table.

**Table 7.—Estimated student membership, number of teachers, revenues, expenditures, and pupil/teacher ratio, for public elementary and secondary schools, by state, for grades prekindergarten through 12: School year 1999–2000/Fiscal year 2000**

State	Student membership	Number of teachers	Revenues (in thousands)	Current expenditures (in thousands)	Pupil/teacher ratio	Per pupil revenue	Per pupil expenditure
New Jersey	<sup>1</sup> 1,287,996	<sup>1</sup> 95,223	<sup>1</sup> 14,573,879	<sup>1</sup> 12,832,626	13.5	11,315	9,963
New Mexico	324,222	19,802	2,095,861	1,911,446	16.4	6,464	5,895
New York	2,884,000	206,000	30,630,171	<sup>1</sup> 26,376,550	14.0	10,621	9,146
North Carolina	<sup>3</sup> 1,256,063	79,498	8,260,357	<sup>2</sup> 6,821,869	15.8	6,576	5,431
North Dakota	<sup>3</sup> 111,705	<sup>2</sup> 7,904	675,198	664,503	14.1	6,044	5,949
Ohio	1,837,000	114,600	14,508,000	12,040,000	16.0	7,898	6,554
Oklahoma	633,361	41,557	4,058,901	3,504,670	15.2	6,409	5,533
Oregon	<sup>3</sup> 545,059	<sup>3</sup> 30,086	4,071,000	3,853,000	18.1	7,469	7,069
Pennsylvania	1,817,530	111,250	16,590,000	14,622,000	16.3	9,128	8,045
Rhode Island	156,458	11,235	1,311,964	1,300,939	13.9	8,385	8,315
South Carolina	646,850	43,870	4,638,262	3,940,484	14.7	7,171	6,092
South Dakota	130,863	9,250	859,421	708,842	14.1	6,567	5,417
Tennessee	908,722	<sup>2</sup> 60,474	5,123,000	4,800,000	15.0	5,638	5,282
Texas	4,025,923	266,878	<sup>3</sup> 26,826,743	23,633,280	15.1	6,664	5,870
Utah	<sup>3</sup> 477,775	21,400	<sup>2</sup> 2,446,148	1,907,000	22.3	5,120	3,991
Vermont	106,069	8,549	<sup>1</sup> 924,906	<sup>1</sup> 775,298	12.4	8,720	7,309
Virginia	<sup>3</sup> 1,133,994	81,751	7,158,230	7,839,713	13.9	6,312	6,913
Washington	1,002,044	50,009	<sup>2</sup> 7,476,706	<sup>1</sup> 6,527,044	20.0	7,461	6,514
West Virginia	<sup>3</sup> 290,936	20,316	2,376,914	2,360,792	14.3	8,170	8,114
Wisconsin	878,900	57,670	7,659,000	6,938,000	15.2	8,714	7,894
Wyoming	<sup>3</sup> 91,757	6,600	750,000	675,000	13.9	8,174	7,356
<b>Outlying areas</b>							
American Samoa	<sup>1</sup> 15,532	<sup>1</sup> 785	<sup>1</sup> 54,394	<sup>1</sup> 34,900	19.8	3,502	2,247
Guam	<sup>1</sup> 32,002	<sup>1</sup> 1,062	<sup>1</sup> 183,381	<sup>1</sup> 171,940	30.1	5,730	5,373
Northern Marianas	9,692	469	<sup>2</sup> 57,186	61,206	20.7	5,900	6,315
Puerto Rico	<sup>1</sup> 610,421	<sup>1</sup> 40,293	<sup>1</sup> 2,220,864	<sup>1</sup> 2,024,501	15.1	3,638	3,317
Virgin Islands	19,902	1,485	<sup>1</sup> 147,057	122,040	13.4	7,389	6,132

<sup>1</sup>Data imputed by NCES based on previous year's data.<sup>2</sup>Early estimate number reported by state, adjusted by NCES.<sup>3</sup>Actual count/amount reported by state.

NOTE: All estimated data are state estimates, except where noted. Estimates are as of December 1999. Detail may not add to totals due to rounding.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Common Core of Data, "Early Estimates of Public Elementary/Secondary Education Survey," 1999–2000.

# Schools and Districts

## Overview of Public Elementary and Secondary Schools and Districts: School Year 1998–99

— Lee Hoffman

*This article was originally published as a Statistics in Brief report. The universe data are primarily from the following two components of the NCES Common Core of Data (CCD): “Public Elementary/Secondary School Universe Survey” and “Local Education Agency Universe Survey.” Technical notes and definitions from the original report have been omitted.*

### Types of Public Schools

The 50 states and the District of Columbia reported more than 90,000 public elementary/secondary schools in 1998–99. 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.

#### Number of public elementary and secondary schools in 1998–99

	Total	Regular	Special	Vocational	Alternative
Total schools in United States	90,874	83,642	1,974	1,077	4,181
Reporting membership	88,548	82,962	1,625	356	3,605
Not reporting membership	2,326	680	349	721	576

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

### Student Membership and School Type

In the 1998–99 school year, 88,548 public schools provided instruction to 46.5 million students in the United States (table 1).<sup>1</sup> This was an increase of about 0.9 percent from the previous year’s 46.1 million students and a gain of 1.0 percent from the 87,631 schools in 1997–98.<sup>2</sup> Most of these 1998–99 school year institutions were regular schools (82,962). Among the total number of schools for which student membership was reported were 1,625 schools whose major function was to provide special education for students with disabilities and 356 identified as vocational,

<sup>1</sup>Although schools from the outlying areas, Bureau of Indian Affairs, 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 1997–98 school year: *Overview of Public Elementary and Secondary Schools and Districts: School Year 1997–98* (Hoffman 1999).

technical, or career schools. Some 3,605 schools were reported to offer other alternative programs.

The great majority of public school students, 98.1 percent, were enrolled in regular schools. An additional 0.4 percent were in special education schools, 0.5 percent in vocational schools, and 1.1 percent in alternative schools. Kansas, Mississippi, New Hampshire, and North Dakota reported having only regular schools. Delaware, Massachusetts, and Ohio reported 3 percent or more of their students in vocational schools. A comparable percentage of students from the District of Columbia were in special education schools, and at least 3 percent of the students in Alaska, California, and Minnesota attended alternative schools.

### Primary, Middle, and High Schools

Among the 88,548 public schools with students in membership during the 1998–99 school year, 58.3 percent spanned the traditional primary grades, typically beginning with prekindergarten or kindergarten and going no higher than grade 8 (table 2). About half (49.9 percent) of the nation’s public school students were enrolled in these schools. An additional 17.4 percent of the schools covered the upper elementary and middle grades and offered instruction to 19.8 percent of public school students.

High schools represented 19.1 percent of the schools reported and enrolled 27.6 percent of the total number of students. Some 5.2 percent of schools followed some other grade configuration, including schools that spanned all of grades kindergarten through 12 and those that were ungraded.

### Schools and Community Size

Table 3 shows that 28.9 percent of the students attended school in a large or midsize city, compared to 17.6 percent who were educated in rural schools. The urban fringes of large and midsize cities accounted for the greatest proportion of students (42.1 percent) and of schools (36.1 percent). Some 19.0 percent of schools—and 9.7 percent of students—were in rural settings that were not associated with an urban fringe area.

## School District Size

School districts ranged greatly in size, as measured by the number of students in membership. A very few districts (24) enrolled 100,000 or more students, while a larger number (1,762) reported fewer than 150 students (table 4). While small in number, the largest districts served a considerable portion of students in America's public schools. Although only 1.7 percent of districts served 25,000 or more students, fully 32.8 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 1998–99. However, more than half of the public school students in this country attended schools in districts of 10,000 students or more.

## School District Grade Spans

In 1998–99, there were 15,176 public education agencies providing education services directly to students in the United States. Some 678 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 (14,498) were regular school districts providing education to children within their jurisdiction (table 5).

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. Twelve other states include only comprehensive K–12 school districts. On the other hand, in Montana and Vermont only 12.0 and 31.4 percent, respectively, of the students were served in this type of school district.

Among the 14,498 regular school districts with pupils in membership, 3,168 were responsible for only the elementary grades, beginning with grades prekindergarten, kindergarten, or 1 and ending at grade 8 or below (table 5). These districts enrolled 5.7 percent of the nation's public school students. An additional 561 agencies could be characterized as secondary school districts, with a low grade of 7 or higher and a high grade of 7 to 12. Some 2.3 percent of all students attended schools in these districts. An additional 116 districts had some other grade configuration. However, almost three out of four districts (10,653) provided instruction from the beginning of school through graduation. Fully

91.9 percent of all students were enrolled in these comprehensive school districts in 1998–99.

## Title I, Charter, and Magnet Schools

School year 1998–99 was the first in which states were asked to “flag” Title I, magnet, and charter schools in their reports. Table 6 indicates that not all states were able to report these new items. Of those that did provide information, 21 states had one or more charter schools (with 144 schools, California had the greatest number), and 16 states identified magnet schools. California had the most magnet schools (472), followed by Illinois (315) and North Carolina (119). Among the 32 states that flagged schools eligible for Title I, 14 reported that at least half their student population was enrolled in these schools. The proportions were smaller for schools with a Title I schoolwide program. Only Mississippi had as many as half of its students in these schools.

## Student Program Participation

Because participation in the Free Lunch Program depends on income, eligibility for this program is often used to estimate student needs. Seven states did not report free lunch eligibility data for at least 70 percent of their schools, so national totals could not be calculated (table 7). 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 11.2 percent in New Hampshire to a high of 63.4 percent in Mississippi.

Nationally, about one in every eight students was reported to have an individualized education program (IEP), meaning that the student participates in special education services. The percentage of students with IEPs ranged from 4.9 percent in Michigan to 18.2 percent in New Mexico.

New items for 1998–99 asked for the numbers of students receiving services for limited English proficiency (LEP) and services as migrant students. Only 27 states answered the item about LEP program participation. In 1998–99, almost 1.4 million students received LEP services in California, as did more than 500,000 in Texas. Thirteen states reported the number of students provided with migrant services during the 1997–98 school year. California served some 192,000 migrant students, and Texas provided almost 74,000 migrant students with program services.

## Student Race/Ethnicity

The proportion of students in different racial/ethnic categories did not change much between the 1997–98 and 1998–99 school years.<sup>3</sup> In 1998–99, some 1.2 percent of students were American Indian/Alaska Native (also 1.2 percent in the previous year), and 4.0 percent were Asian or Pacific Islander (3.9 percent in the previous year). The proportions for 1998–99 and 1997–98, respectively, were 15.1 percent and 14.5 percent for Hispanics; 17.3 percent and 17.1 percent for black, non-Hispanic; and 62.5 percent and 63.4 percent for white, non-Hispanic (data not shown).

Table 8 shows the number of minority students (all groups except white, non-Hispanic) and the percentage of students who are minority group members in cities, urban fringe areas, and small towns or rural areas. In all but five states the proportion of minority students is highest in cities. At least three-fourths of the students are minority group members in the large and midsize cities of six states—

<sup>3</sup>Data for 1997–98 are from *Overview of Public Elementary and Secondary Schools and Districts: School Year 1997–98* (Hoffman 1999); 1998–99 data are from *Public School Student, Staff, and Graduate Counts by State: School Year 1998–99* (Bairu 2000).

Georgia, Hawaii, Maryland, Mississippi, New Jersey, and New York—and in the District of Columbia.

## References

- Bairu, G. (2000). *Public School Student, Staff, and Graduate Counts by State: School Year 1998–99* (NCES 2000–330). U.S. Department of Education. Washington, DC: National Center for Education Statistics.
- Hoffman, L. (1999). *Overview of Public Elementary and Secondary Schools and Districts: School Year 1997–98* (NCES 1999–322). U.S. Department of Education. Washington, DC: National Center for Education Statistics.

**Data sources:** The following components of the NCES Common Core of Data (CCD): “Public Elementary/Secondary School Universe Survey,” 1997–98 and 1998–99; “Local Education Agency Universe Survey,” 1998–99; and “State Nonfiscal Survey of Public Elementary/Secondary Education,” 1997–98 and 1998–99.

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

Hoffman, L. (2000). *Overview of Public Elementary and Secondary Schools and Districts: School Year 1998–99* (NCES 2000–333 [Revised]).

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**To obtain the complete report (NCES 2000–333 [Revised]),** visit the NCES Web Site (<http://nces.ed.gov>) or contact Lena McDowell ([lena\\_mcdowell@ed.gov](mailto:lena_mcdowell@ed.gov)).

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 1998–99

State	Number of 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	88,548	46,534,687	82,962	98.1	1,625	0.4	356	0.5	3,605	1.1
Alabama	1,364	747,970	1,320	99.7	15	0.1	4	0.0	25	0.2
Alaska	497	135,373	449	92.4	2	0.3	4	0.4	42	6.9
Arizona	1,511	848,262	1,418	97.6	13	0.1	5	0.5	75	1.8
Arkansas	1,106	452,256	1,105	100.0	0	0.0	0	0.0	1	0.0
California	8,334	5,925,964	7,279	96.4	124	0.5	0	0.0	931	3.1
Colorado	1,539	699,135	1,462	98.7	8	0.0	3	0.1	66	1.2
Connecticut	1,069	544,698	986	96.5	21	0.6	17	1.9	45	1.1
Delaware	185	113,262	162	93.6	18	1.4	5	5.0	0	0.0
District of Columbia	164	71,889	148	95.7	10	3.1	0	0.0	6	1.2
Florida	3,044	2,337,633	2,801	98.7	96	0.5	30	0.2	117	0.6
Georgia	1,843	1,401,291	1,817	99.6	5	0.1	0	0.0	21	0.3
Hawaii	253	188,069	249	99.9	3	0.0	0	0.0	1	0.1
Idaho	649	244,722	582	98.3	11	0.1	0	0.0	56	1.6
Illinois	4,251	2,011,530	3,879	97.8	244	1.3	0	0.0	128	0.9
Indiana	1,886	988,094	1,820	99.4	19	0.2	1	0.0	46	0.4
Iowa	1,538	498,214	1,492	98.8	10	0.2	0	0.0	36	1.0
Kansas	1,437	472,353	1,437	100.0	0	0.0	0	0.0	0	0.0
Kentucky	1,346	655,687	1,285	99.6	8	0.1	1	0.0	52	0.3
Louisiana	1,500	768,734	1,385	98.3	35	0.3	5	0.1	75	1.3
Maine	690	210,503	686	100.0	4	0.0	0	0.0	0	0.0
Maryland	1,326	841,671	1,221	97.2	50	0.9	11	1.1	44	0.8
Massachusetts	1,874	962,317	1,798	96.1	1	0.0	43	3.5	32	0.5
Michigan	3,656	1,720,266	3,445	98.1	97	0.9	13	0.2	101	0.8
Minnesota	2,054	855,119	1,564	96.1	63	0.4	1	0.0	426	3.5
Mississippi	874	502,379	874	100.0	0	0.0	0	0.0	0	0.0
Missouri	2,221	912,445	2,104	98.8	57	0.8	6	0.2	54	0.2
Montana	886	159,988	881	99.9	2	0.0	0	0.0	3	0.1
Nebraska	1,333	291,140	1,276	99.5	57	0.5	0	0.0	0	0.0
Nevada	461	311,061	429	98.3	10	0.4	1	0.6	21	0.8
New Hampshire	516	204,713	516	100.0	0	0.0	0	0.0	0	0.0
New Jersey	2,317	1,268,996	2,186	97.6	83	0.7	48	1.8	0	0.0
New Mexico	745	328,753	698	98.3	14	0.5	0	0.0	33	1.2
New York	4,224	2,877,143	4,090	97.7	29	0.1	25	1.2	80	1.0
North Carolina	2,095	1,254,821	2,013	99.3	26	0.3	4	0.0	52	0.4
North Dakota	555	114,597	555	100.0	0	0.0	0	0.0	0	0.0
Ohio	3,732	1,842,559	3,628	96.8	1	0.0	73	3.0	30	0.2
Oklahoma	1,818	628,492	1,806	99.7	12	0.3	0	0.0	0	0.0
Oregon	1,271	542,809	1,173	98.0	15	0.3	0	0.0	83	1.7
Pennsylvania	3,139	1,816,414	3,100	98.3	12	1.0	14	0.6	13	0.1
Rhode Island	318	154,785	307	98.4	4	0.4	3	0.6	4	0.5
South Carolina	1,058	664,592	1,033	99.5	8	0.1	0	0.0	17	0.4
South Dakota	770	132,495	747	98.9	11	0.3	0	0.0	12	0.7
Tennessee	1,554	905,442	1,522	99.5	15	0.2	7	0.3	10	0.1
Texas	7,228	3,945,367	6,473	98.1	238	0.4	22	0.2	495	1.3
Utah	769	481,176	695	98.0	21	0.5	0	0.0	53	1.5
Vermont	358	105,120	320	98.6	37	1.4	0	0.0	1	0.0
Virginia	1,815	1,124,022	1,746	99.3	32	0.2	0	0.0	37	0.5
Washington	2,066	998,053	1,800	97.2	59	0.2	6	0.1	201	2.5
West Virginia	816	297,530	786	99.4	8	0.1	3	0.0	19	0.4
Wisconsin	2,109	879,542	2,045	99.4	13	0.1	1	0.0	50	0.4
Wyoming	384	95,241	369	98.9	4	0.2	0	0.0	11	0.9

See footnotes on second page of this table.

**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 1998–99—Continued**

State	Number of 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
<b>Outlying areas, DOD Dependents Schools, and Bureau of Indian Affairs</b>										
DOD Dependents										
Schools	154	78,170	154	100.0	0	0.0	0	0.0	0	0.0
Bureau of Indian Affairs	188	50,125	—	—	—	—	—	—	—	—
American Samoa	31	15,372	29	98.0	1	0.3	1	1.7	0	0.0
Guam	36	32,222	36	100.0	0	0.0	0	0.0	0	0.0
Northern Marianas	26	9,498	26	100.0	0	0.0	0	0.0	0	0.0
Puerto Rico	1,519	613,862	1,473	98.5	28	0.4	8	0.7	10	0.4
Virgin Islands	35	20,976	32	93.2	0	0.0	1	6.3	2	0.5

— Distributions are not published for Bureau of Indian Affairs schools because data were available for only 38 of 188 schools.

NOTE: Table excludes 2,348 schools (22 of these in outlying areas) for which no students were reported in membership. U.S. totals exclude outlying areas. Although type of school is a mutually exclusive category, many regular schools include special, vocational, or alternative education programs. Percentages may not sum to 100 due to rounding. Percentages of less than 0.05 are rounded to 0.0. Total student membership is reported from 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,” 1998–99.

**Table 2.— Percentage of public elementary and secondary schools providing instruction and of students in membership, by specified level of instruction and by state: School year 1998–99**

State	Number of schools having membership	Percentage by instructional level							
		Primary		Middle		High		Other	
		Schools	Students	Schools	Students	Schools	Students	Schools	Students
United States	88,548	58.3	49.9	17.4	19.8	19.1	27.6	5.2	2.7
Alabama	1,364	51.2	44.6	17.2	17.7	20.0	25.9	11.6	11.8
Alaska	497	36.0	44.1	7.4	13.4	14.5	24.9	42.1	17.7
Arizona	1,511	58.7	55.0	15.8	17.4	17.1	25.2	8.5	2.3
Arkansas	1,106	51.9	47.5	16.3	19.5	29.4	29.0	2.4	4.0
California	8,334	63.1	52.4	14.7	18.2	18.5	27.0	3.7	2.3
Colorado	1,539	58.6	50.0	17.6	20.6	19.6	27.2	4.2	2.2
Connecticut	1,069	61.9	51.4	17.4	20.7	16.6	26.8	4.1	1.2
Delaware	185	50.3	41.0	24.3	28.3	17.8	29.2	7.6	1.5
District of Columbia	164	67.1	64.7	13.4	14.5	12.8	17.4	6.7	3.3
Florida	3,044	54.1	49.3	16.0	21.7	13.7	25.4	16.2	3.6
Georgia	1,843	62.2	51.1	18.7	20.4	15.3	24.8	3.8	3.7
Hawaii	253	69.2	55.0	12.6	14.1	14.2	28.8	4.0	2.1
Idaho	649	52.2	47.7	17.6	21.5	25.1	28.3	5.1	2.4
Illinois	4,251	61.5	55.9	17.0	15.5	17.5	26.7	4.0	1.8
Indiana	1,886	61.5	49.9	17.1	18.3	18.8	30.4	2.7	1.4
Iowa	1,538	54.2	45.9	19.1	19.8	24.4	32.4	2.3	2.0
Kansas	1,437	57.4	49.2	17.2	19.6	24.8	30.8	0.6	0.3
Kentucky	1,346	58.1	49.2	17.0	20.1	22.5	30.3	2.4	0.4
Louisiana	1,500	53.3	48.0	19.3	19.8	16.5	25.5	11.0	6.7
Maine	690	63.8	47.8	18.1	22.0	15.7	28.3	2.5	1.9
Maryland	1,326	64.6	51.1	17.5	20.8	15.2	27.1	2.8	1.0
Massachusetts	1,874	64.8	50.0	17.2	20.4	16.5	28.5	1.4	1.1
Michigan	3,656	58.8	49.1	17.1	20.6	18.7	27.6	5.3	2.7
Minnesota	2,054	51.1	46.9	13.5	19.1	28.6	32.1	6.8	1.9
Mississippi	874	49.8	44.6	19.7	19.3	20.8	25.5	9.7	10.6

See footnotes on second page of this table.

**Table 2.— Percentage of public elementary and secondary schools providing instruction and of students in membership, by specified level of instruction and by state: School year 1998–99—Continued**

State	Number of schools having membership	Percentage by instructional level							
		Primary		Middle		High		Other	
		Schools	Students	Schools	Students	Schools	Students	Schools	Students
Missouri	2,221	54.8	49.0	16.2	19.5	22.3	28.8	6.7	2.7
Montana	886	52.8	47.6	26.2	20.1	19.8	31.1	1.2	1.1
Nebraska	1,333	68.0	50.6	8.0	14.9	23.0	34.0	1.1	0.5
Nevada	461	63.1	52.3	15.4	21.1	15.6	24.2	5.9	2.5
New Hampshire	516	66.7	48.3	18.2	23.7	15.1	28.0	0.0	0.0
New Jersey	2,317	62.6	52.3	17.7	18.8	13.6	26.0	6.1	3.0
New Mexico	745	58.0	47.8	20.9	22.5	18.7	27.2	2.4	2.5
New York	4,224	58.2	49.9	16.9	19.0	18.1	26.8	6.8	4.4
North Carolina	2,095	59.9	51.0	20.0	21.6	16.1	25.9	4.0	1.5
North Dakota	555	58.2	49.6	6.7	12.3	34.1	35.6	1.1	2.5
Ohio	3,732	58.4	46.7	19.7	20.6	20.4	31.9	1.5	0.9
Oklahoma	1,818	54.3	51.5	19.2	20.7	25.4	25.6	1.1	2.2
Oregon	1,271	59.7	47.5	17.4	21.0	18.2	29.3	4.7	2.2
Pennsylvania	3,139	61.5	47.5	17.4	20.1	19.1	29.8	2.0	2.6
Rhode Island	318	67.3	49.4	17.3	22.6	13.8	27.7	1.6	0.2
South Carolina	1,058	55.6	46.7	23.2	24.0	19.3	28.1	2.0	1.2
South Dakota	770	51.0	46.9	23.5	21.7	23.5	30.8	1.9	0.6
Tennessee	1,554	60.6	52.5	16.9	17.6	18.7	27.3	3.7	2.6
Texas	7,228	50.7	48.4	20.8	22.9	18.9	25.6	9.6	3.1
Utah	769	59.3	50.6	16.5	21.4	19.1	25.7	5.1	2.3
Vermont	358	73.2	52.7	7.3	9.5	13.4	30.7	6.1	7.1
Virginia	1,815	62.3	48.9	18.1	21.4	16.6	28.8	3.0	0.9
Washington	2,066	55.8	49.0	16.6	20.1	20.4	27.8	7.3	3.1
West Virginia	816	63.5	48.5	16.7	20.4	16.5	29.3	3.3	1.8
Wisconsin	2,109	58.2	47.2	17.6	19.5	21.7	31.5	2.5	1.8
Wyoming	384	58.9	46.4	19.5	22.9	18.2	28.7	3.4	2.0
<b>Outlying areas, DOD Dependents Schools, and Bureau of Indian Affairs</b>									
DOD Dependents									
Schools	154	55.8	57.3	11.7	11.6	23.4	21.3	9.1	9.8
Bureau of Indian Affairs	188	—	—	—	—	—	—	—	—
American Samoa	31	74.2	72.1	3.2	4.7	19.4	22.9	3.2	0.3
Guam	36	69.4	51.7	19.4	22.4	11.1	25.9	0.0	0.0
Northern Marianas	26	84.6	64.4	3.8	11.9	11.5	23.7	0.0	0.0
Puerto Rico	1,519	59.2	46.5	14.4	16.9	11.5	19.7	14.9	16.8
Virgin Islands	35	65.7	54.1	20.0	17.1	11.4	27.3	2.9	1.4

— Distributions are not published for Bureau of Indian Affairs schools because data were available for only 38 of 188 schools.

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). For states that did not provide a grade span, grade span was determined by the highest and lowest grades in which students were reported. Table excludes 2,348 schools (22 in outlying areas) for which no students were reported in membership. U.S. totals exclude outlying areas. Percentages may not sum to 100 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," 1998–99.

**Table 3.—Number and percentage distribution of public schools with membership and percentage distribution of students in membership, by community type: School year 1998–99**

Community type	Number of schools	Percentage of schools	Percentage of students
United States	88,519	100.0	100.0
Large city	10,334	11.7	15.5
Midsize city	10,809	12.2	13.4
Urban fringe, large city	22,439	25.3	30.9
Urban fringe, midsize city	9,550	10.8	11.2
Large town	1,132	1.3	1.2
Small town	10,716	12.1	10.2
Rural	16,817	19.0	9.7
Rural urban fringe	6,722	7.6	7.9

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 2,326 schools for which no students were reported in membership. Table excludes 29 schools for which no locale codes could be assigned. Percentages may not sum to 100 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," 1998–99.

**Table 4.—Number and percentage distribution of regular public elementary and secondary school districts and students, by district membership size: School year 1998–99**

District membership size	Number of districts	Percentage of districts	Percentage of students
United States	14,498	100.0	100.0
100,000 or more	24	0.2	13.2
25,000 to 99,999	212	1.5	19.6
10,000 to 24,999	574	4.0	18.4
7,500 to 9,999	322	2.2	6.0
5,000 to 7,499	704	4.9	9.2
2,500 to 4,999	2,062	14.2	15.5
2,000 to 2,499	831	5.7	4.0
1,500 to 1,999	1,084	7.5	4.0
1,000 to 1,499	1,581	10.9	4.2
800 to 999	824	5.7	1.6
600 to 799	968	6.7	1.4
450 to 599	929	6.4	1.0
300 to 449	1,138	7.8	0.9
150 to 299	1,483	10.2	0.7
1 to 149	1,762	12.2	0.3

NOTE: Table includes the 50 states and the District of Columbia, and excludes 393 regular school districts for which no students were reported in membership. Percentages may not sum to 100 due to rounding.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Common Core of Data (CCD), "Local Education Agency Universe Survey," 1998–99.

**Table 5.—Number of regular public school districts providing instruction and percentage of students in membership, by grade span and by state:  
School year 1998–99**

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	14,498	3,168	5.7	10,653	91.9	561	2.3	116	0.1
Alabama	128	0	0.0	128	100.0	0	0.0	0	0.0
Alaska	53	0	0.0	53	100.0	0	0.0	0	0.0
Arizona	353	159	28.8	113	61.0	47	9.5	34	0.7
Arkansas	310	0	0.0	310	100.0	0	0.0	0	0.0
California	988	578	20.8	317	69.9	93	9.3	0	0.0
Colorado	176	1	0.0	175	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	16	94.9	3	5.1	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	107	99.9	0	0.0	0	0.0
Illinois	936	385	25.4	412	63.6	123	10.8	16	0.2
Indiana	292	1	0.0	291	100.0	0	0.0	0	0.0
Iowa	375	0	0.0	375	100.0	0	0.0	0	0.0
Kansas	304	0	0.0	304	100.0	0	0.0	0	0.0
Kentucky	176	5	0.3	171	99.7	0	0.0	0	0.0
Louisiana	70	2	0.1	68	99.9	0	0.0	0	0.0
Maine	224	106	11.7	112	87.0	5	1.1	1	0.1
Maryland	24	0	0.0	24	100.0	0	0.0	0	0.0
Massachusetts	244	67	5.1	176	94.9	1	0.1	0	0.0
Michigan	687	110	1.3	542	98.3	20	0.1	15	0.2
Minnesota	387	32	0.6	338	99.2	12	0.2	5	0.0
Mississippi	152	1	0.0	148	99.7	3	0.2	0	0.0
Missouri	523	73	1.3	450	98.7	0	0.0	0	0.0
Montana	456	291	60.7	55	12.0	110	27.3	0	0.0
Nebraska	596	312	3.4	266	95.3	18	1.3	0	0.0
Nevada	17	1	0.0	16	100.0	0	0.0	0	0.0
New Hampshire	165	89	19.8	65	74.2	9	4.2	2	1.8
New Jersey	581	290	18.8	214	73.1	50	6.6	27	1.6
New Mexico	89	0	0.0	89	100.0	0	0.0	0	0.0
New York	705	42	1.0	645	98.3	10	0.6	8	0.1
North Carolina	120	2	0.0	117	100.0	0	0.0	1	0.0
North Dakota	229	48	2.4	174	97.0	6	0.6	1	0.0
Ohio	625	13	0.1	611	99.9	0	0.0	1	0.0
Oklahoma	547	115	3.5	430	96.4	0	0.0	2	0.1
Oregon	197	18	0.1	178	99.9	1	0.0	0	0.0
Pennsylvania	500	2	0.1	498	99.9	0	0.0	0	0.0
Rhode Island	36	4	1.5	31	97.5	0	0.0	1	1.0
South Carolina	90	0	0.0	90	100.0	0	0.0	0	0.0
South Dakota	173	6	1.0	167	99.0	0	0.0	0	0.0
Tennessee	137	12	1.9	125	98.1	0	0.0	0	0.0
Texas	1,042	67	0.3	975	99.7	0	0.0	0	0.0
Utah	40	0	0.0	40	100.0	0	0.0	0	0.0
Vermont	248	182	42.9	34	31.4	31	23.8	1	1.9
Virginia	132	0	0.0	132	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	2.7	368	96.1	11	1.2	0	0.0
Wyoming	48	2	0.6	46	99.4	0	0.0	0	0.0

See footnotes on second page of this table.

**Table 5.—Number of regular public school districts providing instruction and percentage of students in membership, by grade span and by state: School year 1998–99—Continued**

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
<b>Outlying areas, DOD Dependents Schools, and Bureau of Indian Affairs</b>									
DOD Dependents									
Schools	12	0	0.0	12	100.0	0	0.0	0	0.0
Bureau of Indian Affairs	24	0	0.0	24	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: For states that did not provide a grade span, grade span was determined by the highest and lowest grades served among all schools associated with the district. "Other" includes all grade configurations not reported in the specified categories and includes ungraded districts. Table excludes 393 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 may not sum to 100 due to rounding. 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), "Public Elementary/Secondary School Universe Survey" and "Local Education Agency Universe Survey," 1998–99.

**Table 6.—Number of Title I, magnet, and charter schools and percentage of students served, by state: School year 1998–99**

State	Title I eligible schools		Title I schoolwide schools		Magnet schools		Charter schools	
	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	—	—	—	—	—	—	—	—
Alabama	—	—	—	—	34	2.5	—	—
Alaska	—	—	—	—	—	—	16	1.6
Arizona	—	—	—	—	—	—	—	—
Arkansas	773	63.4	350	24.9	19	2.1	—	—
California	4,416	54.0	—	—	472	9.3	144	1.2
Colorado	—	—	—	—	—	—	—	—
Connecticut	417	36.7	84	8.6	12	0.7	16	0.3
Delaware	105	54.0	12	5.6	1	0.3	4	0.9
District of Columbia	—	—	—	—	—	—	—	—
Florida	924	28.5	814	25.0	—	—	72	0.4
Georgia	863	39.1	454	19.6	26	1.4	12	0.6
Hawaii	139	47.5	121	41.3	—	—	2	0.4
Idaho	—	—	—	—	—	—	2	0.0
Illinois	—	—	—	—	315	11.6	12	0.2
Indiana	1,017	46.3	130	5.8	—	—	—	—
Iowa	758	40.2	83	5.1	—	—	—	—
Kansas	651	35.3	—	—	—	—	1	0.0
Kentucky	862	57.4	643	40.8	—	—	—	—
Louisiana	898	53.2	42	2.5	63	5.5	11	0.2
Maine	438	52.5	—	—	1	—	1	—
Maryland	412	26.1	300	19.4	—	—	—	—
Massachusetts	1,793	97.3	2	0.0	8	0.5	32	1.0
Michigan	—	—	—	—	—	—	—	—
Minnesota	—	—	—	—	—	—	—	—
Mississippi	653	68.3	548	56.2	5	0.4	—	—
Missouri	1,143	46.2	324	12.4	55	3.1	—	—
Montana	635	75.9	89	10.1	—	—	—	—
Nebraska	695	80.5	82	9.2	—	—	—	—
Nevada	100	18.7	72	14.1	7	1.4	1	0.1
New Hampshire	—	—	—	—	—	—	—	—

See footnotes on second page of this table.

Table 6.—Number of Title I, magnet, and charter schools and percentage of students served, by state: School year 1998–99—Continued

State	Title I eligible schools		Title I schoolwide schools		Magnet schools		Charter schools	
	Number of schools*	Percentage of students	Number of schools	Percentage of students	Number of schools	Percentage of students	Number of schools	Percentage of students
New Jersey	—	—	—	—	—	—	—	—
New Mexico	530	60.9	161	17.8	—	—	4	1.3
New York	—	—	—	—	—	—	—	—
North Carolina	991	39.3	593	22.0	119	6.1	59	0.7
North Dakota	—	—	—	—	—	—	—	—
Ohio	2,644	64.5	1,103	26.7	—	—	15	0.1
Oklahoma	1,143	56.6	619	28.4	—	—	—	—
Oregon	614	42.0	191	13.3	—	—	—	—
Pennsylvania	—	—	—	—	—	—	—	—
Rhode Island	—	—	—	—	—	—	2	0.2
South Carolina	499	38.4	419	30.7	—	—	3	0.0
South Dakota	387	46.7	76	8.4	—	—	—	—
Tennessee	—	—	—	—	6	0.4	—	—
Texas	4,132	56.1	3,471	47.9	—	—	66	0.3
Utah	—	—	—	—	—	—	—	—
Vermont	—	—	—	—	—	—	—	—
Virginia	141	5.9	54	2.2	18	1.1	—	—
Washington	—	—	—	—	—	—	—	—
West Virginia	427	41.2	326	29.5	—	—	—	—
Wisconsin	1,085	46.2	232	12.7	—	—	27	0.2
Wyoming	148	34.9	43	10.4	—	—	—	—
<b>Outlying areas, DOD Dependents Schools, and Bureau of Indian Affairs</b>								
DOD Dependents Schools	—	—	—	—	—	—	—	—
Bureau of Indian Affairs	—	—	—	—	—	—	—	—
American Samoa	31	100.0	31	100.0	—	—	—	—
Guam	—	—	—	—	—	—	—	—
Northern Marianas	—	—	—	—	—	—	—	—
Puerto Rico	—	—	—	—	—	—	—	—
Virgin Islands	35	100.0	16	52.1	—	—	—	—

— Less than 70 percent of schools in noted states reported data; symbol does not distinguish states with missing data from those that do not operate that type of school. U.S. total not shown.

\*Number of Title I eligible schools includes those with and without schoolwide Title I programs.

NOTE: Percentages are based on schools reporting. Percentages may not sum to 100 due to rounding. 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), "Public Elementary/Secondary School Universe Survey," 1998–99.

Table 7.—Number and percentage of public school students participating in selected programs, by state: School year 1998–99

State	Students with IEPs		Students receiving LEP services		Students receiving migrant services <sup>1</sup>		Students eligible for free or reduced-price meals	
	Number of students	Percentage of students	Number of students	Percentage of students	Number of students	Percentage of students	Number of students	Percentage of students
United States	5,698,757	12.3	—	—	—	—	—	—
Alabama	99,038	13.4	9,192	1.2	—	—	332,119	45.1
Alaska	17,723	13.1	—	—	—	—	34,695	25.6
Arizona	86,135	10.1	—	—	—	—	—	—
Arkansas	50,883	11.3	7,914	1.7	—	—	203,972	45.1
California	648,404	11.1	1,399,210	23.9	192,086	3.3	2,770,686	47.4
Colorado	71,170	10.2	—	—	—	—	<sup>1</sup> 145,831	<sup>2</sup> 20.9
Connecticut	76,757	14.1	19,729	3.6	4,022	0.7	135,590	24.9
Delaware	14,639	12.9	1,942	1.7	529	0.5	38,240	33.7
District of Columbia	8,178	11.4	—	—	—	—	—	—
Florida	342,183	14.6	148,281	6.3	39,536	1.7	1,025,470	43.9

See footnotes on second page of this table.

Table 7.—Number and percentage of public school students participating in selected programs, by state: School year 1998–99—Continued

State	Students with IEPs		Students receiving LEP services		Students receiving migrant services <sup>1</sup>		Students eligible for free or reduced-price meals	
	Number of students	Percentage of students	Number of students	Percentage of students	Number of students	Percentage of students	Number of students	Percentage of students
Georgia	152,269	10.9	22,769	1.6	7,450	0.5	606,636	43.3
Hawaii	19,462	10.3	12,897	6.9	—	—	71,533	38.0
Idaho	27,399	11.2	16,338	6.7	8,898	3.6	77,928	31.9
Illinois	272,984	13.6	126,533	6.3	—	—	—	—
Indiana	145,574	14.7	25,032	2.5	—	—	270,695	27.4
Iowa	67,881	13.6	8,044	1.6	—	—	136,572	27.6
Kansas	57,886	12.3	—	—	—	—	150,720	32.4
Kentucky	87,723	13.4	—	—	—	—	301,699	47.4
Louisiana	93,639	12.2	—	—	4,761	0.6	440,644	57.4
Maine	30,969	14.7	—	—	—	—	64,894	30.9
Maryland	110,560	13.1	17,282	2.1	—	—	256,441	30.5
Massachusetts	164,943	17.6	122,891	13.1	1,786	0.2	193,917	20.7
Michigan	82,882	4.9	—	—	—	—	<sup>2</sup> 423,813	<sup>2</sup> 25.0
Minnesota	108,883	12.7	—	—	—	—	<sup>2</sup> 160,110	<sup>2</sup> 18.7
Mississippi	61,709	12.3	—	—	—	—	319,509	63.4
Missouri	131,776	14.4	7,269	0.8	2,356	0.3	297,845	32.7
Montana	18,569	11.6	—	—	—	—	49,028	30.6
Nebraska	43,334	14.9	7,275	2.5	—	—	86,140	29.6
Nevada	33,294	10.7	—	—	—	—	85,911	27.5
New Hampshire	27,488	13.4	—	—	—	—	<sup>2</sup> 22,888	<sup>2</sup> 11.2
New Jersey	83,806	6.7	—	—	—	—	<sup>2</sup> 297,549	<sup>2</sup> 23.5
New Mexico	59,680	18.2	—	—	—	—	160,834	48.9
New York	417,112	14.5	—	—	—	—	<sup>2</sup> 1,065,898	<sup>2</sup> 37.1
North Carolina	163,712	13.0	28,709	2.3	—	—	481,353	38.4
North Dakota	13,028	11.3	—	—	—	—	<sup>2</sup> 23,748	<sup>2</sup> 20.7
Ohio	221,115	12.0	341	0.0	—	—	500,771	26.5
Oklahoma	80,121	12.7	33,246	5.3	—	—	287,773	45.8
Oregon	59,814	11.0	35,323	6.5	16,472	3.0	178,245	32.8
Pennsylvania	200,439	11.0	—	—	—	—	—	—
Rhode Island	27,691	17.9	9,248	6.0	160	0.1	50,808	32.8
South Carolina	87,528	13.3	3,067	0.5	—	—	301,670	46.0
South Dakota	15,408	11.6	2,811	2.1	324	0.2	39,993	30.2
Tennessee	126,848	14.2	—	—	—	—	—	—
Texas	483,637	12.3	533,741	13.5	73,670	1.9	1,776,756	45.0
Utah	55,251	11.5	38,269	8.0	—	—	134,292	28.0
Vermont	11,980	11.4	—	—	—	—	—	—
Virginia	152,827	13.6	26,525	2.4	—	—	336,578	30.0
Washington	106,530	10.7	—	—	—	—	—	—
West Virginia	49,936	16.8	—	—	—	—	146,941	49.4
Wisconsin	115,803	13.2	—	—	—	—	224,132	25.5
Wyoming	12,157	12.8	2,338	2.5	—	—	26,706	28.1
<b>Outlying areas, DOD Dependents Schools, and Bureau of Indian Affairs</b>								
DOD Dependents Schools	7,326	9.6	3,444	4.5	3,305	4.5	—	—
Bureau of Indian Affairs	—	—	—	—	—	—	—	—
American Samoa	584	3.8	13,066	85.0	0	0.0	14,590	94.9
Guam	2,267	7.0	6,806	21.1	0	0.0	11,558	35.9
Northern Marianas	431	4.5	—	—	—	—	<sup>2</sup> 4,232	<sup>2</sup> 44.6
Puerto Rico	11,960	2.0	—	—	—	—	<sup>2</sup> 492,925	<sup>2</sup> 80.3
Virgin Islands	1,591	7.6	1,379	6.6	—	—	—	—

— Less than 70 percent of schools or agencies in noted states reported data. U.S. total not shown.

<sup>1</sup>Receipt of migrant services was reported for the previous (1997–98) school year. Migrant students include those who were enrolled at any time during the regular school year.

<sup>2</sup>State may not have reported students eligible for reduced-price meals.

NOTE: Percentages are based on schools and agencies reporting. Percentages may not sum to 100 due to rounding. 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), "Public Elementary/Secondary School Universe Survey" and "Local Education Agency Universe Survey," 1998–99.

**Table 8.—Number of minority public school students, by state, and percentage of minority enrollment, by community type and state: School year 1998–99**

State	Total students	Number of minority students	Percentage of minority enrollment by community type		
			City, large and midsize	Urban fringe of city	Small town or rural
United States	46,534,687	—	—	—	—
Alabama	747,970	283,374	65.2	25.0	32.5
Alaska	135,373	50,750	34.4	0.0	39.3
Arizona	848,262	381,036	47.1	39.6	47.1
Arkansas	452,256	123,190	43.9	12.7	23.8
California	5,925,964	3,618,105	72.3	58.4	39.4
Colorado	699,135	205,783	43.1	24.9	19.6
Connecticut	544,698	157,098	68.0	17.8	7.3
Delaware	113,262	42,531	50.8	36.5	29.4
District of Columbia	71,889	68,830	95.7	0.0	100.0
Florida	2,337,633	1,045,499	49.1	47.4	29.6
Georgia	1,401,291	610,484	80.4	43.3	34.3
Hawaii	188,069	148,862	81.8	78.8	77.7
Idaho	244,722	31,489	—	—	—
Illinois	2,011,530	776,497	74.3	26.4	9.1
Indiana	988,094	150,770	39.1	10.1	3.9
Iowa	498,214	42,878	19.9	5.5	4.6
Kansas	472,353	91,097	40.0	9.8	13.5
Kentucky	655,687	73,027	30.3	14.6	5.6
Louisiana	768,734	386,869	72.1	39.5	40.1
Maine	210,503	6,339	7.8	2.4	2.2
Maryland	841,671	378,391	75.0	44.6	19.7
Massachusetts	962,317	220,959	54.0	11.4	5.9
Michigan	1,720,266	432,747	70.9	14.6	6.3
Minnesota	855,119	—	—	—	—
Mississippi	502,379	262,573	76.4	28.9	54.6
Missouri	912,445	180,811	46.7	20.4	6.4
Montana	159,988	21,049	10.8	9.5	14.0
Nebraska	291,140	44,133	25.4	10.6	6.4
Nevada	311,061	120,607	46.3	40.7	21.5
New Hampshire	204,713	7,852	10.3	3.1	2.0
New Jersey	1,268,996	487,582	77.9	35.5	14.0
New Mexico	328,753	206,597	60.1	72.3	61.5
New York	2,877,143	1,277,747	79.3	19.7	6.8
North Carolina	1,254,821	470,197	51.0	31.0	34.2
North Dakota	114,597	11,611	7.9	6.1	12.1
Ohio	1,842,559	341,359	51.9	11.4	3.6
Oklahoma	628,492	207,210	43.9	25.2	31.8
Oregon	542,809	92,746	23.1	16.3	13.8
Pennsylvania	1,816,414	374,856	63.3	10.9	4.6
Rhode Island	154,785	36,569	49.4	10.8	4.0
South Carolina	664,592	285,761	54.2	33.6	49.7
South Dakota	132,495	16,548	14.6	6.2	12.3
Tennessee	905,442	238,991	58.8	13.1	10.1
Texas	3,945,367	2,203,677	73.1	41.3	43.2
Utah	481,176	57,994	23.4	9.6	9.1
Vermont	105,120	3,058	12.0	4.2	2.1
Virginia	1,124,022	394,707	57.2	31.5	21.7
Washington	998,053	238,062	34.7	22.8	17.5
West Virginia	297,530	15,123	10.4	5.1	4.1
Wisconsin	879,542	159,262	43.1	8.2	5.7
Wyoming	95,241	10,843	14.0	13.9	10.4

See footnotes on second page of this table.

**Table 8.—Number of minority public school students, by state, and percentage of minority enrollment, by community type and state: School year 1998–99—Continued**

State	Total students	Number of minority students	Percentage of minority enrollment by community type		
			City, large and midsize	Urban fringe of city	Small town or rural
<b>Outlying areas, DOD Dependents Schools, and Bureau of Indian Affairs</b>					
DOD Dependents Schools	78,170	25,693	—	—	—
Bureau of Indian Affairs	50,125	—	—	—	—
American Samoa	15,372	15,372	—	—	—
Guam	32,222	31,517	—	—	—
Northern Marianas	9,498	9,420	—	—	—
Puerto Rico	613,862	613,862	—	—	—
Virgin Islands	20,976	20,788	—	—	—

— Less than 70 percent of schools in noted states reported. U.S. total not shown.

NOTE: Percentages are based on schools reporting. U.S. totals exclude outlying areas. Percentages may not sum to 100 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 "State Nonfiscal Survey of Public Elementary/Secondary Education," 1998–99.

## Public School Student, Staff, and Graduate Counts by State: School Year 1998–99

Ghedam Bairu

*This article was originally published as a Statistics in Brief report. The universe data are from the NCES Common Core of Data (CCD), "State Nonfiscal Survey of Public Elementary/Secondary Education." Technical notes and definitions from the original report have been omitted.*

How many students were enrolled in public elementary and secondary schools in 1998–99? How many staff members were paid to teach, supervise, and provide support services for education? How many students graduated from high school in the previous year, 1997–98? What was the racial/ethnic background of students enrolled in public schools in 1998–99? The information to answer these and other questions is reported in the National Center for Education Statistics (NCES) "State Nonfiscal Survey of Public Elementary/Secondary Education: School Year 1998–99."

### How Many Students Were Enrolled in Public Elementary and Secondary Schools?

In school year 1998–99, there were 46.5 million students enrolled in public elementary and secondary schools in the 50 states and the District of Columbia (table 1). Of these students, 25.9 million were in prekindergarten through grade 6, an additional 20 million were in grades 7 through 12, and the remaining 0.7 million were ungraded students.\*

California had the most public elementary and secondary school students (5,926,000), followed by Texas (3,945,000) and New York (2,877,000). The three lowest student counts were in the District of Columbia (72,000), Wyoming (95,000), and Vermont (105,000).

### How Many Teachers Were There?

About 2.8 million full-time-equivalent teachers provided instruction in public elementary and secondary schools in the 1998–99 school year (table 2). Among this group, 1,568,000 were elementary school teachers (including prekindergarten and kindergarten teachers) and 1,013,000 were secondary school teachers. The remaining 245,000 teachers taught ungraded classes or were not assigned a specific grade.

The ratio of total students to total teachers for the nation was 16.5 students per teacher. These ratios ranged from lows of 12.8 students per teacher in Vermont and 13.2 in Maine to highs of 22.4 in Utah and 21.0 in California. The median student/teacher ratio was 15.7:1; that is, about half

of the states had a student/teacher ratio equal to or greater than 15.7:1, and half had a lower ratio. Student/teacher ratio should not be interpreted as average class size since not all teachers are assigned to a class (for example, music and reading teachers in elementary schools).

### How Many Staff Supervised or Provided Support Services for Public Education?

In addition to the teachers enumerated previously, about 587,000 instructional aides directly assisted teachers in providing instruction (table 3). An additional 37,000 instructional coordinators and supervisors helped teachers through curriculum development and inservice training. Support staff for students included 93,000 guidance counselors and 52,000 librarians. This translates to about 500 students for every guidance counselor reported, and 891 students for each librarian. An additional 1,281,000 staff members provided support services for students. These services included food, health, library assistance, maintenance, transportation, security, and other services in the nation's public schools. There were 129,000 school administrators (mostly principals and assistant principals), 51,000 school district administrators, and about 360,000 administrative support staff.

The relative distribution of all staff is illustrated in figure 1. Instructional staff (teachers, instructional aides, and coordinators) made up 63.7 percent of all staff. Another 26.3 percent of all staff (librarians, counselors, psychologists, and other support staff) provided support services to schools and students. Administrators and administrative support staff made up 10 percent of all education staff. On the average, there were 16 teachers and 13 other staff for each administrator. All of these distributions and ratios vary greatly from state to state.

### How Many Students Graduated From High School During the 1997–98 School Year?

Some 2,458,000 students received regular high school diplomas in the 50 states and the District of Columbia during the 1997–98 school year and subsequent summer (table 4). An additional 141,000 students received high school equivalency certificates (this group includes only those who were 19 or younger). Finally, some 38,000 "other

\*Throughout this report, the five outlying areas, the Department of Defense Dependents Schools (overseas), and the Bureau of Indian Affairs schools are not included in national totals.

high school completers” received a certificate of attendance or some other high school completion certificate instead of a regular diploma. (Note that some states grant only regular diplomas and the high school equivalency certificates.) National totals for both high school equivalency certificate recipients and “other high school completers” represent an undercount due to missing data in some states.

### What Is the Racial/Ethnic Background of Students Enrolled in Public Schools?

In school year 1998–99, there were 46.5 million students enrolled in public elementary and secondary schools in the 50 states and the District of Columbia. Of these students, 533,000 were American Indian/Alaska Natives; 1,828,000 were Asian/Pacific Islanders; 6,939,000 were Hispanics; 7,923,000 were black, non-Hispanics; and 29,142,000 were white, non-Hispanics (table 5).

Table 6 presents the numbers of students receiving a regular high school diploma by racial/ethnic category for 1997–98. The U.S. totals could not be computed by race/ethnicity because data were missing for nine states.

**Data source:** The NCES Common Core of Data (CCD), “State Nonfiscal Survey of Public Elementary/Secondary Education,” 1994–95, 1997–98, and 1998–99.

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

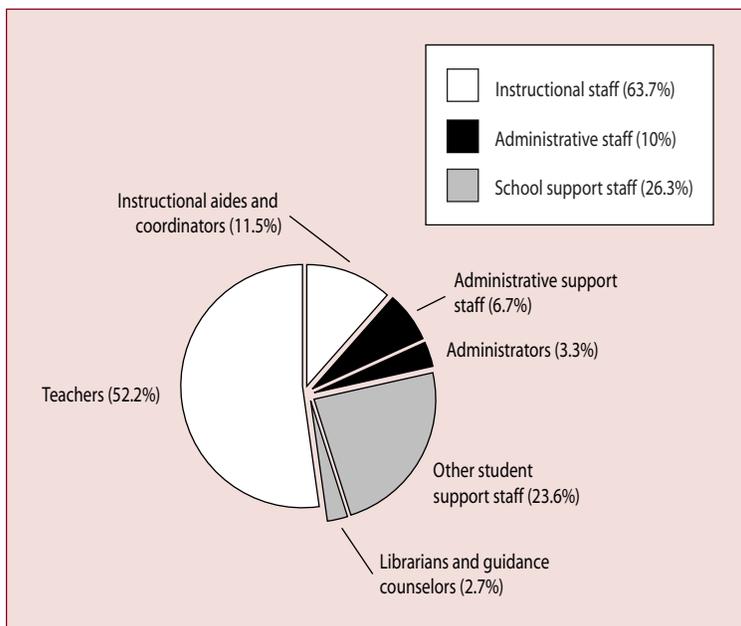
Bairu, G. (2000). *Public School Student, Staff, and Graduate Counts by State: School Year 1998–99* (NCES 2000–330).

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**To obtain the complete report (NCES 2000–330),** visit the NCES Web Site (<http://nces.ed.gov>) or contact Lena McDowell ([lena\\_mcdowell@ed.gov](mailto:lena_mcdowell@ed.gov)).

**Figure 1.—Distribution of elementary and secondary education staff by category: School year 1998–99**



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

SOURCE: U.S. Department of Education, National Center for Education Statistics, Common Core of Data (CCD), “State Nonfiscal Survey of Public Elementary/Secondary Education,” 1998–99.

Table 1.—Public school student membership, by grade and state: Fall 1998

State	Total student membership	Pre-kindergarten	Kindergarten	Grade 1	Grade 2	Grade 3	Grade 4	Grade 5
United States	146,534,687	1728,180	3,442,584	3,727,316	3,681,589	3,695,789	3,591,911	3,519,779
Alabama	1747,970	110,331	58,055	63,634	60,341	60,458	58,610	57,436
Alaska	135,373	2,017	9,838	10,641	10,754	10,818	10,555	10,528
Arizona	848,262	5,209	65,312	72,179	71,669	70,193	67,764	66,336
Arkansas	452,256	1,390	34,120	36,162	35,599	35,822	35,034	34,211
California	15,925,964	181,853	459,262	485,781	487,454	489,702	462,241	451,602
Colorado	699,135	13,068	50,859	55,589	55,284	55,304	54,382	54,068
Connecticut	544,698	10,056	42,500	44,936	44,398	45,154	44,520	43,559
Delaware	113,262	602	8,025	9,307	8,996	8,674	8,538	8,834
District of Columbia	71,889	4,831	6,446	7,094	6,772	6,101	5,607	4,608
Florida	2,337,633	53,969	174,470	184,802	186,394	188,445	186,203	182,770
Georgia	1,401,291	30,779	112,287	114,855	114,454	115,495	112,226	109,053
Hawaii	188,069	674	15,019	15,698	15,894	16,050	15,215	14,840
Idaho	244,722	2,123	17,318	18,623	18,449	18,901	18,510	18,753
Illinois	2,011,530	59,389	150,953	162,128	160,498	165,485	152,841	149,279
Indiana	988,094	5,516	71,974	81,464	79,691	78,820	77,624	75,727
Iowa	498,214	4,975	35,772	35,699	35,866	36,500	35,776	35,106
Kansas	472,353	2,595	31,279	35,472	35,061	35,599	35,197	35,357
Kentucky	655,687	16,864	46,900	51,451	50,535	50,710	48,707	46,599
Louisiana	768,734	16,486	58,922	62,808	59,447	58,493	57,476	56,507
Maine	210,503	1,031	14,698	15,995	15,867	16,339	16,540	16,833
Maryland	841,671	20,013	57,813	66,761	67,387	68,479	67,230	65,175
Massachusetts	962,317	18,884	71,390	78,873	78,112	79,612	77,943	75,873
Michigan	1,720,266	23,761	131,021	133,023	134,126	134,512	127,655	123,216
Minnesota	855,119	9,063	60,876	61,879	62,241	64,530	63,945	63,859
Mississippi	502,379	1,548	39,509	43,366	41,017	40,376	38,471	37,974
Missouri	912,445	16,300	67,335	72,630	70,929	70,269	69,223	67,983
Montana	159,988	515	10,848	12,002	11,580	11,969	11,808	12,128
Nebraska	291,140	4,595	21,145	21,198	21,445	22,023	21,378	21,275
Nevada	311,061	2,140	23,986	27,167	27,001	26,734	25,629	24,759
New Hampshire	204,713	1,586	8,831	17,388	16,520	17,152	16,959	16,886
New Jersey	1,268,996	10,560	90,689	101,808	100,091	100,289	97,881	93,982
New Mexico	328,753	2,932	23,759	26,101	25,935	25,677	25,701	25,446
New York	2,877,143	38,196	202,894	225,811	222,656	224,581	214,629	208,589
North Carolina	1,254,821	7,610	102,603	107,679	105,581	104,907	102,456	99,282
North Dakota	114,597	668	7,917	8,246	8,117	8,183	8,412	8,525
Ohio	1,842,559	22,402	134,949	146,136	142,960	143,112	140,514	138,269
Oklahoma	628,492	16,787	44,664	53,868	47,543	47,327	46,750	46,236
Oregon	542,809	547	37,530	41,912	42,764	43,005	42,784	41,966
Pennsylvania	1,816,414	2,712	126,155	141,973	140,305	141,360	139,387	138,971
Rhode Island	154,785	811	10,907	12,846	12,466	12,746	12,323	12,003
South Carolina	1664,592	19,180	47,160	54,402	53,492	49,338	53,929	52,675
South Dakota	132,495	654	9,495	9,714	9,539	9,778	9,931	9,815
Tennessee	1905,442	12,506	71,870	75,855	73,828	73,085	71,249	68,746
Texas	3,945,367	136,945	290,432	318,863	309,313	307,892	301,475	299,362
Utah	481,176	4,115	34,529	36,336	35,901	35,988	35,008	35,304
Vermont	105,120	2,377	6,976	7,584	7,739	7,932	8,165	7,970
Virginia	1,124,022	5,161	84,154	89,967	89,326	89,857	87,278	83,074
Washington	998,053	5,901	71,323	77,761	77,571	78,617	77,372	75,902
West Virginia	297,530	5,822	21,821	22,560	22,355	22,119	21,732	21,402
Wisconsin	879,542	20,131	59,611	62,652	63,506	64,307	64,255	63,971
Wyoming	95,241	0	6,383	6,637	6,820	6,970	6,873	7,155

See footnotes on third page of this table.

Table 1.—Public school student membership, by grade and state: Fall 1998—Continued

State	Total student membership	Pre-kindergarten	Kindergarten	Grade 1	Grade 2	Grade 3	Grade 4	Grade 5
<b>Outlying Areas, DOD Dependents Schools, and Bureau of Indian Affairs</b>								
Bureau of Indian Affairs	50,125	0	4,843	4,771	4,498	4,353	4,332	3,996
DOD Dependents Schools	78,170	975	7,584	8,336	7,725	7,710	7,229	6,645
American Samoa	15,372	1,452	1,208	1,267	1,185	1,197	1,170	1,096
Guam	32,222	551	2,181	2,950	2,783	2,844	2,683	2,661
Northern Marianas	9,498	526	624	913	826	839	791	783
Puerto Rico	613,862	1,037	44,106	51,599	48,247	50,419	51,337	49,561
Virgin Islands	20,976	0	1,426	1,746	1,793	1,687	1,651	1,613
State	Grade 6	Grade 7	Grade 8	Grade 9	Grade 10	Grade 11	Grade 12	Ungraded
United States	3,496,637	3,529,583	3,480,233	3,856,100	3,381,772	3,018,065	2,723,707	661,442
Alabama	57,689	58,681	57,105	62,724	52,731	46,218	43,957	0
Alaska	10,399	10,932	10,497	11,442	9,749	8,800	8,403	0
Arizona	64,938	66,648	63,943	67,476	60,333	51,245	45,813	9,204
Arkansas	34,183	35,570	35,936	36,378	35,264	31,742	29,123	1,722
California	433,720	431,003	424,768	468,162	433,528	390,742	334,852	91,294
Colorado	54,053	54,589	53,556	58,265	51,622	47,173	40,076	1,247
Connecticut	42,167	41,837	40,254	43,140	37,682	34,058	30,437	0
Delaware	8,693	9,322	8,964	10,453	8,861	7,223	6,770	0
District of Columbia	4,175	4,557	4,083	4,387	3,786	3,187	2,572	3,683
Florida	183,929	183,976	179,066	214,459	171,405	135,021	112,724	0
Georgia	108,517	106,857	104,863	123,055	95,755	81,968	71,127	0
Hawaii	14,292	13,610	13,339	16,125	13,981	12,848	10,384	100
Idaho	18,396	18,458	19,073	20,562	19,680	18,621	17,255	0
Illinois	151,150	148,980	148,529	161,476	140,486	129,037	127,506	3,793
Indiana	73,768	74,982	74,679	82,509	73,224	69,079	64,215	4,822
Iowa	35,429	37,529	38,374	40,741	39,652	38,275	37,166	11,354
Kansas	35,873	36,876	37,189	39,290	37,153	33,696	31,955	9,761
Kentucky	48,061	48,617	49,580	55,999	49,274	43,729	39,369	29,292
Louisiana	58,353	60,940	56,683	64,064	53,319	46,531	41,479	17,226
Maine	16,669	17,448	17,392	16,635	15,335	13,951	13,026	2,744
Maryland	64,561	63,379	62,174	68,672	59,651	53,890	49,321	7,165
Massachusetts	74,131	73,148	72,101	74,668	66,456	61,200	55,369	4,557
Michigan	123,596	124,352	123,565	132,899	115,887	105,720	94,361	92,572
Minnesota	63,862	67,430	67,868	69,761	68,342	66,054	65,409	0
Mississippi	37,139	39,422	37,322	40,169	34,875	29,319	26,452	15,420
Missouri	68,613	70,246	69,973	73,983	68,853	60,678	55,794	9,636
Montana	12,444	12,984	12,994	13,655	12,816	12,266	11,611	368
Nebraska	21,603	22,367	22,725	24,901	22,865	22,103	21,517	0
Nevada	24,196	23,816	23,168	23,183	21,652	20,108	16,824	698
New Hampshire	17,139	16,765	16,848	16,566	15,149	14,061	12,148	715
New Jersey	90,971	88,587	86,032	86,450	78,892	73,985	68,618	100,161
New Mexico	25,458	25,760	25,716	29,414	26,245	21,885	18,724	0
New York	204,177	204,605	200,097	247,917	212,054	166,183	148,315	156,439
North Carolina	98,276	96,840	95,522	108,749	86,952	74,806	63,476	82
North Dakota	8,474	9,023	9,295	9,608	9,577	9,512	9,040	0
Ohio	139,314	142,886	141,802	152,908	137,607	129,872	120,734	9,094
Oklahoma	46,702	47,840	47,933	50,328	47,393	43,152	38,769	3,200
Oregon	41,828	42,598	42,825	45,260	42,838	39,095	35,079	2,778
Pennsylvania	138,900	142,621	138,766	149,158	139,026	128,366	118,850	29,864
Rhode Island	11,831	11,777	11,372	12,504	10,864	10,018	8,727	3,590

See footnotes on third page of this table.

Table 1.—Public school student membership, by grade and state: Fall 1998—Continued

State	Grade 6	Grade 7	Grade 8	Grade 9	Grade 10	Grade 11	Grade 12	Ungraded
South Carolina	52,690	53,284	51,700	63,683	46,768	39,654	36,637	0
South Dakota	10,250	10,718	10,841	11,302	10,515	10,208	9,521	214
Tennessee	67,336	68,684	66,468	72,169	63,426	55,837	49,440	14,943
Texas	300,246	303,921	299,760	350,743	273,161	240,751	212,503	0
Utah	34,356	35,151	35,559	36,598	37,415	38,138	35,706	11,072
Vermont	8,124	8,190	8,200	9,016	8,189	7,494	6,823	341
Virginia	84,594	84,975	85,348	90,241	79,387	71,212	67,787	31,661
Washington	76,162	78,001	77,340	85,131	79,208	71,982	65,782	0
West Virginia	22,082	22,997	22,623	24,061	23,446	22,562	21,344	604
Wisconsin	65,788	68,001	68,481	76,660	71,273	67,146	63,760	0
Wyoming	7,340	7,803	7,942	8,401	8,170	7,664	7,057	26
<b>Outlying Areas, DOD Dependent Schools, and Bureau of Indian Affairs</b>								
Bureau of Indian Affairs	3,966	3,860	3,759	4,132	3,222	2,348	2,045	0
DOD Dependents Schools	6,169	5,665	5,171	4,731	4,021	3,388	2,821	0
American Samoa	1,147	1,080	1,004	1,034	932	814	741	45
Guam	2,467	2,468	2,270	3,002	2,278	1,656	1,428	0
Northern Marianas	815	653	650	761	567	398	352	0
Puerto Rico	47,714	51,079	46,399	43,666	43,110	38,320	32,289	14,979
Virgin Islands	1,603	2,062	1,520	2,178	1,322	1,204	999	172

<sup>1</sup>Prekindergarten data imputed based on current-year (fall 1998) data; total membership includes imputed data.

<sup>2</sup>Grades 1 through 3 and ungraded disaggregated from reported total based on distribution in other states.

<sup>3</sup>The Virgin Islands do not have a prekindergarten program.

<sup>4</sup>Bureau of Indian Affairs data subtracted from state totals.

NOTE: U.S. totals include the 50 states and the District of Columbia.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Common Core of Data (CCD), "State Nonfiscal Survey of Public Elementary/Secondary Education," 1998–99.

Table 2.—Public school student/teacher ratio, student membership, and teachers, by level of instruction and state: Fall 1998

State	Total student/ teacher ratio	Total student membership	Total teachers	Pre- kindergarten teachers	Kindergarten teachers	Elementary teachers	Secondary teachers	Teachers of ungraded classes
United States	16.5	<sup>1</sup> 46,534,687	<sup>2</sup> 2,826,146	<sup>3</sup> 30,193	138,236	1,399,451	1,012,946	245,320
Alabama	15.7	<sup>1</sup> 747,970	<sup>1</sup> 47,753	<sup>1</sup> 560	3,455	22,715	21,023	0
Alaska	16.7	135,373	8,118	36	352	4,799	2,931	0
Arizona	20.0	848,262	42,352	186	1,682	28,861	11,623	0
Arkansas	16.2	452,256	27,953	186	1,961	10,272	12,668	2,866
California	21.0	<sup>1</sup> 5,925,964	<sup>1</sup> 281,686	<sup>1</sup> 4,440	21,399	162,118	65,483	28,246
Colorado	17.7	699,135	39,434	322	1,265	18,791	19,056	0
Connecticut	14.0	544,698	38,772	167	1,444	21,036	11,284	4,841
Delaware	16.0	113,262	7,074	26	213	3,313	3,522	0
District of Columbia	13.9	71,889	5,187	229	243	2,631	1,974	110
Florida	18.4	2,337,633	126,796	914	7,204	47,524	49,025	22,129
Georgia	15.8	1,401,291	88,658	1,794	5,467	45,114	36,283	0
Hawaii	17.7	188,069	10,639	<sup>2</sup> 104	<sup>2</sup> 445	<sup>2</sup> 5,286	4,762	42
Idaho	18.2	244,722	13,426	117	507	6,300	6,499	3
Illinois	16.5	2,011,530	121,758	1,436	4,759	67,102	30,455	18,006
Indiana	17.0	988,094	58,084	375	2,332	27,105	25,639	2,633
Iowa	15.2	498,214	32,822	457	1,948	17,286	11,985	1,146
Kansas	14.8	472,353	32,003	215	1,147	13,381	13,862	3,398
Kentucky	16.1	655,687	40,803	653	1,254	20,415	11,878	6,603
Louisiana	15.6	768,734	49,124	469	2,736	30,996	14,406	517
Maine	13.2	<sup>4</sup> 210,503	15,890	<sup>2</sup> 193	<sup>8</sup> 828	<sup>9</sup> 8,826	5,043	0

See footnotes on second page of this table.

Table 2.—Public school student/teacher ratio, student membership, and teachers, by level of instruction and state: Fall 1998—Continued

State	Total student/ teacher ratio	Total student membership	Total teachers	Pre- kindergarten teachers	Kindergarten teachers	Elementary teachers	Secondary teachers	Teachers of ungraded classes
Maryland	16.9	841,671	49,840	315	732	24,144	24,649	0
Massachusetts	13.8	962,317	69,752	<sup>2</sup> 451	<sup>2</sup> 1,931	22,589	34,857	9,924
Michigan	18.5	<sup>1</sup> 1,720,266	93,220	985	3,539	35,933	42,139	10,624
Minnesota	16.9	855,119	50,565	794	1,799	23,909	24,063	0
Mississippi	16.1	<sup>4</sup> 502,379	31,140	214	1,651	13,836	10,165	5,274
Missouri	14.7	912,445	62,222	1,070	3,126	27,262	30,056	708
Montana	15.7	159,988	10,221	<sup>2</sup> 123	<sup>2</sup> 527	<sup>2</sup> 6,261	3,310	0
Nebraska	14.3	291,140	20,310	<sup>2</sup> 213	<sup>2</sup> 910	<sup>2</sup> 10,799	8,273	115
Nevada	18.9	311,061	16,415	253	515	7,767	6,010	1,870
New Hampshire	15.4	204,713	13,290	94	295	8,854	4,047	0
New Jersey	13.8	1,268,996	92,264	244	3,272	48,405	26,769	13,574
New Mexico	16.5	328,753	19,981	212	837	10,512	4,705	3,715
New York	14.6	2,877,143	197,253	2,273	10,981	87,492	67,610	28,897
North Carolina	15.8	1,254,821	79,531	713	5,229	42,134	28,479	2,976
North Dakota	14.4	<sup>4</sup> 114,597	7,974	88	274	4,558	3,054	0
Ohio	16.2	1,842,559	113,986	1,318	4,606	70,015	37,778	269
Oklahoma	15.4	628,492	40,886	415	1,607	16,878	17,535	4,451
Oregon	20.0	542,809	27,152	44	1,004	13,601	8,209	4,294
Pennsylvania	16.4	1,816,414	111,065	<sup>2</sup> 905	<sup>2</sup> 3,873	<sup>2</sup> 45,980	46,530	13,777
Rhode Island	13.9	154,785	11,124	15	298	4,611	4,617	1,583
South Carolina	15.2	<sup>1</sup> 664,592	43,689	480	1,944	27,822	13,443	0
South Dakota	14.3	<sup>4</sup> 132,495	9,273	36	301	5,107	2,994	835
Tennessee	15.3	<sup>1</sup> 905,442	59,258	195	3,734	39,097	14,940	1,292
Texas	15.2	3,945,367	259,739	4,263	14,217	108,259	96,352	36,648
Utah	22.4	481,176	21,501	139	870	9,294	8,782	2,416
Vermont	12.8	105,120	8,221	56	271	2,792	3,160	1,942
Virginia	14.2	1,124,022	<sup>1</sup> 79,393	<sup>1</sup> 280	<sup>2</sup> 3,647	<sup>2</sup> 43,289	32,177	0
Washington	20.1	<sup>4</sup> 998,053	49,671	67	2,008	22,827	20,325	4,444
West Virginia	14.2	297,530	20,989	185	1,116	8,942	7,072	3,674
Wisconsin	14.4	879,542	61,176	873	2,276	38,716	17,971	1,340
Wyoming	14.2	<sup>4</sup> 95,241	6,713	1	205	2,895	3,474	138
<b>Outlying Areas, DOD Dependents Schools, and Bureau of Indian Affairs</b>								
Bureau of Indian Affairs	0.0	50,125	—	—	—	—	—	—
DOD Dependents Schools	15.1	78,170	5,171	61	178	2,098	1,847	987
American Samoa	20.1	15,372	764	112	32	369	236	15
Guam	30.6	32,222	1,052	14	70	429	523	16
Northern Marianas	19.1	9,498	496	1	18	285	182	10
Puerto Rico	15.4	613,862	39,849	112	1,224	19,761	15,296	3,388
Virgin Islands	13.4	20,976	1,567	<sup>3</sup> 0	67	698	764	38

— Data missing or not applicable.

<sup>1</sup>Prekindergarten data imputed based on current-year (fall 1998) data; this affects total student membership.

<sup>2</sup>Data disaggregated from reported total.

<sup>3</sup>The Virgin Islands do not have a prekindergarten program.

<sup>4</sup>Bureau of Indian Affairs data subtracted from state totals.

NOTE: Teacher counts are full-time-equivalency (FTE) counts. Elementary and secondary teacher counts are not directly comparable across states due to differences in the grades included in these designations. U.S. totals include the 50 states and the District of Columbia.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Common Core of Data (CCD), "State Nonfiscal Survey of Public Elementary/Secondary Education," 1998–99.

Table 3.—Number of staff employed by public elementary and secondary school systems and percentage of total staff, by category and state: Fall 1998

State	Total staff	Teachers		Instructional aides		Instructional coordinators and supervisors		Guidance counselors	
		Number	Percent	Number	Percent	Number	Percent	Number	Percent
United States	<sup>1</sup> 5,416,699	<sup>1</sup> 2,826,146	52.2	<sup>1</sup> 587,158	10.8	<sup>1</sup> 36,864	0.7	<sup>1</sup> 93,058	1.7
Alabama	<sup>1</sup> 87,641	<sup>1</sup> 47,753	54.5	6,752	7.7	572	0.7	1,785	2.0
Alaska	<sup>1</sup> 15,684	8,118	51.8	2,162	13.8	<sup>1</sup> 128	0.8	235	1.5
Arizona	<sup>1</sup> 85,009	42,352	49.8	<sup>1</sup> 11,560	13.6	184	0.2	1,093	1.3
Arkansas	<sup>1</sup> 40,775	27,953	68.6	3,231	7.9	221	0.5	1,179	2.9
California	<sup>1</sup> 514,422	<sup>1</sup> 281,686	54.8	59,113	11.5	5,860	1.1	5,760	1.1
Colorado	76,125	39,434	51.8	8,051	10.6	619	0.8	1,121	1.5
Connecticut	77,410	38,772	50.1	9,950	12.9	408	0.5	1,175	1.5
Delaware	12,869	7,074	55.0	1,014	7.9	51	0.4	227	1.8
District of Columbia	9,840	5,187	52.7	384	3.9	125	1.3	242	2.5
Florida	262,170	126,796	48.4	28,882	11.0	823	0.3	5,208	2.0
Georgia	177,832	88,658	49.9	22,809	12.8	1,096	0.6	2,763	1.6
Hawaii	17,354	10,639	61.3	1,042	6.0	402	2.3	576	3.3
Idaho	23,833	13,426	56.3	2,375	10.0	246	1.0	585	2.5
Illinois	<sup>1</sup> 234,721	121,758	51.9	<sup>1</sup> 27,413	11.7	2,147	0.9	2,881	1.2
Indiana	124,097	58,084	46.8	17,785	14.3	1,443	1.2	1,788	1.4
Iowa	65,967	32,822	49.8	7,725	11.7	367	0.6	1,300	2.0
Kansas	60,829	32,003	52.6	5,955	9.8	106	0.2	1,117	1.8
Kentucky	91,088	40,803	44.8	13,909	15.3	395	0.4	1,293	1.4
Louisiana	99,401	49,124	49.4	10,379	10.4	1,118	1.1	2,983	3.0
Maine	<sup>3</sup> 31,298	15,890	50.8	4,686	15.0	155	0.5	601	1.9
Maryland	93,313	49,840	53.4	7,712	8.3	731	0.8	1,957	2.1
Massachusetts	126,843	69,752	55.0	16,457	13.0	1,240	1.0	2,302	1.8
Michigan	209,413	93,220	44.5	21,878	10.4	836	0.4	3,054	1.5
Minnesota	96,009	50,565	52.7	12,595	13.1	1,331	1.4	963	1.0
Mississippi	<sup>3</sup> 65,023	31,140	47.9	9,037	13.9	574	0.9	953	1.5
Missouri	115,847	62,222	53.7	9,191	7.9	793	0.7	2,516	2.2
Montana	<sup>1</sup> 19,024	10,221	53.7	<sup>1</sup> 2,180	11.5	135	0.7	428	2.2
Nebraska	38,207	20,310	53.2	3,954	10.3	251	0.7	745	1.9
Nevada	29,132	16,415	56.3	2,148	7.4	113	0.4	637	2.2
New Hampshire	25,574	13,290	52.0	4,336	17.0	<sup>2</sup> 160	0.6	689	2.7
New Jersey	171,196	92,264	53.9	16,542	9.7	1,324	0.8	3,295	1.9
New Mexico	41,125	19,981	48.6	4,781	11.6	664	1.6	706	1.7
New York	376,189	197,253	52.4	34,221	9.1	1,481	0.4	5,648	1.5
North Carolina	152,899	79,531	52.0	25,785	16.9	680	0.4	3,155	2.1
North Dakota	<sup>3</sup> 14,765	7,974	54.0	1,678	11.4	87	0.6	254	1.7
Ohio	209,689	113,986	54.4	12,897	6.2	400	0.2	3,381	1.6
Oklahoma	70,762	40,886	57.8	5,639	8.0	140	0.2	1,460	2.1
Oregon	53,781	27,152	50.5	7,337	13.6	304	0.6	1,218	2.3
Pennsylvania	209,862	111,065	52.9	18,685	8.9	1,522	0.7	3,830	1.8
Rhode Island	17,832	11,124	62.4	1,994	11.2	66	0.4	317	1.8
South Carolina	<sup>1</sup> 81,370	43,689	53.7	<sup>1</sup> 9,057	11.1	443	0.5	1,581	1.9
South Dakota	<sup>3</sup> 16,525	9,273	56.1	1,893	11.5	121	0.7	341	2.1
Tennessee	110,069	59,258	53.8	11,742	10.7	<sup>2</sup> 962	0.9	1,689	1.5
Texas	506,134	259,739	51.3	51,844	10.2	1,103	0.2	8,771	1.7
Utah	39,198	21,501	54.9	4,995	12.7	547	1.4	726	1.9
Vermont	16,817	8,221	48.9	3,593	21.4	267	1.6	365	2.2
Virginia	<sup>1</sup> 146,267	<sup>1</sup> 79,393	54.3	13,937	9.5	1,380	0.9	3,300	2.3
Washington	<sup>3</sup> 93,750	49,671	53.0	9,661	10.3	<sup>2</sup> 734	0.8	1,851	2.0
West Virginia	38,655	20,989	54.3	3,079	8.0	348	0.9	640	1.7
Wisconsin	109,266	61,176	56.0	11,590	10.6	1,509	1.4	2,005	1.8
Wyoming	<sup>3</sup> 13,798	6,713	48.7	1,543	11.2	152	1.1	369	2.7

See footnotes on third page of this table.

Table 3.—Number of staff employed by public elementary and secondary school systems and percentage of total staff, by category and state: Fall 1998—Continued

State	Total staff	Teachers		Instructional aides		Instructional coordinators and supervisors		Guidance counselors		
		Number	Percent	Number	Percent	Number	Percent	Number	Percent	
<b>Outlying Areas, DOD Dependents Schools, and Bureau of Indian Affairs</b>										
Bureau of Indian Affairs	—	—	—	—	—	—	—	—	—	—
DOD Dependents Schools	7,782	5,171	66.4	772	9.9	120	1.5	172	2.2	
American Samoa	1,524	764	50.1	115	7.5	48	3.1	34	2.2	
Guam	3,073	1,052	34.2	685	22.3	83	2.7	45	1.5	
Northern Marianas	1,041	496	47.6	159	15.3	10	1.0	20	1.9	
Puerto Rico	69,067	39,849	57.7	165	0.2	422	0.6	879	1.3	
Virgin Islands	3,055	1,567	51.3	327	10.7	19	0.6	82	2.7	
State	Librarians		Other student support staff		School administrators		School district administrators		Administrative support staff	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
United States	152,216	1.0	11,280,807	23.6	1129,278	2.4	150,813	0.9	1360,359	6.7
Alabama	1,278	1.5	22,422	25.6	2,788	3.2	681	0.8	3,610	4.1
Alaska	149	1.0	2,735	17.4	836	5.3	106	0.7	1,215	7.7
Arizona	780	0.9	19,881	23.4	1,899	2.2	408	0.5	6,852	8.1
Arkansas	930	2.3	4,532	11.1	1,492	3.7	596	1.5	641	1.6
California	1,297	0.3	95,960	18.7	11,760	2.3	2,271	0.4	50,715	9.9
Colorado	702	0.9	17,936	23.6	1,859	2.4	856	1.1	5,547	7.3
Connecticut	719	0.9	18,906	24.4	1,894	2.4	1,105	1.4	4,481	5.8
Delaware	120	0.9	2,996	23.3	415	3.2	87	0.7	885	6.9
District of Columbia	135	1.4	2,865	29.1	271	2.8	45	0.5	586	6.0
Florida	2,635	1.0	64,719	24.7	5,988	2.3	1,598	0.6	25,521	9.7
Georgia	1,991	1.1	45,805	25.8	4,284	2.4	1,686	0.9	8,740	4.9
Hawaii	290	1.7	2,875	16.6	493	2.8	132	0.8	905	5.2
Idaho	194	0.8	4,923	20.7	710	3.0	117	0.5	1,257	5.3
Illinois	1,914	0.8	54,628	23.3	5,487	2.3	3,643	1.6	14,850	6.3
Indiana	1,075	0.9	32,774	26.4	2,880	2.3	914	0.7	7,354	5.9
Iowa	733	1.1	16,423	24.9	1,684	2.6	814	1.2	4,099	6.2
Kansas	971	1.6	14,919	24.5	1,712	2.8	1,017	1.7	3,029	5.0
Kentucky	1,098	1.2	26,308	28.9	1,829	2.0	1,046	1.1	4,407	4.8
Louisiana	1,211	1.2	28,199	28.4	2,547	2.6	288	0.3	3,552	3.6
Maine	245	0.8	6,678	21.3	891	2.8	471	1.5	1,681	5.4
Maryland	1,083	1.2	22,563	24.2	3,395	3.6	701	0.8	5,331	5.7
Massachusetts	644	0.5	23,500	18.5	2,195	1.7	1,073	0.8	9,680	7.6
Michigan	1,566	0.7	71,062	33.9	5,603	2.7	2,181	1.0	10,013	4.8
Minnesota	410	0.4	20,305	21.1	1,764	1.8	383	0.4	7,693	8.0
Mississippi	984	1.5	16,104	24.8	1,653	2.5	971	1.5	3,607	5.5
Missouri	1,497	1.3	24,240	20.9	2,819	2.4	1,140	1.0	11,429	9.9
Montana	356	1.9	3,830	20.1	537	2.8	155	0.8	1,182	6.2
Nebraska	550	1.4	8,954	23.4	946	2.5	546	1.4	1,951	5.1
Nevada	274	0.9	6,693	23.0	847	2.9	211	0.7	1,794	6.2
New Hampshire	269	1.1	4,849	19.0	512	2.0	391	1.5	1,078	4.2
New Jersey	1,797	1.0	35,021	20.5	4,309	2.5	1,686	1.0	14,958	8.7
New Mexico	266	0.6	9,814	23.9	916	2.2	792	1.9	3,205	7.8
New York	3,027	0.8	94,910	25.2	7,047	1.9	2,484	0.7	30,118	8.0
North Carolina	2,247	1.5	35,597	23.3	4,307	2.8	1,495	1.0	102	0.1
North Dakota	191	1.3	3,230	21.9	409	2.8	451	3.1	491	3.3
Ohio	1,688	0.8	48,723	23.2	977	0.5	5,453	2.6	22,184	10.6
Oklahoma	929	1.3	14,396	20.3	1,979	2.8	728	1.0	4,605	6.5
Oregon	588	1.1	10,498	19.5	1,618	3.0	810	1.5	4,256	7.9
Pennsylvania	2,198	1.0	51,187	24.4	4,054	1.9	1,431	0.7	15,890	7.6
Rhode Island	64	0.4	2,493	14.0	395	2.2	167	0.9	1,212	6.8

See footnotes on third page of this table.

**Table 3.—Number of staff employed by public elementary and secondary school systems and percentage of total staff, by category and state: Fall 1998—Continued**

State	Librarians		Other student support staff		School administrators		School district administrators		Administrative support staff	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
South Carolina	1,123	1.4	18,025	22.2	2,300	2.8	245	0.3	14,907	6.0
South Dakota	177	1.1	3,074	18.6	419	2.5	361	2.2	866	5.2
Tennessee	1,457	1.3	<sup>2</sup> 21,920	19.9	4,388	4.0	1,840	1.7	<sup>3</sup> 6,813	6.2
Texas	4,508	0.9	144,210	28.5	12,564	2.5	2,738	0.5	20,657	4.1
Utah	300	0.8	7,670	19.6	995	2.5	105	0.3	2,359	6.0
Vermont	213	1.3	2,908	17.3	408	2.4	147	0.9	695	4.1
Virginia	2,097	1.4	33,977	23.2	3,686	2.5	1,733	1.2	6,764	4.6
Washington	1,286	1.4	<sup>2</sup> 20,509	21.9	2,627	2.8	1,094	1.2	6,317	6.7
West Virginia	358	0.9	9,648	25.0	1,062	2.7	330	0.9	2,201	5.7
Wisconsin	1,459	1.3	21,001	19.2	2,486	2.3	896	0.8	7,144	6.5
Wyoming	143	1.0	3,412	24.7	342	2.5	194	1.4	930	6.7
<b>Outlying Areas, DOD Dependents Schools, and Bureau of Indian Affairs</b>										
Bureau of Indian Affairs	—	—	—	—	—	—	—	—	—	—
DOD Dependents Schools	165	2.1	249	3.2	291	3.7	77	1.0	765	9.8
American Samoa	6	0.4	342	22.4	67	4.4	35	2.3	113	7.4
Guam	23	0.7	263	8.6	52	1.7	24	0.8	846	27.5
Northern Marianas	2	0.2	174	16.7	32	3.1	15	1.4	133	12.8
Puerto Rico	928	1.3	20,161	29.2	1,288	1.9	1,329	1.9	4,046	5.9
Virgin Islands	37	1.2	619	20.3	88	2.9	71	2.3	245	8.0

— Data missing or not applicable.

<sup>1</sup>Data imputed based on current-year (fall 1998) data.<sup>2</sup>Data disaggregated from reported total.<sup>3</sup>Bureau of Indian Affairs data subtracted from state totals.

NOTE: All staff counts are full-time-equivalency counts. U.S. totals include the 50 states and the District of Columbia.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Common Core of Data (CCD), "State Nonfiscal Survey of Public Elementary/Secondary Education," 1998–99.

**Table 4.—Number of public school graduates, 12th-grade student membership, and 9th-grade student membership 3 years earlier, by state: School year 1997–98**

State	Regular high school graduates 1997–98	12th-grade membership 1997–98	9th-grade membership 1994–95	High school equivalency recipients 1997–98 <sup>1</sup>	Other high school completers 1997–98 <sup>3</sup>
United States	2,457,658	2,672,932	3,604,115	141,361	38,342
Alabama	38,089	44,272	63,656	3,863	3,712
Alaska	6,462	7,771	9,947	962	34
Arizona	36,361	44,259	59,150	—	173
Arkansas	26,855	29,204	36,689	8,277	2,104
California	282,897	317,595	420,643	12,586	5,302
Colorado	35,794	39,263	50,078	—	562
Connecticut	27,885	29,660	38,001	1,037	—
Delaware	6,439	6,741	9,469	282	71
District of Columbia	2,777	2,961	4,923	560	128
Florida	98,498	108,366	172,947	13,825	2,734
Georgia	58,525	69,355	114,176	15,577	5,863
Hawaii	9,670	10,266	15,597	—	699
Idaho	15,523	17,020	19,777	—	64
Illinois	114,611	129,084	148,944	—	—
Indiana	58,899	64,829	83,147	1,635	488

See footnotes on second page of this table.

**Table 4.—Number of public school graduates, 12th-grade student membership, and 9th-grade student membership 3 years earlier, by state: School year 1997–98—Continued**

State	Regular high school graduates 1997–98	12th-grade membership 1997–98	9th-grade membership 1994–95	High school equivalency recipients 1997–98 <sup>1</sup>	Other high school completers 1997–98 <sup>3</sup>
Iowa	36,008	36,808	40,593	2,789	86
Kansas	27,856	30,922	38,007	—	—
Kentucky	37,270	40,153	55,758	—	—
Louisiana	38,030	41,527	68,599	3,465	1,044
Maine <sup>2</sup>	12,171	12,820	15,503	327	24
Maryland	44,555	46,532	63,067	—	478
Massachusetts	50,452	54,354	66,707	—	—
Michigan	92,732	92,690	128,383	962	249
Minnesota <sup>1</sup>	54,494	63,727	65,149	—	—
Mississippi <sup>2</sup>	24,502	26,788	43,434	251	1,710
Missouri	52,031	55,673	72,584	5,096	—
Montana	10,656	11,301	13,309	1,193	—
Nebraska	19,719	20,912	23,281	—	83
Nevada	13,052	15,782	18,685	5,134	328
New Hampshire	10,843	11,656	14,564	1,703	—
New Jersey	65,106	68,008	83,256	—	—
New Mexico	16,529	18,080	28,547	—	203
New York	138,531	146,818	227,040	—	—
North Carolina	59,292	62,552	97,534	6,569	854
North Dakota <sup>2</sup>	8,170	8,815	9,564	1,727	—
Ohio	111,211	120,070	151,879	6,368	—
Oklahoma	35,213	37,568	48,838	7,986	—
Oregon	27,754	34,419	41,301	3,905	3,034
Pennsylvania	110,919	117,432	147,352	10,313	—
Rhode Island	8,074	8,633	11,534	645	1
South Carolina	31,951	36,576	60,058	2,364	2,074
South Dakota <sup>2</sup>	9,140	9,939	12,077	1,552	—
Tennessee	57,236	48,881	72,593	—	4,425
Texas	197,186	206,928	323,162	2,855	—
Utah	31,567	35,900	38,356	1,860	151
Vermont	6,469	6,831	7,993	—	—
Virginia	61,777	66,430	84,447	698	1,610
Washington <sup>2</sup>	53,679	64,731	75,684	4,879	—
West Virginia	20,164	21,765	26,766	1,550	7
Wisconsin	57,607	63,188	73,063	7,888	—
Wyoming <sup>2</sup>	6,427	7,077	8,304	678	47
<b>Outlying Areas, DOD Dependents Schools, and Bureau of Indian Affairs</b>					
Bureau of Indian Affairs	—	—	—	—	—
DOD Dependents	—	—	—	—	—
Schools	2,595	2,728	—	—	0
American Samoa	665	704	885	16	11
Guam	923	1,309	2,795	—	—
Northern Marianas	374	500	625	—	0
Puerto Rico	29,881	32,432	45,789	9,927	—
Virgin Islands	1,069	1,193	1,935	—	—

— Data missing or not applicable.

<sup>1</sup>Includes recipients age 19 or younger, except in Minnesota where they are age 20 or younger.

<sup>2</sup>Bureau of Indian Affairs data were not subtracted from state totals.

<sup>3</sup>Other high school completers are individuals who received a certificate of attendance, or other certificate of completion, in lieu of a diploma during the previous school year and subsequent summer school.

NOTE: National totals (the 50 states and D.C.) for some items may be undercounts due to missing data in some states. Regular high school graduates may include students not included in the 12th grade and the former category of other diploma recipients.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Common Core of Data (CCD), "State Nonfiscal Survey of Public Elementary/Secondary Education," 1994–95, 1997–98, and 1998–99.

Table 5.—Public school membership by race/ethnicity and state: School year 1998–99

State	American Indian/Alaska Native	Asian/Pacific Islander	Hispanic	Black, non-Hispanic	White, non-Hispanic
United States	532,526	1,828,467	6,938,813	7,922,953	29,142,074
Alabama	5,246	5,024	6,879	266,225	452,154
Alaska	33,597	6,839	4,103	6,211	84,623
Arizona	58,469	16,171	268,038	38,358	465,370
Arkansas	2,000	3,530	11,449	106,211	329,066
California	50,029	648,511	2,412,059	507,506	2,210,494
Colorado	8,054	18,876	139,451	39,402	493,352
Connecticut	1,502	14,063	67,318	74,215	387,600
Delaware	234	2,278	5,597	34,422	70,731
District of Columbia	31	1,126	5,956	61,717	3,059
Florida	6,037	42,970	401,254	595,238	1,292,134
Georgia	1,898	27,693	47,157	533,736	790,807
Hawaii	734	134,844	8,700	4,584	39,207
Idaho	3,050	2,953	23,835	1,651	213,134
Illinois	3,054	63,990	279,717	429,736	1,235,033
Indiana	1,936	8,733	27,904	112,197	837,324
Iowa	2,372	8,332	14,059	18,115	455,336
Kansas	5,500	9,722	35,356	40,519	378,020
Kentucky	631	2,775	4,102	65,519	556,981
Louisiana	5,188	9,831	9,819	362,031	381,865
Maine*	982	1,980	1,002	2,375	204,214
Maryland	2,840	34,065	33,580	307,906	463,280
Massachusetts	2,187	40,080	95,843	82,522	741,685
Michigan	17,684	28,550	51,859	334,654	1,279,203
Minnesota	17,152	39,993	22,607	49,914	725,434
Mississippi*	744	3,094	2,525	256,210	239,806
Missouri	2,561	9,883	12,903	155,464	731,623
Montana	16,349	1,353	2,528	819	138,939
Nebraska	4,359	4,114	17,186	18,474	247,007
Nevada	5,635	15,806	68,475	30,691	190,454
New Hampshire	497	2,390	2,947	2,018	196,861
New Jersey	2,319	74,138	181,618	229,507	781,414
New Mexico	35,359	3,181	160,398	7,659	122,156
New York	11,283	161,304	519,538	585,622	1,599,396
North Carolina	18,827	21,171	38,806	391,393	784,624
North Dakota*	8,324	830	1,354	1,103	102,986
Ohio	2,130	19,561	28,002	291,666	1,501,200
Oklahoma	100,734	8,558	30,795	67,123	421,282
Oregon	11,134	19,831	47,027	14,754	450,063
Pennsylvania	2,018	34,006	72,933	265,899	1,441,558
Rhode Island	728	5,089	18,972	11,780	118,216
South Carolina	1,384	5,574	7,476	271,327	359,889
South Dakota*	12,682	1,148	1,327	1,391	115,947
Tennessee	1,302	9,570	11,065	216,344	665,493
Texas	11,904	100,006	1,523,769	567,998	1,741,690
Utah	7,319	12,252	34,482	3,941	423,182

See footnotes on second page of this table.

**Table 5.—Public school membership by race/ethnicity and state: School year 1998–99—Continued**

State	American Indian/Alaska Native	Asian/Pacific Islander	Hispanic	Black, non-Hispanic	White, non-Hispanic
Vermont	539	1,094	449	976	102,062
Virginia	2,608	41,965	44,275	305,859	729,315
Washington*	26,123	70,450	90,827	50,662	759,991
West Virginia	289	972	1,446	12,416	282,407
Wisconsin	12,208	27,425	33,729	85,900	720,280
Wyoming*	2,760	773	6,317	993	84,127
<b>Outlying Areas, DOD Dependents Schools, and Bureau of Indian Affairs</b>					
Bureau of Indian Affairs	50,125	—	—	—	—
DOD Dependents Schools	571	6,875	5,220	13,027	36,194
American Samoa	—	15,372	—	—	—
Guam	22	31,285	70	140	705
Northern Marianas	—	9,420	—	—	78
Puerto Rico	—	—	613,862	—	—
Virgin Islands	17	80	2,925	17,766	188

— Data missing or not applicable.

\*Bureau of Indian Affairs data subtracted from state totals.

NOTE: Race/ethnicity categories may not sum to total membership (the 50 states and D.C.) if data are reported at different times and/or race/ethnicity was not reported for some students.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Common Core of Data (CCD), "State Nonfiscal Survey of Public Elementary/Secondary Education," 1998–99.

**Table 6.—Public regular high school graduates by race/ethnicity and state: School year 1997–98**

State	American Indian/Alaska Native	Asian/Pacific Islander	Hispanic	Black, non-Hispanic	White, non-Hispanic
United States	—	—	—	—	—
Alabama	492	341	155	11,590	25,511
Alaska	1,132	307	154	259	4,610
Arizona	—	—	—	—	—
Arkansas	92	270	333	5,962	20,198
California	2,513	42,711	87,742	21,165	128,405
Colorado	272	1,081	4,612	1,594	28,235
Connecticut	63	795	2,266	3,154	21,607
Delaware	13	153	219	1,659	4,395
District of Columbia	—	198	168	2,320	91
Florida	194	2,750	14,104	21,051	60,399
Georgia	77	1,380	870	18,515	37,683
Hawaii	26	7,205	470	145	1,824
Idaho	134	191	770	47	14,381
Illinois	225	4,816	10,302	17,390	81,878
Indiana	100	564	1,199	4,954	52,082
Iowa	84	508	531	696	34,189
Kansas	275	594	1,203	1,699	24,085
Kentucky	261	224	171	3,007	33,607
Louisiana	173	583	443	14,834	21,997
Maine*	43	104	72	100	11,852
Maryland	112	2,310	1,439	14,031	26,663
Massachusetts	75	2,088	3,306	3,824	41,159
Michigan	836	1,585	1,885	11,684	76,742
Minnesota	—	—	—	—	—
Mississippi*	28	141	51	11,585	12,697

See footnotes on second page of this table.

**Table 6.—Public regular high school graduates by race/ethnicity and state: School year 1997–98—Continued**

State	American Indian/Alaska Native	Asian/Pacific Islander	Hispanic	Black, non-Hispanic	White, non-Hispanic
Missouri	119	639	533	6,234	44,506
Montana	626	63	148	30	9,789
Nebraska	122	231	595	724	18,047
Nevada	216	740	1,643	1,056	9,397
New Hampshire	—	—	—	—	—
New Jersey	—	—	—	—	—
New Mexico	1,595	228	7,083	353	7,270
New York	—	—	—	—	—
North Carolina	699	1,074	804	15,873	40,842
North Dakota*	307	55	58	39	7,711
Ohio	116	1,343	1,375	10,952	97,425
Oklahoma	5,047	540	1,125	3,142	25,359
Oregon	390	1,085	1,289	491	24,499
Pennsylvania	86	2,327	2,617	10,801	95,088
Rhode Island	34	254	600	462	6,724
South Carolina	—	—	—	—	—
South Dakota*	387	65	58	55	8,575
Tennessee	—	—	—	—	—
Texas	604	6,263	60,362	25,165	104,792
Utah	280	689	1,073	128	29,246
Vermont	—	—	—	—	—
Virginia	121	2,738	1,649	13,989	43,280
Washington*	—	—	—	—	—
West Virginia	32	117	70	677	19,268
Wisconsin	529	1,190	1,284	2,531	52,073
Wyoming*	104	49	340	49	5,874
<b>Outlying Areas, DOD Dependents Schools, and Bureau of Indian Affairs</b>					
Bureau of Indian Affairs	—	—	—	—	—
DOD Dependents Schools	—	—	—	—	—
American Samoa	—	665	—	—	—
Guam	2	876	3	5	37
Northern Marianas	—	372	—	—	2
Puerto Rico	—	—	29,881	—	—
Virgin Islands	—	—	77	985	7

— Data missing or not applicable.

\*Bureau of Indian Affairs data subtracted from state totals.

NOTE: Race/ethnicity categories may not sum to total (the 50 states and D.C.) regular high school graduates for 1997–98 if data are reported at different times and/or race/ethnicity was not reported for some students.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Common Core of Data (CCD), "State Nonfiscal Survey of Public Elementary/Secondary Education," 1998–99.

# Revenues and Expenditures

## Revenues and Expenditures for Public Elementary and Secondary Education: School Year 1997–98

—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 \$326 billion of revenues were raised by local, state, and federal governments to fund public education for grades prekindergarten through 12 in school year 1997–98. Current expenditures (those excluding construction, equipment, and debt financing) came to \$285 billion. Three out of every five current expenditure dollars were spent on teachers, textbooks, and other instructional services and supplies. An average of \$6,189 was spent on each student—an increase of 4.5 percent from \$5,923 in school year 1996–97 (in unadjusted dollars).

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 \$326 billion were collected for public elementary and secondary education for school year 1997–98 in the 50 states and the District of Columbia (table 1). Total revenues ranged from a high of around \$38 billion in California, which serves about 1 out of every 8 students in the nation, to a low of about \$682 million in North Dakota, which

**Table 1.—Revenues for public elementary and secondary schools, by source and state: School year 1997–1998**  
(In thousands of dollars)

State	Revenues, by source				
	Total	Local	Intermediate	State	Federal
United States	*\$325,976,011	*\$144,975,957	\$1,152,717	\$157,645,372	\$22,201,965
Alabama	4,146,629	1,147,696	19,865	2,589,826	389,242
Alaska	1,218,425	311,509	0	757,286	149,630
Arizona	4,731,675	1,979,025	173,164	2,096,739	482,748
Arkansas	2,600,655	816,755	2,885	1,500,334	280,682
California	38,142,613	12,058,425	0	22,963,395	3,120,793
Colorado	4,327,326	2,221,459	7,004	1,879,065	219,798
Connecticut	*5,160,728	*3,033,194	0	1,925,676	201,858
Delaware	913,616	256,165	0	588,211	69,240
District of Columbia	706,935	590,572	0	0	116,363
Florida	14,988,118	6,531,728	0	7,311,149	1,145,240
Georgia	9,041,434	3,799,419	0	4,625,560	616,455
Hawaii	1,282,702	30,975	0	1,141,002	110,725
Idaho	1,320,647	399,755	0	827,955	92,937
Illinois	14,194,654	9,203,852	0	4,033,015	957,788
Indiana	7,513,407	3,238,260	51,424	3,860,331	363,393
Iowa	3,346,481	1,445,885	7,430	1,715,706	177,460
Kansas	3,122,238	1,017,588	112,360	1,807,350	184,940
Kentucky	3,932,068	1,128,409	0	2,427,126	376,532
Louisiana	*4,494,429	*1,721,617	0	2,266,287	506,525
Maine	1,600,635	759,931	0	728,812	111,892
Maryland	6,454,696	3,602,765	0	2,514,141	337,791
Massachusetts	7,893,657	4,284,907	0	3,213,490	395,259
Michigan	14,329,715	3,910,371	9,571	9,459,203	950,569
Minnesota	6,529,420	2,580,380	210,495	3,418,033	320,513
Mississippi	2,407,954	733,954	1,116	1,333,568	339,316

See footnotes on second page of this table.

**Table 1.—Revenues for public elementary and secondary schools, by source and state: School year 1997–1998—Continued**  
(In thousands of dollars)

State	Revenues, by source				
	Total	Local	Intermediate	State	Federal
Missouri	6,005,256	3,216,341	28,989	2,384,741	375,185
Montana	1,029,939	349,327	92,719	482,681	105,211
Nebraska	1,964,205	1,168,186	14,456	650,846	130,716
Nevada	1,910,794	1,215,367	0	607,846	87,580
New Hampshire	1,364,943	1,185,395	0	127,607	51,940
New Jersey	13,189,983	7,466,159	90	5,246,646	477,088
New Mexico	1,952,452	284,281	0	1,409,495	258,676
New York	27,782,468	15,110,873	120,595	11,038,714	1,512,286
North Carolina	7,188,615	1,829,557	0	4,838,150	520,907
North Dakota	682,419	310,637	7,204	280,238	84,339
Ohio	13,458,095	7,100,394	26,568	5,547,736	783,397
Oklahoma	3,416,296	953,925	63,828	2,103,243	295,299
Oregon	3,883,939	1,372,113	58,359	2,204,918	248,549
Pennsylvania	14,837,945	8,218,702	14,135	5,736,509	868,600
Rhode Island	1,264,156	688,098	0	507,377	68,680
South Carolina	4,055,072	1,623,594	0	2,087,806	343,673
South Dakota	794,256	422,764	9,452	282,518	79,522
Tennessee	4,815,833	2,090,573	0	2,299,491	425,768
Texas	24,179,060	11,593,016	65,392	10,675,578	1,845,074
Utah	2,305,397	738,941	0	1,406,577	159,879
Vermont	861,643	563,319	0	253,572	44,752
Virginia	*7,757,954	*4,919,794	0	2,432,370	405,791
Washington	6,895,693	1,904,387	1	4,548,851	442,455
West Virginia	2,216,984	622,308	773	1,389,076	204,827
Wisconsin	7,059,759	2,953,560	0	3,789,320	316,879
Wyoming	702,001	269,750	54,841	330,208	47,203
<b>Outlying areas</b>					
American Samoa	49,677	73	28	10,897	38,669
Guam	173,339	152,607	0	0	18,100
Northern Marianas	58,239	616	0	42,796	15,242
Puerto Rico	2,094,025	568	0	1,520,398	572,495
Virgin Islands	152,499	117,532	0	0	27,719

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

NOTE: Detail may not add to totals 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," 1997–98.

serves about 1 out of every 388 students in the nation. Nationally, revenues increased an average of 6.9 percent over last year's revenues of \$305 billion (in unadjusted dollars).\*

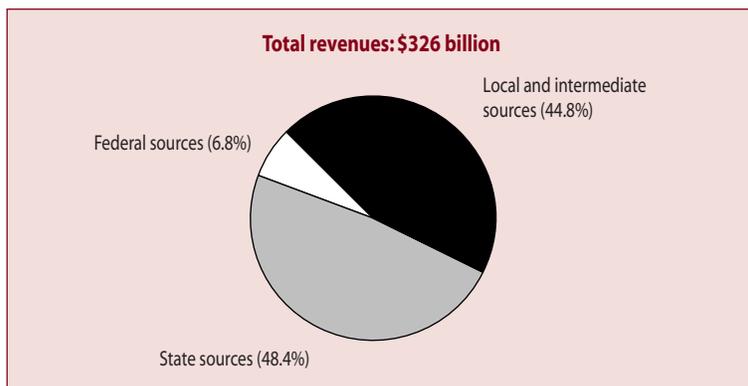
By far, the greatest part of education revenues came from nonfederal sources (state, intermediate, and local governments), which together provided about \$304 billion, or 93.2 percent of all revenues. The federal government contribution to education revenues made up the remaining \$22 billion. The relative contributions from these levels of government can be expressed as portions of the typical

education dollar (figure 1). For school year 1997–98, local and intermediate sources made up 45 cents of every dollar in revenue; state revenues comprised 48 cents; and the remaining 7 cents came from federal sources.

Among states with more than one school district, revenues from local sources ranged from 14.6 percent (New Mexico) to 86.8 percent (New Hampshire) of total revenues (table 2). Hawaii and the District of Columbia have only one school district each and thus are not comparable to other states. 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 (9.3 percent), Illinois (28.4 percent), and Vermont (29.4 percent); and more than 70

\*Comparisons are based on the previous edition of this Statistics in Brief, which covers the 1996–97 school year: *Revenues and Expenditures for Public Elementary and Secondary Education: School Year 1996–1997* (Johnson 1999).

**Figure 1.—The public education dollar: Revenues by source: School year 1997–98**



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

**Table 2.—Percentage distribution of revenues for public elementary and secondary schools, by source and state: School year 1997–98**

State	Total	Within-state percentage distribution			
		Local	Intermediate	State	Federal
United States*	100.0	44.5	0.4	48.4	6.8
Alabama	100.0	27.7	0.5	62.5	9.4
Alaska	100.0	25.6	0.0	62.2	12.3
Arizona	100.0	41.8	3.7	44.3	10.2
Arkansas	100.0	31.4	0.1	57.7	10.8
California	100.0	31.6	0.0	60.2	8.2
Colorado	100.0	51.3	0.2	43.4	5.1
Connecticut*	100.0	58.8	0.0	37.3	3.9
Delaware	100.0	28.0	0.0	64.4	7.6
District of Columbia	100.0	83.5	0.0	0.0	16.5
Florida	100.0	43.6	0.0	48.8	7.6
Georgia	100.0	42.0	0.0	51.2	6.8
Hawaii	100.0	2.4	0.0	89.0	8.6
Idaho	100.0	30.3	0.0	62.7	7.0
Illinois	100.0	64.8	0.0	28.4	6.7
Indiana	100.0	43.1	0.7	51.4	4.8
Iowa	100.0	43.2	0.2	51.3	5.3
Kansas	100.0	32.6	3.6	57.9	5.9
Kentucky	100.0	28.7	0.0	61.7	9.6
Louisiana*	100.0	38.3	0.0	50.4	11.3
Maine	100.0	47.5	0.0	45.5	7.0
Maryland	100.0	55.8	0.0	39.0	5.2
Massachusetts	100.0	54.3	0.0	40.7	5.0
Michigan	100.0	27.3	0.1	66.0	6.6
Minnesota	100.0	39.5	3.2	52.3	4.9
Mississippi	100.0	30.5	0.0	55.4	14.1
Missouri	100.0	53.6	0.5	39.7	6.2
Montana	100.0	33.9	9.0	46.9	10.2
Nebraska	100.0	59.5	0.7	33.1	6.7
Nevada	100.0	63.6	0.0	31.8	4.6
New Hampshire	100.0	86.8	0.0	9.3	3.8
New Jersey	100.0	56.6	0.0	39.8	3.6
New Mexico	100.0	14.6	0.0	72.2	13.2
New York	100.0	54.4	0.4	39.7	5.4
North Carolina	100.0	25.5	0.0	67.3	7.2
North Dakota	100.0	45.5	1.1	41.1	12.4

See footnotes on second page of this table.

**Table 2.—Percentage distribution of revenues for public elementary and secondary schools, by source and state:  
School year 1997–98—Continued**

State	Total	Within-state percentage distribution			
		Local	Intermediate	State	Federal
Ohio	100.0	52.8	0.2	41.2	5.8
Oklahoma	100.0	27.9	1.9	61.6	8.6
Oregon	100.0	35.3	1.5	56.8	6.4
Pennsylvania	100.0	55.4	0.1	38.7	5.9
Rhode Island	100.0	54.4	0.0	40.1	5.4
South Carolina	100.0	40.0	0.0	51.5	8.5
South Dakota	100.0	53.2	1.2	35.6	10.0
Tennessee	100.0	43.4	0.0	47.7	8.8
Texas	100.0	47.9	0.3	44.2	7.6
Utah	100.0	32.1	0.0	61.0	6.9
Vermont	100.0	65.4	0.0	29.4	5.2
Virginia*	100.0	63.4	0.0	31.4	5.2
Washington	100.0	27.6	0.0	66.0	6.4
West Virginia	100.0	28.1	0.0	62.7	9.2
Wisconsin	100.0	41.8	0.0	53.7	4.5
Wyoming	100.0	38.4	7.8	47.0	6.7
<b>Outlying areas</b>					
American Samoa	100.0	0.2	0.1	21.9	77.8
Guam	100.0	89.6	0.0	0.0	10.4
Northern Marianas	100.0	0.3	0.0	73.5	26.2
Puerto Rico	100.0	0.1	0.0	72.6	27.3
Virgin Islands	100.0	81.8	0.0	0.0	18.2

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

NOTE: Detail may not add to totals 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," 1997–98.

percent in New Mexico (72.2 percent). State revenues in Hawaii made up 89.0 percent of total revenues. Federal revenues ranged from 3.6 percent in New Jersey to 14.1 percent in Mississippi. Federal revenues made up 16.5 percent of total revenues in the District of Columbia.

### Current Expenditures for Public Elementary and Secondary Education

Current expenditures for public education in 1997–98 totaled about \$285 billion (table 3). This represents a \$15 billion (5.6 percent) increase over expenditures in the previous school year (\$270 billion in unadjusted dollars). About \$177 billion in current expenditures went for instruction. Another \$96 billion were expended for a cluster of services that support instruction. Over \$12 billion were spent on noninstructional services.

When expressed in terms of the typical education dollar, instructional expenditures accounted for 62 cents of the education dollar for current expenditures (figure 2). Instructional expenditures include teachers' salaries and benefits, supplies (e.g., textbooks), and purchased services.

About 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). Approximately 4 cents of every education dollar went to noninstructional activities, which include school meals and enterprise activities, such as bookstores.

Most states were closely clustered around the national average (61.8 percent) 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 58 percent of their current expenditures on instruction (table 4). Three states spent more than two-thirds of their current expenditures on instruction. These states were New York (68.0 percent), Maine (67.3 percent), and Rhode Island (67.1 percent).

### Current Expenditures per Student

In 1997–98, the 50 states and the District of Columbia spent an average of \$6,189 in current expenditures for every

**Table 3.—Current expenditures for public elementary and secondary schools, by function and state: School year 1997–98**

(In thousands of dollars)

State	Current expenditures, by function			
	Total	Instruction	Support services	Noninstruction
United States	<sup>1</sup> \$285,489,511	<sup>2</sup> \$176,522,907	<sup>2</sup> \$96,473,458	<sup>1</sup> \$12,493,146
Alabama	3,633,159	2,219,708	1,157,714	255,738
Alaska	1,092,750	<sup>2</sup> 622,396	<sup>2</sup> 433,239	37,115
Arizona	3,740,638	<sup>2</sup> 2,163,076	<sup>2</sup> 1,350,041	227,521
Arkansas	2,149,237	1,362,690	635,730	150,817
California	32,759,492	20,033,782	11,412,151	1,313,559
Colorado	3,886,872	2,247,424	1,498,236	141,212
Connecticut	<sup>1</sup> 4,765,077	3,031,206	1,504,057	<sup>1</sup> 229,814
Delaware	830,731	514,269	275,908	40,553
District of Columbia	647,202	<sup>2</sup> 283,484	<sup>2</sup> 339,974	23,744
Florida	12,737,325	7,500,075	4,606,310	630,939
Georgia	7,770,241	4,833,424	2,492,010	444,808
Hawaii	1,112,351	712,023	328,520	71,809
Idaho	1,153,778	717,677	385,470	50,631
Illinois	12,473,064	7,568,726	4,472,681	431,657
Indiana	6,234,563	3,897,221	2,061,399	275,943
Iowa	3,005,421	1,842,537	1,017,529	145,355
Kansas	2,684,244	1,546,598	1,002,331	135,315
Kentucky	3,489,205	2,133,659	1,153,036	202,509
Louisiana	<sup>1</sup> 4,030,379	2,415,114	1,279,565	<sup>1</sup> 335,700
Maine	1,433,175	964,342	417,833	50,999
Maryland	5,843,685	3,661,049	1,901,323	281,314
Massachusetts	7,381,784	4,899,352	2,240,641	241,792
Michigan	12,003,818	7,044,614	4,604,271	354,933
Minnesota	5,452,571	3,423,447	1,804,163	224,961
Mississippi	2,164,592	1,327,436	682,395	154,761
Missouri	5,067,720	3,108,316	1,740,933	218,471
Montana	929,197	580,901	310,256	38,040
Nebraska	1,743,775	<sup>2</sup> 1,096,437	517,114	<sup>2</sup> 130,224
Nevada	1,570,576	944,837	575,767	49,972
New Hampshire	1,241,255	<sup>2</sup> 810,161	<sup>2</sup> 387,633	<sup>2</sup> 43,461
New Jersey	12,056,560	7,293,294	4,398,670	364,597
New Mexico	1,659,891	949,678	629,290	80,923
New York	25,332,735	17,220,209	7,412,444	700,082
North Carolina	6,497,648	4,072,780	2,015,605	409,263
North Dakota	599,443	367,111	183,738	48,594
Ohio	11,448,722	6,752,805	4,267,606	428,311
Oklahoma	3,138,690	1,860,769	1,085,992	191,930
Oregon	3,474,714	2,072,977	1,281,385	120,352
Pennsylvania	13,084,859	8,338,422	4,261,130	485,307
Rhode Island	1,215,595	815,847	366,562	33,186
South Carolina	3,507,017	2,087,547	1,202,316	217,154
South Dakota	665,082	409,201	218,910	36,971
Tennessee	4,409,338	2,867,088	1,318,057	224,193
Texas	21,188,676	13,013,001	7,052,149	1,123,527
Utah	1,916,688	1,265,282	541,639	109,767
Vermont	749,786	486,174	240,947	22,665
Virginia	<sup>1</sup> 6,739,003	4,108,526	2,275,431	<sup>1</sup> 355,046
Washington	<sup>2</sup> 5,986,648	<sup>2</sup> 3,520,728	2,185,775	280,145
West Virginia	1,905,940	1,181,952	610,863	113,124
Wisconsin	6,280,696	3,966,885	2,120,618	193,193
Wyoming	603,901	366,647	216,104	21,150

See footnotes on second page of this table.

**Table 3.—Current expenditures for public elementary and secondary schools, by function and state: School year 1997–98—Continued**

(In thousands of dollars)

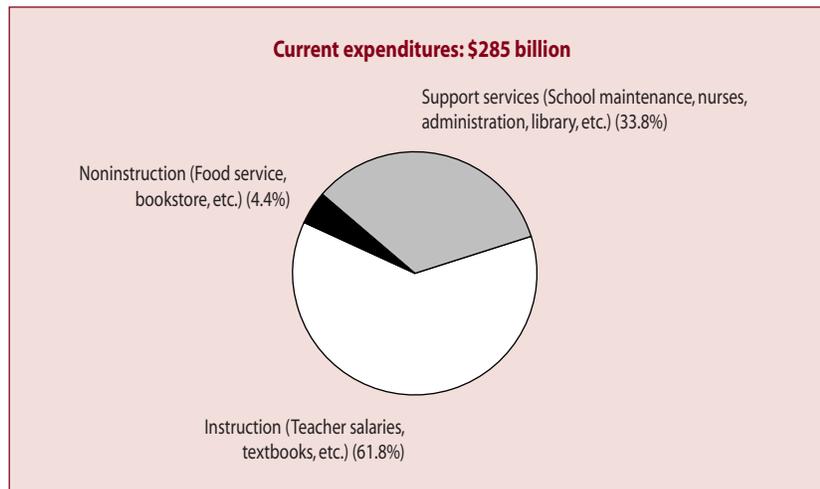
State	Current expenditures, by function			
	Total	Instruction	Support services	Noninstruction
<b>Outlying areas</b>				
American Samoa	33,088	14,030	11,307	7,751
Guam	168,716	92,318	65,623	10,775
Northern Marianas	56,514	45,236	7,774	3,504
Puerto Rico	1,981,603	1,394,387	374,506	212,710
Virgin Islands	131,377	78,688	45,926	6,763

<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: Detail may not add to totals due to rounding.

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

**Figure 2.—The public education dollar: Current expenditures by functions: School year 1997–98**

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

**Table 4.—Percentage distribution of current expenditures for public elementary and secondary schools, by function and state: School year 1997–98**

State	Total	Within-state percentage distribution		
		Instruction	Support services	Noninstruction
United States*	100.0	61.8	33.8	4.4
Alabama	100.0	61.1	31.9	7.0
Alaska*	100.0	57.0	39.6	3.4
Arizona*	100.0	57.8	36.1	6.1
Arkansas	100.0	63.4	29.6	7.0
California	100.0	61.2	34.8	4.0
Colorado	100.0	57.8	38.5	3.6
Connecticut*	100.0	63.6	31.6	4.8
Delaware	100.0	61.9	33.2	4.9
District of Columbia*	100.0	43.8	52.5	3.7
Florida	100.0	58.9	36.2	5.0

See footnotes on second page of this table.

**Table 4.—Percentage distribution of current expenditures for public elementary and secondary schools, by function and state: School year 1997–98—Continued**

State	Total	Within-state percentage distribution		
		Instruction	Support services	Noninstruction
Georgia	100.0	62.2	32.1	5.7
Hawaii	100.0	64.0	29.5	6.5
Idaho	100.0	62.2	33.4	4.4
Illinois	100.0	60.7	35.9	3.5
Indiana	100.0	62.5	33.1	4.4
Iowa	100.0	61.3	33.9	4.8
Kansas	100.0	57.6	37.3	5.0
Kentucky	100.0	61.2	33.0	5.8
Louisiana*	100.0	59.9	31.7	8.3
Maine	100.0	67.3	29.2	3.6
Maryland	100.0	62.6	32.5	4.8
Massachusetts	100.0	66.4	30.4	3.3
Michigan	100.0	58.7	38.4	3.0
Minnesota	100.0	62.8	33.1	4.1
Mississippi	100.0	61.3	31.5	7.1
Missouri	100.0	61.3	34.4	4.3
Montana	100.0	62.5	33.4	4.1
Nebraska*	100.0	62.9	29.7	7.5
Nevada	100.0	60.2	36.7	3.2
New Hampshire*	100.0	65.3	31.2	3.5
New Jersey	100.0	60.5	36.5	3.0
New Mexico	100.0	57.2	37.9	4.9
New York	100.0	68.0	29.3	2.8
North Carolina	100.0	62.7	31.0	6.3
North Dakota	100.0	61.2	30.7	8.1
Ohio	100.0	59.0	37.3	3.7
Oklahoma	100.0	59.3	34.6	6.1
Oregon	100.0	59.7	36.9	3.5
Pennsylvania	100.0	63.7	32.6	3.7
Rhode Island	100.0	67.1	30.2	2.7
South Carolina	100.0	59.5	34.3	6.2
South Dakota	100.0	61.5	32.9	5.6
Tennessee	100.0	65.0	29.9	5.1
Texas	100.0	61.4	33.3	5.3
Utah	100.0	66.0	28.3	5.7
Vermont	100.0	64.8	32.1	3.0
Virginia*	100.0	61.0	33.8	5.3
Washington*	100.0	58.8	36.5	4.7
West Virginia	100.0	62.0	32.1	5.9
Wisconsin	100.0	63.2	33.8	3.1
Wyoming	100.0	60.7	35.8	3.5
<b>Outlying areas</b>				
American Samoa	100.0	42.4	34.2	23.4
Guam	100.0	54.7	38.9	6.4
Northern Marianas	100.0	80.0	13.8	6.2
Puerto Rico	100.0	69.9	19.4	10.7
Virgin Islands	100.0	59.9	34.9	5.2

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

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

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

pupil in membership (table 5). This represents a 4.5 percent increase in current expenditures per student from the previous school year (\$5,923 in unadjusted dollars). Four states—New Jersey (\$9,643), Connecticut (\$8,904), New York (\$8,852), and Alaska (\$8,271)—expended more than \$8,000 per pupil. The District of Columbia, which comprises a single urban district, spent \$8,393 per pupil. Only one state, Utah, had expenditures of less than \$4,000 for each pupil in membership (\$3,969). The median per pupil expenditure was \$5,958, indicating that one-half of all states educated students at a cost of less than \$5,958 per student.

On the average, for every student in 1997–98, about \$3,827 was spent for instructional services, \$2,091 was expended for support services, and \$271 was spent for noninstructional purposes.

## Reference

Johnson, F. (1999). *Revenue and Expenditures for Public Elementary and Secondary Education: School Year 1996–1997* (NCES 1999–301). U.S. Department of Education. Washington, DC: National Center for Education Statistics.

**Table 5.—Student membership and current expenditures per pupil in membership for public elementary and secondary schools, by function and state: School year 1997–98**

State	Fall 1997 student membership	Current expenditures per pupil in membership			
		Total	Instruction	Support services	Noninstruction
United States	<sup>1</sup> 46,126,897	<sup>1</sup> \$6,189	<sup>1</sup> \$3,827	<sup>1</sup> \$2,091	<sup>1</sup> \$271
Alabama	<sup>1</sup> 749,207	<sup>1</sup> 4,849	<sup>1</sup> 2,963	<sup>1</sup> 1,545	<sup>1</sup> 341
Alaska	132,123	8,271	<sup>2</sup> 4,711	3,279	281
Arizona	814,113	4,595	<sup>2</sup> 2,657	1,658	279
Arkansas	456,497	4,708	2,985	1,393	330
California	<sup>1</sup> 5,803,887	<sup>1</sup> 5,644	<sup>1</sup> 3,452	<sup>1</sup> 1,966	<sup>1</sup> 226
Colorado	687,167	5,656	3,271	2,180	205
Connecticut	535,164	<sup>1</sup> 8,904	5,664	2,810	<sup>1</sup> 429
Delaware	111,960	7,420	4,593	2,464	362
District of Columbia	77,111	8,393	<sup>2</sup> 3,676	<sup>2</sup> 4,409	308
Florida	2,294,077	5,552	3,269	2,008	275
Georgia	1,375,980	5,647	3,513	1,811	323
Hawaii	189,887	5,858	3,750	1,730	378
Idaho	244,403	4,721	2,936	1,577	207
Illinois	1,998,289	6,242	3,788	2,238	216
Indiana	986,836	6,318	3,949	2,089	280
Iowa	501,054	5,998	3,677	2,031	290
Kansas	468,687	5,727	3,300	2,139	289
Kentucky	669,322	5,213	3,188	1,723	303
Louisiana	776,813	<sup>1</sup> 5,188	3,109	1,647	<sup>1</sup> 432
Maine	212,579	6,742	4,536	1,966	240
Maryland	830,744	7,034	4,407	2,289	339
Massachusetts	949,006	7,778	5,163	2,361	255
Michigan	1,702,717	7,050	4,137	2,704	208
Minnesota	853,621	6,388	4,011	2,114	264
Mississippi	504,792	4,288	2,630	1,352	307
Missouri	910,613	5,565	3,413	1,912	240
Montana	162,335	5,724	3,578	1,911	234
Nebraska	292,681	5,958	<sup>2</sup> 3,746	1,767	<sup>2</sup> 445
Nevada	296,621	5,295	3,185	1,941	168
New Hampshire	201,629	6,156	<sup>2</sup> 4,018	<sup>2</sup> 1,923	<sup>2</sup> 216
New Jersey	1,250,276	9,643	5,833	3,518	292
New Mexico	331,673	5,005	2,863	1,897	244
New York	2,861,823	8,852	6,017	2,590	245
North Carolina	1,236,083	5,257	3,295	1,631	331
North Dakota	118,572	5,056	3,096	1,550	410

See footnotes on second page of this table.

**Table 5.—Student membership and current expenditures per pupil in membership for public elementary and secondary schools, by function and state: School year 1997–98—Continued**

State	Fall 1997 student membership	Current expenditures per pupil in membership			
		Total	Instruction	Support services	Noninstruction
Ohio	1,847,114	6,198	3,656	2,310	232
Oklahoma	623,681	5,033	2,984	1,741	308
Oregon	541,346	6,419	3,829	2,367	222
Pennsylvania	1,815,151	7,209	4,594	2,348	267
Rhode Island	153,321	7,928	5,321	2,391	216
South Carolina	<sup>1</sup> 659,273	<sup>1</sup> 5,320	<sup>1</sup> 3,166	<sup>1</sup> 1,824	<sup>1</sup> 329
South Dakota	142,443	4,669	2,873	1,537	260
Tennessee	<sup>1</sup> 893,044	<sup>1</sup> 4,937	<sup>1</sup> 3,210	<sup>1</sup> 1,476	<sup>1</sup> 251
Texas	3,891,877	5,444	3,344	1,812	289
Utah	482,957	3,969	2,620	1,122	227
Vermont	105,984	7,075	4,587	2,273	214
Virginia	1,110,815	<sup>1</sup> 6,067	3,699	2,048	<sup>1</sup> 320
Washington	991,235	<sup>2</sup> 6,040	<sup>2</sup> 3,552	2,205	283
West Virginia	301,419	6,323	3,921	2,027	375
Wisconsin	881,780	7,123	4,499	2,405	219
Wyoming	97,115	6,218	3,775	2,225	218
<b>Outlying areas</b>					
American Samoa	15,214	2,175	922	743	509
Guam	32,444	5,200	2,845	2,023	332
Northern Marianas	9,246	6,112	4,892	841	379
Puerto Rico	617,157	3,211	2,244	622	345
Virgin Islands	22,136	5,932	3,555	2,072	306

<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: Detail may not add to totals due to rounding.

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

**Data source:** The NCES Common Core of Data (CCD), "National Public Education Financial Survey" (NPEFS), 1996–97 and 1997–98.

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

Johnson, F. (2000). *Revenues and Expenditures for Public Elementary and Secondary Education: School Year 1997–98* (NCES 2000–348).

**Author affiliation:** F. Johnson, NCES.

**For questions about content,** contact Frank Johnson ([frank\\_johnson@ed.gov](mailto:frank_johnson@ed.gov)).

**To obtain the complete report (NCES 2000–348),** visit the NCES Web Site (<http://nces.ed.gov>) or contact Lena McDowell ([lena\\_mcdowell@ed.gov](mailto:lena_mcdowell@ed.gov)).

# Education Agencies

## Directory of Public Elementary and Secondary Education Agencies: 1997–98

Lena McDowell and John Sietsema

This article describes the directory of the same name. The universe data are primarily from the “Local Education Agency Universe Survey,” a component of the NCES Common Core of Data (CCD).

This directory provides a complete listing of agencies responsible for providing free public elementary/secondary instruction or education support services in the 50 states, District of Columbia, five outlying areas, and Department of Defense Dependents Schools (overseas). The agencies are organized by state or jurisdiction and, within each state or jurisdiction, by agency type. Agencies are divided into six types: regular school districts, supervisory union administrative centers, regional educational service agencies (RESAs), state-operated agencies, federally operated agencies, and other agencies.

For each agency, the directory provides one line of information, as reported for the school day closest to October 1, 1997. The following information is provided for each agency: agency name, address, and phone number; name of county; metropolitan status code; grade span; student membership (number of students enrolled); number of

regular high school graduates (1996–97 school year); number of students with Individualized Education Programs (IEPs); number of teachers; and number of schools (figure A). Preceding the information on individual agencies are several tables that provide summary information, such as the numbers and percentages of agencies by type, size, and state.

**Data source:** The NCES Common Core of Data (CCD), “Local Education Agency Universe Survey,” 1997–98.

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

McDowell, L., and Sietsema, J. (2000). *Directory of Public Elementary and Secondary Education Agencies: 1997–98* (NCES 2000–367).

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**To obtain the complete directory (NCES 2000–367),** 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).

Figure A.—Excerpt from listing of public elementary and secondary education agencies

ALABAMA						
Universe of Public Elementary and Secondary Education Agencies - Fall 1997						
Name of Agency	Mailing Address			Telephone Number	Name of County	Metro Status
	Street or P.O. Box	City	ZIP			
<b>Regular School Districts</b>						
ALBERTVILLE CITY SCH DIST	PO BOX 1487	ALBERTVILLE	35950	256-891-1183	MARSHALL	3
ALEXANDER CITY CITY SCH DIST	PO BOX 1205	ALEXANDER CITY	35011	256-234-5074	TALLAPOOSA	3
ANDALUSIA CITY SCH DIST	122 6TH AVE	ANDALUSIA	36420	334-222-3186	COVINGTON	3
ANNISTON CITY SCH DIST	PO BOX 1500	ANNISTON	36202	256-231-5000	CALHOUN	1
ARAB CITY SCH DIST	PO BOX 740	ARAB	35016	256-586-6011	MARSHALL	3
ATHENS CITY SCH DIST	313 E WASHINGTON ST	ATHENS	35611	256-233-6600	LIMESTONE	2
ATTALLA CITY SCH DIST	101 CASE AVE SE	ATTALLA	35954	256-538-8051	ETOWAH	2
AUBURN CITY SCH DIST	PO BOX 3270	AUBURN	36831	334-887-2100	LEE	3
AUTAUGA COUNTY SCH DIST	153 W 4TH ST	PRATTVILLE	36067	334-365-5706	AUTUMGA	2
BALEMIN COUNTY SCH DIST	175 COURTHOUSE SQ	BAY MINETTE	36507	334-937-0308	BALDWIN	2
BARBOUR COUNTY SCH DIST	PO BOX 429	CLAYTON	36016	334-775-3453	BARBOUR	3
BESSMER CITY SCH DIST	PO BOX 1230	BESSMER	35021	205-481-9800	JEFFERSON	1
BIBB COUNTY SCH DIST	103 SOUTH ST	CENTREVILLE	35042	205-926-9881	BIBB	3
BIRMINGHAM CITY SCH DIST	PO BOX 10007	BIRMINGHAM	35202	205-583-4600	JEFFERSON	1
BLOUNT COUNTY SCH DIST	PO BOX 578	ONEONTA	35121	205-625-4102	BLOUNT	2
BREWTON CITY SCH DIST	811 BELLEVILLE AVE	BREWTON	36426	334-867-8400	ESCAMBIA	3
BULLOCK COUNTY SCH DIST	PO BOX 231	UNION SPRINGS	36089	334-738-2860	BULLOCK	3
BUTLER COUNTY SCH DIST	215 ADMINISTRATIVE DR	GREENVILLE	36037	334-382-2665	BUTLER	3
CALHOUN COUNTY SCH DIST	PO BOX 2084	ANNISTON	36202	256-236-7641	CALHOUN	2
CHAMBERS COUNTY SCH DIST	BOX 408D	LAFAYETTE	36862	334-864-9343	CHAMBERS	3

SOURCE: U.S. Department of Education, National Center for Education Statistics, *Directory of Public Elementary and Secondary Education Agencies: 1997–98* (NCES 2000–367).

# Student Data Handbook

## Student Data Handbook for Elementary, Secondary, and Early Childhood Education: 2000 Edition

Oona Cheung and Beth Aronstamm Young

**This article was originally published as the Executive Summary of the handbook of the same name. This handbook helps to promote comparability of data at the local, state, and national levels, including data reported in the Common Core of Data (CCD) surveys.**

To make appropriate, cost-effective, and timely decisions about students, educators must have accurate and complete information. Recognizing this need, most education systems have moved from paper documents in filing cabinets to automated student information systems. These systems provide teachers and others concerned with effective program design with day-to-day access to information about the students' background, learning experiences, and performance. They also provide the flexibility necessary to supply aggregate data to school boards, state and federal governments, and other interested parties and to conduct program evaluations. To be effective, however, these systems must record data accurately and comparably for all students, in all places, and at all times.

The *Student Data Handbook for Elementary, Secondary, and Early Childhood Education* was developed by the U.S. Department of Education's National Center for Education Statistics (NCES) to provide guidance concerning the consistent maintenance of student information. This handbook is useful to public and private education agencies, schools, early childhood centers, and other educational institutions, as well as to researchers involved in the collection of student data. In addition, the handbook may be useful to elected officials and members of the public interested in student information. This handbook is *not*, however, a data collection instrument, nor does it reflect any type of federal data maintenance requirements. It is presented as a tool to help the public and the American school system make information about students more useful and effective in meeting student needs.

This handbook was developed with the assistance of local, state, and federal education representatives and researchers. The definitions included are consistent with current state and local practice, national standards movements, and federal reporting requirements. The terms, definitions, and procedures represent a consensus of what is considered "best practice" in data collection; they should be interpreted and applied according to local, state, and federal reporting

requirements and restrictions for confidentiality and security.

### Standard Data Elements and Definitions

The data elements included in this handbook represent the types of student information that *could* be collected and maintained in permanent or temporary student records, whether in paper format or in an automated database. An attempt has been made to be as complete as possible, with the understanding that many data elements will not be needed for all students. Data elements are presented in nine areas:

- personal information;
- enrollment;
- school participation and activities;
- nonschool and postschool experience;
- assessment;
- transportation;
- health conditions;
- special program participation and student support services; and
- discipline.

Each data element is defined, and lists of options and definitions are included where applicable. Data elements are also associated with the entities to which they pertain, such as persons, places, or things, about which data may be stored.

### Recommendations for Building a Student Record System

This handbook provides guidelines for designing student recordkeeping systems for use by schools, school districts, state education agencies, and other educational institutions.

Included is a discussion of the benefits of a well-designed student record system, as well as potential uses of such a system at the school, district, or state level. Also included is

a description of a step-by-step process for designing an effective student record system.

### Focus on State and Local Student Record Applications

Communication among various levels of the education system is increasingly important. More and more, states are requiring that schools or districts submit portions of student records to the state. Another growing trend is the electronic transmission of student records when students switch schools/districts or apply to postsecondary institutions. This revision of the handbook adds detail about automating and exchanging electronic records, with suggestions for formatting data elements and arranging them in a logical and flexible design.

### References to Other Related Documents

This handbook, in conjunction with other NCES documents, provides state and local education officials with important tools for designing and implementing automated information systems. Recent NCES documents dealing with the confidentiality of student records, decision making about the installation of technology, and ensuring security of technology are important adjuncts to this handbook.

### Organization of the Handbook

Chapter 1 provides the user with an introduction to the handbook and its uses.

Chapter 2 contains a more detailed description of the handbook's contents and uses of the handbook. Listings of other related documents that could be useful are also included. In anticipation of future updates, a description of the process for implementing suggested changes has been included.

Chapter 3, "Building a Student Record System," discusses the collection, use, and dissemination of data and information about individual students and how student record systems can benefit the students and the school system.

Chapter 4, "Data Elements and Definitions," includes a complete list of data terms (with definitions) considered important to the management of schools and the provision of services to students. Each entity listed refers to something, or someone, about which data should be maintained. Each data element refers to a particular aspect of student data for which some need was perceived within the school system. A definition is included for each entity and data element.

Chapter 5 describes possible applications of the handbook. A table is provided that includes information about data element type and field length, attributes that could be useful to readers designing a data collection system, a survey, or a reporting format.

Following the glossary and index are 12 appendices that contain important supplemental information. The appendices include comprehensive lists of coding options for some of the data elements in chapter 4. Included are code designations for states and outlying areas, countries, languages, occupational groupings, medical conditions and treatments, and listings of federal education programs and the names of those who contributed to the development of this revision.

This 2000 edition of the *Student Data Handbook* updates the 1994 edition. Beginning with this edition, the handbook will be updated annually, with revisions posted on the NCES Web Site.

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# ELEMENTARY AND SECONDARY EDUCATION

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## Reading Performance

### Trends in the Reading Performance of 9-, 13-, and 17-Year-Olds

***This article was originally published as an Indicator of the Month, taken from The Condition of Education: 1999. The sample survey data are from the National Assessment of Educational Progress (NAEP) Long-Term Trend Assessment.***

Reading ability is essential to students' educational progress. Since the early 1970s, the National Assessment of Educational Progress (NAEP) has assessed the trends in students' reading performance. These trends provide a picture of how student performance in reading has changed over time, specifically among students of different ages and racial/ethnic groups.

- For 9- and 13-year-olds, average reading scores improved slightly between 1971 and 1980 and showed little or no change between 1980 and 1996 (table 1a). Scores for 17-year-olds have remained relatively consistent since 1971.
- Females outscored males in reading performance across all age groups (table 1a).
- During these periods, reading scores of black and Hispanic students were lower than those of white students for all age groups (table 1b and figure 1a). However, the black-white score gap, in particular, changed over time. For all age groups, the gap

decreased between 1971 and 1988, yet showed no significant change between 1988 and 1996 for 9- and 17-year-olds and increased for 13-year-olds (figure 1b).

**Data source:** The National Assessment of Educational Progress (NAEP) 1996 Long-Term Trend Assessment.

**For technical information, see** 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/>), or
- volume 2 of the printed version: *The Condition of Education: 1999 Supplemental and Standard Error Tables* (NCES 2000-016).

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Table 1a.—Average reading performance (scale score), by sex and age: 1971–96

Year	Total			Male			Female		
	Age 9	Age 13	Age 17	Age 9	Age 13	Age 17	Age 9	Age 13	Age 17
1971	208	255	285	201	250	279	214	261	291
1975	210	256	286	204	250	280	216	262	291
1980	215	259	286	210	254	282	220	263	289
1984	211	257	289	208	253	284	214	262	294
1988	212	258	290	208	252	286	216	263	294
1990	209	257	290	204	251	284	215	263	297
1992	211	260	290	206	254	284	215	265	296
1994	211	258	288	207	251	282	215	266	295
1996	212	259	287	207	253	280	218	265	294

Table 1b.—Average reading performance (scale score), by race/ethnicity and age: 1971–96

Year	White			Black			Hispanic		
	Age 9	Age 13	Age 17	Age 9	Age 13	Age 17	Age 9	Age 13	Age 17
1971	214	261	291	170	222	239	—	—	—
1975	217	262	293	181	226	241	183	232	252
1980	221	264	293	189	233	243	190	237	261
1984	218	263	295	186	236	264	187	240	268
1988	218	261	295	189	243	274	194	240	271
1990	217	262	297	182	242	267	189	238	275
1992	218	266	297	185	238	261	192	239	271
1994	218	265	296	185	234	266	186	235	263
1996	220	267	294	190	236	265	194	240	265

—Not available.

NOTE: The reading performance scale has a range from 0 to 500. A score of 300 implies an ability to find, understand, summarize, and explain relatively complicated literary and informational material. A score of 250 implies an ability to search for specific information, interrelate ideas, and make generalizations about literature, science, and social studies materials. A score of 200 implies an ability to understand, combine ideas, and make inferences based on short, uncomplicated passages about specific or sequentially related information. A score of 150 implies an ability to follow brief written directions and carry out simple, discrete reading tasks.

SOURCE: U.S. Department of Education, National Center for Education Statistics, (1997, revised in 1998) *NAEP 1996 Trends in Academic Progress* (NCES 97–985).

Figure 1a.—Average reading performance, by age and race/ethnicity: 1971–96

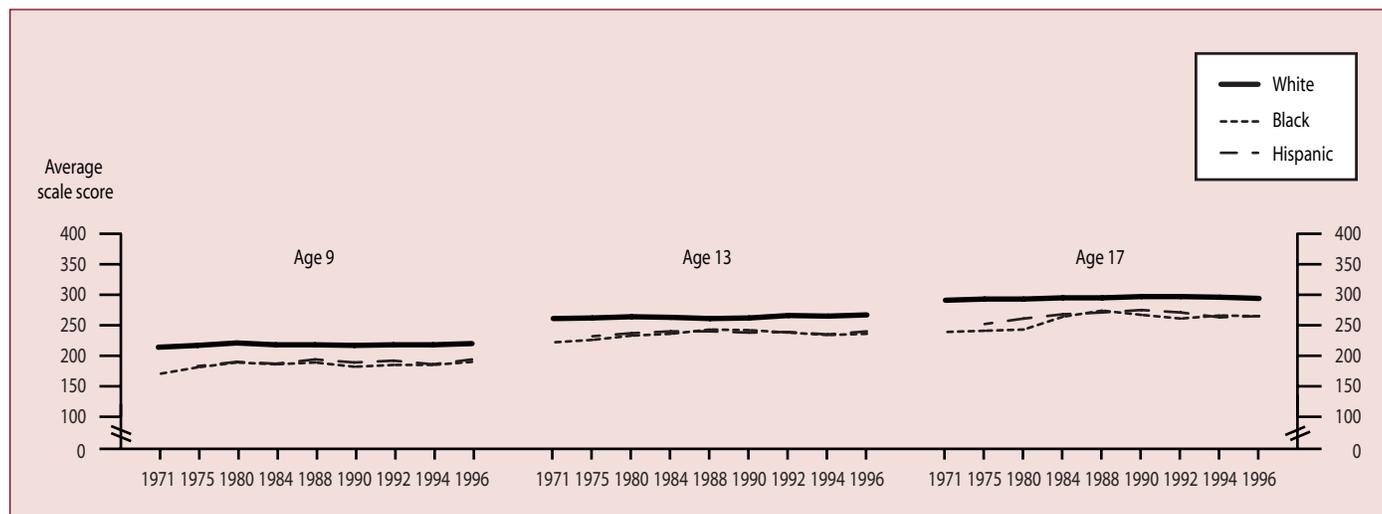
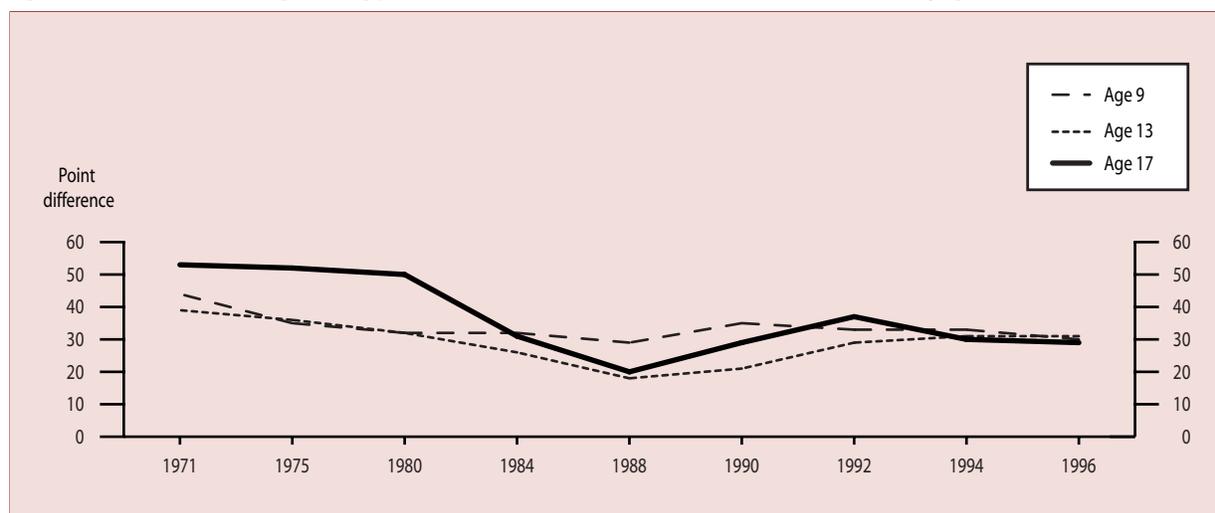


Figure 1b.—Difference in average reading performance (scale scores) between white and black students, by age: 1971–96



NOTE: The reading performance scale has a range from 0 to 500. A score of 300 implies an ability to find, understand, summarize, and explain relatively complicated literary and informational material. A score of 250 implies an ability to search for specific information, interrelate ideas, and make generalizations about literature, science, and social studies materials. A score of 200 implies an ability to understand, combine ideas, and make inferences based on short, uncomplicated passages about specific or sequentially related information. A score of 150 implies an ability to follow brief written directions and carry out simple, discrete reading tasks.

SOURCE: U.S. Department of Education, National Center for Education Statistics, (1997, revised in 1998) *NAEP 1996 Trends in Academic Progress* (NCES 97–985).

# Teachers and Computers

## Teacher Use of Computers and the Internet in Public Schools

Cassandra Rowand

*This article was originally published as a Stats in Brief report. The sample survey data are from the "Survey on Public School Teachers Use of Computers and the Internet," conducted through the NCES Fast Response Survey System (FRSS).*

Since 1994, the National Center for Education Statistics (NCES) has documented the large increase in access to computers and the Internet in the nation's public elementary and secondary schools (Williams 2000). This increase has led to a need to understand the extent and types of teacher use of computers and the Internet, as well as teachers' perceptions of their own preparedness to use these tools in their classes. To address these critical information needs, NCES commissioned a survey using the Fast Response Survey System (FRSS) that was conducted in the spring of 1999. The survey found that 99 percent of full-time regular public school teachers reported they had access to computers or the Internet somewhere in their schools. This Stats in Brief focuses on those teachers.

### How Do Teachers Use Computers and the Internet at School?

Teachers were asked the degree to which they used computers or the Internet to prepare for and manage their classes. Thirty-nine percent of public school teachers with access to computers or the Internet in their classroom or elsewhere

indicated they used computers or the Internet a lot to create instructional materials, and 34 percent reported using computers a lot for administrative recordkeeping (table 1). Less than 10 percent of teachers reported using computers or the Internet to access model lesson plans or to access research and best practices.

Newer teachers were more likely to use computers or the Internet to accomplish various teaching objectives. Teachers with 9 or fewer years of teaching experience were more likely than teachers with 20 or more years of experience to report using computers or the Internet a lot to communicate with colleagues (30 percent with 3 or fewer years and 30 percent with 4 to 9 years, vs. 19 percent with 20 or more years) and gather information for lessons (21 and 22 percent vs. 11 percent for the same three groups). Also, teachers with 4 to 9 years of teaching experience were more likely to report they used computers or the Internet a lot to create instructional materials (47 percent) than were teachers with 20 or more years of experience (35 percent).

**Table 1.—Percent of teachers indicating they use computers or the Internet a lot at school to accomplish various objectives, by school and teacher characteristics: 1999**

School and teacher characteristics	Create instructional materials	Administrative record-keeping	Communicate with colleagues	Gather information for planning lessons	Multi-media classroom presentations	Access research and best practices for teaching	Communicate with parents or students	Access model lesson plans
<b>All public school teachers with access to computers or the Internet at school</b>	<b>39</b>	<b>34</b>	<b>23</b>	<b>16</b>	<b>8</b>	<b>7</b>	<b>7</b>	<b>6</b>
Teaching experience								
3 or fewer years	43	38	30	21	10	11	6	11
4–9 years	47	38	30	22	8	10	10	8
10–19 years	38	35	22	14	9	7	6	6
20 or more years	35	30	19	11	6	5	5	5
School instructional level								
Elementary school	37	29	25	14	7	7	7	6
Secondary school	44	47	21	19	8	8	6	7
Percent of students in school eligible for free or reduced-price school lunch								
Less than 11 percent	52	43	31	20	11	9	9	8
11–30 percent	42	37	27	19	7	9	8	8
31–49 percent	35	36	23	13	6	5	6	4
50–70 percent	35	30	15	10	8	5	4	4
71 percent or more	32	24	19	15	8	7	5	8

NOTE: Less than 1 percent of all public school teachers reported no computers or Internet were available to them anywhere in their school. These teachers were not included in the estimates presented in this table.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Fast Response Survey System, "Survey on Public School Teachers Use of Computers and the Internet," FRSS 70, 1999.

Teachers' use of computers or the Internet at school varied for some types of uses by school poverty level (the percentage of students in the school eligible for free or reduced-price lunches). Teachers in schools with a school poverty level of less than 11 percent were more likely to use computers or the Internet a lot for creating instructional materials (52 percent) than teachers in schools with a school poverty level of 71 percent or more (32 percent). This pattern also held for teachers who used computers for administrative recordkeeping (43 vs. 24 percent for the same groups).

### How Do Teachers Direct Their Students to Use Computers and the Internet?

Sixty-six percent of public school teachers reported using computers or the Internet for instruction during class time (table 2). Forty-one percent of teachers reported assigning students work that involved computer applications such as word processing and spreadsheets to a moderate or large extent; 31 percent of teachers reported assigning practice

drills and 30 percent reported assigning research using the Internet to a moderate or large extent (table 2).

The ways teachers direct students to use computers or the Internet varied by instructional level, school poverty level, and hours of professional development. Elementary school teachers were more likely than secondary school teachers to assign students practice drills using computers (39 vs. 12 percent) and to have their students use computers or the Internet to solve problems (31 vs. 20 percent). Secondary school teachers, however, were more likely to assign research using the Internet (41 vs. 25 percent). Teachers in the lowest poverty schools were more likely to report assigning students work involving computer applications, research using CD-ROMs, and research using the Internet to a moderate or large extent than teachers in the highest poverty schools (table 2).

Teachers with more professional development in the use of computers and the Internet over the last 3 years were more

**Table 2.—Percent of teachers reporting using computers or the Internet for instruction and the percent assigning various uses to students to a moderate or large extent, by school and teacher characteristics: 1999**

School and teacher characteristics	Teacher uses for classroom instruction	Teacher assigns to a moderate or large extent								
		Computer applications <sup>1</sup>	Practice drills	Research using the Internet	Solve problems and analyze data	Research using CD-ROM	Produce multimedia reports/projects	Graphical presentations of materials	Demonstrations/simulations	Correspond with others <sup>2</sup>
<b>All public school teachers with access to computers or the Internet at school</b>	<b>66</b>	<b>41</b>	<b>31</b>	<b>30</b>	<b>27</b>	<b>27</b>	<b>24</b>	<b>19</b>	<b>17</b>	<b>7</b>
School instructional level										
Elementary school	68	41	39	25	31	27	22	17	15	7
Secondary school	60	42	12	41	20	27	27	23	21	7
Percent of students in school eligible for free or reduced-price school lunch										
Less than 11 percent	71	55	26	39	25	32	29	26	22	7
11–30 percent	65	45	29	35	29	27	23	18	16	9
31–49 percent	65	39	33	29	26	30	23	16	17	11
50–70 percent	62	33	33	25	27	24	25	19	13	5
71 percent or more	64	31	35	18	27	19	22	19	16	3
Hours of professional development <sup>3</sup>										
0 hours	41	21	19	20	14	16	16	10	8	4
1–8 hours	56	36	26	28	24	24	20	16	13	7
9–32 hours	72	47	35	32	30	31	26	21	19	8
More than 32 hours	82	55	43	42	41	34	37	31	29	9

<sup>1</sup>Use computer applications such as word processing, spreadsheets, etc.

<sup>2</sup>Correspond with experts, authors, students from other schools, etc., via e-mail or Internet.

<sup>3</sup>Professional development in the use of computers or the Internet within the last 3 years.

NOTE: Less than 1 percent of all public school teachers reported no computers or Internet were available to them anywhere in their school. These teachers were not included in the estimates presented in this table.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Fast Response Survey System, "Survey on Public School Teachers Use of Computers and the Internet," FRSS 70, 1999.

likely to assign students various types of work involving computers or the Internet. For example, teachers with more than 32 hours of professional development were more likely to assign problem solving (41 percent) than were teachers with 0 hours (14 percent) or those with 1 to 8 hours (24 percent), graphical presentations (31 compared with 10 and 16 percent for the same groups), and demonstrations or simulations (29 compared with 8 and 13 percent for the same groups).

### How Well Prepared Do Teachers Feel They Are to Use Computers and the Internet in Their Teaching?

When teachers were asked to focus specifically on the variety of potential uses of computers or the Internet in the

classroom, 23 percent of public school teachers reported feeling well prepared and an additional 10 percent reported feeling very well prepared to use computers and the Internet in their teaching (table 3).<sup>\*</sup> Teachers who reported assigning students work that involved corresponding with experts, authors, or students from other schools were more likely to report feeling very well prepared to use computers and the Internet than teachers who assigned practice drills to a moderate or large extent (30 vs. 14 percent).

Teachers with fewer years of experience and those with more hours of professional development felt better prepared

<sup>\*</sup>These figures differ somewhat from those presented in a previous report (Lewis et al. 1999) containing similar information. These differences are discussed in a report to be released in summer 2000.

**Table 3.—Percentage distribution of teachers with access to computers or the Internet at school according to the level of preparedness they feel to use computers and the Internet, by school and teacher characteristics: 1999**

School and teacher characteristics	Not at all prepared	Somewhat prepared	Well prepared	Very well prepared
<b>All public school teachers with access to computers or the Internet at school</b>	<b>13</b>	<b>53</b>	<b>23</b>	<b>10</b>
School instructional level				
Elementary school	12	55	23	10
Secondary school	15	50	23	12
Percent of students eligible for free or reduced-price school lunch				
Less than 11 percent	10	53	25	12
11–30 percent	13	52	25	10
31–49 percent	14	51	24	10
50–70 percent	16	58	16	10
71 percent or more	13	55	22	10
Teaching experience				
3 or fewer years	10	46	31	13
4–9 years	10	49	28	13
10–19 years	14	55	21	10
20 or more years	16	58	19	8
Hours of professional development <sup>*</sup>				
0 hours	32	46	15	6
1–8 hours	19	55	20	6
9–32 hours	4	61	25	10
More than 32 hours	1	32	37	29
Type of work assigned to a moderate or large extent				
Use computer applications such as word processing, spreadsheets, etc.	4	45	33	19
Practice drills	4	54	27	14
Research using the Internet	4	43	34	19
Solve problems/analyze data	3	49	29	19
Research using CD-ROM	3	42	33	21
Produce multimedia reports/projects	5	38	33	24
Graphical presentation of materials	4	38	35	22
Demonstrations/simulations	2	34	37	28
Correspond with experts, authors, students from other schools, etc., via e-mail or Internet	4	32	34	30

<sup>\*</sup>Professional development in the use of computers or the Internet within the last 3 years.

NOTE: Less than 1 percent of all public school teachers reported no computers or Internet were available to them anywhere in their school. These teachers were not included in the estimates presented in this table. Percentages may not add to 100 because of rounding.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Fast Response Survey System, "Survey on Public School Teachers Use of Computers and the Internet," FRSS 70, 1999.

to use computers and the Internet for classroom instruction. Teachers with 3 or fewer years of teaching experience were more likely to feel well prepared to use computers and the Internet than teachers with 20 or more years of experience (31 vs. 19 percent). Teachers with more than 32 hours of professional development in the use of computers and the Internet within the last 3 years were more likely to report feeling very well prepared than teachers who had received 0 to 32 hours of formal professional development (29 vs. 6 to 10 percent). Teachers without recent professional development were more likely to report feeling not at all prepared to use computers and the Internet in classrooms than teachers who had received 1 or more hours of professional development.

A more extensive discussion of the results of this survey will be available in a report forthcoming in summer 2000. The report will focus on the relationships between school characteristics such as school level, school poverty level, school location, and school size and uses of computers and the Internet.

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**Data source:** The NCES Fast Response Survey System, "Survey on Public School Teachers Use of Computers and the Internet," FRSS 70, 1999.

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# Enrollment

## Elementary and Secondary School Enrollment

*This article was originally published as an Indicator of the Month, taken from The Condition of Education: 1999. The universe data are from the NCES Common Core of Data (CCD), and the projected data are from Projections of Education Statistics to 2008.*

School enrollment is one measure of the size of the educational system and of the demand for teachers, buildings, and educational resources. Past trends and projected future changes in the composition of enrollment across levels of education and regions of the country, as well as between public and private schools, indicate the amount of resources the nation requires.

- Total (public and private) elementary and secondary school enrollment increased considerably during the late 1980s and 1990s, reaching an all-time high of 52.7 million in 1998 (derived from table 1 and figure 1). This increase followed declining total enrollment in elementary and secondary schools during the 1970s and early 1980s (from 51.3 million in 1971 to 44.9 million in 1984).
- Total elementary and secondary school enrollment is projected to increase by 3 percent (to 54.3 million) between 1998 and 2008.
- Secondary school enrollments (grades 9–12) are projected to increase by 11 percent for both public and private schools between 1998 and 2008, while enrollment in prekindergarten through grade 8 is projected to decrease slightly.
- Total public school enrollment is projected to increase in the South and West (by 4 and 11 percent, respectively) but to decrease in the Northeast and Midwest (by 1 and 3 percent, respectively) between 1998 and 2008 (table 2 and figure 2).

**Table 1.—Elementary and secondary school enrollment, by control and grade level of school, with projections: Fall 1970–2008**  
(In thousands)

Year/period	Public schools			Private schools <sup>1</sup>		
	Grades Pre-K–12	Grades Pre-K–8	Grades 9–12	Grades Pre-K–12	Grades Pre-K–8	Grades 9–12
1970	45,894	32,558	13,336	5,363	4,052	1,311
1988	40,189	28,501	11,687	5,241	4,036	1,206
1998	46,792	33,522	13,270	5,927	4,588	1,339
	<b>Projected<sup>2</sup></b>			<b>Projected<sup>2</sup></b>		
2008	48,201	33,455	14,746	6,067	4,579	1,488
	<b>Percentage change</b>			<b>Percentage change</b>		
1970–88	-12.4	-12.5	-12.4	-2.3	-0.4	-8.0
	<b>Projected percentage change</b>			<b>Projected percentage change</b>		
1988–98	16.4	17.6	13.5	13.1	13.7	11.0
1998–2008	3.0	-0.2	11.1	2.4	-0.2	11.1

<sup>1</sup>Beginning in fall 1980, data include estimates for the expanded universe of private schools.

<sup>2</sup>Enrollment includes students in kindergarten through grade 12 and some nursery school students.

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

SOURCE: U.S. Department of Education, National Center for Education Statistics: (1999) *Digest of Education Statistics: 1998* (NCES 1999–036) (based on Common Core of Data); and (1998) *Projections of Education Statistics to 2008* (NCES 98–016).

**Table 2.—Public elementary and secondary school enrollment, by region, with projections: Fall 1980–2008**  
(In thousands)

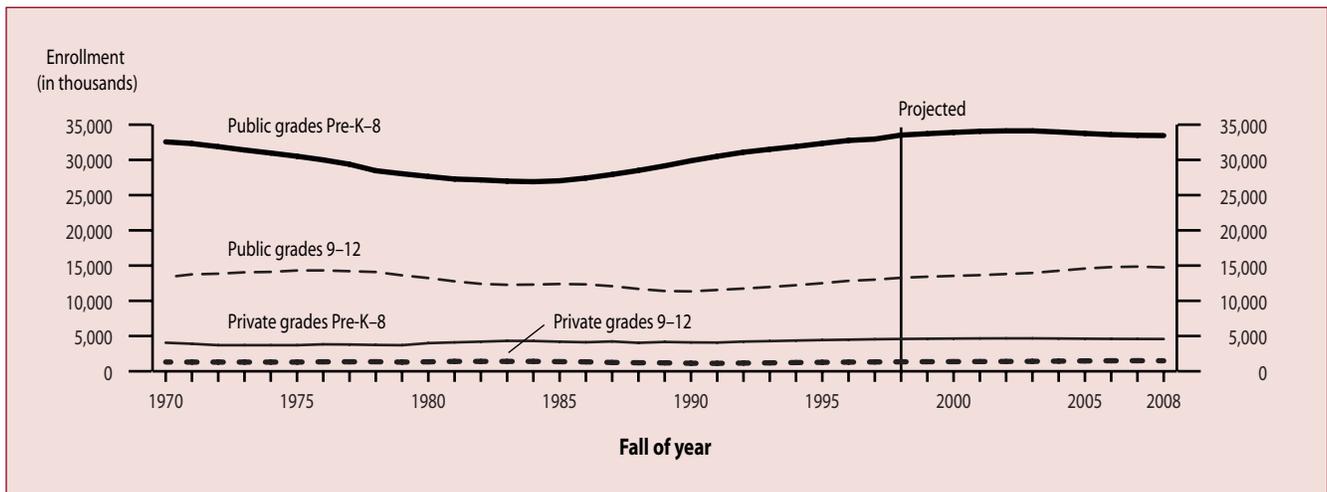
Fall of year	Northeast	Midwest	South	West
1980	8,215	10,698	14,134	7,831
1988	7,208	9,846	14,491	8,644
1990	7,282	9,944	14,807	9,184
1995	7,894	10,512	16,118	10,316
1998*	8,215	10,680	16,864	11,033
2008*	8,100	10,344	17,501	12,257
<b>Projected percentage change</b>				
1988–98	14.0	8.5	16.4	27.6
1998–2008	-1.4	-3.1	3.8	11.1

\*Projected enrollment. Enrollment includes students in kindergarten through grade 12 and some nursery school students.

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

SOURCE: U.S. Department of Education, National Center for Education Statistics: (1999) *Digest of Education Statistics: 1998* (NCES 1999-036) (based on Common Core of Data); and (1998) *Projections of Education Statistics to 2008* (NCES 98-016).

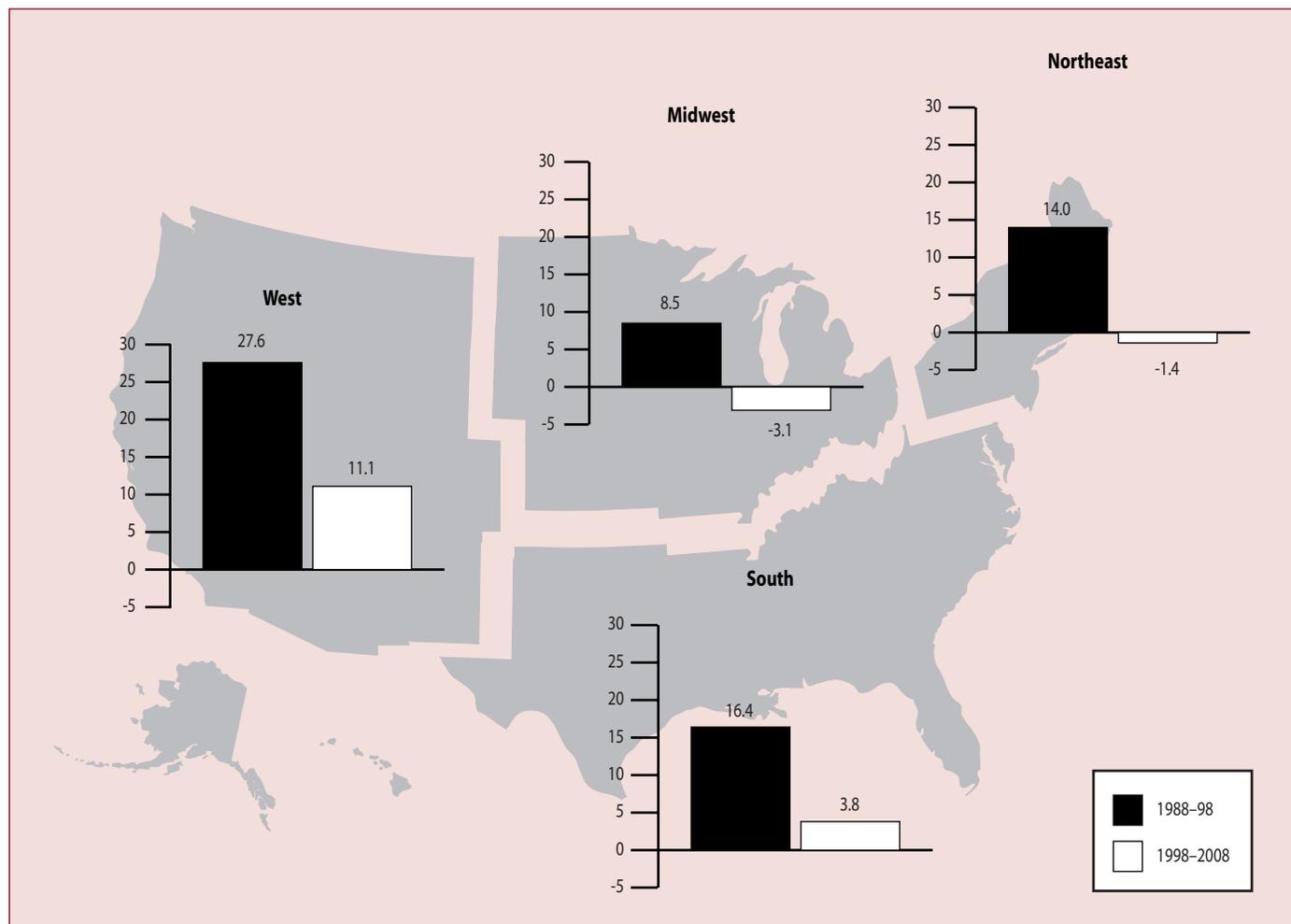
**Figure 1.—Elementary and secondary school enrollment, by control and grade level of school, with projections: Fall 1970–2008**



NOTE: Enrollment includes students in kindergarten through grade 12 and some nursery school students. Beginning in fall 1980, data include estimates for the expanded universe of private schools.

SOURCE: U.S. Department of Education, National Center for Education Statistics: (1999) *Digest of Education Statistics: 1998* (NCES 1999-036) (based on Common Core of Data); and (1998) *Projections of Education Statistics to 2008* (NCES 98-016).

Figure 2.—Projected percentage change in public elementary and secondary school enrollment, by region: Fall 1988–2008



NOTE: Enrollment includes students in kindergarten through grade 12 and some nursery school students. Beginning in fall 1980, data include estimates for the expanded universe of private schools.

SOURCE: U.S. Department of Education, National Center for Education Statistics: (1999) *Digest of Education Statistics: 1998* (NCES 1999-036) (based on Common Core of Data); and (1998) *Projections of Education Statistics to 2008* (NCES 98-016).

**Data sources:** The NCES Common Core of Data (CCD), various years; and *Projections of Education Statistics to 2008* (NCES 98-016).

**For technical information,** see

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

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

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# POSTSECONDARY EDUCATION

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## Descriptive Summary of 1995–96 Beginning Postsecondary Students: Three Years Later, With an Essay on Students Who Start at Less-Than-4-Year Institutions

*Lutz Berkner, Laura Horn, and Michael Clune*

***This article was originally published as the Foreword and Executive Summary of the Statistical Analysis Report of the same name. The sample survey data are from the NCES Beginning Postsecondary Students Longitudinal Study (BPS).***

This report provides a description of the data collected in the first follow-up of the 1996 Beginning Postsecondary Students Longitudinal Study (BPS:1996/1998). The study is based on a sample of students who began their postsecondary education in 1995–96 and were initially interviewed in 1996 as part of the National Postsecondary Student Aid Study (NPSAS:1996). These first-time beginning students were interviewed again in mid-1998, about 3 years after they had started their postsecondary education. A major purpose of BPS is to provide information about the persistence of beginning students in postsecondary education and their attainment of any certificates or degrees at different types of institutions.

The report begins with an essay, which is followed by a compendium of tables. Because most students who began in 1995–96 would not have been enrolled long enough to complete a bachelor's degree at the time of the follow-up survey in 1998, the essay focuses on the persistence and attainment of students enrolled in programs leading to associate's degrees and vocational certificates at less-than-4-year institutions. In particular, it compares the outcomes of students in public institutions with those in private for-profit institutions 3 years after they first enrolled.

The compendium contains supplemental tables detailing persistence and attainment by various types of institutions.

It also includes summary findings and tables about the characteristics of beginning students, with a particular emphasis on employment.

### Enrollments and Persistence at Different Types of Institutions

Of the roughly 3 million students who first enrolled in postsecondary education in 1995–96, about 40 percent began in 4-year institutions (usually in bachelor’s degree programs), but the majority began at less-than-4-year institutions, including 50 percent at 2-year institutions and about 10 percent at less-than-2-year institutions (figure A). Less-than-2-year institutions offer only vocational certificate programs that can be completed in anywhere from a few months to just under 2 years. Two-year institutions offer both certificates and associate’s degrees that require 2 to 3 years of full-time enrollment. The students who started at these less-than-4-year institutions in 1995–96 could have completed a certificate or associate’s degree program by

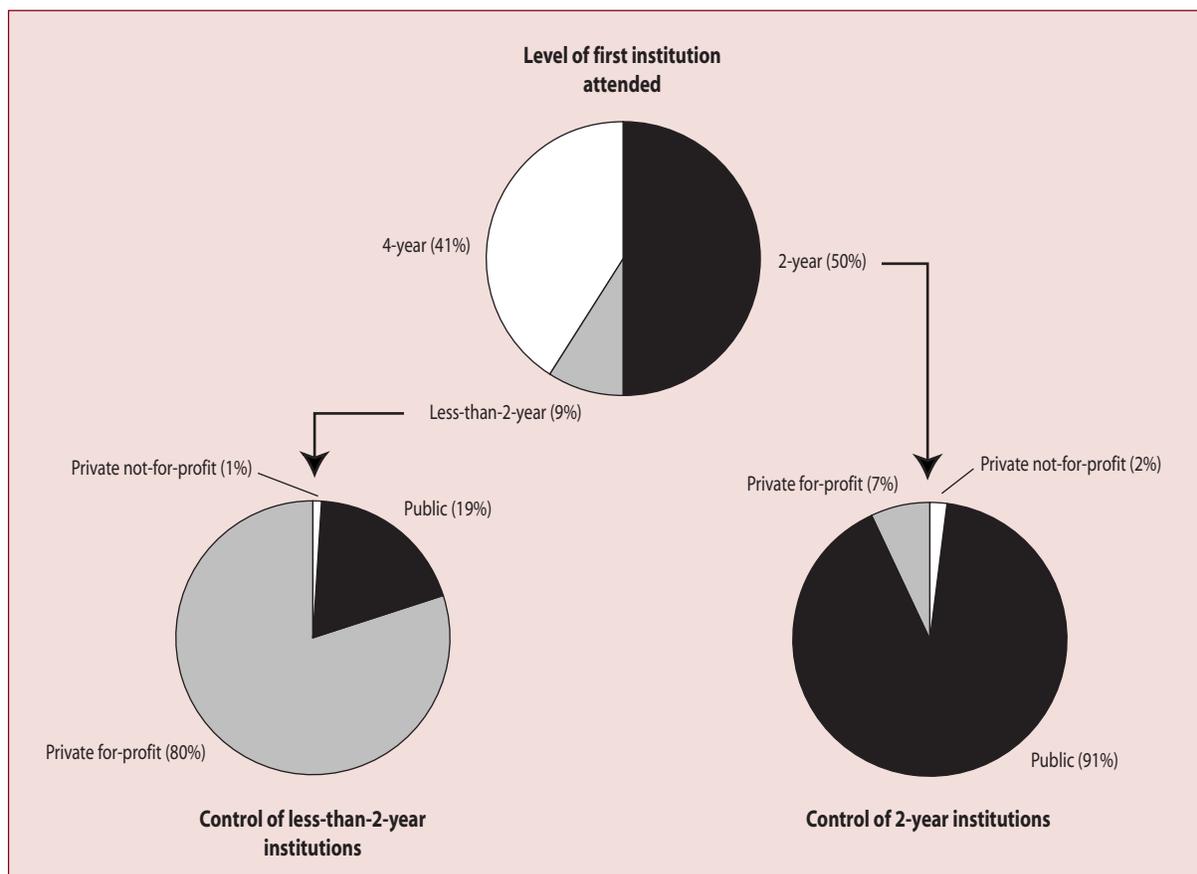
1998, while those in 4-year bachelor’s degree programs would normally just be completing their junior year of college.

### Persistence and attainment of students at 4-year, 2-year, and less-than-2-year institutions

*Attainment* means that the student completed a program and earned a degree, defined broadly as including certificates. *Persistence* refers to all those who continued to be enrolled until they completed a program, and therefore includes those who attained a degree. Students who transferred from their original institution and continued to be enrolled or completed a program elsewhere have also persisted.

Figure B displays information about persistence and attainment 3 years after students first enrolled in 1995–96. Each institution sector is shown separately. Among those who started in 4-year institutions, 18 percent had left postsecondary education without a degree, about

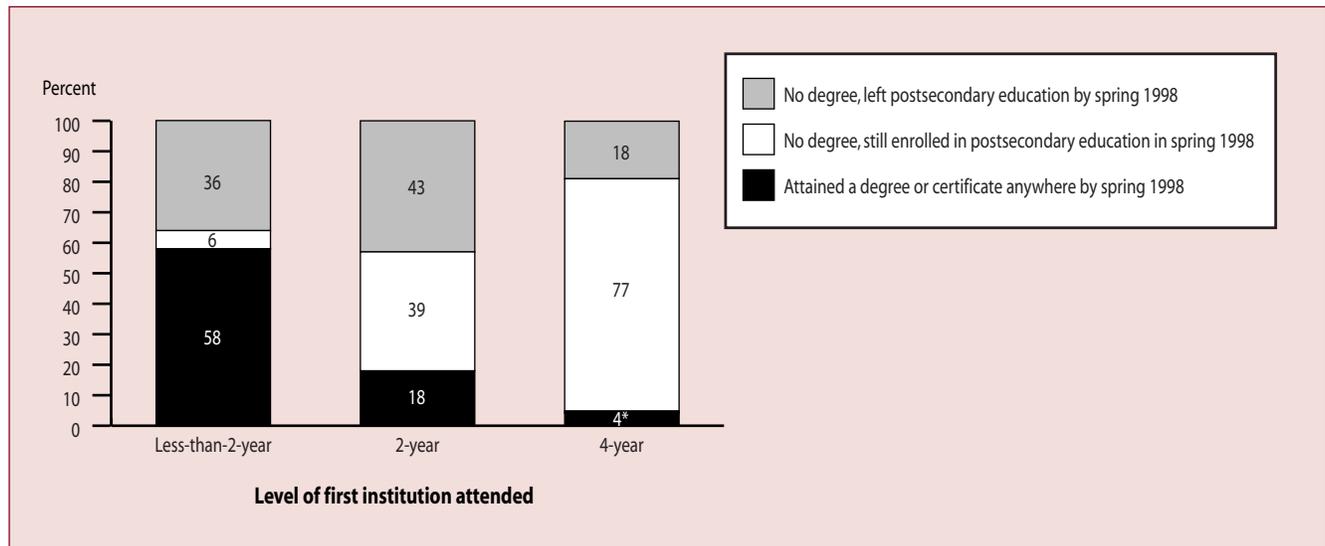
**Figure A.—Percentage distribution of 1995–96 beginning postsecondary students according to level of institution first attended and, among those in less-than-4-year institutions, the percentage distribution according to institution control**



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

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1996 Beginning Postsecondary Students Longitudinal Study, "First Follow-up" (BPS:1996/1998).

**Figure B.—Percentage distribution of 1995–96 beginning postsecondary students after 3 years according to enrollment status and attainment (anywhere), by level of first institution attended**



\*One percent bachelor's degrees; 3 percent associate's and certificates.

NOTE: Detail may not sum to 100 due to rounding. The term "degree" includes certificates.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1996 Beginning Postsecondary Students Longitudinal Study, "First Follow-up" (BPS:1996/1998).

three-fourths were still enrolled without a degree, and a small percentage had attained a degree (mostly certificates and associate's degrees). That is, about 80 percent had persisted, but not necessarily at the institution where they first started.<sup>1</sup> Among those who started at 2-year and at less-than-2-year institutions, about 40 percent had left postsecondary education within 3 years without attaining a certificate or degree. The majority of those who started at less-than-2-year institutions had attained a certificate or degree (58 percent), compared with 18 percent of those who started at 2-year institutions.

#### **Distribution of students across public and private for-profit 2-year and less-than-2-year institutions**

As shown in figure A, most of the beginning students who enrolled in the 2-year sector (91 percent) attended *public* institutions, usually community colleges. Most of those in the less-than-2-year sector (80 percent) attended *private for-profit* institutions (also known as proprietary or private career schools). The community colleges have a broad range of missions, from job training to offering lower division courses for students who want to transfer to 4-year institutions. The private for-profit institutions generally only offer programs that prepare students for specific occupations.

<sup>1</sup>Twenty percent of the freshmen transferred out of their initial 4-year institution.

#### **Students Who Start at Less-Than-4-Year Institutions**

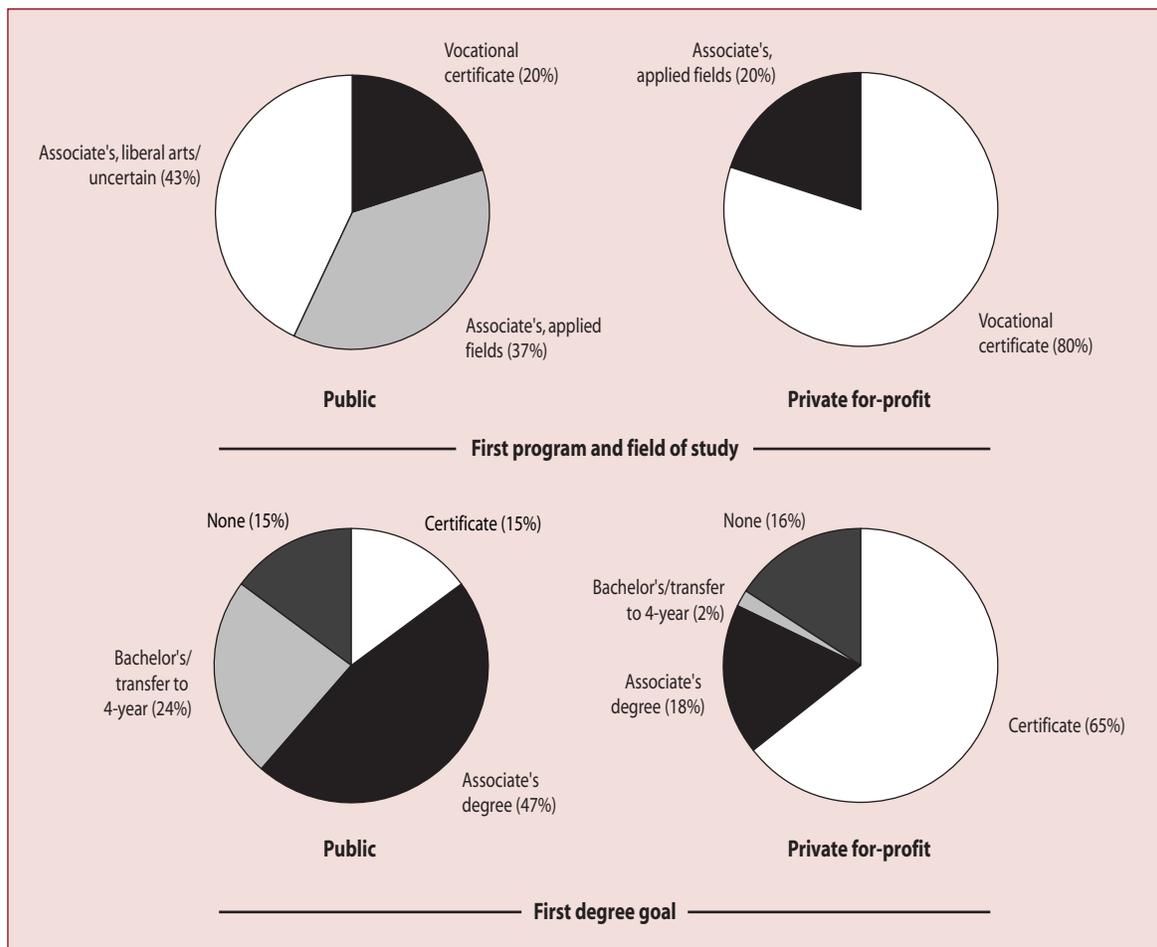
The essay focuses on the less-than-4-year institutions, comparing the students who started at public with those who started at private for-profit institutions in terms of their degree programs, goals, and enrollment patterns. The analysis differentiates between students in certificate and associate's degree programs and further separates students in associate's degree programs into applied and liberal arts fields. One of the main questions addressed is why students who begin at less-than-4-year public institutions have lower rates of attainment than those who begin at less-than-4-year private for-profit institutions.<sup>2</sup>

#### **Programs, degree goals, and purpose**

In order to make a meaningful comparison between students who begin their postsecondary education at less-than-4-year public and private for-profit institutions, it is important to examine the types of programs in which students enroll and, further, why they have enrolled. Figure C illustrates how students in less-than-4-year public and private for-profit institutions were distributed with respect to both their program and field of study and their reported degree goals.

<sup>2</sup>The analysis excludes about 2 percent of beginning students, who are in less-than-4-year private not-for-profit institutions (primarily junior colleges).

**Figure C.—Percentage distribution of 1995–96 beginning postsecondary students who first enrolled in public and private for-profit less-than-4-year institutions, by first program and field of study and by first degree goal**



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

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1996 Beginning Postsecondary Students Longitudinal Study, "First Follow-up" (BPS:1996/1998).

Private for-profit institutions primarily offer short-term programs leading to vocational certificates. Accordingly, four-fifths of these students were enrolled in certificate programs, primarily in cosmetology, health assistance, secretarial, and mechanical trades. The remaining one-fifth were enrolled in applied associate's degree programs such as business, nursing/allied health, and engineering technology. Students beginning in public less-than-4-year institutions, on the other hand, were more likely to be enrolled in associate's degree programs than in vocational certificate programs. About 40 percent each were in applied associate's degree programs and in either liberal arts or undeclared associate's fields.<sup>3</sup>

<sup>3</sup>About one-third of the liberal arts/uncertain group had not declared majors.

An examination of beginning students' degree goals at the institution where they start clarifies their actual intentions with respect to their current enrollment. Unlike most private for-profit institutions, one of the missions of public 2-year institutions is to provide a means for students working toward a bachelor's degree to complete their lower division requirements and transfer to a 4-year institution. Students who transfer are not required to have earned an associate's degree, but if they successfully transfer, they have achieved their goal for that institution.

Students in public institutions primarily reported goals of earning an associate's degree (47 percent) or transferring to a 4-year college without a degree (24 percent). In contrast, students in private for-profit institutions indicated goals of

obtaining a vocational certificate (65 percent) or an associate's degree (18 percent), while few indicated any transfer intentions (2 percent). In both the public and the private for-profit sectors, approximately the same percentage reported having no degree goal (15 and 16 percent, respectively). That is, they were probably enrolled to advance their occupational skills or for their own personal enrichment.

When students in less-than-4-year institutions were asked to report their primary reason for enrolling (separate from their degree goals), two-thirds of those in private for-profit institutions indicated that they wanted to gain job skills, compared with one-quarter of those in public institutions. Correspondingly, about one-third of students in public less-than-4-year institutions reported plans to transfer to a 4-year college, compared with only 2 percent of those in private for-profit institutions.

Taking into account both students' degree goals and their primary purpose for enrolling, it is apparent that those enrolled in the private for-profit sector would be able to fulfill their intentions of earning a certificate or an associate's degree and, in the process, enhance their job skills all in the same institution. Students in the public sector, on the other hand, had less of an immediate occupational focus and often planned to transfer to a 4-year college without earning an associate's degree.

### **Persistence and attainment of students**

A major difference between certificate and associate's degree programs is the time it takes to complete them. A vocational certificate program is often completed in about 1 year, while associate's degrees take at least 2 years to complete. Most of the beginning students at private for-profit less-than-4-year institutions were enrolled in short-term certificate programs (80 percent), while most of those in public institutions were enrolled in longer term associate's degree programs (80 percent) (figure C).

Not only were the beginning students in the private for-profit institutions primarily enrolled in shorter programs, but most of them (about three-fourths) were full-time students during their entire enrollment. At the public institutions, about one-half of the beginning students started their enrollment full time, but just one-third continued to attend full time as long as they were enrolled. Moreover, about one-fourth of those in the public institu-

tions were always enrolled part time, compared with about one-tenth in the private for-profit institutions.

Full-time students are obviously able to progress through a program more quickly than part-time students. Since most of the students starting in the private for-profit sector were in shorter programs *and* attended full time as long as they were enrolled, it might be expected that they would have higher rates of degree attainment after 3 years than those who started at the public less-than-4-year institutions, where most of the students were in longer programs and less likely to attend full time.

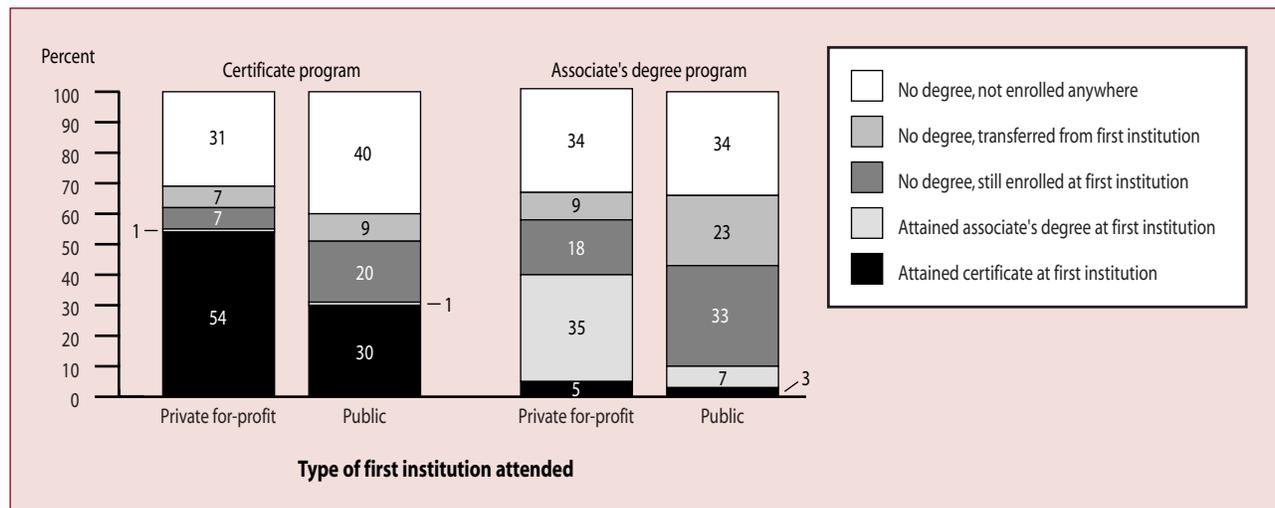
Comparing the students in the two sectors who began in vocational certificate programs and those who began in associate's degree programs controls for the effect of the difference in the length of these programs on attainment rates. The percentages displayed in figure D differentiate students who were still enrolled at the same institution from those who transferred and are limited to those who attained a degree at the first institution attended.

The differences in attainment rates at public and private for-profit institutions are still evident within certificate and associate's degree programs. About one-half (54 percent) of those who began in certificate programs at private for-profit institutions attained a certificate at the first institution attended, compared with 30 percent of those who began at public institutions. The percentage of beginning students in associate's degree programs who attained associate's degrees at the first institution was also higher at the private for-profit institutions than at the public institutions (35 percent compared with 7 percent).

There was no difference between sectors in the percentage of those in associate's degree programs who left postsecondary education from the first institution without a degree (34 percent). However, as might be expected from the difference in degree goals examined earlier, the percentage of those in associate's degree programs who left the first institution attended to transfer elsewhere was higher at the public than at the private for-profit institutions (23 percent compared with 9 percent).

The difference in the attainment rates of beginning students in the two sectors appears to be related to the much higher percentage of full-time students in the private for-profit institutions. In addition, the higher degree attainment rates

**Figure D.—Percentage distribution of 1995–96 beginning postsecondary students who began in private for-profit and in public less-than-4-year institutions, by enrollment status and attainment at the first institution attended after 3 years**



NOTE: Detail may not sum to 100 due to rounding. The term “degree” includes certificates.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1996 Beginning Postsecondary Students Longitudinal Study, “First Follow-up” (BPS:1996/1998).

at the for-profit institutions may be related to their term structure. Many for-profit institutions offer programs that allow continuous enrollment without regular term structures or summer vacations. This is reflected in the time it took students to attain degrees or certificates. Those full-time students who completed certificates at private for-profit institutions finished in an average of 12 months, while those who completed certificates at public institutions required an average of 16 months. Similarly, those who completed an associate’s degree at public institutions took an average of 25 months, 3 months longer than those who received an associate’s degree at private for-profit institutions by 1998.

### Conclusions

Many of the differences in the enrollment experiences of beginning students at private for-profit and at public less-than-4-year institutions reflect the differences in the type of program in which they were enrolled. Eighty percent of the students in the private for-profit institutions began in vocational certificate programs, while about 80 percent of the students in the public institutions began in associate’s degree programs, which take longer to complete. Nevertheless, the attainment rates for both vocational certificates and associate’s degrees were much higher for students who began in private for-profit institutions.

There were also distinct differences in degree goals, reasons for enrolling, and attendance patterns between students in the two sectors that contribute to explaining some of the attainment differences. Compared with students in public less-than-4-year institutions, those in private for-profit less-than-4-year institutions

- were more likely to focus on gaining job skills;
- had degree goals specific to the programs offered at the first institution attended and were less likely to have intentions of transferring to a 4-year college;
- were more likely to attend full time for the duration of their enrollment; and
- completed their certificate or associate’s degree programs in a shorter time.

**Data source:** The NCES 1996 Beginning Postsecondary Students Longitudinal Study, “First Follow-up” (BPS:1996/1998).

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

Berkner, L., Horn, L., and Clune, M. (2000). *Descriptive Summary of 1995–96 Beginning Postsecondary Students: Three Years Later, With an Essay on Students Who Start at Less-Than-4-Year Institutions* (NCES 2000–154).

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# Low-Income Students

## Low-Income Students: Who They Are and How They Pay for Their Education

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 primarily from the NCES National Postsecondary Student Aid Study (NPSAS), but also from the Beginning Postsecondary Students Longitudinal Study (BPS).*

Students from low-income families typically need substantial financial assistance to be able to attend college. This report examines the characteristics of low-income undergraduates and how they pay for college. It begins with a profile of low-income students, comparing them with their not-low-income counterparts. Then, focusing on low-income students who attend full time, full year, it examines their financial need, describes the contribution of financial aid, and presents what is known about how they close the gap between what they have to pay and the amount of aid they receive. Finally, the report compares 3-year persistence among low-income and not-low-income undergraduates.

For the purposes of this report, low-income students were defined as those whose family income was below 125 percent of the federally established poverty level for their family size. Because the prices students pay and the financing strategies they adopt vary substantially with institutional level and control, students at public 4-year, private not-for-profit 4-year, and public 2-year institutions are examined separately. Within institution type, dependents, independents without dependents, and independents with dependents are also considered separately because their financial obligations are quite different, and they are treated differently by the financial aid system.

The analysis relies primarily on the National Center for Education Statistics (NCES) 1995–96 National Postsecondary Student Aid Study (NPSAS:1996), but also uses selected data from NPSAS:1993 for comparison and data from the 1996 Beginning Postsecondary Students Longitudinal Study (BPS:1996/1998) to examine persistence.

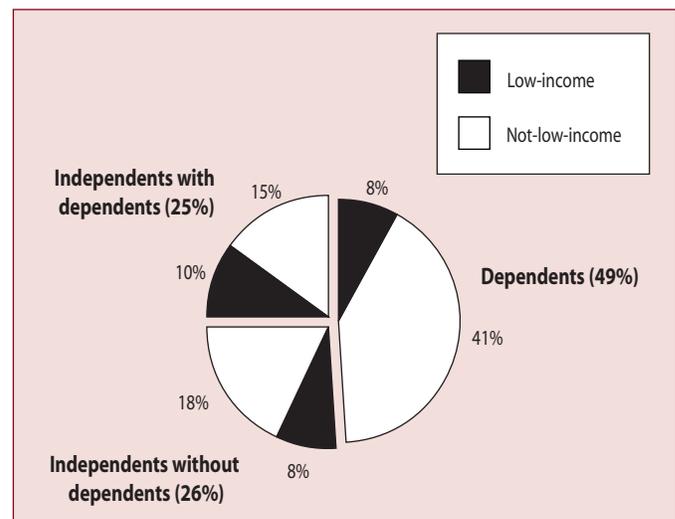
### Profile of Low-Income Undergraduates

In 1995–96, 26 percent of all undergraduates were low income. At private not-for-profit 4-year, public 4-year, and public 2-year institutions, the proportion of students who were low income ranged from 21 to 26 percent. A much greater proportion of students at private for-profit institutions were low income (48 percent), but relatively few (about 5 percent of all undergraduates) attended this type of institution.

About one-half (49 percent) of all undergraduates were dependents, and a relatively small proportion were from

low-income families (figure A). The other half of the undergraduate population was about evenly divided between independents without and with dependents of their own. (Spouses are not considered dependents.) Independent students were more likely than dependents to be low income because their parents' financial circumstances are not considered for aid purposes.

**Figure A.—Percentage distribution of undergraduates by income and dependency status: 1995–96**



SOURCE: U.S. Department of Education, National Center for Education Statistics, 1995–96 National Postsecondary Student Aid Study (NPSAS:1996), Undergraduate Data Analysis System.

Overall, 17 percent of dependent undergraduates were defined as low income. Certain groups were particularly likely to be in this category, including minorities and students whose parents had not gone to college. As parents' education increased, the percentage who were low income decreased (from 55 percent when both parents had less than a high school diploma to 23 percent when at least one parent had finished high school to 12 percent when at least one parent had attended college).

Independents without dependents were almost twice as likely as dependents to be low income (31 percent were in this category). Rather than reflecting a disadvantaged background (there was no strong relationship between parents' education and students' low-income status), low-income status was closely related to marital status, age, and

employment and enrollment status. Independents without dependents were much more likely to be low income if they were single rather than married. The likelihood of being low income declined with age, in part because older students are more likely to be married and have greater earning potential. Students who did not work or considered themselves primarily students were more likely to be low income than those who considered themselves primarily employees. About half of those who enrolled full time, full year (51 percent) were low income.

Independents with dependents include single or married students with children or other dependents. As indicated earlier, spouses are not considered dependents; their incomes are included in calculating family income. This group was the most likely to be low income (40 percent). As was true for independents without dependents, low-income status was related to marital status, age, and primary role while enrolled (student or employee). Fifty-six percent of single parents were low income; the younger the students, the more likely they were to be low income; and they were more likely to be low income if they did not work or if they worked but considered themselves primarily students.

### Financial Need

Financial need is the difference between the price of attending a postsecondary institution (the “student budget”) and what the student is expected to pay based on the family’s financial circumstances. Compared with the average prices of attending the different types of institutions, the average expected family contributions (EFCs) for low-income students were relatively small (table A). Consequently, virtually all low-income undergraduates attending full time, full year had financial need (that is, the student budget minus EFC was greater than zero). The amounts of financial need were substantial at all types of institutions, ranging from about \$5,800 to \$16,700, varying with dependency status and type of institution (table A).

### Financial Aid

Most low-income students attending full time, full year (86 percent) received some financial aid, and the average amount received by low-income students (calculated including those with no aid) was about \$6,100. Most (81 percent) received grants, which averaged \$3,900 for those who received them. Loans were an important source

of aid as well, with 51 percent borrowing. The average loan for those who borrowed was \$4,700.

Most borrowers (66 percent) did not reach the maximum permitted under the Stafford loan program. As did financial need, aid patterns for full-time, full-year low-income students varied substantially by type of institution and dependency status.

Aided low-income students attending full time, full year had about 60 percent of their budgets covered by aid. About 60 percent of their aid was in the form of grants and 32 percent was in the form of loans; the rest came from work-study and “other” types of aid. Again, these proportions varied considerably by dependency status and institution type.

### Closing the Gap

The net price that low-income students pay for their education is the difference between the student budget and financial aid. This represents the amount that students must come up with to pay for their education. Even for low-income students attending full time, full year, a substantial part of this gap is met by student earnings while enrolled (table A). These earnings do not cover the net price, however. For dependent students, the amounts left after taking into account student earnings appear to be considerably higher than their families could afford to cover (and that data on parent contributions suggest that they are covering), especially at private not-for-profit 4-year institutions. For independents without dependents, earnings cover most of the net price at public 4-year institutions, but the gaps at private not-for-profit 4-year institutions and public 2-year institutions are large. The pattern is similar for independents with dependents.

Despite these apparent gaps between the net price of attending and students’ financial resources, the students are enrolled. How do they manage? One possibility is that they are surviving on a lower budget than estimated by their institutions. Other possibilities are that students are actually earning more than estimated (students often have numerous short-term jobs), are able to save from summer earnings, or have savings accumulated before they enrolled. Yet another is that they have received more than estimated from their parents. Or, they may be borrowing from sources other than student loan programs.

**Table A.—Average student budget, EFC, financial need, total aid, unmet need, net price, and earnings for low-income undergraduates enrolled full time, full year, by type of institution and dependency status: 1995–96**

	Student budget	Expected family contribution (EFC)	Financial need <sup>1</sup>	Total aid	Unmet need <sup>2</sup>	Net price <sup>3</sup>	Earnings
Total <sup>4</sup>	\$11,579	\$768	\$10,876	\$6,116	\$4,844	\$5,443	\$2,889
Type of institution and dependency status							
Public 4-year	10,745	760	10,051	6,256	3,903	4,487	3,236
Dependents	10,300	932	9,488	5,531	4,056	4,763	2,593
Independents without dependents	11,137	808	10,329	6,660	3,835	4,476	3,750
Independents with dependents	11,347	149	11,226	7,677	3,564	3,672	3,630
Private, not-for-profit 4-year	17,203	1,127	16,264	10,060	6,367	7,145	2,801
Dependents	17,917	1,503	16,703	10,286	6,622	7,633	2,187
Independents without dependents	16,745	797	16,012	10,718	5,444	6,030	3,613
Independents with dependents	15,237	223	15,014	8,226	6,814	7,012	3,470
Public 2-year	7,659	606	7,051	3,059	4,088	4,598	2,361
Dependents	6,409	637	5,768	2,447	3,354	3,962	2,745
Independents without dependents	9,025	1,128	7,897	3,399	4,871	5,627	1,418
Independents with dependents	8,112	264	7,848	3,482	4,367	4,630	2,478

<sup>1</sup>Student budget minus EFC. In this table, the difference between the average student budget and the average expected contribution is not exactly equal to the average financial need because of missing data for each variable. The same is true for other computed differences in this table. No variable used to compute differences has more than 1 percent missing data for full-time, full-year low-income undergraduates.

<sup>2</sup>Student budget minus EFC minus aid.

<sup>3</sup>Student budget minus all aid.

<sup>4</sup>Includes students who attended types of institutions other than those included here.

NOTE: Table limited to students who attended only one institution. Averages computed including zero values. For example, average total aid is computed including students with no aid.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1995–96 National Postsecondary Student Aid Study (NPSAS:1996), Undergraduate Data Analysis System.

The actual contributions of parents and other family members are difficult to determine because families typically do not keep detailed records and this type of information is difficult to recall many months later in a telephone interview. In addition to the amounts reported as allowances, about one-third of all low-income students attending full time, full year reported that their parents paid for all or part of their tuition, housing, meals, or books, but we do not know how much this amounts to. Low-income independent students do not necessarily come from low-income backgrounds, so their parents may have substantial resources.

### Low-Income Status and Persistence

Many worry that financial problems may force low-income students to drop out or interrupt their education. Persistence is affected by a variety of factors other than income. In order to determine whether persistence is associated with low-income status independently of these other factors, a multivariate analysis was conducted. The results show that low-income students who began their postsecondary

education in 1995–96 were less likely than their not-low-income counterparts to have earned a degree or certificate or still be enrolled in 1998. This was true even after controlling for student background (gender, race/ethnicity, and parents' education) and other factors likely to affect persistence (dependency status, institution type, enrollment delay after high school, enrollment status, amount worked, borrowing, and assistance from parents).

**Data sources:** The NCES 1992–93 and 1995–96 National Postsecondary Student Aid Study (NPSAS:1993 and NPSAS:1996); and 1996 Beginning Postsecondary Students Longitudinal Study (BPS:1996/1998).

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

Choy, S.P. (2000). *Low-Income Students: Who They Are and How They Pay for Their Education* (NCES 2000–169).

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# Undergraduate Borrowing

## Trends in Undergraduate Borrowing: Federal Student Loans in 1989–90, 1992–93, and 1995–96

Lutz Berkner

*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 NCES National Postsecondary Student Aid Study (NPSAS).*

### Introduction

Between academic years 1989–90 and 1995–96, the total dollar volume in federal student loans doubled, increasing from about \$13 billion to about \$28 billion (The College Board 1998).<sup>1</sup> Nearly 90 percent of these funds were received by students as federal Stafford loans or Supplemental Loans to Students (SLS).<sup>2</sup> SLS loans were replaced by unsubsidized Stafford loans in 1993–94. Stafford and SLS were closely related programs and are treated together in this report.

The total amount borrowed by *undergraduates* through the Stafford/SLS programs increased by about \$2 billion between 1989–90 and 1992–93, from approximately \$8 billion to \$10 billion. Three years later, in 1995–96, the total undergraduate Stafford loan volume had increased by \$7 billion, to approximately \$17 billion.<sup>3</sup> The larger increases in loan volume during the second period came after the 1992 Reauthorization of the Higher Education Act, in which Congress made substantial changes in the federal financial aid need analysis and the structure of the federal student loan programs.

There are two broad categories of federal student loans, subsidized and unsubsidized. For *subsidized* loans, students are not charged interest while they are enrolled. In order to qualify for an interest-free subsidized loan, students must demonstrate financial *need*. For *unsubsidized* loans, the federal government does not pay any of the interest for the students, who may obtain them to pay for educational expenses without demonstrating need. Depending on the circumstances, students may obtain either subsidized or unsubsidized loans, or a combination of both. In determining the need for financial aid, students are considered either *dependent* on their parents for support or *independent* and self-supporting. The federal student loans have *limits* on the

maximum amounts that students may borrow. These limits vary by dependency, class level, and the type of loan. In general, independent students may borrow larger amounts than dependent students by combining subsidized and unsubsidized loans.

Some of the major changes in the 1992 Reauthorization that affected the eligibility of undergraduates for federal loans, and the amounts that they could borrow, were the following:

- The loan limits on subsidized Stafford loans were increased (except for first-year students).
- Changes were made in federal need analysis (such as eliminating the consideration of home equity) that generally made it easier for dependent students to qualify for subsidized Stafford loans.
- For some independent students, changes in need analysis reduced eligibility for federal Pell grants,<sup>4</sup> but increased their eligibility for subsidized loans.
- Unsubsidized loans were made generally available to dependent students for the first time.
- The separate SLS program of unsubsidized loans for independent students was phased out and replaced by unsubsidized loans for all students through the Stafford program.
- Dependent and independent students could borrow either subsidized, unsubsidized, or a combination of both types of Stafford loans. The maximum amounts of the combined loans for independent students were about double the amounts available to dependent students, however.

Most of these changes, directly or indirectly, allowed more undergraduates to borrow, and to borrow larger amounts, beginning in 1993–94. In economic terms, there was a substantial increase in the supply of federal loan funds. This report analyzes the effect of the 1992 Reauthorization by comparing undergraduate borrowing patterns in two 3-year periods: from 1989–90 to 1992–93, before the changes; and between 1992–93 and 1995–96, when the changes to the programs were implemented.

<sup>1</sup>These totals include all federal loan programs and both graduate and undergraduate borrowers.

<sup>2</sup>Calculated from data in *Trends in Student Aid 1998* (The College Board 1998). The other smaller federal student loan programs are PLUS loans for parents, Perkins loans, and loans to students in the health professions.

<sup>3</sup>These estimates for undergraduates are based on unpublished data from the Department of Education's National Student Loan Data System. Approximately one-fourth of the Stafford/SLS loan amounts were received by graduate and first-professional students.

<sup>4</sup>The Pell grant program provides grant aid to undergraduates attending postsecondary institutions.

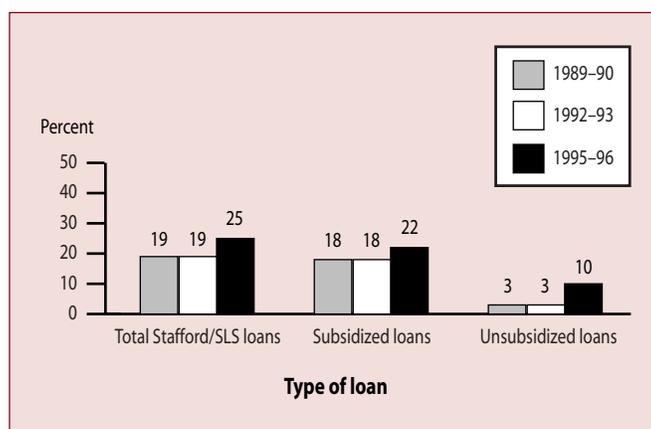
## Changes in Borrowing: Key Findings

In 1989–90, about one-fifth (19 percent) of undergraduates received Stafford/SLS loans, and this percentage had not changed in 1992–93 (figure A). However, during the same time period, the average loan amount increased (in current dollars) by \$500, from \$2,600 to \$3,100 (figure B). Three years later, when the new loan program rules were in effect, both the percentage of students borrowing (25 percent) and the average loan amounts had increased.

## Dependent borrowers

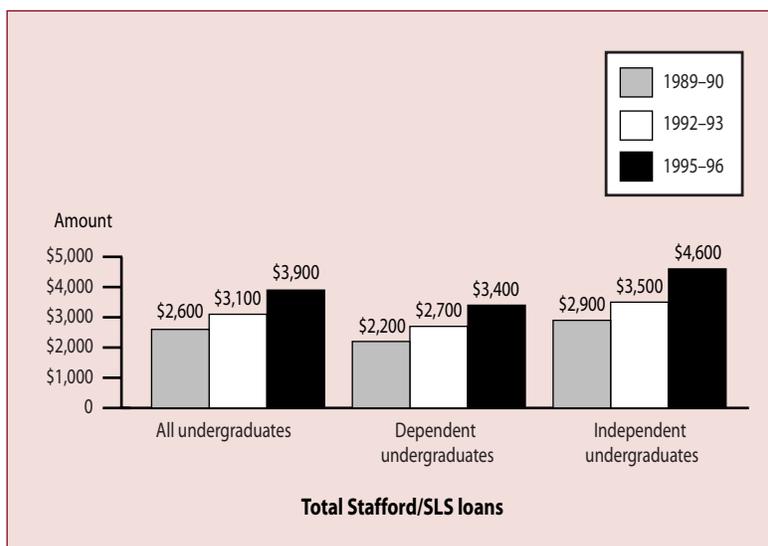
Between 1992–93 and 1995–96, borrowing rates increased substantially among dependent students, rising from 20 to 29 percent. When unsubsidized loans were generally available to dependent students in 1995–96, 9 percent of all dependent students obtained them. In 1995–96, about one-third of the dependent borrowers had unsubsidized loans, either alone (16 percent) or combined with a subsidized loan (15 percent) (figure C). The proportion of dependent

**Figure A.—Percentage of all undergraduates receiving subsidized and unsubsidized Stafford loans or Supplemental Loans to Students (SLS) in 1989–90, 1992–93, and 1995–96**



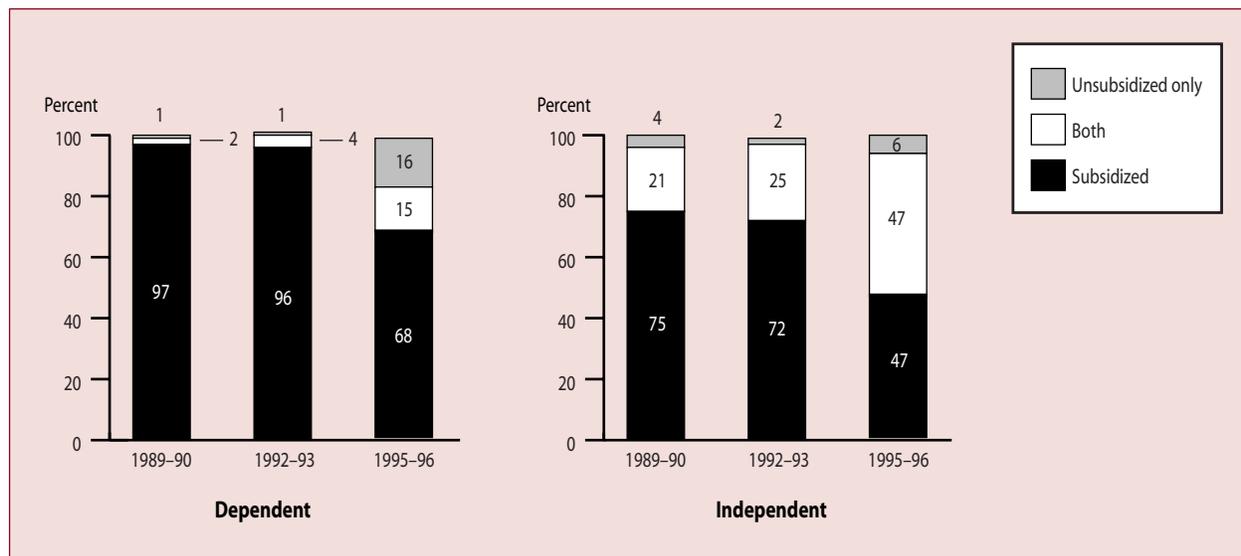
SOURCE: U.S. Department of Education, National Center for Education Statistics, 1989–90, 1992–93, and 1995–96 National Postsecondary Student Aid Study (NPSAS:1990, NPSAS:1993, and NPSAS:1996).

**Figure B.—Average amount of total Stafford loans or Supplemental Loans to Students (SLS) received by dependent and independent undergraduates in 1989–90, 1992–93, and 1995–96**



SOURCE: U.S. Department of Education, National Center for Education Statistics, 1989–90, 1992–93, and 1995–96 National Postsecondary Student Aid Study (NPSAS:1990, NPSAS:1993, and NPSAS:1996).

**Figure C.—Percentage distribution of undergraduate Stafford/Supplemental Loans to Students (SLS) recipients with subsidized, unsubsidized, or a combination of both loans, by dependency in 1989–90, 1992–93, and 1995–96**



SOURCE: U.S. Department of Education, National Center for Education Statistics, 1989–90, 1992–93, and 1995–96 National Postsecondary Student Aid Study (NPSAS:1990, NPSAS:1993, and NPSAS:1996).

student borrowers with unsubsidized loans increased at higher family income levels. Among the borrowers in the highest income quartile, two-thirds received unsubsidized loans, compared with just 13 percent of the borrowers in the lowest income quartile. One-half of the borrowers in the highest income quartile received only unsubsidized loans, which means that they did not qualify for the need-based loans.

The changes in the loan programs and federal need analysis allowed for increased participation in the Stafford loan program by dependent students at the middle and higher income levels. Between 1989–90 and 1992–93, before the changes in the loan programs, borrowing rates had increased only in the lowest income quartile (figure D). After the changes, there was no further increase in the lowest income quartile, but there were higher borrowing rates of subsidized loans in the second income quartile, of both subsidized and unsubsidized loans in the third income quartile, and of unsubsidized loans in the highest income quartile.

The average loan received by dependent students increased by \$500 (from \$2,200 to \$2,700) from 1989–90 to 1992–93, before the loan limits were raised. In that period, the percentage of dependent borrowers with the maximum loan amounts increased from one-third to one-half. Between 1992–93 and 1995–96, when the loan limits were higher and those who did not qualify for the maximum subsidized

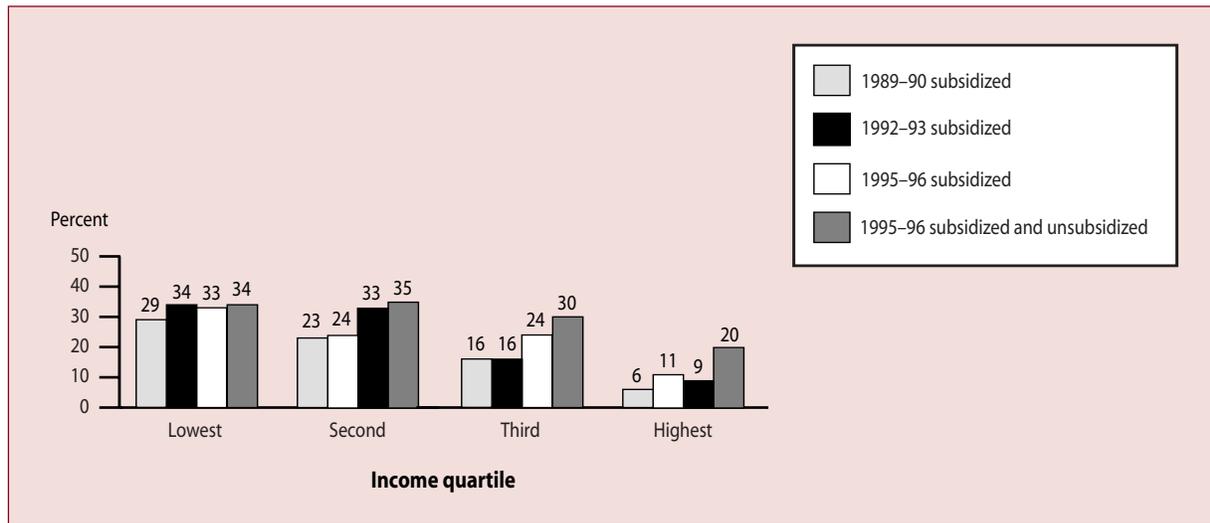
loan could supplement it with an unsubsidized loan, the average total loan increased again, by \$700, to \$3,400. The percentage borrowing the maximum amount rose to nearly 60 percent.

### Independent borrowers

Although unsubsidized loans had been generally available to independent students in 1989–90 and 1992–93, the percentage obtaining them doubled in 1995–96 (from 5 percent to 11 percent). In the earlier years, about one-fourth of the independent student borrowers had unsubsidized loans, usually in combination with subsidized loans. In 1995–96, this proportion had doubled, and one-half of the independent student borrowers now had unsubsidized loans (figure C). Independent borrowers in the highest income quartile were the most likely to take out unsubsidized loans, either alone (27 percent) or in combination with a subsidized loan (44 percent). However, about one-half of the borrowers in the other three income quartiles also obtained unsubsidized loans, usually in combination with subsidized loans.

Because independent students could receive a combination of subsidized and unsubsidized loans with higher limits, their average loan amounts were higher than those of dependent students in all 3 years (figure B). However, independent students did not typically borrow as much as the loan limits. About one-half of the independent students borrowed the maximum subsidized amounts (which were

**Figure D.—Percentage of all dependent undergraduates receiving Stafford loans or Supplemental Loans to Students (SLS), by family income quartiles in 1989–90, 1992–93, and 1995–96**



SOURCE: U.S. Department of Education, National Center for Education Statistics, 1989–90, 1992–93, and 1995–96 National Postsecondary Student Aid Study (NPSAS:1990, NPSAS:1993, and NPSAS:1996).

interest-free while enrolled) in all 3 years. The percentage who borrowed the maximum combined total (up to \$8,000 before 1993–94, then up to \$10,500) was much lower, but it did increase from just 3 percent in 1989–90 to 13 percent in 1995–96.

The large increase in the proportion of independent student borrowers who took out unsubsidized loans in addition to subsidized loans (from about one-fourth in 1992–93 to about one-half in 1995–96) may be related in part to the organizational changes in the Stafford loan program. Unsubsidized loans were available to independent students in 1992–93 and earlier through the SLS program, but required filing a separate application in addition to the application for a subsidized Stafford loan. When unsubsidized loans became available through the same Stafford loan program, they were processed as part of the same application used for subsidized loans, and applicants were notified of the amount of unsubsidized loans for which they qualified.

### **Borrowing at different types of institutions**

In any particular year, borrowing rates reflected differences in the average tuition levels at public 2-year, public 4-year, and private not-for-profit 4-year institutions. Students were least likely to borrow at relatively low-tuition public 2-year (community) colleges, more likely to borrow at public 4-year institutions where average tuition is about three times higher, and even more likely to borrow at private not-for-

profit 4-year institutions where average tuition is about three times higher than at public 4-year institutions. The highest borrowing rates in all 3 years were among students at private for-profit institutions, which charged relatively high tuition and also enrolled large proportions of low-income students attending full time.

The percentage of all undergraduates with Stafford/SLS loans at public 2-year institutions remained low (6 percent or less) in all 3 years, although there was an increase in the percentage of full-time, full-year students obtaining loans (from 9 percent in 1989–90 to 15 percent in 1995–96). At the private for-profit institutions, the borrowing rates dropped between 1989–90 and 1992–93, but remained higher than in all other sectors (about 50 percent of all students borrowed). As a result of regulatory changes that restricted participation in the Stafford loan program of institutions with high default rates, the proportion of student borrowers attending private for-profit institutions dropped from 29 percent in 1989–90 to 12 percent in 1995–96.

At the 4-year colleges and universities, there was a large growth in the percentage of all undergraduates borrowing between 1992–93 and 1995–96, both at the public institutions (from 23 percent to 35 percent) and at the private not-for-profit institutions (from 33 percent to 43 percent). In 1995–96, about 70 percent of all undergraduates receiving Stafford loans were attending 4-year institutions (45 percent

at public and 26 percent at private not-for-profit institutions).

**Tuition and borrowing at 4-year institutions**

At the public 4-year institutions, the average tuition for full-time, full-year undergraduates increased by \$800 between 1989–90 and 1992–93 (from \$2,200 to \$3,000), and by another \$800 in 1995–96 (to \$3,800). The change in the percentage of full-time, full-year dependent students with Stafford/SLS loans was 6 percentage points in the first period (from 18 to 24 percent), and then 15 percentage points in the second period (from 24 to 39 percent). The average loan increased by \$600 in the first period (from \$2,100 to \$2,700), and then by \$1,000 in the second period (from \$2,700 to \$3,700). The increases in tuition were the same in both periods, but the increases in borrowing were much greater in the second period. Borrowing increases and tuition increases were not proportional, in part because there were more restrictions on participation in the loan programs during the first period than during the second one.

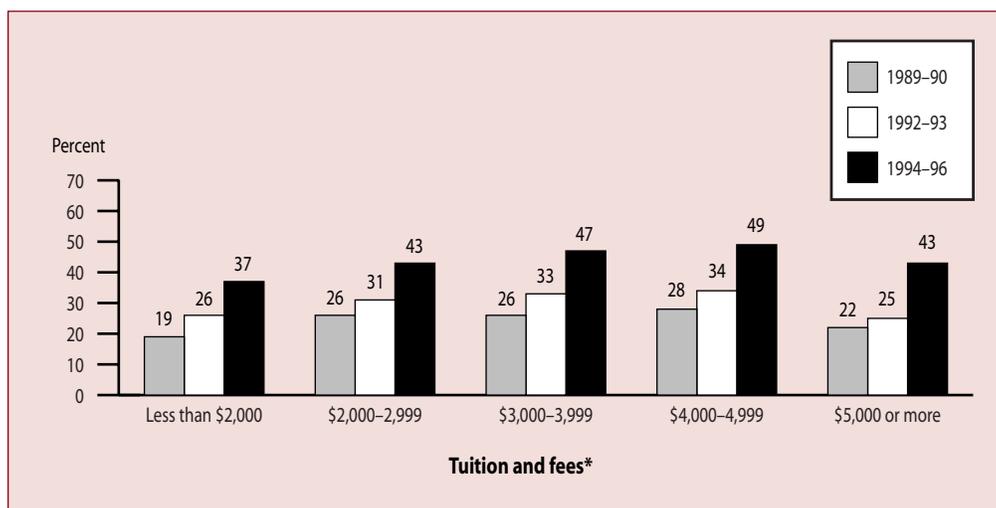
Over the 6-year period, the borrowing rates of full-time, full-year undergraduates at public 4-year institutions did not vary directly with tuition levels (figure E). The percent-

age of students borrowing was about the same at all levels of tuition in each of the 3 years. Borrowing rates of students increased to similar levels no matter what the level of tuition was.

A similar pattern is found among full-time, full-year undergraduates at private not-for-profit 4-year institutions. Average tuition was \$8,900, \$11,100, and \$12,600 in the 3 years, respectively. While the tuition increase was greater between 1989–90 and 1992–93 than between 1992–93 and 1995–96, borrowing rates and average loan amounts were greater in the second period. There was also no direct relationship between borrowing rates and the level of tuition within each academic year. With some exceptions, borrowing rates increased to similar levels whether tuition was relatively low or relatively high.

The annual increases in the size of loans resulted in much higher total cumulative amounts for college seniors at both types of 4-year institutions. Between 1992–93 and 1995–96, the cumulative loan amount for 4th- and 5th-year undergraduates at public 4-year institutions grew from \$7,000 to \$11,000. At private not-for-profit 4-year institutions, the cumulative loan amount for seniors grew from \$9,000 in 1992–93 to \$13,100 in 1995–96.

**Figure E.—Percentage of full-time, full-year undergraduates receiving Stafford loans or Supplemental Loans to Students (SLS), by tuition and fees charged in 1989–90, 1992–93, and 1995–96: Public 4-year institutions**



\*Tuition amounts for students in public 4-year institutions include out-of-state students who are usually charged higher tuition.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1989–90, 1992–93, and 1995–96 National Postsecondary Student Aid Study (NPSAS:1990, NPSAS:1993, and NPSAS:1996).

## Summary

The changes in the loan programs and federal need analysis resulting from the 1992 Reauthorization allowed for increased participation of middle- and higher income dependent students in the Stafford loan program and for borrowing larger amounts. Undergraduates who were independent students took out larger loans, primarily because of a large increase in the proportion of borrowers who obtained unsubsidized loans in addition to their subsidized ones. The increase in unsubsidized loans to independent students was facilitated when the separate SLS program was replaced by unsubsidized loans available through the Stafford program in the same loan application process.

The level of student borrowing at the different types of institutions was directly related to the average level of tuition (with the exception of the private for-profit institutions). However, the relationship between tuition levels and borrowing within types of institutions was not as direct as these general patterns suggest. Within both public and

private not-for-profit 4-year institutions, the borrowing rates of full-time, full-year undergraduates did not vary directly with tuition levels. In fact, over the 6-year period, with a few exceptions, borrowing rates increased to similar levels over time at nearly all tuition levels.

## Reference

The College Board. (1998). *Trends in Student Aid 1998*. Washington, DC: Author.

**Data sources:** The NCES 1989–90, 1992–93, and 1995–96 National Postsecondary Student Aid Study (NPSAS:1990, NPSAS:1993, and NPSAS:1996).

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

Berkner, L. (1999). *Trends in Undergraduate Borrowing: Federal Student Loans in 1989–90, 1992–93, and 1995–96* (NCES 2000–151).

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# Salary, Promotion, and Tenure Status of Minority and Women Faculty in U.S. Colleges and Universities

Michael T. Nettles, Laura W. Perna, and Ellen M. Bradburn

*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 NCES National Study of Postsecondary Faculty (NSOPF).*

This report examines differences among postsecondary faculty members by gender and by race/ethnicity. Comparisons were made on several human capital (e.g., education and experience) and structural (e.g., academic discipline and institution type) variables as well as faculty outcomes (salary, tenure, and rank). A multivariate analysis of factors associated with salary was also conducted. Male faculty in this group were compared to female faculty, and comparisons were also made among four racial/ethnic groups: black, non-Hispanic; white, non-Hispanic; Hispanic; and Asian/Pacific Islander.

Generated from the 1993 National Study of Postsecondary Faculty (NSOPF:1993), the analyses presented in this report are based on U.S. citizens with faculty status at 2- and 4-year (and above) institutions who indicated that their primary activity in the fall of 1992 was teaching. Most analyses were also restricted to full-time faculty members. NSOPF:1993 is the second in a series of surveys on faculty conducted by the U.S. Department of Education, National Center for Education Statistics (NCES).

## Differences Between Male and Female Faculty Members

### Differences in faculty outcomes by gender

There were several differences between male and female faculty members in the levels of faculty outcomes such as salary, tenure, and rank. Female full-time faculty averaged lower salaries than male faculty by about \$10,000 in the fall of 1992 (figure 1). They were also less likely to be tenured (42 vs. 66 percent) or to be full professors (15 vs. 39 percent).

### Differences in human capital by gender

Age, education, and experience also differed by gender among these postsecondary faculty. Female full-time faculty were younger than their male counterparts and had lower educational levels and less experience. For example, about 40 percent of female faculty, compared to 58 percent of male faculty, held a doctorate (figure 2), and female faculty averaged 3 fewer years in their current rank than male faculty did.

Male and female faculty also engaged in different professional activities. Female full-time faculty spent larger shares of their time in teaching or service activities, and smaller proportions in research or administrative activities, than male faculty. For example, about 51 percent of female full-time faculty spent at least three-quarters of their time in teaching activities, compared to 37 percent of men; male faculty averaged 15 percent of their time on research activities, compared to 10 percent for female faculty.

### Difference in structural factors by gender

Male and female faculty also worked in different types of institutions and fields. Among full-time faculty, women were more likely than men to work in 2-year institutions (33 vs. 23 percent), while men were more likely than women to work in research universities (20 vs. 14 percent). Among full-time faculty, men were at least twice as likely as women to teach engineering (6 vs. 1 percent), history and philosophy (6 vs. 3 percent), physical sciences (7 vs. 2 percent), and occupational programs (5 vs. 2 percent).

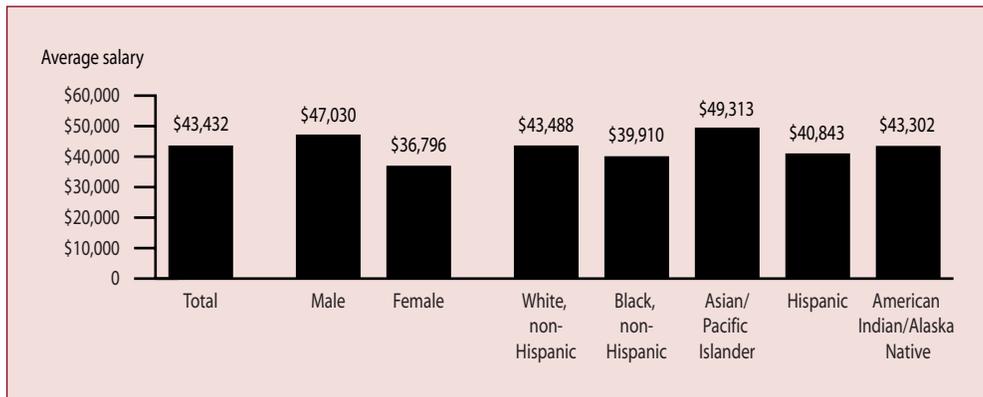
### Multivariate analysis of salary differences by gender

Many of the human capital and structural characteristics, however, may themselves be associated with faculty outcomes such as salary, so the male-female differences in salary may be accounted for by controlling for such factors. This possibility was explored with a multivariate regression analysis of the relationship of salary to a variety of human capital and structural factors; even when comparing male and female faculty with similar characteristics, however, female full-time faculty had lower average base salaries than their male counterparts.

### Differences Among Racial/Ethnic Groups

The report also considered differences among racial/ethnic groups in faculty outcomes and human capital and structural factors. In some cases, these results are easy to summarize. In faculty outcomes, for example, white faculty generally had higher salaries and were more likely to be tenured and to be full professors than black faculty. For other areas, the racial/ethnic differences are more complex and do not demonstrate consistent patterns.

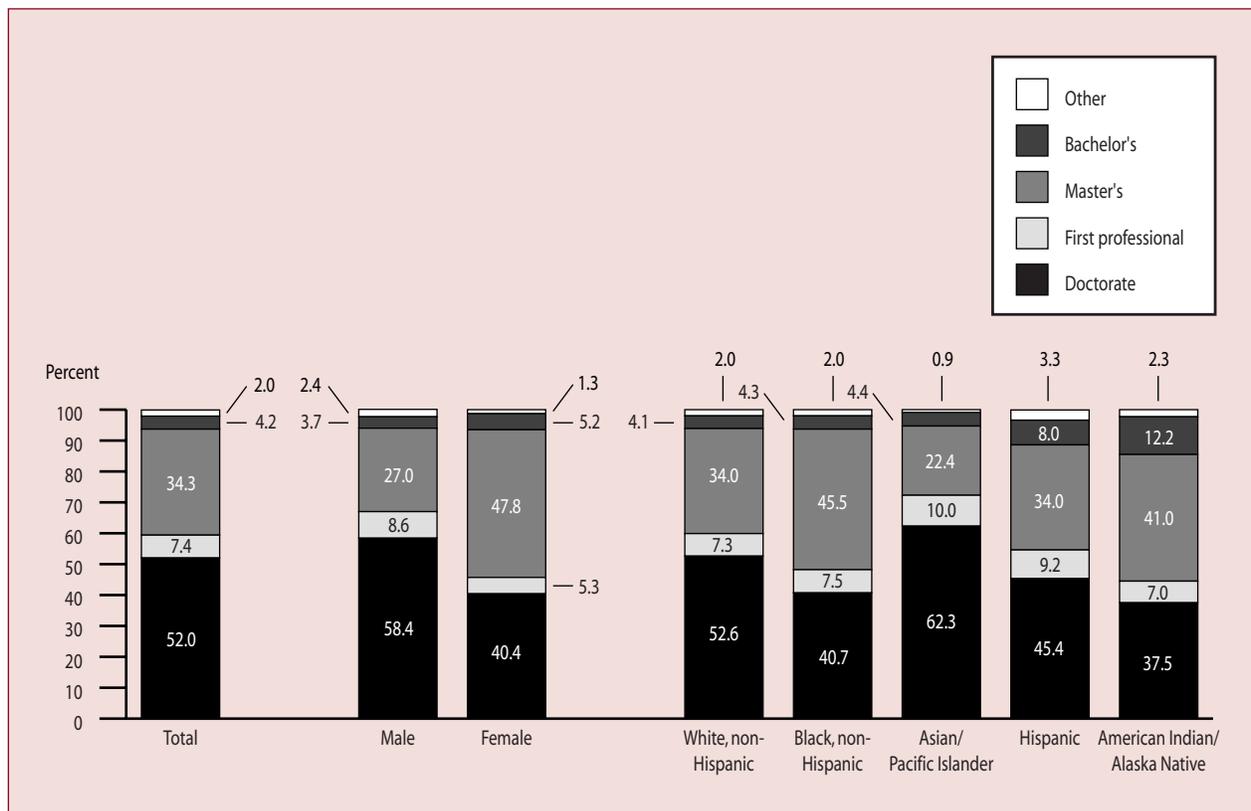
**Figure 1.—Average base salary of full-time faculty whose primary responsibility is teaching, by gender and race/ethnicity: Fall 1992**



NOTE: Includes U.S. citizens only. Also excluded are respondents with base salaries greater than \$400,000.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1993 National Study of Postsecondary Faculty (NSOPF:1993).

**Figure 2.—Percentage distribution of full-time faculty whose primary responsibility is teaching according to highest degree attained, by gender and race/ethnicity: Fall 1992**



NOTE: Includes U.S. citizens only.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1993 National Study of Postsecondary Faculty (NSOPF:1993).

### Differences in faculty outcomes by race/ethnicity

The first area of inquiry was faculty outcomes such as salary, tenure, and rank. Black, non-Hispanic full-time faculty were less likely than white, non-Hispanic faculty members to have higher salaries (figure 1), tenure, and full professorships. For example, 48 percent of black faculty members compared to 58 percent of white faculty members were tenured in the fall of 1992. Asian/Pacific Islander faculty generally had higher salaries and were more likely to be tenured and to be full professors than white, black, or Hispanic faculty. Hispanic faculty did not differ significantly from either whites or blacks on these outcomes.

### Differences in human capital by race/ethnicity

In terms of human capital characteristics, black full-time faculty differed from white faculty in level of education in the fall of 1992. For example, 41 percent of blacks had earned doctorates, compared with 53 percent of whites (figure 2). White and Asian faculty had more experience than black faculty, and there was some evidence that whites and Asians were also more experienced than their Hispanic counterparts. For example, black and Hispanic full-time faculty were younger, on average, than white and Asian/Pacific Islander full-time faculty. The average age for black and Hispanic faculty was about 47 years old, compared with 49 for white and 50 for Asian/Pacific Islander faculty.

Among work activities, there were more idiosyncratic differences among racial/ethnic groups. There was some evidence that the teaching load for Asian faculty was different from that of Hispanic faculty, while Asian faculty differed from black faculty in the types of research pursued and the time spent in such activities. Asian/Pacific Islander (78 percent) and non-Hispanic white (64 percent) full-time faculty were more likely than black, non-Hispanic faculty members (51 percent) to be engaged in research or similar scholarly activity, although the type of activity pursued did not, in general, vary consistently across racial/ethnic groups. Asian and black faculty were more likely to have no administration time than white faculty, while white and Hispanic faculty averaged more time on service activities than Asian respondents.

### Difference in structural factors by race/ethnicity

In terms of structural factors, there were some differences as well. For example, white faculty (9 percent) were more likely than Asian or Hispanic faculty (5 percent each) to be

found in liberal arts colleges, while Hispanic faculty (42 percent) were more likely than white or Asian faculty (26 and 22 percent, respectively) to teach in 2-year colleges. Otherwise, the distribution of faculty across institution types generally did not vary by race/ethnicity.

Asian/Pacific Islander faculty were more likely than white, black, or Hispanic faculty to work in engineering or in math/computer science. For example, 16 percent of Asian faculty were in engineering, compared to no more than 6 percent of each of the other groups. Non-Hispanic black faculty were more likely than white faculty, who in turn were more likely than Asian faculty, to be employed in education (12 percent for blacks vs. 7 percent for whites and 3 percent for Asians).

Black full-time faculty were more likely than those from any other racial/ethnic group to work in the Southeast, and Hispanic faculty were more likely than the other three racial/ethnic groups to work in the Southwest. Hispanic and Asian faculty were at least twice as likely as non-Hispanic blacks and whites to work in the far western region of the United States (27 percent each for Hispanic and Asian faculty compared with 8 percent and 13 percent, respectively, for black and white faculty).

### Multivariate analysis of salary differences by race/ethnicity

When comparing faculty members with similar human capital and structural characteristics, as well as similar tenure and rank, faculty of different racial/ethnic groups received similar salaries. However, as shown above, many differences do exist among faculty of different racial/ethnic groups in such background and structural characteristics.

**Data source:** The NCES 1993 National Study of Postsecondary Faculty (NSOPF:1993).

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

Nettles, M.T., Perna, L.W., and Bradburn, E.M. (2000). *Salary, Promotion, and Tenure Status of Minority and Women Faculty in U.S. Colleges and Universities* (NCES 2000-173).

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# 2-Year College Faculty

## Instructional Faculty and Staff in Public 2-Year Colleges

James C. Palmer

*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 NCES National Study of Postsecondary Faculty (NSOPF).*

### Introduction

Results from the 1993 National Study of Postsecondary Faculty (NSOPF:1993) reveal that there were approximately 275,000 instructional faculty and staff members at the nation's public 2-year colleges during the fall of 1992. This group represents 30 percent of the total instructional faculty and staff employed by colleges and universities nationwide. Teaching was the primary responsibility of most instructional faculty and staff in public 2-year colleges. Of the 255,000 instructional faculty and staff in public 2-year colleges whose primary responsibility was teaching for credit during the fall of 1992, 38 percent were employed full time and 62 percent were employed part time (figure A).

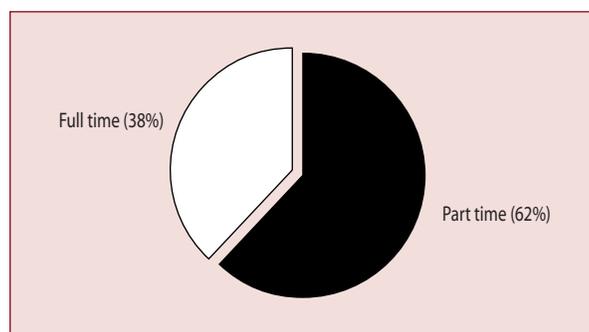
Previous NSOPF analyses have compared faculty and staff in the public 2-year sector with faculty and staff in other sectors. This report, however, uses selected findings from NSOPF:1993 to examine differences between subgroups of faculty and staff *within* the public 2-year sector. It compares the backgrounds, teaching methods, and career lives of instructional faculty and staff who vary in terms of age, years of experience in their current jobs, and primary teaching discipline. These comparisons show how those who are relatively new entrants to the teaching ranks at public 2-year colleges may differ from their older and more experienced colleagues. They also describe the instructional

faculty and staff at public 2-year colleges as members of disciplinary subcultures.

Primary teaching discipline was included as a key point of comparison, because prior studies have occasionally revealed differences across disciplines in the academic work of community college faculty members. The decision to examine differences by age reflects contemporary concern about the impending turnover of a gradually aging faculty. As for institutional impact on faculty work, few published studies have examined differences between community college faculty members with varying years of experience on the job. Yet the question of institutional influence on instructional faculty and staff is a contentious one. Many community college leaders have long asserted that strong faculty ties to the discipline must be discouraged in deference to the institution's student-focused mission. This report provides a first national look at diversity within the public 2-year sector, offering baseline data that may be used as points of comparison with data from future cycles of NSOPF.

In recognition of the different professional ties that full- and part-time faculty may have with the community college enterprise, separate profiles are developed for full- and part-time instructional faculty and staff for whom teaching in

**Figure A.—Percentage distribution of instructional faculty and staff whose primary responsibility was teaching for credit, by employment status in public 2-year colleges: Fall 1992**



SOURCE: U.S. Department of Education, National Center for Education Statistics, 1993 National Study of Postsecondary Faculty (NSOPF:1993).

credit classes was the primary responsibility during the fall of 1992. Each profile looks at several characteristics of instructional faculty and staff in public 2-year colleges, including their demographic characteristics, their education and employment histories, the percentages holding jobs outside of their colleges, and the type of work those outside jobs entail. The profiles include measures of instructional workload and insights into the approaches instructional faculty and staff use to teach classes and assess student work. (Of particular interest here is the extent to which instructional faculty and staff involve students in classroom activities, as opposed to primarily lecturing, and the extent to which they require written assignments.) Selected attitudes about the profession also are examined, as are self-perceptions about the likelihood of accepting another job.<sup>1</sup> Some of the findings are listed below.

## Findings

On average, the full-time instructional faculty or staff members<sup>2</sup> at public community colleges worked just under 47 hours per week; taught 4.5 credit classes, for a total of 13 classroom credit hours; spent 17 hours per week teaching credit classes; and instructed a total of 103 students in credit classes.

Twenty-eight percent of full-time instructional faculty and staff reported at least some type of employment outside of their colleges. Of those who had outside employment, 26 percent reported that teaching was the primary activity in those jobs, and 18 percent indicated that they were employed at other postsecondary institutions. Surprisingly, 13 percent of those with outside employment characterized their second jobs as full time.

On average, the part-time instructional faculty and staff members at public community colleges worked a total of 33 hours per week, of which 11 were for paid activities at the college. In addition, part-time instructional faculty and staff at public 2-year colleges taught an average of 2.1 credit classes, for a total of 5.8 classroom credit hours; spent 8 hours per week teaching credit classes; and instructed a total of 42 students in credit classes.

Most of the part-time instructional faculty and staff (79 percent) held other jobs outside of their colleges. When

asked about the primary responsibility of their outside work, 38 percent reported that their outside job entailed teaching. Eighteen percent of those with outside employment indicated that they worked at another postsecondary institution. Others were self-employed (18 percent); or worked in hospitals, foundations, or government agencies (22 percent); for-profit businesses (16 percent); or “other” agencies (26 percent). About two-thirds of those with outside employment indicated that their other employment entailed full-time work.

Characteristics of instructional faculty and staff in this report were looked at by age (those under 35 vs. those between the ages of 35 and 64), by years of experience in current teaching position (under 10 years vs. 20 or more years), and by primary teaching field. Seven disciplinary groups were used to compare instructional faculty and staff by primary teaching field: (1) business, law, and communications; (2) health sciences; (3) humanities; (4) natural sciences and engineering; (5) social sciences and education; (6) vocational training; and (7) all other areas. Figure B shows the percentage distribution of instructional faculty and staff by each of these three characteristics.

## Differences by age

There were two major differences between instructional faculty and staff at public 2-year colleges who were under the age of 35 and those who were between the ages of 35 and 64 in the fall of 1992. The first is clear: the two groups represent individuals who were at different stages of their careers. Younger teachers are still developing careers that their older colleagues have long since established. This emerges in the findings that, regardless of employment status (full time or part time), younger teachers were more likely to hold only a baccalaureate or less as the highest earned credential and more likely to accept the possibility of moving on to another full-time job.

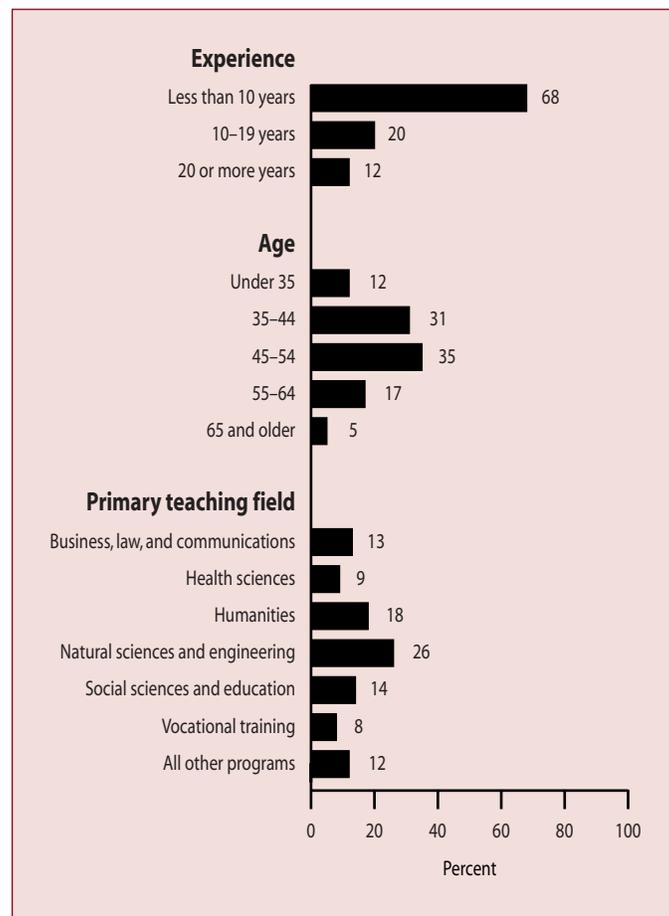
The second major difference lies in the employment histories of the two groups. For example, among full-time faculty, the younger teachers were more likely than their older colleagues to indicate that they had held other jobs since earning their highest credential (figure C). Among part-time faculty, younger teachers were more likely to indicate that they accepted part-time work because full-time work was unavailable.

The proportion of women among full-time instructional faculty and staff under the age of 35 was greater than the

<sup>1</sup>The specific variables used are described in the Technical Notes to the complete report. Each variable should be considered a proxy measure for the larger construct it represents.

<sup>2</sup>The terms “faculty,” “instructional faculty and staff,” and “instructional faculty and staff whose primary responsibility was teaching” are used interchangeably in this report.

**Figure B.—Percentage distribution of instructional faculty and staff in public 2-year colleges, by years of experience on current job, age, and primary teaching field: Fall 1992**



SOURCE: U.S. Department of Education, National Center for Education Statistics, 1993 National Study of Postsecondary Faculty (NSOPF:1993).

proportion of women among those between the ages of 55 and 64 (48 vs. 31 percent). But this was not the case for part-time instructional faculty and staff. And, regardless of employment status (full time vs. part time), instructional faculty and staff in the two age groups did not differ in terms of race/ethnicity, workload, instructional methods used, engagement in nonteaching professional activities, perceptions of career opportunities for junior faculty, and willingness to choose an academic career were they to “do it all over again.”

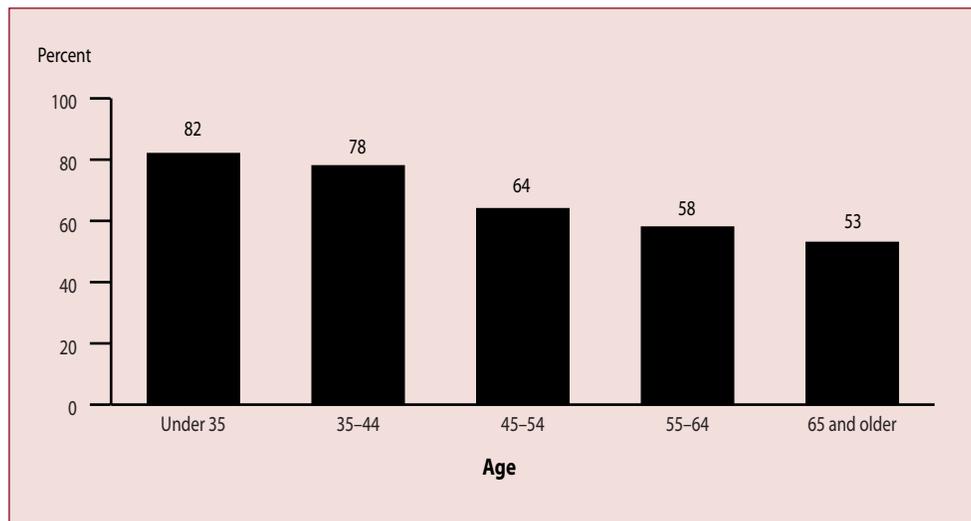
#### **Differences by years in current job**

Some of the differences between those who had held their current jobs for less than 10 years and those who had held their jobs for 20 or more years mirror the differences between younger and older colleagues. For example, instructional faculty and staff who had held their jobs for 10

or fewer years were *less* likely than those who had been on the job for 20 or more years to hold a postbaccalaureate degree (table A). In addition, they were more likely to accept the possibility of seeking other employment. These differences apply to both full- and part-time faculty.

Analyses of responses from the full-time instructional faculty and staff revealed differences that did not emerge in the age comparisons. In contrast to full-time faculty who had held their jobs for less than 10 years, those with 20 or more years of experience in the same full-time job worked fewer hours per week but taught, on average, greater numbers of students. Full-time teachers who were in the same job for 20 or more years were also less likely to have required student presentations, to have used computer-assisted instruction, or to have required students to evaluate each other's work.

**Figure C.—Percentage of full-time instructional faculty and staff in public 2-year colleges who have held other jobs since earning their highest credential, by age: Fall 1992**



SOURCE: U.S. Department of Education, National Center for Education Statistics, 1993 National Study of Postsecondary Faculty (NSOPF:1993).

**Table A.—Number and percentage distribution of instructional faculty and staff at public 2-year colleges, by highest educational credential attained, employment status, and years of experience on current job: Fall 1992**

Employment status and years of experience on current job	Instructional faculty and staff* (in thousands)	Highest credential attained (percent)		
		Bachelor's or less*	Master's degree	Ph.D. or first professional
<b>Total full time</b>	<b>94.9</b>	<b>17.5</b>	<b>63.7</b>	<b>18.8</b>
Years of experience on current job				
Less than 10 years	46.0	21.6	60.8	17.6
10-19 years	25.8	19.2	63.6	17.3
20 or more years	23.2	7.5	69.6	22.9
<b>Total part time</b>	<b>153.1</b>	<b>33.3</b>	<b>53.3</b>	<b>13.4</b>
Years of experience on current job				
Less than 10 years	122.2	34.6	52.6	12.9
10-19 years	24.5	29.7	55.1	15.2
20 or more years	6.4	22.4	60.0	17.6

\*Includes only instructional faculty and staff who held a postsecondary credential.

NOTE: Percentages may not add to 100 because of rounding.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1993 National Study of Postsecondary Faculty (NSOPF:1993).

**Table B.—Number and percentage of instructional faculty and staff who taught credit classes at public 2-year colleges, by their use of various instructional methods in their classes, employment status, and primary teaching field: Fall 1992**

Employment status and primary teaching field	Instructional faculty and staff* (in thousands)	Percent using method in some or all classes		
		Essay mid-terms or finals	Term/research papers	Student evaluations
<b>Total full time</b>	<b>94.9</b>	<b>53.5</b>	<b>49.3</b>	<b>38.1</b>
Primary teaching field				
Business, law, and communications	11.1	57.4	51.3	34.0
Health sciences	12.6	27.5	44.8	34.2
Humanities	16.9	83.2	68.3	63.1
Natural sciences and engineering	23.1	40.7	32.1	17.8
Social sciences and education	12.2	64.7	62.2	37.7
Vocational training	8.8	41.7	34.6	34.2
All other programs	9.5	54.3	54.2	54.2
<b>Total part time</b>	<b>154.9</b>	<b>47.0</b>	<b>40.9</b>	<b>34.7</b>
Primary teaching field				
Business, law, and communications	22.4	46.3	39.5	31.2
Health sciences	9.8	32.1	44.2	28.0
Humanities	28.4	73.1	57.7	62.7
Natural sciences and engineering	40.7	29.3	20.4	16.5
Social sciences and education	20.9	58.1	59.6	32.6
Vocational training	11.9	40.3	34.9	30.9
All other programs	19.1	44.0	44.8	45.9

\*Includes only instructional faculty and staff who taught credit classes.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1993 National Study of Postsecondary Faculty (NSOPF:1993).

### Differences by primary teaching field

Comparisons by primary teaching field suggest the presence of disciplinary subcultures within the community college professoriate. One contrast can be seen in the differing educational and employment backgrounds of instructional faculty and staff in the vocational training category and in the humanities. Regardless of employment status (full time vs. part time), vocational teachers were less likely than their colleagues in the humanities to hold a graduate degree or to report that their most recent previous jobs entailed teaching at a postsecondary institution. These two groups, then, appear to represent opposite ends of a disciplinary continuum ranging from those with relatively strong professional ties to academe to those whose professional orientations are often forged in employment arenas outside of academe.

Teachers in the humanities also stood out in terms of approaches to instruction. Regardless of employment status, they were more likely than teachers in the other instructional groups to have used essay examinations, to have assigned term papers,<sup>3</sup> or to have required students to

<sup>3</sup>Among part-time teachers, those in social sciences and education were as likely as those in the humanities to have assigned term papers.

evaluate each other's work (table B). They also were more likely to have employed the seminar method or to have used discussion, role-playing, group projects, or cooperative learning techniques as the primary instructional method.

In contrast, instructional faculty and staff in the natural sciences were more likely than colleagues in the other disciplinary categories to have employed lecture as the primary instructional technique. Full-time instructional faculty and staff teaching the natural sciences were less likely than their full-time colleagues in any of the other categories (except vocational training) to have used student presentations in all classes and more likely to have reported that they used student presentations in no classes. They also were more likely than full-time faculty in any of the other categories to indicate that they never ask students to evaluate each other's work.

### Conclusion

The survey data reported here point to the slowly changing nature of the community college enterprise.<sup>4</sup> The

<sup>4</sup>Time series data would offer much more reliable assessments of the changing nature of the community college enterprise. Absent those data, however, years of experience on the job and age can serve as proxies. In addition, the data presented in this report will serve as a base of comparison for data collected in NSOPF:1999.

emergence of a new generation of teachers replacing those who began their careers in the 1960s and early 1970s portends no watershed change in teaching method. In contrast to comparisons between instructional faculty and staff teaching different subject areas, relatively few relationships emerged between length of time in the current job and instructional method. It was the discipline that appeared to be related to instructional method, especially in terms of literacy (as reflected in the assignment of term papers or the use of written examinations) and student involvement in classroom instruction (as reflected in the use of teacher lectures).

**Data source:** The NCES 1993 National Study of Postsecondary Faculty (NSOPF:1993).

**For technical information,** see

Selfa, L.A., Suter, N., Myers, S., Koch, S., Johnson, R.A., Zahs, D.A., Kuhr, B.D., and Abraham, S.Y. (1997). *1993 National Study of Postsecondary Faculty (NSOPF:1993) Methodology Report* (NCES 97-467).

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# Undergraduate Instruction

## Instructional Faculty and Staff in Higher Education Institutions Who Taught Classes to Undergraduates: Fall 1992

Xianglei Chen

*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 NCES National Study of Postsecondary Faculty (NSOPF).*

As college costs have escalated in recent years, concern about the quality of undergraduate education has intensified. Some concerns focus on what is being taught (e.g., Bloom 1987), while others emphasize who is doing the teaching (e.g., Huber 1992). The latter concern, which is the focus of this report, has become prominent because of the widespread perception that undergraduate students are increasingly taught by part-time, junior, or nontenure-track faculty and that senior and experienced professors care little about undergraduate education (Boyer Commission 1998). Despite the considerable attention that both the higher education community and the media have recently paid to this concern, little information at the national level has been obtained regarding who teaches undergraduates in U.S. higher education institutions and what their teaching loads are.

Using data from the 1993 National Study of Postsecondary Faculty (NSOPF:1993), the purpose of this study was to determine the extent to which instructional faculty and staff of higher education institutions are involved in undergraduate teaching.<sup>1</sup> Specifically, it addressed the following two questions: (1) Who teaches undergraduates in the classroom? and (2) How much do they teach? The findings are based on a nationally representative sample of instructional faculty and staff who provided classroom instruction for credit to undergraduates in the fall of 1992.<sup>2</sup>

### Instructional Faculty and Staff Who Taught Classes for Credit to Undergraduates

In the fall of 1992, a vast majority (86 percent) of instructional faculty and staff employed in higher education institutions provided classroom instruction to undergradu-

ates for credit (figure A). Their high involvement in undergraduate teaching not only was evident in 2-year institutions, where all instructional faculty and staff reported teaching classes for credit to undergraduates, but also was apparent in 4-year institutions. For example, 89 percent of instructional faculty and staff at 4-year nondoctoral institutions and 67 percent at 4-year doctoral institutions reported teaching at least one class for credit to undergraduates in fall 1992. Because there was no variation among instructional faculty and staff at 2-year institutions regarding who taught undergraduate classes, the analysis in this section excluded these faculty members and focused on only those at 4-year institutions.

While nearly four in five (79 percent) instructional faculty and staff at 4-year institutions reported teaching undergraduates in the classroom in 1992, relatively fewer taught only these students, especially only lower division students (i.e., freshmen and sophomores) (table A). For example, 66 percent of instructional faculty and staff at 4-year institutions reported teaching only undergraduate classes. Of those who reported teaching at least one undergraduate class, one in four (25 percent) reported that all of the classes they taught were at the lower division level.<sup>3</sup> Thus, while most instructional faculty and staff at 4-year institutions who had teaching responsibilities were involved in undergraduate teaching, relatively fewer of them devoted their teaching entirely to undergraduates, particularly at the lower division level.

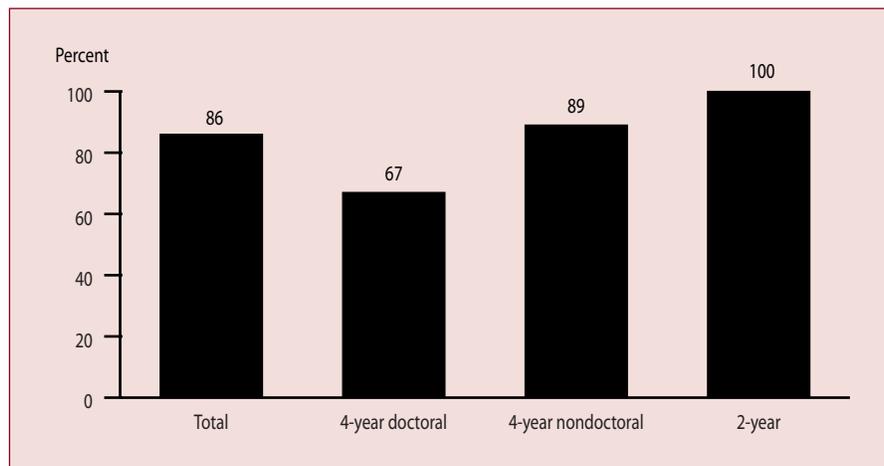
Who taught undergraduates varied considerably among instructional faculty and staff at 4-year institutions. In general, faculty who were employed part time, were female, held a lower academic rank such as instructor or lecturer, worked in a nontenure-track position, had a highest degree below a doctoral or professional degree, and earned a lower salary from their institution were more likely than their counterparts to teach undergraduates, particularly *only* undergraduates or *only* lower division students (table A). The multivariate analysis on who was likely to teach only undergraduate classes further revealed that although the

<sup>1</sup>Using graduate teaching assistants for undergraduate instruction has become increasingly common at U.S. higher education institutions and has recently received much attention from the media (Wilson 1999). Unfortunately, the data used in this report from NSOPF:1993, which excludes teaching assistants, cannot address this issue.

<sup>2</sup>NSOPF:1993 is a study of faculty and instructional staff. In the fall of 1992, there were approximately 1,034,000 faculty and instructional staff employed in U.S. higher education institutions. Of these, about 817,000 reported teaching one or more classes for credit during the fall. These individuals became the base sample of this report, from which those who taught undergraduate classes for credit were identified. Excluded from the sample were faculty and staff who did not teach any classes during the fall (i.e., those engaged exclusively in research, administration, or public service); those who taught only independent study or one-on-one classes; or those who supervised undergraduate or graduate thesis or dissertation work without teaching any class for credit.

<sup>3</sup>Or about 20 percent of instructional faculty and staff who had undergraduate classroom teaching duties reported teaching only lower division classes ( $25 \times 79/100 = 20$  percent).

**Figure A.—Percentage of instructional faculty and staff in higher education institutions who taught at least one class for credit to undergraduates, by type of institution: Fall 1992**



SOURCE: U.S. Department of Education, National Center for Education Statistics, 1993 National Study of Postsecondary Faculty (NSOPF:1993).

**Table A.—Percentage of instructional faculty and staff in all 4-year institutions who taught at least one class for credit to undergraduates, percentage who taught classes for credit to only undergraduates, and of those who taught any undergraduate classes, percentage who taught only lower division classes, by selected characteristics of faculty and staff: Fall 1992**

	Percentage who taught at least one class for credit to undergraduates <sup>1</sup>	Percentage who taught classes for credit to only undergraduates	Of those who taught any undergraduate classes, percentage who taught only lower division classes
Total	78.9	65.8	24.5
Employment status			
Part time	78.6	75.1	38.4
Full time	79.0	61.3	17.9
Gender <sup>2</sup>			
Female	81.8	67.4	20.4
Male	77.9	58.8	16.8
Academic rank <sup>2</sup>			
Instructor or lecturer	89.3	83.4	36.4
Assistant professor	82.2	65.1	16.5
Associate professor	77.6	58.0	14.6
Full professor	74.6	54.1	14.7
Tenure status <sup>2</sup>			
No tenure system	80.3	71.0	28.0
Not on tenure track	79.9	71.1	29.5
On tenure track	80.7	61.0	15.4
Tenured	77.9	58.1	15.2
Highest degree earned <sup>2</sup>			
Degree below doctoral or professional degree	94.7	84.8	27.1
Doctoral or professional degree	74.5	54.5	14.6
Basic salary <sup>2</sup>			
Below \$35,000	92.0	80.3	23.9
\$35,000–\$50,000	84.3	64.0	15.5
Above \$50,000	64.0	44.4	15.0

<sup>1</sup>A maximum of five classes could be reported by respondents.

<sup>2</sup>Part-time instructional faculty and staff were excluded.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1993 National Study of Postsecondary Faculty (NSOPF:1993).

differences between part-time and full-time faculty and between male and female faculty were no longer found when other factors were taken into consideration,<sup>4</sup> academic rank and highest degree earned remained significant factors in determining who teaches undergraduates exclusively (table B). Regardless of the type of 4-year institution, the faculty members' gender, race/ethnicity, age, teaching field, or employment status, those faculty or staff who were instructors, lecturers, and assistant professors were more likely than full professors to teach only undergraduate classes. Faculty who had a highest degree below a doctoral or professional degree were also more likely to teach undergraduates only than those with a doctoral or professional degree.

While senior faculty (i.e., full or associate professors, or tenured faculty) were less likely to provide classroom instruction to undergraduates than were junior faculty (i.e., instructors, lecturers, assistant professors, or faculty working in a nontenure-track position), a majority of senior

faculty were, in fact, involved in undergraduate teaching. For example, at 4-year doctoral institutions, 64 percent of full-time associate professors reported teaching at least one class for credit to undergraduates, as did 61 percent of full-time full professors and 65 percent of full-time tenured faculty (figure B). Moreover, between 38 and 41 percent of these faculty members said that all of the classes they taught were targeted at the undergraduate level. These results seem inconsistent with the perception that at research and doctoral universities, few senior faculty members are involved in undergraduate teaching.

### Undergraduate Teaching Loads of Instructional Faculty and Staff Who Taught One or More Classes for Credit to Undergraduates

In the fall of 1992, instructional faculty and staff<sup>5</sup> in all types of higher education institutions (including 2-year institutions) taught about 2.3 undergraduate classes with a

<sup>4</sup>Tenure status was excluded from the multivariate regression model because of its high correlation with academic rank.

<sup>5</sup>This analysis was restricted to instructional faculty and staff who reported teaching one or more classes for credit to undergraduates. Thus, those who taught classes for credit to graduate students only were excluded.

**Table B.—Unadjusted and adjusted percentages of instructional faculty and staff in all 4-year institutions who taught classes for credit to only undergraduates, by gender, employment status, academic rank, and highest degree earned: Fall 1992**

	Unadjusted percentage	Adjusted percentage <sup>2</sup>
Total	65.8	65.8
Gender		
Female	72.9*	68.0
<i>Male<sup>1</sup></i>	62.0	64.6
Employment status		
Part time	75.1*	64.2
<i>Full time<sup>1</sup></i>	61.3	66.5
Academic rank		
Other ranks or not applicable	73.8*	65.9
Instructor or lecturer	82.7*	73.3*
Assistant professor	65.7*	69.0*
Associate professor	57.9	62.7
<i>Full professor<sup>1</sup></i>	53.9	58.1
Highest degree earned		
Degree below doctoral or professional degree	85.2*	78.5*
<i>Doctoral or professional degree<sup>1</sup></i>	54.8	58.6

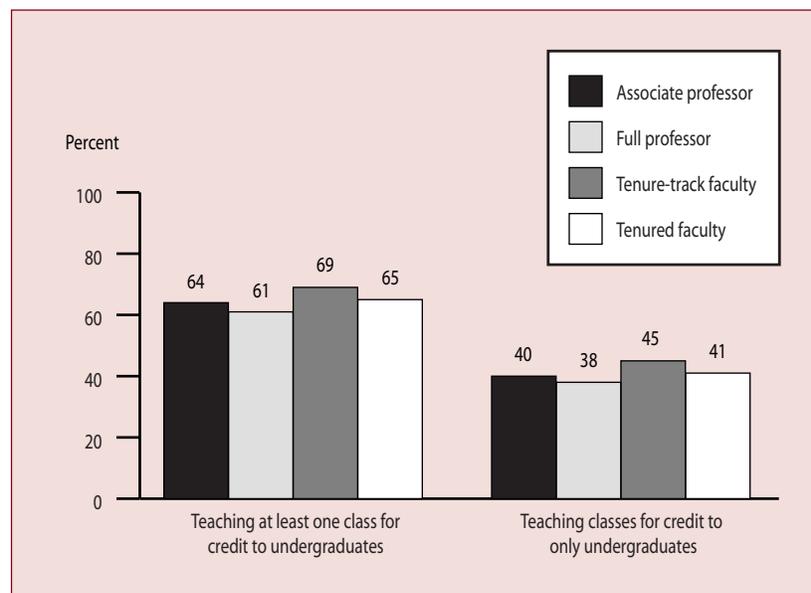
\*p<.05.

<sup>1</sup>The italicized group is the comparison group.

<sup>2</sup>In addition to adjusting for the variables listed in the table, the percentages were also adjusted for type of institution, faculty's age, race/ethnicity, and principal field of teaching.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1993 National Study of Postsecondary Faculty (NSOPF:1993).

**Figure B.—Percentage of full-time instructional faculty and staff in 4-year doctoral institutions who taught at least one class for credit to undergraduates, and percentage who taught classes to only undergraduates, by academic rank and tenure status: Fall 1992**



SOURCE: U.S. Department of Education, National Center for Education Statistics, 1993 National Study of Postsecondary Faculty (NSOPF:1993).

total of 8 credit hours (table C). In each undergraduate class taught, they had about 30 students. Overall, they spent 10 hours per week in the classroom teaching undergraduates and had a total of 272 undergraduate student contact hours per week.

Undergraduate teaching loads were not uniformly distributed across institutions. For example, full-time instructional faculty and staff at 4-year doctoral institutions had lighter undergraduate teaching loads than their full-time colleagues at 4-year nondoctoral institutions, who, in turn, had lighter undergraduate teaching loads than those who taught full time at 2-year institutions (table C). In addition, with a few exceptions, full-time senior faculty (i.e., full or associate professors, or tenured faculty) tended to teach larger but fewer undergraduate classes, whereas full-time junior faculty (i.e., instructors, lecturers, or assistant professors, or those working in a nontenure-track position) taught smaller but more undergraduate classes. Full-time senior faculty also spent fewer hours each week teaching undergraduates in class than their junior counterparts. The combination of smaller class sizes with more classroom hours (or vice versa) resulted in full-time senior and junior faculty members having similar undergraduate student contact hours.

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**For technical information, see**

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**Table C.—Undergraduate teaching loads of instructional faculty and staff in higher education institutions who taught one or more classes for credit to undergraduates, by type of institution, academic rank, and tenure status: Fall 1992**

	Number of undergraduate classes taught	Number of undergraduate classroom credit hours	Hours per week teaching undergraduates in the classroom	Average undergraduate class size	Total undergraduate student contact hours <sup>1</sup>
Total <sup>2</sup>	2.3	7.6	9.5	30.4	272.4
<b>For full-time only</b>					
4-year doctoral	1.9	6.2	7.4	46.8	311.3
Instructor or lecturer	2.4	8.0	10.1	38.7	398.0
Assistant professor	1.9	6.3	7.7	43.6	289.1
Associate professor	2.0	6.3	7.6	47.0	344.2
Full professor	1.7	5.5	6.2	51.9	282.7
No tenure system	2.3	7.2	11.0	32.3	478.4
Not on tenure track	2.3	7.6	9.8	45.0	378.4
On tenure track	1.9	6.1	7.3	43.8	284.9
Tenured	1.8	5.8	6.7	49.5	297.2
4-year nondoctoral	2.9	9.1	10.8	29.3	301.4
Instructor or lecturer	3.0	9.3	12.2	30.0	342.2
Assistant professor	3.0	9.5	11.2	28.7	304.2
Associate professor	2.9	9.1	10.5	29.2	292.2
Full professor	2.8	8.8	10.2	30.8	299.9
No tenure system	3.1	9.7	12.4	23.6	288.9
Not on tenure track	2.8	8.6	10.4	29.6	309.2
On tenure track	2.9	9.4	11.1	29.0	304.9
Tenured	2.8	9.0	10.3	30.6	300.7
2-year	3.5	12.3	16.2	28.9	453.0
Instructor or lecturer	3.6	12.9	18.3	27.2	474.5
Assistant professor	3.5	12.2	15.1	29.3	422.2
Associate professor	3.5	12.1	15.1	31.2	443.6
Full professor	3.7	11.9	14.8	31.6	476.5
No tenure system	3.4	12.2	16.1	26.6	431.5
Not on tenure track	3.0	10.0	14.7	26.5	369.3
On tenure track	3.6	12.6	17.5	28.7	476.5
Tenured	3.7	12.4	16.1	30.5	466.3

<sup>1</sup>This measure was constructed as follows. For each undergraduate class taught by faculty for credit, the number of hours per week taught in the class was multiplied by the number of students in the class. The products were then added together to obtain the total undergraduate student contact hours.

<sup>2</sup>The total includes both full-time and part-time instructional faculty and staff.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1993 National Study of Postsecondary Faculty (NSOPF:1993).



Elementary and Secondary Education: An International Perspective  
*Marianne Perie, Joel D. Sherman, Gabriele Phillips, and  
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## Elementary and Secondary Education: An International Perspective

*Marianne Perie, Joel D. Sherman, Gabriele Phillips, and Matthew Riggan*

**This article was excerpted from the Highlights and chapters 1 and 6 of the Statistical Analysis Report of the same name. The sample survey data are primarily from the Organization for Economic Cooperation and Development (OECD) and NCES.**

In recent years, public concern over the academic standing of U.S. students relative to students in other countries has increased dramatically. Much of this concern is due to the results of recent comparative reports that show U.S. students lagging behind their international classmates, especially in mathematics. International assessments of academic achievement provide important benchmarks to measure the progress of U.S. students, yet these studies often fail to explain the differences in achievement across countries. We are interested in not only how well U.S. students perform on achievement tests relative to their counterparts in other nations, but how different their education is in all respects. For example, we often hear people explain the low U.S. test scores by saying that the students in the United States represent a more diverse population: there are more different languages spoken in the United States, and we have higher poverty rates than other major industrialized nations. But how much truth is in this type of statement?

This report examines the elementary and secondary school system in the United States relative to the education systems in 11 other countries. This report also tries to connect selected educational inputs, such as teacher training and educational expenditures, to student outcomes, such as achievement and labor force participation.

### Background

The need to compete effectively in the international marketplace has convinced U.S. business, economic, and political leaders of the importance of understanding the education systems of other industrialized nations. Studying how other countries educate their citizens provides insight into the competitiveness of those nations, as well as a benchmark for comparing our own education system.

Data published over the last decade have shown the United States to be lacking compared with other countries in some areas of school performance, particularly at the higher grade levels. While U.S. students perform reasonably well at the 4th-grade level, especially in reading, mathematics and science scores at the secondary school level have raised some concerns. Subsequent to several reports published in 1990, the nation's governors established the National Education Goals, which included two goals relevant to international competitiveness:

- “By the year 2000, United States students will be first in the world in mathematics and science achievement”; and
- “By the year 2000, every adult American will be literate and will possess the knowledge and skills necessary to compete in a global economy and

exercise the rights and responsibilities of citizenship” (National Education Goals Panel 1996, p. xvi).

Elementary and secondary education is the backbone of every nation’s education system. These levels educate all persons from approximately age 6 through age 16, and for some students it is the only education they receive. Elementary and secondary education is available free of charge, and attendance is mandatory for all children of certain ages in each country discussed in this report.

To provide a broader perspective on these issues, the United States has participated in the Organization of Economic Cooperation and Development’s (OECD) Indicators of National Education Systems (INES) Project and several major international assessments. The latter include the Third International Mathematics and Science Study (TIMSS), the Reading Literacy Study, and the International Adult Literacy Survey (IALS).

### **Purpose of This Report**

This report attempts to analyze the role of elementary and secondary schools in preparing students either to continue their education or to enter the labor force and become productive, literate citizens. The story is told in four chapters, each focusing on a particular aspect of the elementary and secondary school system. Some trends and regional differences are examined within countries, and comparisons are made among 12 major industrialized nations.

### **Organization of the Report**

The first two substantive chapters—*Student, Teacher, and Classroom Characteristics* and *Education Resources and Expenditures*—describe inputs into the elementary/secondary education system. The next two chapters—*Student Achievement* and *Labor Market and Other Outcomes*—analyze the outputs of elementary and secondary education systems. Finally, the conclusion attempts to draw links between the inputs described in chapters 2 and 3 and the outputs analyzed in chapters 4 and 5, and tries to answer the question “What matters?” Different contextual and financial inputs are correlated with achievement scores and education and labor market outcomes to determine whether certain factors appear related to these outcomes.

### **Data**

The data analyzed in this report come primarily from the OECD and the National Center for Education Statistics (NCES). Countries selected for study in this report include

the “Group of Seven” (G-7) countries as well as five other major industrialized nations. The G-7 countries are recognized as the world’s major industrialized economies and include the United States, Canada, Japan, France, Germany, Italy, and the United Kingdom. These countries are relatively similar to one another in terms of economic development, and are primary commercial competitors with the United States. In addition to these countries, this report also compares the United States to Australia, Korea, Spain, Sweden, and Switzerland. These five countries were chosen for several reasons, such as the availability of data, variation in types of education systems, range of findings, and the size and economic competitiveness of these nations as compared to the United States.

## **Highlighted Results**

### **Student, teacher, and classroom characteristics**

Across most industrialized nations, the range of student/teacher ratios is wide at both the elementary and secondary levels. The United States has a higher-than-average student/teacher ratio than the other G-7 countries.

Schools in the United States allocated as much or more instructional time than most other countries in terms of overall hours of education, minutes of subject instruction in mathematics and science per week, and frequency of lessons.

The United States had a greater incidence of child poverty than its G-7 counterparts. One-fifth of all U.S. children lived in poverty after the effects of government taxes and transfers in 1991 were taken into account, compared with just over 13 percent in Canada, about 10 percent in the United Kingdom, and less than 7 percent in France.

The majority of elementary and secondary school teachers in the United States and in most other G-7 nations are female. However, in Germany and Japan, approximately three-quarters of secondary school teachers are male. While it takes 15 to 17 years of education to become a teacher in most nations, Germany and Japan maintain more extensive mentoring and training systems for new teachers than the United States.

### **Education resources and expenditures**

The United States allocated 3.8 percent of gross domestic product (GDP) on elementary and secondary education, ranking below Sweden, Canada, Switzerland, France, and the United Kingdom, and above Australia, Italy, Spain, Japan, Germany, and Korea.

The United States had the highest per pupil expenditures of the G-7 countries in 1993, but was below all other countries except France and the United Kingdom in the percentage of current expenditures spent on staff compensation.

### Student achievement

U.S. 9- and 13-year-olds performed at a level higher than most of their peers in other countries in reading, roughly the same in science, and lower in mathematics.

In eighth grade, boys and girls in the United States performed at roughly the same levels in mathematics and science. Internationally, where gender gaps did exist, they tended to favor boys in mathematics and science, and girls in reading.

Adults in the United States with only a high school diploma had weaker literacy skills than their counterparts in other countries studied. Approximately one-fifth of U.S. high school graduates with no postsecondary education were unable to perform beyond the most basic literacy tasks.

### Labor market and other outcomes

The United States has one of the highest percentages of 25- to 64-year-olds who have completed secondary education.

At 35 percent, the enrollment rate of U.S. 18- to 21-year-olds in tertiary (higher) education surpassed that of all other countries but Canada, whose enrollment was 40 percent.

Over three-fourths of 25- to 64-year-olds with an upper secondary education participated in the labor force in all countries studied, with the United States falling in the low to middle range compared to other countries. Participation rates for those who had completed upper secondary education were much higher than for those who had not, particularly in the G-7 countries.

Upper secondary graduates have substantially higher earnings than those who did not complete a secondary education. The biggest earnings differential was seen in the United States, where those without a high school diploma earned about 64 percent of the salaries earned by those with a high school diploma.

### Discussion

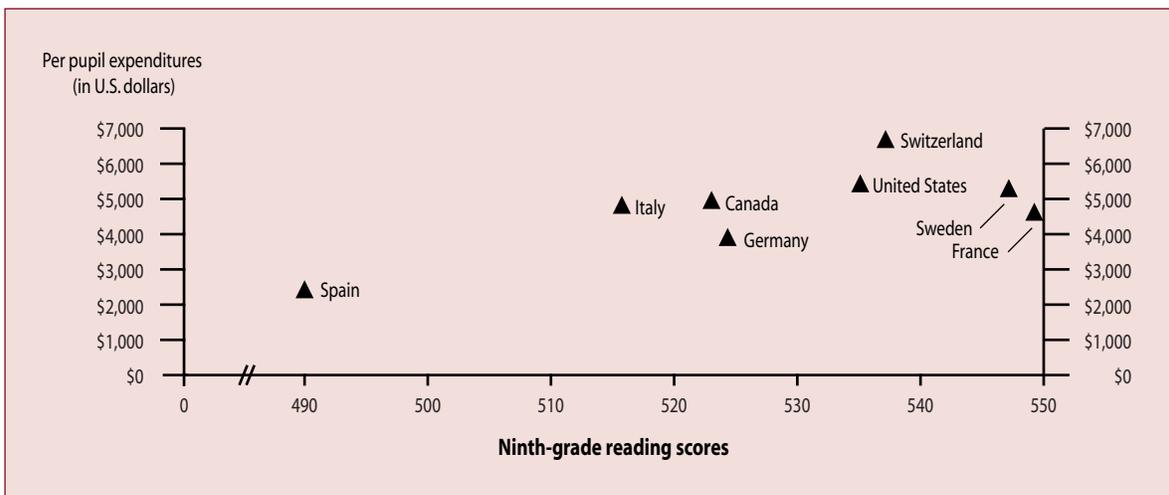
The final chapter of the report examines any connections between the various educational inputs and outputs by correlating countries' input measures described in chapters

2 and 3 of the report with output measures described in chapters 4 and 5. Overall, almost none of the measured classroom, teacher, student, or financial inputs correlated with any of the achievement measures—test scores in mathematics, science, or reading—with the exception of per pupil expenditures and ninth-grade reading scores.

Figure A shows the relationship between ninth-grade reading scores and per pupil expenditures. As seen in the figure, most countries are clustered toward the middle to high end of both measures. Because this report focuses on industrialized nations, the figure only depicts countries that have relatively high per pupil expenditures. No strong pattern emerges among those countries shown in the upper-right-hand corner of the figure. Spain, however, is an outlier, appearing by itself in the lower-left-hand corner. If Spain is removed, there is no significant correlation between ninth-grade reading scores and per pupil expenditures. No other input measure correlated with this or any of the other achievement measures.

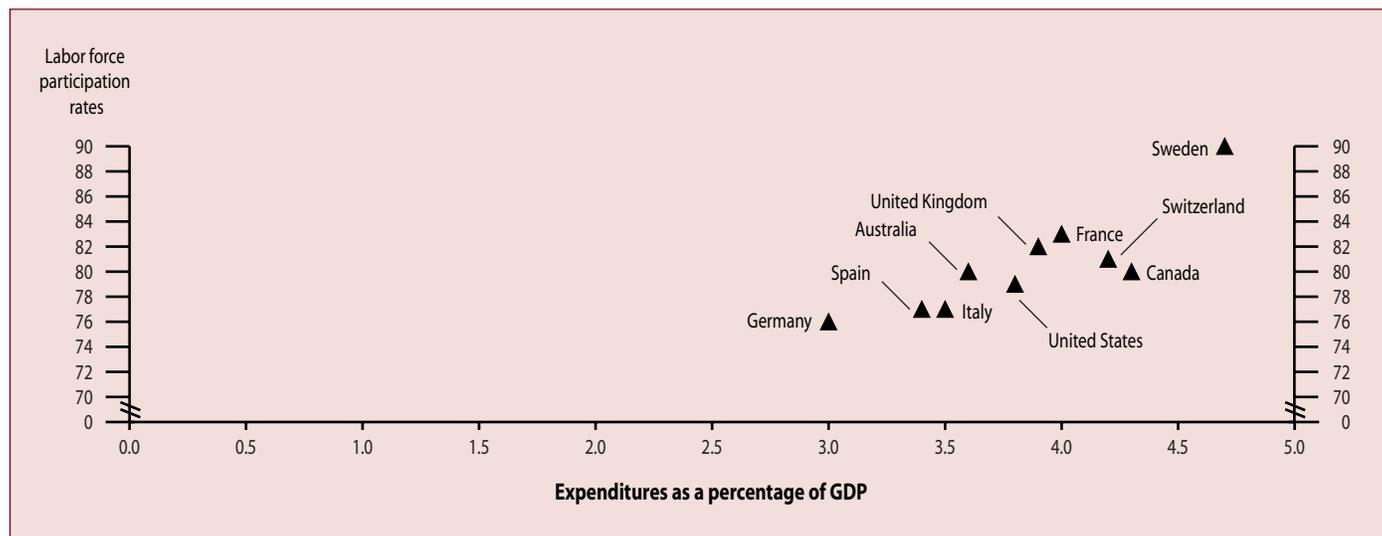
Next, secondary school completion and tertiary enrollment rates are examined. Although no input measure correlated significantly with secondary school completion rates, one input did show a significant correlation with tertiary enrollment. Developed countries with high percentages of children in poverty, after accounting for government transfer programs, also had high percentages of 18- to 21-year-olds enrolled in tertiary education. The United States exemplifies this tendency by having high college enrollment rates and high poverty rates for children. Compared to some other developed countries, the percentage of U.S. children in poverty does not decrease as much after accounting for government transfer programs. The positive correlation of poverty and college enrollment may result from such factors as the interaction of government funding decisions, availability and perceived value of higher education, and the nature (e.g., public vs. private) of social service delivery programs.

Finally, input measures were correlated with the various labor market outcomes. One interesting relationship appeared between public expenditures and a labor market outcome. Figure B shows a positive relationship between expenditures as a percentage of GDP and labor force participation rates. In other words, the greater proportion of money a government spends on education relative to its wealth, the more students with an upper secondary education enter the labor force. For example, Sweden reported both the highest level of expenditures as a percentage of

**Figure A.—Per pupil expenditures and ninth-grade reading scores**

NOTE: Data are unavailable for Australia, Japan, Korea, and the United Kingdom.

SOURCE: Organization for Economic Cooperation and Development, unpublished data, 1997; and U.S. Department of Education, National Center for Education Statistics, (1996) *Reading Literacy in the United States: Findings from the IEA Reading Literacy Study* (NCES 96-258). (Originally published as figure 6.1 on p. 95 of the complete report from which this article is excerpted.)

**Figure B.—Public expenditures as a percentage of GDP and labor force participation rates for 25- to 64-year-olds who have completed a secondary education, 1995**

NOTE: Data are unavailable for Japan and Korea.

SOURCE: Organization for Economic Cooperation and Development, *Education at a Glance: OECD Indicators*, 1996. (Originally published as figure 6.3 on p. 97 of the complete report from which this article is excerpted.)

GDP (4.7) and the highest labor force participation rate (90 percent). Similarly, Germany had both the lowest level of expenditures as a percentage of GDP (3.0) and the lowest labor force participation rate (76 percent). Both the United States and the United Kingdom fell in the middle of both categories.

No other input measure was associated with any of the other output measures. These analyses lead us to conclude

that very little of the variation in educational outputs can be explained through the quantifiable inputs most frequently measured. Yet, there is a wide variation in outputs among the different countries studied. If these measures are not related to student outcomes, what is?

Several explanations are possible. One explanation is that there really are no relationships at this macro level, as

indicated by the research. Another explanation is that we are looking at the wrong measures. Another hypothesis is that some of these factors are significant, but interact in such a way that the significance cannot be measured using bivariate analyses. However, the limited number of countries precludes extensive multivariate analyses.

Another explanation is that we may not be focusing on the best measures. The inputs discussed in this report are primarily quantifiable inputs, and not indicators of quality. For example, no mention has been made of curriculum content, learning processes, or quality of teacher training. In addition, ways in which students learn (e.g., how teachers present subject material), the role of the teacher, the relevance of the homework assignments, or the kinds of activities in which students are engaged after class all relate to student learning, and thus to outcome measures. Studying these components of the education system is not as easy as collecting administrative data. Understanding these types of inputs requires a more qualitative analysis of curricula, site visits to classrooms, or interviews with teachers and students.

## Conclusion

Few of the quantifiable inputs described in chapters 2 and 3 explain any of the student outcomes discussed in chapters 4 and 5. This is not to say that measures such as student/teacher ratios, intended instructional time, and financial resources are unimportant, only that they fail to explain large variations in achievement scores, completion rates, and labor market outcomes at the country level within a macro framework. Further multivariate research at the regional and school levels both within and among countries will be important in determining some of the effects of background characteristics on student outcomes. Likewise, a more specific analysis of expenditures—such as the allocation of resources—may illuminate where finances have the largest impact on student outcomes. For example, U.S. eighth-graders score relatively higher on the science assessment than on the mathematics assessment. Could the United States be allocating a relatively larger proportion of finances to science education than to mathematics education compared to the other countries? Answering these types of questions may help to explain the lack of findings at the aggregate level.

On the other hand, financial inputs and background characteristics could truly have less of an impact on student outcomes than curricular inputs and teaching methods. Other, more qualitative, measures may provide further insight into these differences among countries, but care should be taken in drawing inferences about cause and effect. For example, different teaching styles may work better in some countries than others.

Elementary and secondary education is a large and complex system. International comparisons allow U.S. policymakers to evaluate strategies that appear to be successful in other countries. However, further research within the United States is also needed to determine what strategies will be successful in our unique social environment.

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**Data sources:** Organization for Economic Cooperation and Development (OECD): *Education at a Glance: OECD Indicators*, 1996; Education Database, 1985–94; and unpublished data, 1997. NCES: *Pursuing Excellence: A Study of U.S. Eighth-Grade Mathematics and Science Teaching, Learning, Curriculum, and Achievement in International Context: Initial Findings From the Third International Mathematics and Science Study* (NCES 97–198); *The TIMSS Videotape Classroom Study: Methods and Findings From an Exploratory Research Project on Eighth-Grade Mathematics Instruction in Germany, Japan, and the United States* (NCES 1999–074); *Education Indicators: An International Perspective* (NCES 96–003); and *Reading Literacy in the United States: Findings From the IEA Reading Literacy Study* (NCES 96–258). International Association for the Evaluation of Educational Achievement (IEA): 1994–95 Third International Mathematics and Science Study (TIMSS) and Reading Literacy Study, 1992. Educational Testing Service: International Assessment of Educational Progress (IAEP), 1991. International Adult Literacy Survey (IALS), 1994 (joint governmental sponsorship). U.S. Bureau of the Census, International Database, 1985–95. Luxembourg Income Study, *The Real Income of American Children in a Comparative Perspective*, 1997.

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

Perie, M., Sherman, J.D., Phillips, G., and Riggan, M. (2000). *Elementary and Secondary Education: An International Perspective* (NCES 2000–033).

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# CROSSCUTTING STATISTICS

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## Educational Equity

### Trends in Educational Equity of Girls and Women

*Yupin Bae, Susan Choy, Claire Geddes, Jennifer Sable, and Thomas Snyder*

This article was excerpted from the Overview of the Statistical Analysis Report of the same name. The sample survey and universe data are primarily from NCES surveys, although there are other sources of national and international data as well.

#### Introduction

Congress, under the Women's Educational Equity Act provisions (Title V, Part B) of the Elementary and Secondary Education Act of 1965 (as amended in 1994), requested the Secretary of Education to prepare a report on the status of educational equity for girls and women in the United States. This report responds to that request by assembling indicators that examine the extent to which males and females have access to the same educational opportunities, avail themselves equally of these opportunities, perform at the same level, succeed at the same rate, and obtain the same benefits.<sup>1</sup>

The data are drawn primarily from surveys conducted by the National Center for Education Statistics (NCES), although several other sources of national and international

data are used as well. While the indicators in this report provide valuable information on many aspects of educational equity, some important issues cannot be addressed with available nationally representative data. Examples include the extent to which sexual harassment undermines the ability of schools to provide a safe learning environment and whether girls and young women are encouraged to challenge themselves in their educational pursuits, especially in mathematics and science.

The data show that in school and in college, females are now doing as well as or better than males in many of the indicators of educational attainment, and that the large gaps in educational attainment that once existed between men and women have significantly decreased or been eliminated altogether. Nevertheless, there are other areas in both elementary/secondary and postsecondary education in which differences persist.

<sup>1</sup>The complete report contains 44 indicators that examine various aspects of educational equity, from preparation for school, elementary and secondary education, and postsecondary education to outcomes.

## Preparation for School

Boys and girls start school on a similar footing in terms of at least some of the same learning opportunities. Girls and boys appear to have similar access to the types of opportunities that help prepare them for school.

In 1996, 67 percent of girls and 65 percent of boys ages 3–5 were enrolled in center-based programs or kindergarten (about the same percentages as in 1991). At home, 84 percent of the girls and 82 percent of the boys in this age group had been read to three or more times in the past week; 82 percent of both boys and girls had been told a story at least once in the past week; and 38 percent of each had visited a library at least once in the past month. For both boys and girls, participation in reading activities generally increased between 1991 and 1996.

## Elementary and Secondary Education

### Progress through school

Aspects of progress through school include promotion from grade to grade, problems encountered along the way, and high school completion. In each of these areas, female students have done as well as or better than their male peers.

In 1995, girls ages 5–12 were less likely than boys of this age group to have repeated a grade since starting school (5 percent vs. 8 percent). Among children in grades 1–3 in 1995, girls were more likely than boys to be described by their parents as being near the top of their class (51 percent vs. 41 percent). In addition, girls were less likely than boys to have their parents contacted by their schools about problems with their behavior or schoolwork. Also in 1995, about half as many girls as boys in grades 1–12 were identified as having a learning disability (2 percent vs. 5 percent).

Between 1972 and 1997, the status dropout rates for both male and female 16- to 24-year-olds (i.e., the percentage who had not completed high school and were not enrolled in school) decreased for every racial/ethnic group except Hispanics. Among Hispanics, the female dropout rate declined, but the male rate did not change significantly.

Young females who give birth while still of high school age are much less likely than their peers to complete high school. Among 1988 female 8th-graders, the high school completion rate as of 1994 was 54 percent for those who

had a child before 1992. In contrast, 94 percent of 1988 8th-graders who had no children by 1994 had completed high school.

### Academic performance

Academic performance is a key measure of school success because doing well in school opens doors to postsecondary education and to well-paying jobs. Overall, females have done much better than males in reading and writing, but have generally, though not always, lagged behind in science and mathematics.

Beginning in 1971 and continuing through every year of assessment, females ages 9, 13, and 17 have tested higher than their male peers in reading assessments administered as part of the National Assessment of Educational Progress (NAEP). Females in grades 4, 8, and 11 have outperformed their male peers in writing as well since 1988. Differences in male and female writing achievement have been relatively large, with male 11th-graders scoring at about the same level as female 8th-graders in 1996. Consistent with these results, females were much more likely than males to take AP exams in English and foreign languages in 1997 and to score 3 or higher, which usually allows them to receive college credit.

Between 1973 and 1996, females ages 9 and 13 were usually more likely to score lower than males in science. At age 17, males have almost always outperformed their female peers, but the gender gap in science proficiency has narrowed for 17-year-olds in recent years. In addition to scoring higher in the NAEP assessments, males were more likely than females to take AP examinations in science in 1997 and to earn a score of 3 or higher.

The situation in mathematics has been somewhat different. From 1973 to 1994, gender differences in mathematics scores did not exist for 9- and 13-year-olds. In 1996, however, the achievement scores of males slightly exceeded those of females at both ages because of increases in performance for males. Among 17-year-olds, males have achieved significantly higher average mathematics proficiency scores than females in some, but not all, years.

Gender differences in mathematics and science proficiency also have been observed for countries participating in international studies. In 1995, in general, boys and girls performed similarly in mathematics and science around the

4th grade in about half of the countries, with differences emerging more systematically among older students.<sup>2</sup>

Achievement gaps appear more closely related to attitudes than to coursetaking. Female high school graduates in 1998 were at least as likely as their male peers to have taken upper-level mathematics classes, such as algebra II, trigonometry, precalculus, and calculus (figure A). They were more likely than males to have taken biology and chemistry. However, among 8th- and 12th-graders in 1996, females were less likely than males to like mathematics and science. Among 4th-, 8th-, and 12th-graders, females were less likely than males to think that they were good at mathematics and science.

### Other activities

The computer has become an important tool in the home, classroom, and workplace. Females are generally just as likely as males to use computers at home and at school,

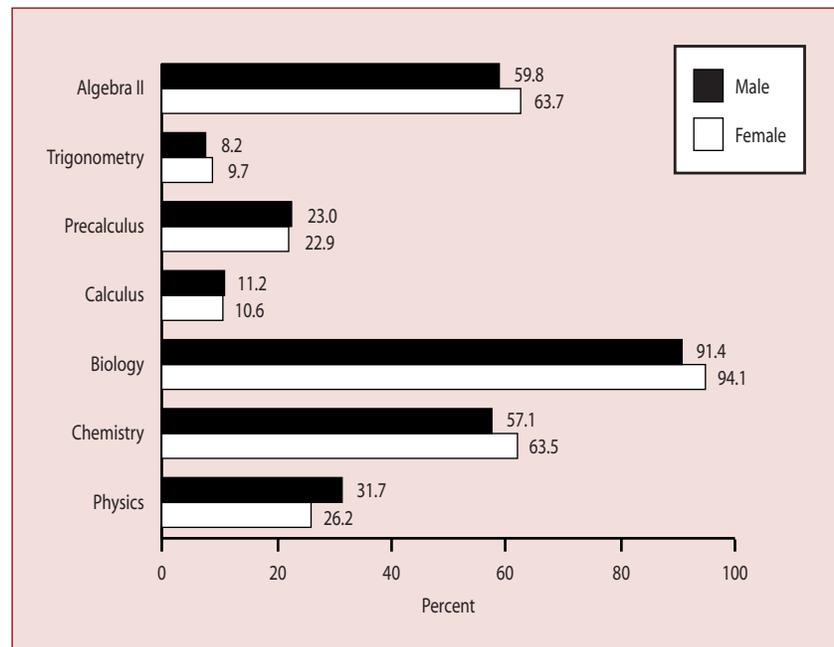
<sup>2</sup>Grades are not identical among all participating countries. See Indicator 44 in the complete report for full details.

although some of the activities for which they use computers differ.

Extracurricular and community service activities offer opportunities for students to develop skills that are important in the workplace and in society, such as individual and group responsibility and a sense of community. Males and females tend to participate in different types of extracurricular activities (figure B). In 1995, female high school seniors were more likely than their male peers to participate in music or other performing arts, belong to academic clubs, work on the school newspaper or yearbook, or participate in the student council or government. In contrast, male seniors were more likely than female seniors to play on athletic teams.

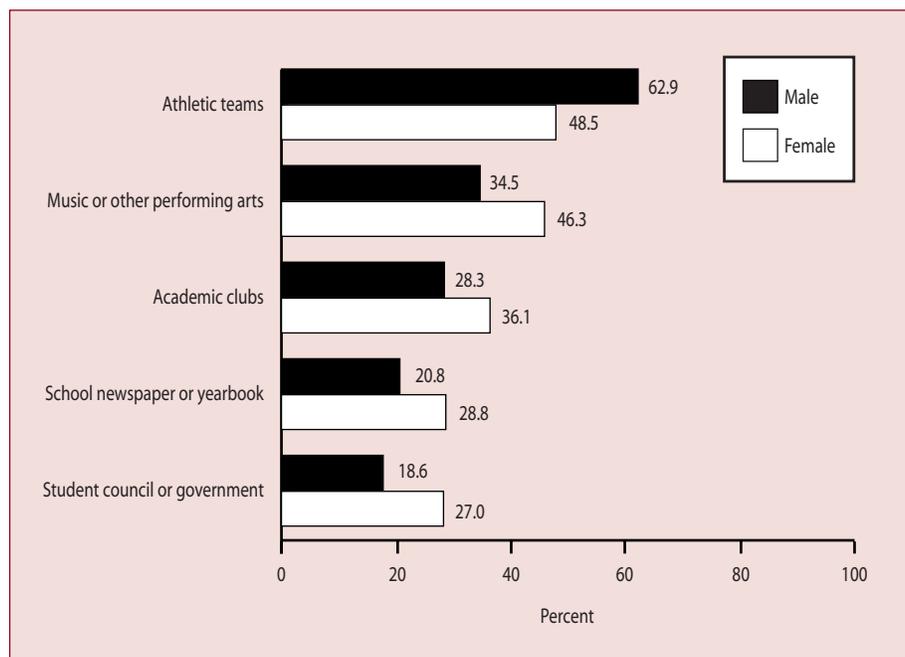
Females are more active than males in community service activities. In 1996, 53 percent of females in grades 6–12 reported participating in some sort of community service activity, and 29 percent reported that they did so regularly. In contrast, 45 percent of their male peers reported participating, and 22 percent reported participating regularly.

**Figure A.—Percentage of high school graduates who took selected courses in high school: 1998**



SOURCE: U.S. Department of Education, National Center for Education Statistics, National Assessment of Educational Progress, "1998 High School Transcript Study." (Originally published as figure 7 on p. 5 of the complete report from which this article is excerpted.)

**Figure B.—Percentage of high school seniors who reported participating in after-school activities, by type of activity: 1995**



NOTE: The response rate for this survey was less than 70 percent and a full nonresponse bias analysis has not been done to date. Responses include the following levels of participation: slight, moderate, considerable, and great extent.

SOURCE: University of Michigan, Institute for Social Research, *Monitoring the Future*, 1995. (Originally published as figure 10 on p. 7 of the complete report from which this article is excerpted.)

## Postsecondary Education

### Transition to postsecondary education

High school students' plans for further education indicate the importance that young people attach to postsecondary education, and aspirations are a first step toward attainment. Both aspirations and enrollment rates of women have increased, and women are now ahead of men in both areas.

In 1995, female high school seniors were more likely than males to definitely plan to graduate from a 4-year college (60 percent vs. 49 percent). Between 1980 and 1995, the percentage of females who reported that they would definitely attend graduate or professional school doubled, from 10 to 22 percent, whereas the proportion of males with this aspiration increased more modestly, from 12 to 16 percent. Increasing proportions of both men and women have been enrolling in college in the fall after finishing high school; in 1997, 70 percent of females and 64 percent of males did so.

Since 1970, a steadily increasing proportion of the undergraduate population has been female. In 1970, 42 percent of all undergraduates were women, increasing to 56 percent in

1996. Women were a majority of both part-time and full-time enrollees.

Women have made even greater gains at the graduate level. In 1970, 39 percent of all graduate students were women, but in 1996, 56 percent of graduate students were women. The majority of first-professional students (e.g., postbaccalaureate students in such fields as medicine, dentistry, law, and theology) are men, but women have made dramatic gains in their representation since 1970. While 9 percent of the students in first-professional degree programs were women in 1970, by 1996, 40 percent of part-time and 42 percent of full-time first-professional students were women.

### Persistence and attainment

Completion of postsecondary programs is an important indicator of personal success and an educational climate that fosters success for all. Among freshmen who enrolled in a college or university for the first time in 1989–90 seeking a bachelor's degree, a greater percentage of women (50 percent) than men (41 percent) had earned a bachelor's degree by 1994. Similar proportions of men and women had

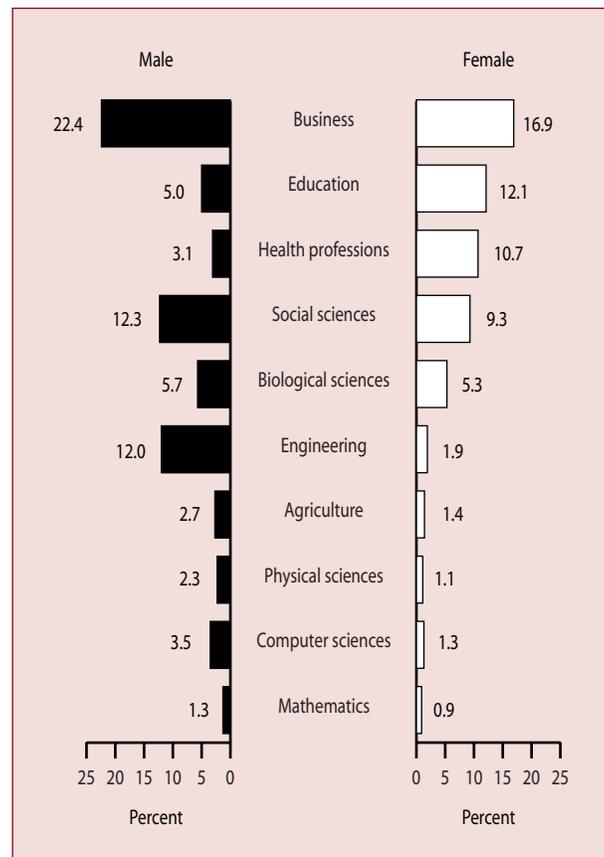
earned associate's degrees (about 5 percent) and certificates (3 percent and 4 percent, respectively).

Considering degree attainment more generally (not just among those who started in 1989–90), women earned more than half of all bachelor's degrees in 1996 (55 percent). The increase in participation by women in postsecondary education over the past 25 years has meant that, among the general population ages 25–29 in 1997, a slightly larger percentage of women than men have a bachelor's or higher degree (29 percent vs. 26 percent). Male and female bachelor's degree recipients tend to choose different majors, however; in 1996–97, women were much more likely than men to earn degrees in education, health, and psychology (not shown), whereas men were more likely than women to earn degrees in engineering, physical sciences, and computer science (figure C).

A similar pattern is seen at the graduate level. While the percentage of master's, doctoral, and first-professional degrees earned by women increased substantially in all fields between 1970 and 1996, women earned a majority of the master's and doctoral degrees in education and health in 1996, and men earned nearly three-quarters of the degrees in computer science and a higher proportion in engineering. In addition, 44 percent of law degrees, 41 percent of medical degrees, and 36 percent of dentistry degrees were awarded to women.

One final measure of women's equity at the college level is participation in NCAA-sponsored sports. In 1996–97, men outnumbered women in collegiate sports participation. However, female athletes were more likely than male athletes to graduate in a timely fashion. Among women

**Figure C.—Percentage of bachelor's degrees conferred, by selected fields: 1996–97**



SOURCE: U.S. Department of Education, National Center for Education Statistics, 1997 Integrated Postsecondary Education Data System, "Completions Survey" (IPEDS-C:1996–97). (Originally published as figure 15 on p. 9 of the complete report from which this article is excerpted.)

athletes who entered college in 1992, 68 percent graduated by 1998, compared with 52 percent of men.

## Outcomes

Higher levels of educational attainment are associated with higher labor force participation rates, higher rates of employment, and higher earnings. In the United States, as in other selected large, industrialized countries (Canada, France, Germany, Italy, and the United Kingdom) in 1995, women ages 25–64 had lower labor force participation rates than men at all levels of education. Labor force participation for women in this age group generally increased with educational attainment, however, narrowing the gap between men and women at higher education levels.

Although women have been less likely than men to be employed at all levels of educational attainment, gender gaps in employment rates have narrowed over time. For example, in 1971, 94 percent of men and 43 percent of women ages 25–34 with a high school diploma or GED were employed (a difference of 51 percentage points). By 1997, 86 percent of men and 70 percent of women with this level of education were employed, narrowing the gap to 16 percentage points. Between 1971 and 1997, the gender gap generally decreased as education level increased.

Women's median annual earnings for full-time, year-round workers are lower than those of their male counterparts with the same level of educational attainment. However, this gap has been narrowing. In 1970, women ages 25–34 with a bachelor's degree had a median annual salary equivalent to 57 percent of what their male peers earned; in 1997, it was 78 percent.

The median annual starting salary (in constant 1997 dollars) for 1992–93 college graduates who were working full time and not enrolled in school was \$26,700 for males and \$22,500 for females. Variations in major field of study account for some of this difference. For example, for those who majored in engineering, females had a median starting salary that was similar to that of their male peers. For students who majored in business, females had a median starting salary that was about \$4,000 less than that of their male peers.

Higher levels of educational attainment bring proportionally larger benefits for women than for men. Women ages 25–34

with a bachelor's degree or higher who worked full time year-round in 1997 earned 61 percent more than their counterparts with no more than a high school education. The earnings advantage for their male counterparts was 54 percent.

## Conclusion

By most of the indicators in this report, females are doing at least as well as males. Girls and boys begin school with similar preschool and early literacy participation experiences, and female students have consistently outperformed their male peers in reading and writing. Females have tended to lag behind males in science and mathematics, however.

Since the early 1970s, women have made dramatic gains in postsecondary education in terms of enrollment and attainment, and are successful relative to men in aspirations, enrollment, and bachelor's degree completion. Gender differences in college majors persist, however, with women still concentrated in fields like education and men more likely than women to earn degrees in engineering, physics, and computer science.

In terms of labor market outcomes, the findings are mixed. Women ages 25–34 are less likely than their male counterparts to be employed, but women with higher levels of educational attainment are employed at rates more similar to those of men than are women with lower levels of attainment. Women tend to earn less than men with similar educational attainment.

**Data sources:** More than 15 sources of data, including multiple NCES surveys.

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

Bae, Y., Choy, S., Geddes, C., Sable, J., and Snyder, T. (2000). *Trends in Educational Equity of Girls and Women* (NCES 2000-030).

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# Employment of Young Adults

## Employment of Young Adults, by Educational Attainment

*This article was originally published as an Indicator of the Month, taken from The Condition of Education: 1999. The sample survey data are from the March Current Population Survey, conducted by the U.S. Census Bureau.*

Many factors affect employment rates among adults. Some factors influence the willingness of employers to offer jobs to individuals with different levels of education at the going wage rate, whereas others influence the willingness of individuals to take jobs at this wage rate. The percentage of young adults who are employed is an indication of both the skill levels required by employers and the advantages employment offers to individuals relative to other pursuits.

- Between 1971 and 1998, the employment rate of male and female 25- to 34-year-olds was generally higher among those individuals with a higher level of education (table 1; figure 1). For example, in 1998, males and females ages 25–34 with a bachelor's degree or higher were more likely to be employed

than their peers who had lower levels of educational attainment.

- Between 1971 and 1998, the employment rate of males ages 25–34 decreased for those who had not finished high school and those with a high school diploma or GED, and remained relatively constant for those with some college and those with a bachelor's degree or higher.
- Between 1971 and 1998, the employment rate of females ages 25–34 increased across all education levels. However, the rate of increase for females who did not complete high school was lower than the rate of increase for females who attained higher levels of education.

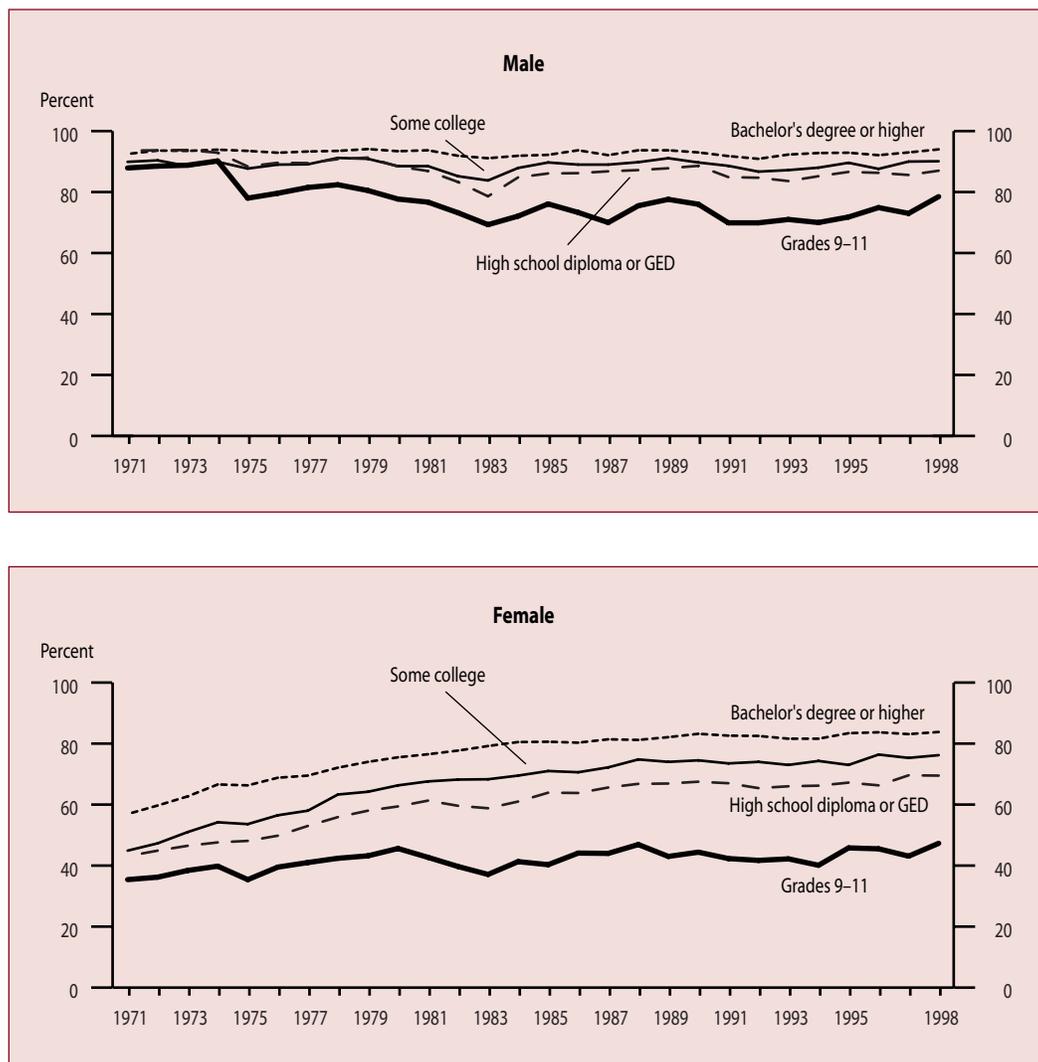
**Table 1.—Employment rate of 25- to 34-year-olds, by sex and educational attainment: March 1971–98**

March	Male				Female			
	Grades 9–11	High school diploma or GED	Some college	Bachelor's degree or higher	Grades 9–11	High school diploma or GED	Some college	Bachelor's degree or higher
1971	87.9	93.6	89.9	92.5	35.4	43.1	44.9	56.9
1973	88.8	93.8	88.5	93.5	38.4	46.5	51.0	62.7
1975	78.0	88.4	87.7	93.5	35.4	48.1	53.6	66.3
1977	81.5	89.5	89.1	93.3	41.0	53.0	58.0	69.5
1979	80.5	91.3	90.9	94.1	43.2	58.0	64.2	74.0
1981	76.7	86.9	88.5	93.7	42.7	61.3	67.6	76.4
1983	69.3	78.6	83.8	91.1	37.1	58.8	68.3	79.2
1985	76.1	86.1	89.7	92.2	40.3	63.9	71.0	80.6
1987	75.0	86.8	89.0	92.1	44.0	65.6	72.2	81.4
1989	77.6	87.8	91.1	93.7	43.0	66.9	74.0	82.1
1990	76.0	88.6	89.7	93.0	44.4	67.5	74.5	83.2
1991	69.9	84.9	88.6	91.8	42.3	67.0	73.5	82.6
1992	69.9	84.7	86.7	90.9	41.7	65.4	74.0	82.5
1993	71.0	83.6	87.2	92.3	42.2	66.0	73.0	81.6
1994	70.0	85.2	88.0	92.8	40.1	66.2	74.3	81.6
1995	71.8	86.6	89.6	92.9	45.8	67.2	73.0	83.4
1996	74.9	86.3	87.6	92.1	45.5	66.3	76.4	83.7
1997	73.0	85.6	90.0	93.0	43.1	69.6	75.3	83.1
1998	78.5	87.0	90.1	94.0	47.3	69.5	76.2	83.8

NOTE: The Current Population Survey (CPS) questions used to obtain educational attainment were changed in 1992. The employment rate represents the number of employed individuals as a percentage of the total population.

SOURCE: U.S. Department of Commerce, Bureau of the Census, Current Population Survey (CPS), March 1971–98 (selected years).

**Figure 1.—Employment rate of 25- to 34-year-olds, by sex and educational attainment: March 1971–98**



NOTE: The Current Population Survey (CPS) questions used to obtain educational attainment were changed in 1992. The employment rate represents the number of employed individuals as a percentage of the total population.

SOURCE: U.S. Department of Commerce, Bureau of the Census, Current Population Survey (CPS), March 1971–98.

**Data source:** U.S. Bureau of the Census, Current Population Survey, March 1971–98.

**For technical information,** see

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/>), or
- volume 2 of the printed version: *The Condition of Education: 1999 Supplemental and Standard Error Tables* (NCES 2000–016).

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*This article was excerpted from the Foreword and Introduction to the Compendium of the same name. The sample survey and universe data are from numerous sources, both government and private, and draw especially on the results of surveys and activities carried out by NCES.*

The 1999 edition of the *Digest of Education Statistics* is the 35th in a series of publications initiated in 1962. (The *Digest* has been issued annually except for combined editions for the years 1977–78, 1983–84, and 1985–86.) Its primary purpose is to provide a compilation of statistical information covering the broad field of American education from kindergarten through graduate school.

The publication contains information on a variety of subjects in the field of education statistics, including the number of schools and colleges, teachers, enrollments, and graduates, in addition to educational attainment, finances, federal funds for education, employment and income of graduates, libraries, and international education. Supplemental information on population trends, attitudes on education, education characteristics of the labor force, government finances, and economic trends provide background for evaluating education data.

In addition to updating many of the statistics that have appeared in previous years, this edition contains a significant amount of new material, including

- poverty rates for 5- to 17-year-olds in large school districts;
- federal funds, by program, for large school districts;

- trends in the average size of public schools, by level of school;
- distribution of public school students, by racial/ethnic concentration of enrollment in school;
- selected statistics for Hispanic-serving institutions of higher education;
- selected statistics for tribal colleges predominately serving American Indian students;
- percent of colleges using various selection criteria for admission; and
- average undergraduate tuition and fees, by percentage distribution of student enrollment.

### Participation in Formal Education

In the fall of 1999, about 68.1 million persons were enrolled in American schools and colleges (table A). About 3.8 million were employed as elementary and secondary school teachers and as college faculty. Other professional, administrative, and support staff of educational institutions numbered 4.2 million. Thus, about 76 million people were involved, directly or indirectly, in providing or receiving formal education. In a nation with a population of about 273 million, more than 1 out of every 4 persons participated in formal education.

**Table A.—Estimated number of participants in elementary and secondary education and in higher education: Fall 1999**  
(In millions)

Participants	All levels (elementary, secondary, and higher education)	Elementary and secondary schools			Institutions of higher education		
		Total	Public	Private	Total	Public	Private
Total	76.1	59.0	52.4	6.6	17.1	13.1	4.0
Enrollment*	68.1	53.2	47.2	6.0	14.9	11.6	3.3
Teachers and faculty	3.8	3.1	2.7	0.4	0.7	0.5	0.2
Other professional, administrative, and support staff	4.2	2.7	2.5	0.2	1.5	1.0	0.5

\*Includes enrollments in local public school systems and in most private schools (religiously affiliated and nonsectarian). Excludes subcollegiate departments of institutions of higher education, residential schools for exceptional children, and federal schools. Elementary and secondary includes most kindergarten and some nursery school enrollment. Excludes preprimary enrollment in schools that do not offer first grade or above. Higher education comprises full-time and part-time students enrolled in degree-credit and nondegree-credit programs in universities, other 4-year colleges, and 2-year colleges.

NOTE: The enrollment figures include all students in elementary and secondary schools and colleges and universities. However, the data for teachers and other staff in public and private elementary and secondary schools and colleges and universities are reported in terms of full-time equivalents. Details may not add to totals due to rounding.

SOURCE: U.S. Department of Education, National Center for Education Statistics, unpublished projections and estimates. (This table was prepared in August 1999.) (Originally published as table 1 on p. 11 of the complete report from which this article is excerpted.)

## Elementary/Secondary Education

### Enrollment

Since the enrollment rates of kindergarten and elementary school age children have not changed much in recent years, increases in elementary school enrollment have been driven primarily by increases in the number of young people. Enrollment in public elementary and secondary schools rose 18 percent between 1985 and 1999.\* The fastest public school growth occurred in the elementary grades, where enrollment rose 25 percent over the same period, from 27.0 million in 1985 to a record high of 33.7 million in 1999. Secondary enrollments in public schools declined 8 percent from 1985 to 1990, but then rose by 19 percent from 1990 to 1999, for a net increase of 9 percent. Private school enrollment grew more slowly than public school enrollment over this period, rising 7 percent, from 5.6 million in 1985 to 6.0 million in 1999. As a result, the percentage of students enrolled in private schools declined slightly, from 12 percent in 1985 to 11 percent in 1999.

The National Center for Education Statistics (NCES) forecasts record levels of enrollment for the next several years. The fall 1999 public school enrollment marks a new record, and new records are expected every year through the early 2000s. Public elementary enrollment is projected to grow slowly over the next few years and then decline slightly, so that the fall 2009 projection is slightly lower than the 1999 enrollment. In contrast, public secondary school enrollment is expected to have a substantial increase of 9 percent between 1999 and 2009.

### Teachers

An estimated 3.1 million elementary and secondary school teachers were engaged in classroom instruction in the fall of 1999. This number has risen in recent years, up about 13 percent since 1989. The number of public school teachers in 1999 was 2.7 million, and the number of private school teachers was about 0.4 million. About 1.9 million teachers taught in elementary schools, while about 1.2 million were teaching at the secondary level.

The number of public school teachers has risen slightly faster than the number of students over the past 10 years, resulting in small declines in the pupil/teacher ratio. In the fall of 1998, there were 16.8 public school pupils per teacher, compared with 17.3 public school pupils per teacher 10 years earlier. During the same time period, the pupil/teacher ratio in private schools remained relatively

stable. Data from the mid-1990s suggest a continuation of the historical trend toward lower pupil/teacher ratios, which had been stable during the late 1980s and early 1990s.

The salaries of public school teachers, which lost purchasing power to inflation during the 1970s, rose faster than the inflation rate during the 1980s. The rising salaries reflected an interest by state and local education agencies in boosting teacher salary schedules and, to some extent, an increase in teachers' experience and education levels. Since 1990–91, salaries for teachers have fallen slightly after adjusting for inflation. The average salary for teachers in 1997–98 was \$39,385.

### Student performance

**Reading.** Overall, the reading achievement scores for the country's 9-, 13-, and 17-year-old students are mixed. Reading performance scores for 9- and 13-year-olds were somewhat higher in 1996 than they were in 1971. However, there has been little change since the mid-1980s. The reading performance of 17-year-olds was about the same in 1996 as it was in 1971. Black 13- and 17-year-olds exhibited higher reading performance in 1996 than in 1971. Black 9-year-olds' performance improved significantly between 1971 and 1980, but it has not improved further. The performance levels of white 9- and 13-year-olds also rose between 1971 and 1996. Separate data for Hispanics were not gathered in 1971, but changes between 1975 and 1996 indicate an increase among 9-year-olds. There was no significant difference between the 1975 and 1996 reading performance of 13- and 17-year-old Hispanics.

**Mathematics.** Results from assessments of mathematics proficiency indicate that 9- and 13-year-old students improved their performance between 1973 and 1996. However, there has been no significant change for 9-year-olds since 1990, and the performance of older students on advanced mathematical operations has been stable. The proportion of 17-year-olds who demonstrated skill with moderately complex procedures and reasoning rose from 52 percent in 1978 to 60 percent in 1996. During the same time period, the proportion of 17-year-olds with skill in multistep problem solving and algebra remained unchanged.

White, black, and Hispanic students improved their mathematics performance between 1973 and 1996, among all three age groups. Mathematics scores for white, black,

\*The 1999 enrollment data are based on projections.

and Hispanic 9-, 13- and 17-year-olds improved between 1986 and 1996.

**Science.** Long-term changes in science performance have been mixed, though changes over the past 10 years have been generally positive. In 1996, science performance among 17-year-olds was lower than in 1970, but higher than in 1986. The science performance level of 13-year-olds was higher in 1996 than in 1986, recouping earlier declines. The science performance of 9-year-olds increased between 1986 and 1996, after showing no significant change between 1970 and 1986.

The science performance of white 9- and 13-year-olds was about the same in 1996 as it was in 1970, and the performance of 17-year-olds was lower in 1996. However, the performance at each of the three age groups was higher in 1996 than in 1986. Black and Hispanic 9- and 13-year-olds had higher science performance in 1996 than in the 1970s. Black 17-year-olds showed a decline through 1982 but then an increase by 1996. Despite significant gains by younger black and Hispanic students, their average performance remains lower than for white students. Although the performance gap between black and white students has narrowed, the science performance for black 13-year-olds was slightly lower than the average for white 9-year-olds in 1996.

**International comparisons.** The results of a 1995 international assessment in math and science show that U.S. fourth- and eighth-graders compare more favorably with students in other countries in science than in mathematics. In mathematics, U.S. eighth-graders scored below the international average, falling below 20 of the 41 countries tested. Fourth-graders performed above the international average, scoring below 7 of the 26 countries tested, including Singapore, Korea, and Japan. Students at both the fourth- and eighth-grade levels scored above the international average in science. Eighth-grade students in the United States were outperformed by those in 9 out of 41 countries. Fourth-grade students once again compared more favorably with their international counterparts than eighth-grade students. Out of 26 countries that participated in the fourth-grade assessment, students in only 1 country outperformed the U.S. students in science.

The international standing of U.S. students was stronger at the 8th grade than at the 12th grade in both mathematics and science among the countries that participated in the

assessments at both grade levels. U.S. 12th-graders performed below the international average and among the lowest scoring of the 21 countries on the assessment of mathematics general knowledge. U.S. students were outperformed by those in 14 countries, and outperformed those in 2 countries. U.S. 12th-graders also performed below the international average and among the lowest scoring of the 21 countries on the assessment of science general knowledge. U.S. students were outperformed by students in 11 countries, and they outperformed students in 2 countries. Our students' scores were not significantly different from those of seven countries, including France, Germany, Italy, and the Russian Federation.

### Public perception

Public perception about problems facing the local public schools has shifted over the years. In 1999, lack of discipline was cited as a major problem by 18 percent of the population; fighting, gangs, and violence was cited by 11 percent; and lack of financial support was cited by 9 percent. Use of drugs and large schools/overcrowding were cited as major problems by 8 percent of the population.

### Higher Education Enrollment

College enrollment hit a record level of 14.6 million in fall 1998 and was expected to reach a new high of 14.9 million in 1999, after falling slightly between 1993 and 1995. Despite decreases in the traditional college-age population during the 1980s and early 1990s, total enrollment has increased because of the high enrollment rate of older women and a rising rate of college attendance for recent high school graduates. Since 1990, the number of full-time students has generally increased at a faster rate than part-time students.

### Faculty and staff

During the fall of 1995, there were 932,000 faculty members in higher education institutions. Making up this figure were 551,000 full-time and 381,000 part-time faculty. In 1992, full-time instructors generally taught more hours and more students than part-time instructors, with 61 percent of full-time instructors teaching 8 or more hours per week and two-thirds teaching 50 or more students. About 30 percent of part-time instructors taught 8 or more hours per week, and 30 percent taught 50 or more students.

White males constituted a disproportionate share of full-time college faculty in 1995. Overall, about 57 percent of

full-time faculty were white males. However, this distribution varied substantially by rank of faculty. Among full professors, the proportion of white males was 75 percent. The proportion was somewhat lower among the lower ranked faculty, with white males making up 39 percent of the lecturers.

### Graduates, Degrees, and Attainment

The number of high school graduates in 1998–99 totaled about 2.8 million. Approximately 2.5 million graduated from public schools, and less than 0.3 million graduated from private schools. The number of high school graduates has declined from its peak in 1976–77, when 3.2 million students earned diplomas. In contrast, the number of GED credentials issued rose from 337,000 in 1976 to 496,000 in 1998. The dropout rate also declined over this period, from 14 percent of all 16- to 24-year-olds in 1977 to 12 percent in 1998. The number of degrees conferred by institutions of higher education during the 1998–99 school year by degree level has been projected: 563,000 associate's degrees; 1,166,000 bachelor's degrees; 385,000 master's degrees; 76,300 first-professional degrees; and 44,100 doctor's degrees.

The Bureau of the Census has collected annual statistics on the educational attainment of the population in terms of years of school completed. Between 1980 and 1998, the proportion of the adult population 25 years of age and over with 4 years of high school or more rose from 69 percent to 83 percent, and the proportion of adults with at least 4 years of college increased from 17 percent to 24 percent. In contrast, the proportion of young adults (25- to 29-year-olds) completing high school showed a small increase of about 3 percentage points, reaching 88 percent in 1998.

### Education Expenditures

Expenditures for public and private education, from preprimary through graduate school, are estimated at \$619 billion for 1998–99. The expenditures of elementary and secondary schools are expected to total about \$372 billion for 1998–99, while those of institutions of higher education will be about \$247 billion. Viewed in another context, the total expenditures for education are expected to amount to about 7.3 percent of the gross domestic product in 1998–99, about the same percentage as in the recent past.

### Summary

The statistical highlights presented here provide a quantitative description of the current American education scene. Clearly, from the large number of participants, the number of years that people spend in school, and the large sums expended by educational institutions, it is evident that the American people have a high regard for education. Assessment data indicate that there have been improvements in mathematics and science performance between 1986 and 1996. A high proportion of high school graduates are going on to college. Yet, wide variations in student proficiency from state to state and mediocre mathematics scores of American students in international assessments pose challenges.

**Data sources:** Over 50 sources of data, including most NCES studies.

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

Snyder, T.D., and Hoffman, C.M. (2000). *Digest of Education Statistics: 1999* (NCES 2000-031).

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**To obtain the complete report (NCES 2000-031),** 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).

Beginning Postsecondary Students Longitudinal Study First Follow-up 1996–98  
(BPS:96/98) Methodology Report  
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## BPS Longitudinal Study

### Beginning Postsecondary Students Longitudinal Study First Follow-up 1996–98 (BPS:96/98) Methodology Report

J.S. Wine, R.W. Whitmore, R.E. Heuer, M. Biber, and D.J. Pratt

*This article was originally published as the Executive Summary of the technical report of the same name. The sample survey data are from the Beginning Postsecondary Students Longitudinal Study (BPS).*

#### Introduction

The 1996 Beginning Postsecondary Students Longitudinal Study (BPS) follows a cohort of students who started their postsecondary education during the 1995–96 academic year. Students were first interviewed during 1996 as part of the 1995–96 National Postsecondary Student Aid Study (NPSAS:1996). BPS:1996/1998 is the first follow-up of this cohort. A second follow-up in 2001 will monitor academic progress through 6 years and assess completion rates for 4-year programs in the normal time expected. A third follow-up, scheduled to occur in 2003, 7 to 8 years after college entry, will allow for analysis of attainment among students who started working on a baccalaureate degree in 1995–96.

#### Content of the Report

This technical report describes the methods and procedures used for the full-scale data collection effort of BPS:1996/1998. The report begins by presenting the background and purposes of the BPS full-scale study. Next, the design and methodology of the study are described, and overall outcomes of data collection and evaluations of the quality of data collected are provided. Discussions of data file construction and of weighting and variance estimations are

presented in the final chapters. Materials used during the full-scale study are provided as appendices to the report.

#### Sample Design

The respondent universe for the BPS:1996/1998 full-scale study consisted of all students who began their postsecondary education for the first time during the 1995–96 academic year at any postsecondary institution in the United States or Puerto Rico. The sample students were the first-time beginners (FTBs) who attended postsecondary institutions eligible for inclusion in NPSAS:1996 and who were themselves NPSAS eligible. Students eligible for BPS:1996/1998 were those students eligible for NPSAS:1996 who were FTBs at NPSAS sample institutions in the 1995–96 academic year. The number of NPSAS:1996 computer-assisted telephone interview (CATI) respondents for which BPS:1996/1998 interviews were attempted was 11,985. In addition, 425 NPSAS:1996 nonrespondents who were potential FTBs were sampled for follow-up to improve upon the nonresponse bias reduction achieved through the nonresponse adjustments incorporated into the NPSAS:1996 statistical analysis weights. In an attempt to increase both the sample yield and the weighted effective

response rate, a nonrespondent subsample of 300 was selected for more intensive data collection efforts from among nonfinalized CATI nonrespondents.

### Instrument Development

Section A of the BPS interview determined both eligibility for NPSAS:1996 and status as an FTB for those individuals who were nonrespondents during the NPSAS:1996 interview. It also collected background information for NPSAS:1996 partial respondents who missed key items during the base-year interview. Sections B through G collected new and updated information on postsecondary enrollment, employment, income, family formation/household composition, student financial aid, debts, education experiences, and education and career aspirations. The final section updated locating information in order for sample members to be more easily located during the second follow-up.

### Data Collection

Three months prior to the start of data collection, a package was mailed to parents and/or other contacts to update the most recent student addresses and gain cooperation by explaining the purposes of the study. A standard lead letter was then mailed to students 2 weeks prior to the start of data collection to inform them of the upcoming interview and obtain additional postal service address updates. New contact information was preloaded into the CATI instrument to assist in locating sample members. Cases not located during the CATI-internal locating process were worked through one or more CATI-external locating procedures.

### Training of interviewers

For BPS:1996/1998, project staff developed two separate training programs: one for telephone interviewers and supervisors, who collected data through CATI; and one for field interviewers and supervisors, who conducted interviews through computer-assisted personal interviews (CAPI). Training topics covered administrative procedures, including confidentiality requirements and quality control techniques; student locating; interactions with students; the nature of the data to be collected; and the organization and operation of the CATI and CAPI programs used for data collection.

### Telephone interviewing

CATI locating and interviewing began in the spring of 1998. The initial CATI sample consisted of verified FTBs who had been located and interviewed successfully in the NPSAS:1996

full-scale data collection and for whom locating information was available. Additionally, sampled NPSAS:1996 nonrespondents for whom new or verified locating information was obtained were included in the CATI sample. The remaining sample members became part of the initial field tracing and interviewing sample. Field locating and interviewing activities began approximately 3 months after the start of CATI interviewing so that a sufficient number of cases would be available to be worked in each of the 34 geographic clusters.

## Contacting and Interviewing Outcomes

### Overall contacting and interviewing results

Overall contacting and interviewing results are shown in figure 1. Of the 12,410 students in the original sample, 11,184 were located and contacted, and 166 were excluded (out of scope) because they were deceased, out of the country, institutionalized or physically/mentally incapacitated,<sup>1</sup> had no phone, or were otherwise unavailable for the entire data collection period. Among the contacted subsample, 10,332 were interviewed, 10,268 of whom were verified FTBs. The unweighted contact rate, exclusive of those out of scope, was 91.3 percent (11,184/12,244). For those contacted, the interview rate was 92.3 percent (10,268/11,120). The overall unweighted response rate was 84.3 percent (91.3 x 92.3).

### Refusal conversion

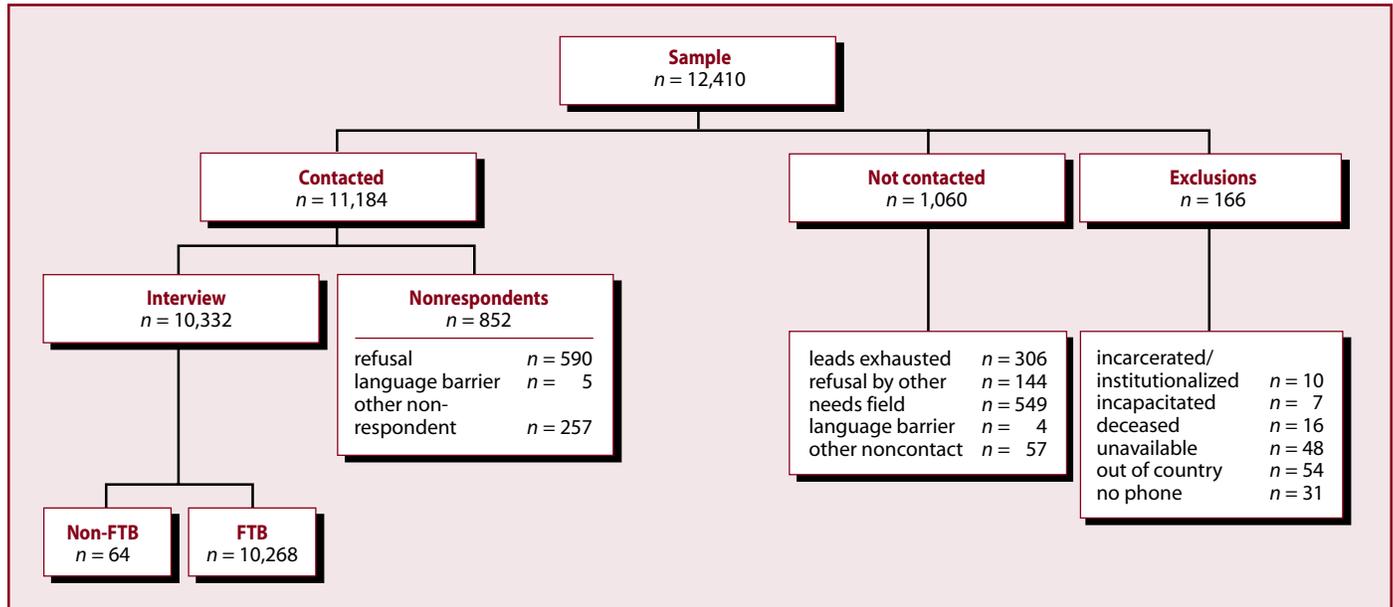
Efforts to gain cooperation from sample members included refusal conversion procedures. When a case initially refused to participate, the case was referred to a refusal conversion specialist. Fifteen percent (1,928 cases) refused to be interviewed at some point during data collection. Refusal conversion specialists called the sample members to try to gain full cooperation with the interview. When full cooperation could not be obtained, an abbreviated interview was attempted to obtain key information. Fifty-three percent (1,018 cases) of the refusals were converted.

### Partial responses

Of the 10,268 verified FTBs who were interviewed, full interviews were completed for 9,812 sample members, partial interviews were completed for 113 sample members, and abbreviated interviews were completed with 343. An interview was considered a partial interview if at least section B (enrollment information) of the main interview was completed, but not the full interview.

<sup>1</sup>Sample members were identified as institutionalized or physically/mentally incapacitated by parents or other contacts.

Figure 1.—Contacting and interviewing outcomes



SOURCE: U.S. Department of Education, National Center for Education Statistics, 1996 Beginning Postsecondary Students Longitudinal Study, "First Follow-up" (BPS:1996/1998).

### Field interviewing

A total of 2,094 cases were assigned to field interviewers. Cases were selected for a number of reasons, including Puerto Rico residence, inability to locate in CATI, refusal in CATI, or extensively worked in CATI but unable to reach the subject. Only cases located in close geographic proximity to a field interviewer were assigned to the field. Seventy percent of the field cases were contacted (in either CATI or field), and 70 percent of those contacted were interviewed.

### Timing

The average administration time for the full-scale interview was 20 minutes, which was 2 minutes shorter than the field test and 9 minutes shorter than the NPSAS:1996 full-scale interview. On average, NPSAS:1996 nonrespondents took 5 minutes longer to complete the interview than NPSAS:1996 respondents. Section A, which was skipped by NPSAS:1996 full respondents, accounts for the majority of this additional time.

### Indeterminate responses

Overall item nonresponse rates were low, with only 10 of the 363 items containing over 10 percent missing data. Items with the highest rates of nonresponse were those pertaining to income. Many respondents were reluctant to provide information about personal and family finances and, among those who were not, many simply did not know.

### Online coding

The BPS:1996/1998 instrument included tools that allowed computer-assisted online assignment of codes to literal responses for postsecondary education institution, major field of study, occupation, and industry. Ten percent of the major, occupation, and industry coding results were sampled and examined on a regular basis during data collection. Approximately 2 to 9 percent of the verbatim text strings were too vague to properly evaluate. Additionally, 5 to 10 percent of the strings were recoded, although very few resulted in a shift across broad categories.

### Quality control monitoring

Monitors listened to up to 20 questions during an ongoing interview and, for each question, evaluated two aspects of the interviewer-respondent interchange: whether the interviewer delivered the question correctly and whether the interviewer keyed the appropriate response. Over 14,000 items were monitored during the data collection period. The majority of the monitoring data was collected during the first half of data collection.

### Analysis Weights

The sample for BPS:1996/1998 includes not only the students who were identified as FTBs in their NPSAS:1996 interviews, but also a subsample of NPSAS:1996 nonrespondents who were considered potential FTBs at the conclusion of the study. Therefore, computation of the

statistical analysis weights for BPS:1996/1998 consisted of the following primary steps: computing special-purpose NPSAS:1996 weights that account for follow-up of NPSAS:1996 nonrespondents within BPS:1996/1998; and computing the BPS:1996/1998 analysis weights from the special-purpose NPSAS:1996 weights.

## Measures of Precision

The cumulative effect of the various factors affecting the precision of a survey statistic is often modeled as the survey design effect. The design effect is defined as the ratio of the sampling variance of the statistic under the actual sampling design divided by the variance that would be expected for a simple random sample of the same size. Hence, the design effect is unity (1.00), by definition, for simple random samples. For most practical sampling designs, the survey design effect is greater than unity, reflecting that the precision is less than could be achieved with a simple random sampling of the same size (if such a design were practical). The size of the survey design effect depends largely on the sample size and intracluster correlation within the primary sampling units. Hence, statistics that are based on observations that are highly correlated within institutions will have higher design effects for BPS. In order to provide an approximate characterization of the precision with which BPS:1996/1998 survey statistics can be estimated, the full report includes a short series of tables that provide estimates of key statistics, their standard errors, and the estimated survey design effects.

## Measures of Bias

Although there are many other potential sources of bias, one of the most important sources of bias in sample surveys is survey nonresponse. Survey nonresponse results in bias when the unobserved outcomes for the nonrespondents are systematically different from the observed outcomes for the respondents. Hence, we can model the potential for nonresponse bias by modeling the pattern of mean response by date of response. We first used the date of interview (or date of last access for non-CATI responses) to subdivide the 10,268 survey respondents into 10 groups of approximately 1,000 respondents each. Then, within each institution level (less-than-2 year, 2-year, and 4-year), we again subdivided all respondents into 10 groups of approximately equal numbers of respondents. This strategy was adopted so that

the mean response in each group would have approximately the same precision. However, it also results in respondent groups with shorter ranges of dates at the beginning of data collection because relatively larger numbers of interviews were completed during the first few months of data collection.

We examined the pattern of cumulative mean response by date of interview for the following: mean age in the base year; percent minority; percent enrolled in spring 1998; percent who attained a degree by June 1998; and mean number of risk factors. In addition, for all students combined, we examined the mean of the institution level attended in the base year. For students who attended 4-year institutions in the base year, we examined the percentage who reported in the base year that they were attempting a baccalaureate degree. If the mean responses from the later groups of respondents are reasonably consistent, then obtaining additional responses probably will have little effect on survey estimates and nonresponse bias probably is negligible.

Some potential for bias by institution level was evident for overall population estimates because it appears that additional respondents would be more likely to have attended less-than-4-year institutions. The only other evidence of potential for bias was with respect to the percentage of respondents who were enrolled in the spring of 1998. For students from 4-year institutions and for the sample as a whole, it appears that additional respondents would be more likely to have not been enrolled in the spring of 1998.

**Data source:** The NCES 1996 Beginning Postsecondary Students Longitudinal Study, "First Follow-up" (BPS:1996/1998).

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

Wine, J.S., Whitmore, R.W., Heuer, R.E., Biber, M., and Pratt, D.J. (2000). *Beginning Postsecondary Students Longitudinal Study First Follow-up 1996–98 (BPS:96/98) Methodology Report* (NCES 2000–157).

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# DATA PRODUCTS, OTHER PUBLICATIONS, AND FUNDING OPPORTUNITIES

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## Data Products

### Data File: 1997–98 Private School Directory CD-ROM

This CD-ROM contains the 1997–98 Private School Directory. The school listings are derived from the 1997–98 Private School Survey (PSS) and include the names, addresses, telephone numbers, enrollment, and other descriptive data for 29,845 private schools and kindergarten programs in the 50 states and the District of Columbia. A school locator, which can perform searches for individual schools or for types of schools, is provided. The results of these searches may be downloaded into a file as well as displayed on-screen. The complete data file for the Directory, with documentation, may also be downloaded into a file.

**For questions about content**, contact Stephen Broughman ([stephen\\_broughman@ed.gov](mailto:stephen_broughman@ed.gov)).

**To obtain this CD-ROM (NCES 2000-313)**, call the toll-free ED Pubs number (877-433-7827) or contact GPO (202-512-1800).

### Beginning Postsecondary Students Longitudinal Study, First Follow-up (BPS:96/98): Public Use Data Analysis System (DAS) CD-ROM

Featured on this CD-ROM are data from the Beginning Postsecondary Students Longitudinal Study, First Follow-up (BPS:1996/1998). BPS:1996/1998 includes data for students who started their postsecondary education during the 1995–96 academic year, and were surveyed in 1996 and again in 1998. BPS data pertain to persistence, progress, and attainment from initial time of entry into postsecondary education through leaving and entering the workforce.

In addition to the BPS:1996/1998 data, this CD also includes all the other NCES data sets that have been made available for public use through the Data Analysis System (DAS) as of March 2000. DAS software provides

convenient public access to several NCES surveys, allowing users to produce custom-made tables and correlation matrices by selecting variables of interest. Visit the DAS Home Page (<http://nces.ed.gov/das/>) for a list of available surveys as well as access to the latest DAS updates.

**For questions about this data product**, contact Aurora D'Amico ([aurora\\_d'amico@ed.gov](mailto:aurora_d'amico@ed.gov)).

**To obtain this CD-ROM (NCES 2000–155)**, call the toll-free Ed Pubs number (877–433–7827) or contact GPO (202–512–1800).

### Data File: Fall Staff in Postsecondary Institutions: 1997

This file contains fall 1997 staff data collected through the NCES Integrated Postsecondary Education Data System “Fall Staff Survey” (IPEDS-S) and “Consolidated Survey” (IPEDS-CN). The file makes available data for postsecondary institutions in the 50 states, District of Columbia, and outlying areas that are eligible to participate in Title IV financial aid programs. Data on degree-granting institutions include the distribution of full- and part-time staff by primary occupation, gender, and race/ethnicity; full-time faculty by academic rank and tenure; full-time new hires by gender and race/ethnicity; and contracted or donated services by occupational activity. Data on nondegree-granting institutions include the number of staff by employment status, primary occupation, and gender.

The fall staff data and documentation can be downloaded from the NCES Web Site. The data are in four fixed-length text files, which can be used with most software, including statistical packages such as SAS and SPSS, database packages such as ACCESS and DBASE, and programming languages such as C and Visual Basic.

**For questions about this data product**, contact Rosa M. Fernandez ([rosa\\_fernandez@ed.gov](mailto:rosa_fernandez@ed.gov)).

**To obtain this data product (NCES 2000–165)**, visit the NCES Web Site (<http://nces.ed.gov>).

### Electronic Codebooks for Windows 95/98 CD-ROM

This CD-ROM provides updated Electronic Codebook (ECB) software for all 22 of the postsecondary and longitudinal data sets that NCES released with ECBs prior to February 2000. For each of these data sets, separate software is provided to update the old version of the ECB. The updated ECBs run under Windows 95/98, providing enhanced functionality, particularly for those ECBs that were originally developed for DOS.

No data are on this CD. After installing an ECB update, therefore, you must have the original restricted- or public-use CD to access data. Also, the ECBs on this CD do not include any new variables that may have been computed for the data sets since their original release.

**For questions about this CD-ROM**, contact Paula R. Knepper ([paula\\_knepper@ed.gov](mailto:paula_knepper@ed.gov)).

**To obtain this CD-ROM (NCES 2000–193)**, contact Aurora D'Amico ([aurora\\_d'amico@ed.gov](mailto:aurora_d'amico@ed.gov)).

## Other Publications

### Reference and Reporting Guide for Preparing State and Institutional Reports on the Quality of Teacher Preparation: Title II, Higher Education Act

In October 1998, Congress voiced its concern for the quality of teacher preparation by enacting Title II of the Higher Education Act (HEA). Title II authorizes new federal grant programs that support the efforts of states, institutions of higher education, and their school district partners to improve the recruitment, preparation, and support of new teachers. Section 207 of Title II also includes new accountability measures in the form of annual reporting requirements for institutions and states on teacher preparation and licensing.

This *Reference and Reporting Guide* is intended to assist states and institutions of higher education in fulfilling Title II reporting requirements regarding teacher preparation and certification. The guide fulfills the congressional mandate that NCES develop uniform definitions and reporting methods for institutions of

higher education and states in meeting the reporting requirements.

The reports mandated in Title II, section 207, of the HEA are required of two groups: (1) institutions of higher education that conduct teacher preparation programs enrolling students who receive federal assistance under Title IV of the HEA; and (2) states that receive HEA funds.

**To obtain this guide (NCES 2000-089)**, visit the Office of Postsecondary Education Web Site (<http://www.ed.gov/offices/OPE/News/teacherprep/index.html>) or the NCES Web Site (<http://nces.ed.gov>).

### Technical Report and Data File User's Manual for the 1992 National Adult Literacy Survey

*Irwin Kirsch, Kentaro Yamamoto, Norma Norris, Donald Rock, Ann Jungeblut, Patricia O'Reilly, Anne Campbell, Lynn Jenkins, Andrew Kolstad, Martha Berlin, Leyla Mohadjer, Joseph Waksberg, Huseyin Goksel, John Burke, Susan Rieger, James Green, Merle Klein, Peter Mosenthal, and Stéphane Baldi*

In 1992, NCES conducted the National Adult Literacy Survey to measure the nature and extent of literacy skills among the adult population, age 16 and older. A State Adult Literacy Survey was concurrently performed in 11 states to produce state-level results comparable to the national data. In addition to the household samples, inmates from 87 state and federal prisons were randomly surveyed to represent the inmate population in the United States. Their participation helped to provide better estimates of the literacy levels of the total population and made it possible to report on the literacy proficiencies of this segment of society.

The *Technical Report and Data File User's Manual for the 1992 National Adult Literacy Survey* includes details on the sample design, weighting, instrument development, data collection and processing, scaling and scoring, and literacy levels used for this assessment. The technical report also provides sample SAS and SPSS programs for

implementing the jackknife procedure to estimate standard errors.

**Author affiliations:** I. Kirsch, K. Yamamoto, N. Norris, D. Rock, A. Jungeblut, and P. O'Reilly, ETS; A. Campbell, Diné College; L. Jenkins, Wordsworth Writing and Editing; A. Kolstad, NCES; M. Berlin, L. Mohadjer, J. Waksberg, H. Goksel, J. Burke, S. Rieger, J. Green, and M. Klein, Westat, Inc.; P. Mosenthal, Syracuse University; S. Baldi, American Institutes for Research.

**For questions about content**, contact Andrew Kolstad ([andrew\\_kolstad@ed.gov](mailto:andrew_kolstad@ed.gov)).

**To obtain the complete report (NCES 2000-465)**, 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).

### The 10th Federal Forecasters Conference—1999: Papers and Proceedings

*Debra E. Gerald (editor)*

The 10th Federal Forecasters Conference, held June 24, 1999, in Washington, DC, provided a forum where forecasters from different federal agencies and other organizations could meet and discuss various aspects of forecasting in the United States. The theme of the conference was "Forecasting in the New Millennium."

One hundred and seventy-seven forecasters attended the day-long conference. A variety of papers were presented on topics related to agriculture, the budget, the economy, health, labor, population, and forecasting techniques. These papers are included in these proceedings.

The proceedings also include selected papers from federal presenters at the 19th International Symposium on Forecasting, held June 27-30, 1999, in Washington, DC. The symposium was sponsored by the International Institute of Forecasters.

**Editor affiliation:** D.E. Gerald, NCES.

**For questions about these proceedings**, contact Debra E. Gerald ([debra\\_gerald@ed.gov](mailto:debra_gerald@ed.gov)).

**To obtain these proceedings (NCES 2000-017)**, visit the NCES Web Site (<http://nces.ed.gov>).

## 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.

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**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 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.

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**For more information**, contact Alex Sedlacek ([alex\\_sedlacek@ed.gov](mailto:alex_sedlacek@ed.gov)).