### Editorial Note



#### National Center for Education Statistics

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

### **EDUCATION STATISTICS QUARTERLY**

#### **Purpose and goals**

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

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

#### **Content**

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

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

All NCES publications appearing in volume 4 (issues 1 through 4) of the *Quarterly* are indexed at the end of this issue. 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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Analyzes overall changes in the net price of attending college—that is, tuition and nontuition expenses minus financial aid. Also examines net price changes by student income and institution type.	during the 1990s at Hispanic serving institutions (those with at least 25 percent Hispanic enrollment in 1999). Also presents an overview of staff and salaries at these institutions.



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Laurie Lewis and Elizabeth Farris	Schools—A Brief Portrait
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### NOTE FROM NCES

Kathryn A. Chandler, Program Director, Elementary/Secondary Sample Survey Studies Program

# Collecting and Reporting Data on School Crime and Safety

During the 1997–98 school year, the media brought a number of school tragedies to the attention of the world. These tragedies all involved students using firearms to kill students—and, in one case, a teacher—in random fashion. The towns where these incidents took place—Pearl, Mississippi; West Paducah, Kentucky; Jonesboro, Arkansas; and Springfield, Oregon—were made famous. In Pearl, 9 students were shot and 2 died; in West Paducah, 8 students were shot and 3 died; in Jonesboro, 14 students and a teacher were shot and 4 of the students and the teacher died; and in Springfield, 20 students were shot and 2 died.

These were horrific events, and the media were hungry for data to put these events in context. Questions such as the following were being asked: How often do shootings like these occur? Is the frequency of school violence increasing? Are schools becoming more violent? In what schools are these incidents occurring?

Prior to the 1997–98 school year, NCES data collections on school crime and violence were done on an irregular basis. NCES had an advisory role on the Safe School Study that was conducted by the National Institute of Education in 1978. More than a decade later, in 1989, NCES sponsored the first School Crime Supplement (SCS) to the Bureau of Justice Statistics (BJS) National Crime Victimization Survey (NCVS). The SCS provided an inexpensive means to reach students ages 12 through 18, although the number of questions that could be included was limited. The 1989 SCS was a success, and BJS released the data in 1991.

In the early 1990s, NCES shifted its focus to its own National Household Education Surveys Program (NHES) as a means of collecting data on school crime. The 1993 NHES included a survey that asked students in grades 6 through 12 and their parents about issues related to safety and discipline in the students' schools. While this survey was a success in many respects and allowed for more questions than the SCS, concerns about response rates for students led NCES to stop including the survey in NHES. NCES then shifted its thinking back to supplements to the NCVS as a means of getting student data related to crime and safety. With the support of BJS, another SCS was fielded in 1995.



In the meantime, the Drug-Free Schools and Communities Act of 1994 (P.L. 103–382) contained a provision requiring NCES to "collect data to determine the frequency, seriousness, and incidence of violence in elementary and secondary schools." While the SCS was providing data from students, NCES had no data from schools. To obtain school-level data, NCES used its Fast Response Survey System (FRSS) to conduct the "Principal/School Disciplinarian Survey on School Violence." This survey was, by NCES standards, quite modest; responses were received from 1,234 schools. Data collection took place during the 1996–97 school year. Unfortunately, the report providing results of the survey had not yet been published when the events of 1997–98 began to take place. The report was released in March 1998, as was the report providing results of the 1995 SCS.

In December 1997, the Departments of Education and Justice began meeting on a regular basis to examine data gaps in relation to school crime and violence. Encouraged by Bill Modzeleski of the Department of Education's Office of Safe and Drug-Free Schools, the departments embarked on a joint project to produce a compendium of all the latest information on school crime and safety. The resulting report, *Indicators of School Crime and Safety*, was first produced in October 1998 and has been released on an annual basis (each fall) since then. The 2002 edition of *Indicators of School Crime and Safety* is one of the reports highlighted in this issue of the *Quarterly*.

NCES has also made a number of other commitments to collect and report data on school crime and safety on a regular basis. Thus, a long-term commitment was made to conduct the SCS biennially beginning in 1999. The report that releases data from the 1999 SCS, *Are America's Schools Safe? Students Speak Out: 1999 School Crime Supplement*, is also highlighted in this issue of the *Quarterly*.

Other relevant NCES data collections include the School Survey on Crime and Safety (SSOCS). This survey, an expanded version of the 1996–97 FRSS survey of principals/ school disciplinarians, was conducted in 2000 and will be conducted again in 2004. The 2000 SSOCS data will be released in fall 2003. Questions about school crime and safety were also added to the Education Longitudinal Study of 2002 and are being added to the 2003–04 Schools and Staffing Survey. Because of these efforts, NCES will be prepared to answer the statistical questions born of tragedies in schools and to provide the data needed to help policymakers and researchers better address the safety of our children at school.

### FEATURED TOPIC: SCHOOL CRIME AND SAFETY

Are America's Schools Safe? Students Speak Out: 1999 School Crime
Supplement
Lynn A. Addington, Sally A. Ruddy, Amanda K. Miller, and Jill F. DeVoe
Indicators of School Crime and Safety: 2002 Jill F. DeVoe, Katharin Peter, Phillip Kaufman, Sally A. Ruddy, Amanda K. Miller, Mike Planty, Thomas D. Snyder, Detis T. Duhart, and Michael R. Rand
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# Are America's Schools Safe? Students Speak Out: 1999 School Crime Supplement

Lynn A. Addington, Sally A. Ruddy, Amanda K. Miller, and Jill F. DeVoe

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 School Crime Supplement (SCS) to the National Crime Victimization Survey (NCVS).

#### Introduction

The American public continues to be concerned about crime in schools and the safety of students. In part, this concern has been shaped by highly publicized acts of extreme school violence, which have intensified the attention placed on student safety. To obtain a more complete picture of the prevalence of school violence and the safety of students in American schools, it is important to collect data to permit these issues of school safety to be studied. The School Crime Supplement (SCS) to the National Crime Victimization Survey (NCVS) is one measure of the prevalence of criminal victimization at school and students' perceptions of their school environ-

ment. Jointly designed by the Department of Education's National Center for Education Statistics and the Department of Justice's Bureau of Justice Statistics, the SCS has collected data on school crime and related topics concerning the school safety of 12- through 18-year-old students in 1989, 1995, and 1999. This report is the first to focus on data collected by the 1999 SCS.

#### **Key Findings**

#### **Criminal victimization at school**

■ In 1999, 12.2 percent of students ages 12 through 18 reported experiencing any violent or property victimization at school in the previous 6 months

- (figure A).\* Specifically, 4.0 percent of students reported experiencing violent victimization at school and 7.7 percent of students reported property victimization at school.
- Students who reported the presence of street gangs at school were more likely to experience any victimization at school (18.4 percent) than those who did not report gang presence (10.8 percent).
- Those who reported knowing another student who brought a gun to school were more likely to report any victimization at school (20.1 percent) than those who did not know such a student (11.6 percent). In addition, 24.3 percent of students who reported actually seeing another student with a gun reported

being the victim of any crime at school, compared to 11.9 percent of those who did not see such a student.

#### Characteristics of criminal victimizations at school

- In 1999, most victimizations that occurred at school to 12- through 18-year-olds were not reported to the police (88.3 percent). Of those that were not reported to police, the most common reason given for not reporting the incident was that it was reported to a teacher or other school official (37.2 percent).
- There were no differences detected in the rates of victimizations occurring in classrooms, hallways or stairwells, and bathrooms or locker rooms.

#### Availability of alcohol or drugs at school

■ In 1999, 36.9 percent of 12- through 18-year-old students reported that drugs were available at school and 20.2 percent of 12- through 18-year-old students reported that alcohol was available at school (figure B).

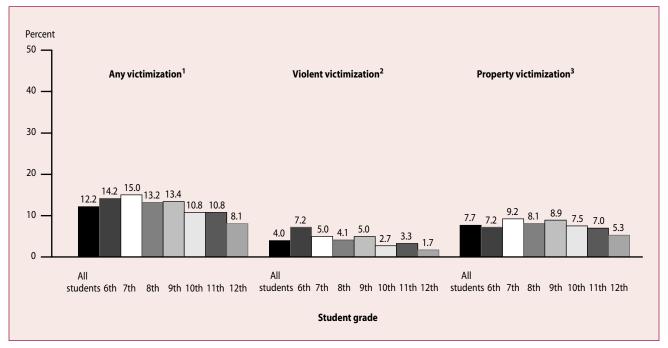


Figure A. Percentage of students ages 12 through 18 who reported experiencing criminal victimization at school, by grade: 1999

<sup>1</sup>Any victimization is a combination of violent and property victimization. If the student reported an incident of either, he or she is counted as having experienced any victimization. If the student reported having experienced both, he or she is counted once under the "any victimization" category. Any victimization includes those School Crime Supplement (SCS) cases that can be allocated to either the violent or property categories as well as those that cannot.

<sup>2</sup>Violent victimization includes incidents occurring at school reported in the SCS (physical attack or taking property from the student directly by force, weapons, or threats) or the National Crime Victimization Survey (NCVS) (rape, sexual assault, robbery, aggravated assault, or simple assault).

SOURCE: U.S. Department of Justice, Bureau of Justice Statistics, School Crime Supplement to the National Crime Victimization Survey, January–June 1999. (Based on figures 1 and 4 on pp.5 and 8 of the complete report from which this article is excerpted.)

<sup>\*</sup>Readers should be aware that though the 1999 estimates in this report and those reported in *Indicators of School Crime and Safety: 2002* (also featured in this issue of the *Quarterly*) are drawn from the same data file, the methods for deriving these estimates differ. Specifically, *Are America's Schools Safe?* uses a combination of victimization estimates derived from respondent reports of victimization in both the SCS and NCVS. The *Indicators* report, on the other hand, uses only those victimizations reported in the NCVS.

<sup>&</sup>lt;sup>3</sup>Property victimization includes theft of a student's property at school reported in the SCS or the NCVS.

- Twelve- through 18-year-old students from house-holds with incomes of \$50,000 or more were generally more likely than students from households with incomes of less than \$7,500 to report that drugs (41.0 percent vs. 22.8 percent, respectively) and alcohol (23.6 percent vs. 10.4 percent, respectively) were available at their school.
- Suburban students (39.5 percent) were more likely than urban students (33.7 percent) to report drug availability at school. Both suburban (21.6 percent) and rural (23.0 percent) students were more likely than urban students (15.1 percent) to report alcohol availability at school.
- Those students who reported the presence of street gangs at school were more likely to report that drugs and alcohol were available at their school than those who did not report gang presence (for drugs, 62.9 percent vs. 31.6 percent, respectively; for alcohol, 33.1 percent vs. 17.8 percent, respectively).
- Approximately 34.8 percent of students reported that marijuana was available at their school. This was higher than the percentage reporting the availability of alcohol (20.2 percent), crack (13.4 percent), other forms of cocaine (12.0 percent), uppers/downers (15.5 percent), LSD (10.7 percent), PCP (6.4 percent), heroin (6.7 percent), or other drugs (4.4 percent). Of students who said marijuana was available, 79.3 percent reported that it was easy or fairly easy to obtain marijuana at their school.

#### Presence of street gangs at school

- Student reports of the presence of street gangs at school dropped from 28.4 percent in 1995 to 17.3 percent in 1999.
- In 1999, Hispanic (28.3 percent) and Black, non-Hispanic students (24.7 percent) were more likely to report the presence of street gangs at school than were White, non-Hispanic students (13.1 percent).

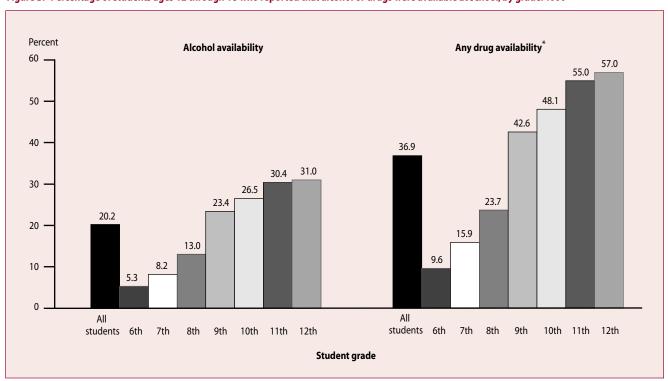


Figure B. Percentage of students ages 12 through 18 who reported that alcohol or drugs were available at school, by grade: 1999

\*If students responded that one or more of the drugs listed in the School Crime Supplement (SCS) were possible to obtain at school, they are included in the "any drug availability" category. The drugs include marijuana, crack, other forms of cocaine, uppers/downers, LSD, PCP, heroin, or other drugs.

SOURCE: U.S. Department of Justice, Bureau of Justice Statistics, School Crime Supplement to the National Crime Victimization Survey, January–June 1999. (Originally published as figure 12 on p. 20 of the complete report from which this article is excerpted.)

While students from urban households (25.1 percent) were more likely than their suburban (15.8 percent) and rural (11.1 percent) counterparts to report the presence of street gangs at school, the percentage of students from urban areas reporting gang presence decreased from 40.5 percent in 1995 to 25.1 percent in 1999.

#### Presence of guns and weapons at school

- In 1999, a very small percentage of 12- through 18-year-old students (0.3 percent) reported bringing a gun to school for protection in the previous 6 months. A larger percentage of students (1.5 percent) reported bringing any weapon to school for protection.
- Students who reported violent victimization at school were more likely to report bringing a weapon to school for protection. In 1999, 3.6 percent of students who experienced violent victimization and 3.9 percent who reported being bullied at school also reported bringing a weapon to school, compared to 1.4 percent who did not experience violent victimization and 1.4 percent who did not report being bullied.
- Fewer students reported knowing or seeing another student with a gun at school in 1999 than in 1995. In 1995, 12.7 percent of students reported knowing another student who brought a gun to school, compared to 7.5 percent in 1999. In 1995, 5.3 percent of students reported seeing another student with a gun at school, compared to 2.8 percent in 1999.

### Presence of hate-related words and hate-related graffiti at school

- In 1999, 13.2 percent of students reported being called a hate-related word at school. Black, non-Hispanic students (16.5 percent) were more likely than White, non-Hispanic (12.6 percent) or Hispanic (12.1 percent) students to report that they had been called a hate-related word at school.
- Approximately 36.3 percent of students reported seeing hate-related graffiti at school. Reports of hate-related graffiti varied by gender (38.9 percent of females vs. 33.8 percent of males) and by school type (38.0 percent of public school vs. 20.6 percent of private school students).

#### Prevalence of bullying at school

- In 1999, 5.1 percent of 12- through 18-year-old students reported that they were bullied at school during the past 6 months.
- Students in lower grades were more likely to be bullied than were those in higher grades. In 1999, 10.5 percent of 6th-graders reported being the victim of bullying compared to 1.2 percent of 12th-graders.
- Student reports of experiencing bullying at school were similar regardless of the presence of security measures such as security guards, staff hallway monitors, and metal detectors at the school.

#### Prevalence of avoidance behaviors by students

■ Very few students engage in avoidance behavior due to concern that someone might harm them. In 1999, 2.3 percent of students reported that they avoided school, 0.6 percent of students reported that they avoided class, and 0.8 percent of students reported that they avoided participating in extracurricular activities during the past 6 months.

### Prevalence of fear at school and while traveling to and from school

- In 1999, 5.3 percent of students reported that they feared being attacked or harmed while at school while 3.9 percent feared harm while traveling to and from school.
- Students who had experienced any victimization at school were more likely to fear being harmed at school (13.4 percent) than those who had not been victimized (4.2 percent). In addition, 7.7 percent of those who had been victimized reported fear while traveling to and from school, compared to 3.4 percent who had not been victimized.
- Students who had experienced bullying at school were also more likely to fear being attacked or harmed at school than those who had not (27.5 percent vs. 4.1 percent, respectively). Approximately 11.6 percent of students who reported being bullied also responded that they were fearful while traveling to and from school compared to 3.5 percent who had not been bullied.

### Students' perceptions before and after the Columbine shootings

- shootings at Columbine High School were more likely to report fear of harm or attack at school (6.3 percent) than those interviewed before the incident (4.8 percent). Students reported similar levels of fear while traveling to and from school and outside of school after the incident as they did before.
- After the shootings at Columbine High School, students were more likely to report knowing another student who brought a gun to school than before (6.7 percent before vs. 9.0 percent after). Before the date of the Columbine incident, 2.4 percent of students reported actually seeing another student with a gun at school, compared to 3.6 percent afterward.

**Data source:** The Bureau of Justice Statistics School Crime Supplement (SCS) to the National Crime Victimization Survey (NCVS), 1995 and 1999.

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

Addington, L.A., Ruddy, S.A., Miller, A.K., and DeVoe, J.F. (2002).

Are America's Schools Safe? Students Speak Out: 1999 School Crime Supplement (NCES 2002–331).

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**To obtain the complete report (NCES 2002–331),** call the toll-free ED Pubs number (877–433–7827) or visit the NCES Electronic Catalog (http://nces.ed.gov/pubsearch).

# Indicators of School Crime and Safety: 2002

Jill F. DeVoe, Katharin Peter, Phillip Kaufman, Sally A. Ruddy, Amanda K. Miller, Mike Planty, Thomas D. Snyder, Detis T. Duhart, and Michael R. Rand

This article was originally published as the Executive Summary of the report of the same name. The report is a joint effort of the Bureau of Justice Statistics (BJS) and the National Center for Education Statistics (NCES). The numerous data sources are listed at the end of this article.

Schools should be safe and secure places for all students, teachers, and staff members. Without a safe learning environment, teachers may have difficulty teaching and students may find their environment a difficult one in which to learn. Priorities set by schools, local authorities, and state and federal government have prompted the nation to focus on improving the safety of American schools. The effort toward providing safer schools requires establishing good indicators of the current state of school crime and safety, and periodically monitoring and updating these indicators. Student safety is of concern outside of school as well. In fact, as the data in this report show, a larger number of serious violent victimizations happen away from school than at school.1 In 2000, students were more than twice as likely to be victims of serious violent crime away from school than at school.2

In 2000, students ages 12 through 18 were victims of about 1.9 million total crimes of violence or theft at school. In that same year, students in this age range were victims of about 128,000 serious violent crimes at school (i.e., rape, sexual assault, robbery, and aggravated assault). There were also 47 school-associated violent deaths in the United States between July 1, 1998, and June 30, 1999, including 38 homicides, 33 of which involved school-aged children.

The total rate of nonfatal victimization at school for students ages 12 through 18 generally declined between 1992 and 2000, from 144 incidents per 1,000 students in 1992 to 72 per 1,000 students in 2000. The percentage of students being victimized at school also has declined over the last few years. Between 1995 and 2001, the percentage of students ages 12 through 18 who reported being victims of crime at school decreased from 10 percent to 6 percent. This decline was due in large part to the decrease in the percentage of students reporting being victims of theft at school, which declined from 7 percent in 1995 to 4 percent in 2001. However, the prevalence of other problem behavior at school has increased. For example, in 2001, 8 percent of

<sup>1</sup>These data are not adjusted by the number of hours that students spend on school property and the number of hours they spend elsewhere.

<sup>2</sup>In comparisons between victimization at and away from school, "students" refers to persons 12 through 18 years of age who have attended any grade equal to or less than high school. An uncertain percentage of these persons may not have attended school during the survey reference period.

students reported that they had been bullied at school in the last 6 months, up from 5 percent in 1999.

For some other types of crime at school, the prevalence has not changed. Between 1993 and 2001, the percentage of students in grades 9 through 12 who were threatened or injured with a weapon on school property in the past 12 months remained relatively constant—between 7 and 9 percent.

As the rates of criminal victimization in schools have declined or remained constant, students also seem to feel more secure at school now than just a few years ago. The percentage of students ages 12 through 18 who reported avoiding one or more places at school for their own safety decreased from 9 percent in 1995 to 5 percent in 1999 and 2001.

The data shown in this report present a mixed picture of school safety. While overall victimization rates have declined, more work needs to be done to address the issues related to school violence and safety.

#### **Organization of This Report**

This report, the fifth in a series of annual reports on school crime and safety from the Bureau of Justice Statistics (BJS) and the National Center for Education Statistics (NCES), presents the latest available data on school crime and student safety. The report repeats many indicators from the 2001 report and also provides updated data on fatal and nonfatal student victimization; nonfatal teacher victimization and threats against teachers; and student reports of being threatened or injured with a weapon at school, being in fights at school, being bullied at school, and feeling unsafe at school. This report also includes updated data on students' reports of avoiding places at school, being called hate-related words, seeing hate-related graffiti, gangs at school, carrying weapons to school, using alcohol and marijuana, and drug availability on school property.

The report is organized as a series of indicators, with each indicator presenting data on a different aspect of school crime and safety. It starts with the most serious violence.

There are five sections to the report: Violent Deaths at School; Nonfatal Student Victimization—Student Reports; Violence and Crime at School—Public School Principal/ Disciplinarian Reports; Nonfatal Teacher Victimization at School—Teacher Reports; and School Environment. Each section contains a set of indicators that, taken together, describe a distinct aspect of school crime and safety.

Rather than relying on data from a large omnibus survey of school crime and safety, this report uses a variety of independent data sources from federal departments and agencies including the BJS, NCES, and the Centers for Disease Control and Prevention. Each data source has an independent sample design, data collection method, and questionnaire design, all of which may be influenced by the unique perspective of the primary funding agency. By combining multiple and independent sources of data, it is hoped that this report will present a more complete portrait of school crime and safety than would be possible with any single source of information.

However, because the report relies on so many different data sets, the age groups, the time periods, and the types of respondents analyzed can vary from indicator to indicator. Readers should keep this in mind as they compare data from different indicators. Furthermore, while every effort has been made to keep key definitions consistent across indicators, different surveys sometimes use different definitions, such as those for specific crimes and "at school." Therefore, caution should be used in making comparisons between results from different data sets.

#### **Key Findings**

Following are key findings from the various sections of the report:

#### Violent deaths at school

From July 1, 1998, through June 30, 1999, there were 47 school-associated violent deaths in the United States. Thirty-eight of these violent deaths were homicides, six were suicides, two involved suspects killed by a law enforcement officer in the line of duty, and one was unintentional. Thirty-three of the 38 school-associated homicides were of school-aged children. These 33 homicides are relatively few (1 percent of all homicides of youth) compared to a total of 2,391 children ages 5 to 19 who were victims of homicide in the United States from July 1, 1998, through June 30, 1999. Four of the six school-associated

suicides occurring from July 1, 1998, through June 30, 1999, were of school-aged children. Away from school, there were a total of 1,855 suicides of children ages 5 to 19 during the 1999 calendar year.

#### Nonfatal student victimization—student reports

Students ages 12 through 18 were more likely to be victims of nonfatal serious violent crime—including rape, sexual assault, robbery, and aggravated assault—away from school than when they were at school. In 2000, students in this age range were victims of about 373,000 serious violent crimes away from school, compared with about 128,000 at school. This translates into a rate of 14 per 1,000 students away from school and 5 per 1,000 students at school.

- The percentage of students in grades 9 through 12 who have been threatened or injured with a weapon on school property³ has not changed significantly in recent years. In 1993, 1995, 1997, 1999, and 2001, between 7 and 9 percent of students reported being threatened or injured with a weapon such as a gun, knife, or club on school property in the past 12 months.
- The percentage of students in grades 9 through 12 who reported being in a fight anywhere declined from 1993 to 2001—from 42 percent to 33 percent. Similarly, the percentage of students who reported fighting on school property also declined over this period, from 16 percent to 13 percent.
- In 2001, 8 percent of 12- through 18-year-old students reported being bullied at school in the last 6 months, up from 5 percent in 1999. Both males and females were more likely to report being bullied in 2001 than in 1999. In 2001, males were more likely than females to report being bullied (9 vs. 7 percent); however, in 1999, no such difference could be detected (5 percent each).
- Between 1992 and 2000, there was a 46 percent decrease in the violent crime victimization rate at school (from 48 to 26 incidents per 1,000 students ages 12 through 18) and a 52 percent decrease away from school (from 71 to 34 incidents per 1,000 students ages 12 through 18) (figure A). In 2000, younger students (ages 12 through 14) were not victimized at a different rate than older students (ages 15 through 18) either at or away from school.

<sup>&</sup>lt;sup>3</sup>Definitions for "on school property" and "at school" may differ.

Number Number per 1,000 per 1,000 - 200 Total Thefts - 150 100 -**-** 100 Number Number per 1,000 per 1,000 200 -**Violent crimes** Serious violent crimes 100 · At school Away from school

Figure A. Number of nonfatal crimes against students ages 12 through 18 per 1,000 students, by type of crime and location: 1992 to 2000

NOTE: Serious violent crimes include rape, sexual assault, robbery, and aggravated assault. Violent crimes include serious violent crimes and simple assault. Total crimes include violent crimes and theft. "At school" includes inside the school building, on school property, or on the way to and from school.

SOURCE: U.S. Department of Justice, Bureau of Justice Statistics, National Crime Victimization Survey (NCVS), 1992 to 2000. (Originally published as figure 2.1 on p. 7 of the complete report from which this article is excerpted.)

### Violence and crime at school—public school principal/disciplinarian reports

In 1996–97, 10 percent of all public schools reported at least one serious violent crime to the police or a law enforcement representative. Principals' reports of serious violent crimes included murder, rape or other type of sexual battery, suicide, physical attack or fight with a weapon, or robbery. Another 47 percent of public schools reported at least one less serious violent or nonviolent crime (but not a serious violent one). Crimes in this category include physical attack or fight without a weapon, theft/larceny, and vandalism. The remaining 43 percent of public schools did not report any of these crimes to the police.

- Elementary schools were less likely than either middle or high schools to report any type of crime in 1996–97. Elementary schools were more likely to report vandalism (31 percent) than any other crime (19 percent or less).
- At the middle and high school levels, physical attack or fight without a weapon was generally the most commonly reported crime in 1996–97 (9 incidents per 1,000 middle school students and 8 incidents per 1,000 high school students). Theft or larceny was more common at the high school level than at the middle school level (6 vs. 4 incidents per 1,000 students).

### Nonfatal teacher victimization at school—teacher reports

Over the 5-year period from 1996 through 2000, teachers were victims of approximately 1,603,000 nonfatal crimes at school, including 1,004,000 thefts and 599,000 violent crimes (rape or sexual assault, robbery, and aggravated and simple assault). On average, this translates into 74 crimes per 1,000 teachers per year.

- During the 1996 through 2000 period, senior high school and middle/junior high school teachers were more likely than elementary school teachers to be victims of violent crimes (most of which were simple assaults) (35 and 49 crimes per 1,000 senior and middle/junior high school teachers, respectively, vs. 15 crimes per 1,000 elementary school teachers).
- Teachers were differentially victimized by violent crimes at school according to where they taught. Over the 5-year period from 1996 through 2000, urban teachers were more likely to be victims of violent crimes than were suburban and rural teachers (36 crimes per 1,000 urban teachers vs. 21 and

- 17 crimes per 1,000 suburban and rural teachers, respectively).
- In the 1999–2000 school year, 9 percent of all elementary and secondary school teachers were threatened with injury by a student and 4 percent were physically attacked by a student. This represented about 305,000 teachers who were victims of threats of injury by students that year and 135,000 teachers who were victims of attacks by students.

#### **School environment**

Between 1995 and 1999, there was a decrease in the percentage of students ages 12 through 18 feeling unsafe while they were at school. However, between 1999 and 2001, there was no significant change in the percentage of students feeling unsafe. In both 1999 and 2001, students were more likely to be afraid of being attacked at school than away from school.

- Between 1993 and 2001, the percentage of students in grades 9 through 12 who reported carrying a weapon such as a gun, knife, or club on school property within the previous 30 days declined from 12 percent to 6 percent.
- Between 1995 and 1999, there was a decrease in the percentage of students ages 12 through 18 who avoided one or more places at school—from 9 percent to 5 percent. However, between 1999 and 2001, the percentage remained stable at 5 percent.
- In 2001, 12 percent of students ages 12 through 18 reported that someone at school had used haterelated words against them. That is, in the prior 6 months, someone at school had called them a derogatory word having to do with race, religion, ethnicity, disability, gender, or sexual orientation. During the same period, about 36 percent of students saw hate-related graffiti at school.
- In 2001, 20 percent of students reported that street gangs were present at their schools. Students in urban schools were more likely to report that there were street gangs at their schools (29 percent) than were suburban and rural students (18 percent and 13 percent, respectively).
- In the 1999–2000 school year, student tardiness and student absenteeism were reported as serious or moderate problems by about 30 percent of public school principals (32 percent and 29 percent, respectively) (figure B). Vandalism of school property

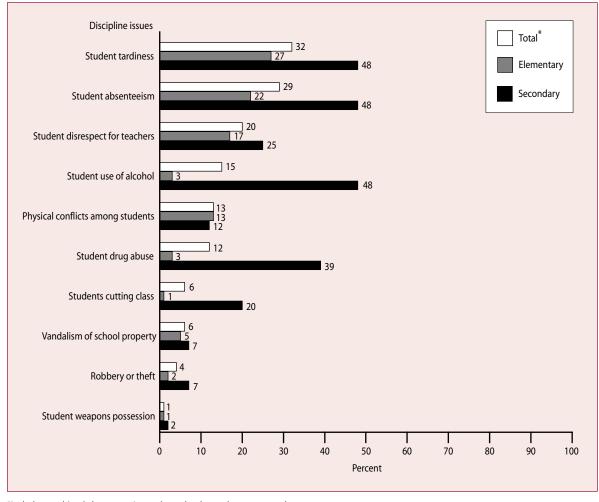


Figure B. Percentage of public school principals who reported that selected discipline issues were a serious or moderate problem in their school, by school level: 1999–2000

\*Includes combined elementary/secondary schools not shown separately.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Schools and Staffing Survey (SASS), "Public School Principal Questionnaire" and "Charter School Principal Questionnaire," 1999–2000. (Originally published as figure 16.1 on p. 39 of the complete report from which this article is excerpted.)

and robbery or theft were considered to be serious or moderate problems in 6 percent and 4 percent of public schools, respectively, and student possession of weapons was reported as a serious or moderate problem by 1 percent of public school principals.

- In 2001, 5 percent of students in grades 9 through 12 had at least one drink of alcohol on school property in the last 30 days. Forty-seven percent of students had at least one drink anywhere during the same period.
- Between 1993 and 2001, there were no consistent patterns of increase or decrease found in the percentage of students who had used marijuana—both anywhere and on school property. In 2001, 24 percent of students reported using marijuana anywhere in the last 30 days and 5 percent reported using marijuana on school property.
- In 2001, 29 percent of students in grades 9 through 12 reported that someone had offered, sold, or given them an illegal drug on school property in the last 12 months.

#### Data sources:

NCES: Schools and Staffing Survey (SASS), "Public Teacher Questionnaire," "Private Teacher Questionnaire," "Public School Questionnaire," "Public School Questionnaire," and "Charter School Principal Questionnaire," 1993–94 and 1999–2000; and Fast Response Survey System (FRSS), "Principal/School Disciplinarian Survey on School Violence," FRSS 63, 1997.

Bureau of Justice Statistics (BJS): National Crime Victimization Survey (NCVS), 1992–2000 (annual).

Joint NCES and BJS: School Crime Supplement (SCS) to the National Crime Victimization Survey, 1995, 1999, and 2001.

Centers for Disease Control and Prevention (CDC): The national school-based Youth Risk Behavior Survey (YRBS), 1993, 1995, 1997, 1999, and 2001; School-Associated Violent Death Study (SAVD), 1992–2000; and the web-based Injury Statistics Query and Reporting System Fatal (WISQARS Fatal).

Other: The FBI's 1976–1999 Supplementary Homicide Reports and the following article:

Kachur, S.P., et al. (1996). School-Associated Violent Deaths in the United States, 1992 to 1994. *Journal of the American Medical Association*, 275(22): 1729–1733.

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

DeVoe, J.F., Peter, K., Kaufman, P., Ruddy, S.A., Miller, A.K., Planty, M., Snyder, T.D., Duhart, D.T., and Rand, M.R. (2002). *Indicators of School Crime and Safety: 2002* (NCES 2003–009 or NCJ 196753).

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**To obtain the complete report (NCES 2003–009 or NCJ 196753),** call the toll-free ED Pubs number (877–433–7827), visit the NCES Electronic Catalog (http://nces.ed.gov/pubsearch) or the BJS home page (http://www.ojp.usdoj.gov/bjs/), or contact the BJS Clearinghouse at 1–800–732–3277.

# Invited Commentary: The Federal Government's Role in Measuring and Reporting on School Crime and Safety

Richard Lawrence, Professor of Criminal Justice, St. Cloud State University

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

Juvenile crime is a local problem with roots that can be traced to the family, peers, gang involvement, and schools. Responding to juvenile crime and preventing delinquency are likewise primarily the responsibility of local police, juvenile justice officials, community social services, and local schools (Lawrence 1998). Local school administrators and law enforcement officials, however, have turned to federal agencies for technical assistance, funding, and additional resources to assist in juvenile crime prevention. The federal government has performed an important role in delinquency prevention, especially over the past 30 years.

One of the first major federal government initiatives in juvenile delinquency assessment and prevention was the establishment of the President's Commission on Law Enforcement and Administration of Justice, which produced a series of reports, including the Task Force Report: Juvenile Delinquency and Youth Crime (1967). The report contributed to our understanding of delinquency, informed legislators and government officials of the nature and sources of juvenile crime, and urged policymakers to allocate funding and resources for delinquency prevention programs. The Office of Education of the U.S. Department of Health, Education, and Welfare (HEW) contributed to the report with a number of recommendations for how schools could help reduce delinquency (Office of Education 1967). About a decade later, HEW's National Institute of Education released the Safe School Study Report (1978), concluding that schools could do more to reduce school violence and disruption through policies such as (1) increasing efforts in student governance and rule enforcement; (2) treating students fairly and equally; (3) improving the relevance of subject matter to suit students' interests and needs; and (4) having smaller classes, with teachers instructing a smaller number of students. These early reports set a precedent for the increasingly important role of the federal government in assessing school crime and violence and in developing recommendations, resources, funding, and technical assistance for local schools and justice agencies to use as they respond to growing concerns about juvenile crime in communities and schools.

### The National Crime Victimization Survey and Its School Crime Supplement

The National Crime Victimization Survey (NCVS), sponsored by the Department of Justice's Bureau of Justice Statistics (BJS), is an important source of information on student crime and safety. This survey, which collects data on the criminal victimization of a nationally representative sample of households (43,000 households in the 1999 sample), provides more information about students' experiences of victimization and individual crime incidents than do either police reports or self-report surveys of juvenile offenders (Lynch 2002).

Even more information on student victimization and safety is provided by the School Crime Supplement (SCS) to the NCVS, jointly designed by BJS and the National Center for Education Statistics (NCES). In households sampled for the NCVS, the SCS is administered to each household member between 12 and 18 years old. This survey provides a measure of the prevalence of criminal victimization at school and students' perceptions of their school environment. The SCS has collected data on school crime and related topics regarding the school safety of 12- through 18-year-old students in 1989, 1995, and 1999.

#### Reporting on the 1999 SCS

One of the two reports featured in this issue of the *Quarterly* is *Are America's Schools Safe? Students Speak Out: 1999 School Crime Supplement* (Addington et al. 2002), the first report to focus on data from the 1999 SCS. This NCES report also includes an excellent review of previous studies, noting how the 1999 results are supported by previous research findings and providing readers a more comprehensive and in-depth understanding of school crime.

The 1999 SCS is the first national survey to assess the prevalence of hate-related words and the presence of hate-related graffiti at school. About one out of eight students overall (about one out of six Black students) reported being called hate-related words, and about one-third of students reported seeing hate-related graffiti at school. Questions about bullying at school were also introduced for the first

time in the 1999 SCS, and we can now ascertain the extent to which bullying behavior is associated with students' fear of attack or harm at school and with avoiding school. Data collection for the SCS was in progress when the Columbine High School shooting incident occurred in April 1999. This allowed for additional analyses to examine the effects of such an incident on student reports of fear and weapons at school.

#### **Compiling Data From Numerous Sources**

Along with *Are America's Schools Safe?*, this issue of the *Quarterly* features another report, *Indicators of School Crime* and *Safety*: 2002 (DeVoe et al. 2002), which is the fifth in a series of annual reports produced jointly by BJS and NCES. The report compiles data from various sources, including some data from 2001, and is intended to inform the nation about the current status of crime in schools. In addition to the NCVS and SCS, the numerous sources of data for this report include the national school-based Youth Risk Behavior Survey (YRBS), the School-Associated Violent Death Study (SAVD), and the NCES Schools and Staffing Survey (SASS) and Fast Response Survey System (FRSS).

The report presents 19 indicators of school crime and safety, organized in five sections: Violent Deaths at School; Nonfatal Student Victimization—Student Reports; Violence and Crime at School—Public School Principal/Disciplinarian Reports; Nonfatal Teacher Victimization at School— Teacher Reports; and School Environment. Many of the indicators repeat information from previous reports in the series (such as the 1996–97 data on school principal/ disciplinarian reports) because current data were not yet available. The authors have clearly noted the source and year of the reported statistics, indicating if they are repeated from previous reports or have been updated in this report. Although the *Indicators* report does not discuss the findings in light of previous research studies, as does Are America's Schools Safe?, it does nevertheless provide a clear and succinct snapshot of school crime and safety.

### Contributions of the Featured Reports and Future Federal Research

The two reports together provide more accurate and comprehensive measures of school crime than were previously available. They form a basis upon which to develop sound policies and practices for school safety. The authors of *Are America's Schools Safe?* noted mixed results regarding the relationship between the use of various security measures in schools and victimization at school. The use of

security measures (such as security guards, metal detectors, or school staff as hallway monitors) was not found to be associated with lower percentages of students reporting victimization (violent or property crimes) or being bullied. In fact, higher percentages of students reported victimization experiences in schools that had security guards. This result cannot be explained due to the limitations of the cross-sectional design of the SCS. Analyses cannot determine whether security measures were installed in response to student fears and victimization, whether the security measures instilled more fear, or whether fear and victimization simply persisted in some schools despite security measures. Longitudinal studies are necessary to assess the effectiveness of security measures and policies for school safety. Researchers may want to consider employing quasiexperimental designs that measure student reports of fear and victimization before and after implementing violenceprevention policies and security measures.

Unanswered questions about school safety underscore the need for school administrators to maintain complete and accurate records of school crime and disciplinary reports, to regularly survey students on victimization and fear, and to closely monitor behavior that creates an unsafe school environment. A new NCES survey that promises to provide additional valuable information from school principals is the School Survey on Crime and Safety (SSOCS). NCES plans to release the first report on SSOCS data later this year.

Accurate and reliable reports on crime and justice are essential to inform the public. Most Americans' knowledge and opinions about crime and justice are based on what they see on television and read in the newspapers (Warr 2000). Critics of the mass media believe there is cause for concern when news reports are the public's sole source of information. The mass media exaggerate the true nature and extent of violent crime, presenting a distorted picture of criminals, victims, the causes of crime, and the criminal justice system (Surette 1998). Television and newspaper reports of school violence likewise present exaggerated and distorted views of students' risk of being seriously attacked or harmed at school (Lawrence and Mueller 2003). The widely publicized news stories on Columbine High School and other school shooting incidents unquestionably elevated students' and parents' fears of school violence (as noted in Are America's Schools Safe?). A Gallup poll conducted 1 year after the Columbine shooting found that 63 percent of the parents of K-12 students believed that a

similar tragedy was very or somewhat likely to occur in their community, and 70 percent agreed that the shooting made them more concerned about their child's safety at school (Gillespie 2000).

The information presented in the two featured reports clearly shows that most parents and students have less to fear for students' safety at school than elsewhere in the community. Violent crime in and around schools has declined over the past several years. The reports also show, however, that alcohol, drugs, bullying, and hate-related words and graffiti continue to be problems. Students' ability to learn is adversely affected by fear and an unsafe school environment.

In conclusion, the role of federal agencies in measuring and reporting on school crime and safety is key to providing the most accurate and reliable assessments of the problem. Both of the reports featured in this issue of the *Quarterly* provide a sound basis for decisionmaking on school crime and safety and point out the importance of maintaining accurate measures. The reports provide accurate information to guide policymakers and practitioners in developing effective programs and policies to prevent school crime and violence.

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### ELEMENTARY AND SECONDARY EDUCATION

## Internet Access in U.S. Public Schools and Classrooms: 1994–2001

- Anne Kleiner and Elizabeth Farris

This article was originally published as the Introduction and Selected Findings of the E.D. Tabs report of the same name. The sample survey data are from a number of surveys—individually listed at the end of this article—on advanced telecommunications and Internet access in U.S. public schools. These surveys were conducted through the NCES Fast Response Survey System (FRSS).

#### Introduction

Since 1994, the National Center for Education Statistics (NCES) has surveyed public schools to estimate access to information technology in schools and classrooms. In the fall of each academic year, a new nationally representative sample of approximately 1,000 public schools has been surveyed about Internet access and Internet-related topics.

Although some items, such as those on school and class-room connectivity, have been constant on all surveys, new items have been added as technology has changed and new issues have arisen. For example, an item on types of Internet connections was added in 1996 and has remained part of the subsequent surveys, with some modifications. The fall 2001 survey included items on access to the Internet outside of regular school hours; technologies and procedures used to prevent student access to inappropriate material on the Internet; special hardware and software for

students with disabilities; operating systems/platforms, memory capacity, and disk space on instructional computers; school web sites; and laptop loans to students.

This survey was conducted by NCES using the Fast Response Survey System (FRSS). FRSS is designed to administer short, focused, issue-oriented surveys that require minimal burden on respondents and have a quick turnaround from data collection to reporting. Questionnaires for this survey were mailed to a representative sample of 1,209 public schools in the 50 states and the District of Columbia. Data have been weighted to yield national estimates.

In addition to national estimates, selected survey findings are presented by the following school characteristics:

- instructional level (elementary, secondary);
- school size (enrollment of less than 300, 300 to 999, 1,000 or more);

- locale (city, urban fringe, town, rural);
- percent minority enrollment (less than 6 percent, 6 to 20 percent, 21 to 49 percent, 50 percent or more);
   and
- percent of students eligible for free or reduced-price lunch (less than 35 percent, 35 to 49 percent, 50 to 74 percent, 75 percent or more), which is used as a measure of poverty concentration at the school.

It is important to note that many of the school characteristics used for independent analysis may also be related to each other. For example, enrollment size and instructional level of schools are related, with secondary schools typically being larger than elementary schools. Similarly, poverty concentration and minority enrollment are related, with schools with a higher minority enrollment also more likely to have a high concentration of poverty. Other relationships between analysis variables may exist. Because of the relatively small sample size used in this study, it is difficult to separate the independent effects of these variables. Their existence, however, should be considered in the interpretation of the data.

This report presents key findings from the survey "Internet Access in U.S. Public Schools, Fall 2001." For selected topics, data from previous FRSS Internet surveys are presented as well. The findings are organized as follows:

- school connectivity;
- students and computer access;
- operating systems, memory capacity, and disk space;
- special hardware and software for students with disabilities;
- the Internet as a way to communicate with parents and students; and
- technologies and procedures to prevent student access to inappropriate material on the Internet.

#### **School Connectivity**

#### School access

In fall 2001, 99 percent of public schools in the United States had access to the Internet. When NCES first started estimating Internet access in schools in 1994, 35 percent of public schools had access (table 1). As reported previously (Cattagni and Farris 2001), there have been virtually no differences in school access to the Internet by school characteristics since 1999.

#### Instructional room access

- Public schools have made consistent progress in expanding Internet access in instructional rooms, from 3 percent in 1994 to 77 percent in 2000 and 87 percent in 2001 (table 2).
- In 2001, as in previous years, there were differences in Internet access in instructional rooms by school characteristics. For example, in schools with the highest minority enrollment (50 percent or more), a smaller percentage of instructional rooms were connected to the Internet (81 percent) than in schools with lower minority enrollments (88 to 90 percent of instructional rooms).
- A similar pattern occurred by poverty concentration. In 2001, schools with the highest poverty concentration (75 percent or more students eligible for free or reduced-price lunch) had fewer rooms with Internet access than schools with less than 35 percent eligible students and schools with 35 to 49 percent eligible students (79 percent of instructional rooms compared with 90 and 89 percent, respectively).
- Despite these continuing differences, however, the percentage of instructional rooms with Internet access increased between 2000 and 2001 in these schools—from 60 to 79 percent in schools with the highest concentration of poverty and from 64 to 81 percent in schools with the highest minority enrollment.

#### **Types of connections**

- Over the years, changes have occurred in the types of Internet connections used by public schools and the speed at which they are connected to the Internet. In 1996, dial-up Internet connections were used by almost three-fourths (74 percent) of public schools having Internet access (Heaviside, Riggins, and Farris 1997). In 2001, the majority of public schools (55 percent) reported using T1/DS1 lines, a continuous and much faster type of Internet connection than dial-up connections, and 5 percent of schools used dial-up connections.
- In 2001, 85 percent of public schools used broadband connections to access the Internet. This is an increase

<sup>&</sup>lt;sup>1</sup>Instructional rooms include classrooms, computer and other labs, library/media centers, and any other rooms used for instructional purposes.

Table 1. Percent of public schools with Internet access, by school characteristics: 1994–2001

School characteristic		Public schools with Internet access								
	1994	1995	1996	1997	1998	1999	2000	2001		
All public schools	35	50	65	78	89	95	98	99		
Instructional level <sup>1</sup>										
Elementary	30	46	61	75	88	94	97	99		
Secondary	49	65	77	89	94	98	100 <sup>2</sup>	100		
School size										
Less than 300	30	39	57	75	87	96	96	99		
300 to 999	35	52	66	78	89	94	98	99		
1,000 or more	58	69	80	89	95	96	99	100		
Locale										
City	40	47	64	74	92	93	96	97		
Urban fringe	38	59	75	78	85	96	98	99		
Town	29	47	61	84	90	94	98	100		
Rural	35	48	60	79	92	96	99	100		
Percent minority enrollmen	t³									
Less than 6 percent	38	52	65	84	91	95	98	99		
6 to 20 percent	38	58	72	87	93	97	100	100		
21 to 49 percent	38	55	65	73	91	96	98	100		
50 percent or more	27	39	56	63	82	92	96	98		
Percent of students eligible										
for free or reduced-price lur	nch <sup>4</sup>									
Less than 35 percent	39	60	74	86	92	95	99	99		
35 to 49 percent	35	48	59	81	93	98	99	100		
50 to 74 percent	32	41	53	71	88	96	97	99		
75 percent or more	18	31	53	62	79	89	94	97		

<sup>&</sup>lt;sup>1</sup>Data for combined schools are included in the totals and in analyses by other school characteristics, but are not shown separately.

NOTE: All of the estimates in this report were recalculated from raw data files using the same computational algorithms. Consequently, some estimates presented here may differ trivially (i.e., 1 percent) from results published prior to 2001.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Fast Response Survey System (FRSS): "Survey on Advanced Telecommunications in U.S. Public Schools, K-12," FRSS 51, 1994; "Survey on Advanced Telecommunications in U.S. Public Schools, K-12," FRSS 57, 1995; "Advanced Telecommunications in U.S. Public Schools, Fall 1996, "Internet Access in U.S. Public Schools, Fall 1997," FRSS 64, 1997; "Internet Access in U.S. Public Schools, Fall 1999," FRSS 69, 1998; "Internet Access in U.S. Public Schools, Fall 1999," FRSS 79, 2000; and "Internet Access in U.S. Public Schools, Fall 2001," FRSS 82, 2001.

from 2000, when 80 percent of the schools were using this type of connection.<sup>2</sup>

■ In 2001, as in 2000, the likelihood of using broadband connections increased with school size; in

- 2001, 72 percent of small schools reported using broadband connections to access the Internet, compared with 96 percent of large schools.
- In 2001, the likelihood of using broadband connections also generally increased with minority enrollment and poverty concentration. For example, 81 percent of public schools with the lowest minority enrollment used broadband connections when connecting to the Internet, compared with 93 percent of schools with the highest minority enrollment.

<sup>&</sup>lt;sup>2</sup>The estimate fell between 99.5 percent and 100 percent and therefore was rounded to 100 percent.

<sup>&</sup>lt;sup>3</sup>Percent minority enrollment was not available for some schools. In 1994, this information was missing for 100 schools. In subsequent years, the missing information ranged from 0 schools to 46 schools.

<sup>&</sup>lt;sup>4</sup>Percent of students eligible for free or reduced-price lunch was not available for some schools. In the 1994 survey, free and reduced-price lunch data came from the Common Core of Data (CCD) only and were missing for 430 schools. In reports prior to 1998, free and reduced-price lunch data were not reported for 1994. In 1998, a decision was made to include the data for 1994 for comparison purposes. In subsequent years, free and reduced-price lunch information was obtained on the questionnaire, supplemented, if necessary, with CCD data. Missing data ranged from 1 school (1998) to 10 schools (1999).

<sup>&</sup>lt;sup>2</sup>Respondents were instructed to circle as many types of connections as there were in the school. These percentages include schools using only broadband connections, as well as schools using both broadband and narrowband connections. They do not include schools using narrowband connections exclusively. Broadband connections include T3/DS3, fractional T3, T1/DS1, fractional T1, and cable modem connections. In 2001, they also included DSL connections, which had not been an option on the 2000 questionnaire.

Table 2. Percent of public school instructional rooms with Internet access, by school characteristics: 1994–2001

School characteristic	Instructional rooms with Internet access								
	1994	1995	1996	1997	1998	1999	2000	200	
All public schools	3	8	14	27	51	64	77	87	
Instructional level <sup>1</sup>									
Elementary	3	8	13	24	51	62	76	86	
Secondary	4	8	16	32	52	67	79	88	
School size									
Less than 300	3	9	15	27	54	71	83	87	
300 to 999	3	8	13	28	53	64	78	87	
1,000 or more	3	4	16	25	45	58	70	86	
Locale									
City	4	6	12	20	47	52	66	82	
Urban fringe	4	8	16	29	50	67	78	87	
Town	3	8	14	34	55	72	87	9	
Rural	3	8	14	30	57	71	85	89	
Percent minority enrollment	t <sup>2</sup>								
Less than 6 percent	4	9	18	37	57	74	85	88	
6 to 20 percent	4	10	18	35	59	78	83	90	
21 to 49 percent	4	9	12	22	52	64	79	89	
50 percent or more	2	3	5	13	37	43	64	8	
Percent of students eligible free or reduced-price lunch <sup>3</sup>									
Less than 35 percent	3	10	17	33	57	73	82	90	
35 to 49 percent	2	6	12	33	60	69	81	89	
50 to 74 percent	4	6	11	20	41	61	77	87	
75 percent or more	2	3	5	14	38	38	60	79	

<sup>&</sup>lt;sup>1</sup>Data for combined schools are included in the totals and in analyses by other school characteristics, but are not shown separately.

NOTE: Percentages are based on all schools. All of the estimates in this report were recalculated from raw data files using the same computational algorithms. Consequently, some estimates presented here may differ trivially (i.e., 1 percent) from results published prior to 2001.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Fast Response Survey System (FRSS), "Survey on Advanced Telecommunications in U.S. Public Schools, K–12," FRSS 51, 1994; "Survey on Advanced Telecommunications in U.S. Public Schools, K–12," FRSS 57, 1995; "Advanced Telecommunications in U.S. Public Schools, Fall 1996," FRSS 61, 1996; "Internet Access in U.S. Public Schools, Fall 1997," FRSS 64, 1997; "Internet Access in U.S. Public Schools, Fall 1999," FRSS 75, 1999; "Internet Access in U.S. Public Schools, Fall 1999," FRSS 79, 2000; and "Internet Access in U.S. Public Schools, Fall 2001," FRSS 82, 2001.

Between 2000 and 2001, the use of broadband connections increased from 81 percent to 93 percent in schools with the highest minority enrollment. Similarly, the percentage of schools with the highest poverty concentration using broadband connections to access the Internet increased from 75 percent to 90 percent.

#### **Students and Computer Access**

According to a recent study, more school-age children in the nation use computers at school than at home (Newburger 2001). The survey "Internet Access in U.S. Public Schools, Fall 2001" obtained information on various measures of student access to computers at school, such as the ratio of students to instructional computers with Internet access, student access to the Internet outside of regular school hours, and laptop loans to students.

<sup>&</sup>lt;sup>2</sup>Percent minority enrollment was not available for some schools. In 1994, this information was missing for 100 schools. In subsequent years, the missing information ranged from 0 schools to 46 schools.

<sup>&</sup>lt;sup>3</sup>Percent of students eligible for free or reduced-price lunch was not available for some schools. In the 1994 survey, free and reduced-price lunch data came from the Common Core of Data (CCD) only and were missing for 430 schools. In reports prior to 1998, free and reduced-price lunch data were not reported for 1994. In 1998, a decision was made to include the data for 1994 for comparison purposes. In subsequent years, free and reduced-price lunch information was obtained on the questionnaire, supplemented, if necessary with CCD data. Missing data ranged from 1 school (1998) to 10 certains (1999)

### Students per instructional computer with Internet access

- Internet access was computed by dividing the total number of students in all public schools by the total number of instructional computers with Internet access in all public schools (i.e., including schools with no Internet access). In 2001, the ratio of students to instructional computers with Internet access in public schools was 5.4 to 1, an improvement from the 12.1 to 1 ratio in 1998, when it was first measured. This level of access corresponds to the 4 to 5 students per computer that many experts consider reasonable for effective use of computers in schools (President's Committee of Advisors on Science and Technology 1997).
- However, as in previous years (Cattagni and Farris 2001), there were differences by school characteristics in 2001. For example, the ratio of students to instructional computers with Internet access was higher in schools with the highest poverty concentration (6.8 to 1 compared with between 4.9 and 5.6 to 1 in other schools). Despite this gap, the ratio improved from 9.1 students in 2000 to 6.8 students per computer in 2001 in schools with the highest poverty concentration.

### Availability of computers with Internet access outside of regular school hours

In 2000, 21 percent of children in the nation used the Internet at home for school-related tasks (Newburger 2001). Making the Internet accessible outside of regular school hours allows students who would not otherwise have access to the Internet to use this resource for school-related activities such as homework.

In 2001, 51 percent of public schools with access to the Internet reported that they made computers with access to the Internet available to students outside of regular school hours. Differences by school characteristics were observed for instructional level and school size. Secondary schools were more likely to make the Internet available to students outside of regular

- school hours than were elementary schools (78 percent compared with 42 percent). Similarly, large schools (enrollments of 1,000 students or more) reported making the Internet available to students outside of regular school hours more often than did medium-sized and small schools (82 percent compared with 47 percent each for medium-sized and small schools).
- Among schools providing computers with access to the Internet to students outside of regular school hours in 2001, 95 percent made them available after school, 74 percent before school, and 6 percent on weekends. Availability of computers with Internet access before school decreased as minority enrollment increased—from 84 percent of schools with the lowest minority enrollment to 66 percent of schools with the highest minority enrollment. A similar pattern occurred by poverty concentration of schools for the availability of computers with Internet access before regular school hours.
- The percentage of schools providing students with Internet-connected computers after school ranged from 91 percent (small schools and schools with 50 to 74 percent of students eligible for free or reduced-price lunch) to 98 percent (large schools and schools with the lowest poverty concentration).

#### **Laptop computer loans**

In addition to asking about the availability of computers with Internet access outside of regular school hours, the survey asked whether the schools lent laptop computers to students, how many laptops were available for loan, and the maximum length of time for which they could be borrowed.

- In 2001, 10 percent of public schools lent laptop computers to students. Schools in rural areas (14 percent) were more likely than city schools (6 percent) and urban fringe schools (7 percent) to lend laptops.
- Schools lending laptop computers to students had, on average, 10 laptops available for loan. About half (53 percent)<sup>4</sup> of the 10 percent of schools lending laptop computers reported that students could borrow them for 1 week or more. Of these schools, 22 percent of schools reported lending laptops for the entire school year.

<sup>&</sup>lt;sup>3</sup>This is one method of calculating students per computer. Another method involves calculating the number of students in each school divided by the number of instructional computers with Internet access in each school and then taking the mean of this ratio across all schools. When "students per computer" was first calculated for this NCES series in 1998, a decision was made to use the first method; this method continues to be used for comparison purposes. A couple of factors influenced the choice of that particular method. There was (and continues to be) considerable skewness in the distribution of students per computer per school. In addition, in 1998, 11 percent of public schools had no instructional computers with Internet access.

<sup>&</sup>lt;sup>4</sup>This estimate is derived from the percentages of public schools indicating that students could borrow laptop computers for 1 week, 1 month, 1 semester, the entire school year, or for another length of time.

### Operating Systems, Memory Capacity, and Disk Space

In order to gather information on how current the computers available to students in public schools are, the survey asked respondents to indicate which operating system/ platform was used most frequently<sup>5</sup> on instructional computers, as well as the memory capacity and disk space of most instructional computers.

- The single most common response, given by 40 percent of public schools in 2001, was that the operating system most frequently used on their instructional computers was Windows 98.

  Twenty-five percent had Mac OS 7.6 or greater, and 19 percent had Windows 95. Overall, 95 percent of schools reported using Windows 95 or a newer version of Windows, or Mac OS 7.6 or greater most frequently on their instructional computers. 6
- Twelve percent of schools reported that the latest versions of Windows (NT or 2000) were the most commonly found on their instructional computers. Secondary schools (19 percent) were more likely to report these types of operating systems than were elementary schools (9 percent), which reported using the latest versions of Mac OS (Mac OS 7.6 or greater) more often than secondary schools (28 percent compared with 14 percent).
- Eighty-two percent of schools had 16 megabytes (MB) or higher memory capacity on most of their instructional computers. Sixty-three percent of schools had 1 gigabyte (GB) or higher disk space.
- Overall, 58 percent of the schools used Windows 95 or a more recent version of Windows, or Mac OS 7.6 or greater, combined with 16 MB or higher memory capacity and 1 GB or higher disk space, most frequently on their instructional computers.<sup>7</sup>

### Special Hardware and Software for Students With Disabilities

The Individuals with Disabilities Education Act requires that students eligible for special education under the law

<sup>5</sup>The question was worded this way because more than one operating system/ platform can be used in one school.

<sup>6</sup>This estimate is derived from the percentages of public schools using Windows 95, Windows 98, Windows ME, Windows 2000, Windows NT, or Mac OS 7.6 or greater most frequently on their instructional computers.

<sup>7</sup>This estimate is derived from the percentages of public schools using Windows 95, Windows 98, Windows ME, Windows 2000, Windows NT, or Mac OS 7.6 or greater and having 16 MB or higher memory capacity and 1 GB or higher disk space most frequently on their instructional computers.

receive specially designed instruction: "Specially-designed instruction means adapting, as appropriate to the needs of an eligible child, . . . the content, methodology, or delivery of instruction (i) to address the unique needs of the child that result from the child's disability; and (ii) to ensure access of the child to the general curriculum, so that he or she can meet the educational standards within the jurisdiction of the public agency that apply to all children" (Special Education Regulation 2001). The survey collected data on whether public schools had students with various disabilities and, if so, whether they had assistive or adaptive hardware and software<sup>8</sup> available for these students.

- In 2001, 95 percent of public schools reported that they enrolled students with learning disabilities. Sixty-seven percent had students with physical disabilities, 54 percent had students with hearing disabilities, and 46 percent had students with visual disabilities.
- At the national level, depending on the type of disability, 55 to 64 percent of schools that had students with disabilities provided assistive or adaptive hardware and 39 to 56 percent provided assistive or adaptive software.
- Special hardware was less likely to be available to students with learning disabilities in schools with the highest minority enrollment than in schools with the lowest minority enrollment (47 percent compared with 61 percent).
- The likelihood of having special software available for students with physical disabilities increased with school size, from 40 percent in small schools to 60 percent in large schools.
- Differences by instructional level also were observed. For example, 48 percent of secondary schools provided special software to students with hearing disabilities, compared with 35 percent of elementary schools.
- Schools with the highest poverty concentration were less likely to have special hardware and software available for students with visual disabilities than were schools with the lowest poverty concentration (52 percent compared with 71 percent for hardware and 42 percent compared with 63 percent for software).

<sup>&</sup>lt;sup>8</sup>For example, special hardware may include closed-captioned TV, screen readers, or keyboard alternatives, while special software may include Jaws for Windows, Zoomtext, or Overlay Maker.

### The Internet as a Way to Communicate With Parents and Students

Since 99 percent of public schools were connected to the Internet in 2001, most schools had the capability to make information available to parents and students directly via e-mail or through a web site. This section presents key findings on the availability of school-sponsored e-mail addresses and on school web sites.

#### School-sponsored e-mail addresses

The survey asked whether administrative staff, teachers, and students may have a school-sponsored e-mail address. If the answer was yes, schools were asked whether few, some, or all or most of the members of these three groups had school-sponsored e-mail addresses.

- Overall, 95 percent of public schools with Internet access reported that administrative staff may have a school-sponsored e-mail address. Ninety-two percent of schools reported that addresses were available for teachers and 16 percent that they were available for students in 2001.
- Among schools that made e-mail available to staff, 92 percent said that all or most administrative staff had a school-sponsored e-mail address. Among schools that made e-mail available to teachers, 89 percent reported that all or most teachers had a school-sponsored e-mail address. Fewer schools (34 percent of the 16 percent providing e-mail addresses to students) indicated that all or most students had a school-sponsored e-mail address.

#### **School web sites**

The survey asked whether the schools had a web site, the type of information it carried, how often it was updated, and whether parents and students could communicate with the school through the web site. In addition, the survey asked whether students helped develop the web site, helped maintain it, and contributed materials to it.

- Seventy-five percent of public schools had a web site in 2001. There were differences by school characteristics. For example, the likelihood of having a web site decreased as the poverty concentration of the school increased: 83 percent of schools with the lowest poverty concentration had web sites compared with 59 percent of schools with the highest poverty concentration.
- Among schools with a web site, about three-fourths indicated that their web site contained the schedule

of school events/school calendar (76 percent) and the staff directory (73 percent). Between 50 percent and 70 percent of schools with a web site reported that their site contained information on programs and classes (70 percent), information for parents (64 percent), links to web sites for educational tools for students (61 percent), information on sports and/or clubs (58 percent), school policies/rules (52 percent), and links to, or information on, middle/high schools (50 percent).

- Whether selected topics appeared on schools' web sites varied by school characteristics. As the poverty concentration of schools increased, the likelihood of having links to web sites for educational tools for students decreased (from 66 percent in the schools with the lowest poverty concentration to 44 percent in schools with the highest concentration).
- Fifty-two percent of the schools having a web site reported that parents and students could communicate with the school via the site, and 63 percent reported that the web site was updated at least monthly.9
- Among the 75 percent of schools with a web site, 41 percent reported that students had participated in its creation and 31 percent reported that they participated in its maintenance. In addition, in 57 percent of the schools, students contributed materials to the web site. This proportion decreased as the poverty concentration of schools increased.

#### Technologies and Procedures to Prevent Student Access to Inappropriate Material on the Internet

Given the diversity of the information carried on the Internet, student access to inappropriate material is a major concern of many parents and teachers. Moreover, under the Children's Internet Protection Act (CIPA), no school may receive Education rate (E-rate)<sup>10</sup> discounts unless it certifies that it is enforcing a policy of Internet safety that includes the use of filtering or blocking technology.<sup>11</sup>

 $<sup>^9\!\</sup>text{This}$  estimate is derived from the percentages of public schools updating their web site monthly, weekly, or daily.

<sup>&</sup>lt;sup>10</sup>The E-rate program was established in 1996 to make services, Internet access, and internal connections available to schools and libraries at discounted rates based on the income level of the students in their community and whether their location is urban or rural.

<sup>&</sup>lt;sup>11</sup>More information about CIPA (Pub. L. No. 106-554) can be found at the web site of the Schools and Libraries Division (SLD), Universal Service Administrative Company (<a href="http://www.sl.universalservice.org/reference/CIPA.asp">http://www.sl.universalservice.org/reference/CIPA.asp</a>). The law is effective for Funding Year 4 (July 1, 2001, to June 30, 2002) and for all future years. Schools and libraries receiving only telecommunications services are excluded from the requirements of CIPA.

- In 2001, almost all public schools with Internet access (96 percent) used various technologies or procedures to control student access to inappropriate material on the Internet. Across all types of schools, between 92 and 99 percent reported using these technologies or procedures. In addition, 98 percent of these schools used at least one of these technologies or procedures on all Internet-connected computers used by students.
- Among schools using technologies or procedures to prevent student access to inappropriate material on the Internet, 91 percent reported that teachers or other staff members monitored student Internet access. Eighty-seven percent used blocking or filtering software, 80 percent had a written contract that parents have to sign, 75 percent had a contract that students have to sign, 46 percent used monitoring software, 44 percent had honor codes, and 26 percent used their intranet. As these numbers suggest, most of the schools (96 percent) used more than one procedure or technology as part of their Internet use policy.

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**Data sources:** The following surveys, conducted through the NCES Fast Response Survey System (FRSS): "Survey on Advanced Telecommunications in U.S. Public Schools, K–12," FRSS 51, 1994; "Survey on Advanced Telecommunications in U.S. Public Schools, K–12," FRSS 57, 1995; "Advanced Telecommunications in U.S. Public Schools, Fall 1996," FRSS 61, Fall 1996; "Internet Access in U.S. Public Schools, Fall 1997," FRSS 64, 1997; "Internet Access in U.S. Public Schools, Fall 1998," FRSS 69, 1998; "Internet Access in U.S. Public Schools, Fall 1999," FRSS 75, 1999; "Internet Access in U.S. Public Schools, Fall 2000," FRSS 79, 2000; and "Internet Access in U.S. Public Schools, Fall 2001," FRSS 82, 2001.

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**To obtain the complete report (NCES 2002–018),** call the toll-free ED Pubs number (877–433–7827) or visit the NCES Electronic Catalog (http://nces.ed.gov/pubsearch).

<sup>&</sup>lt;sup>12</sup>An intranet is a controlled computer network similar to the Internet, but accessible only to those who have permission to use it. For example, school administrators can restrict student access to only their school's intranet, which may include information from the Internet chosen by school officials.

### POSTSECONDARY EDUCATION

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### What Students Pay for College: Changes in Net Price of College Attendance Between 1992–93 and 1999–2000

- Laura Horn, Christina Chang Wei, and Ali Berker

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

Average tuition adjusted for inflation more than doubled between 1981 and 2000 at public and private not-for-profit 4-year colleges and universities (The College Board 2001). During the same period, median family income grew 27 percent, and financial aid per full-time-equivalent student grew 82 percent. Responding to increasing public concern over the affordability of higher education, Congress established the National Commission on the Cost of Higher

Education to examine the causes for rising costs. The Cost Commission subsequently issued a report called *Straight Talk About College Costs and Prices* (1998), which distinguished *price* from *cost* and defined these terms differently. Cost is the amount it takes an institution to educate a student (i.e., the production cost per student), whereas price is the amount students and their families pay to attend. The price that students and families pay after subtracting financial aid awards is referred to as *net price*.

The report concluded that while net price did not increase as substantially as did the "sticker price" charged by institutions, it nevertheless grew at a faster rate than did median income and disposable per capita income during the late 1980s and early 1990s at all three types of colleges and universities studied (public 4-year, private not-for-profit 4-year, and public 2-year institutions).

This study examines the most recent trends in net price. The two major goals of this study are 1) to analyze changes in net price between 1992–93 and 1999–2000 and 2) to examine, within each type of institution, changes in net price over time for students with various levels of income and financial need. The study is a follow-up to a recent congressionally mandated National Center for Education Statistics (NCES) study (Cunningham et al. 2001) (hereafter referred to as "The Cost Study"), which examined trends in college costs and how costs relate to prices for specific types of institutions.

### Changes in financial aid awards between 1992–93 and 1999–2000

This study uses data from the 1992–93 and 1999–2000 National Postsecondary Student Aid Study (NPSAS:93 and NPSAS:2000). These two NPSAS surveys represent periods before and after major changes in federal financial aid policy went into effect under the 1992 reauthorization of the Higher Education Act (HEA-92). The most significant change affected the federal (Stafford) loan eligibility of dependent students (students who are considered financially dependent on their parents for purposes of financial aid eligibility). Their eligibility for need-based subsidized loans increased, and for the first time they became eligible for unsubsidized student loans. In addition to changes in federal financial aid policy, there were changes in state and institutional grant aid that must be taken into account.

The students included in this study were full-time undergraduates at public 4-year, private not-for-profit 4-year, and public 2-year institutions. For these students, the major changes in financial aid awards between 1992–93 and 1999–2000 were as follows:

Reflecting in part expanded eligibility for federal loans as well as a response to increased tuition and fees, undergraduate borrowing increased significantly. The percentage of full-time undergraduates who relied on federal student loans to help pay for their college education increased from 30 to 43 percent overall. After adjusting for inflation, the average amount of a federal student loan also increased, from

- about \$3,900 to \$4,800. No increase in the percentage of students borrowing was detected for undergraduates in the lowest income quartile—roughly half borrowed in both survey years—but the likelihood of borrowing increased for both middle-income undergraduates (from 32 to 45 percent) and highincome undergraduates (from 15 to 31 percent).
- There was a relatively small increase in the percentage of full-time undergraduates who were awarded state grants (from 17 to 22 percent overall). The average amount awarded increased from about \$1,800 to \$2,000.
- Undergraduates were much more likely to receive institutional grant aid in 1999–2000 than in 1992–93. The percentage of full-time undergraduates who were awarded institutional grant aid increased from 23 to 31 percent overall, and the average amount of aid that students received increased from about \$4,200 to \$4,700.

An important component of this study is to determine how these changes in financial aid awards—especially the significant increase in borrowing—are reflected in changes in net price over the same period.

#### Data analyzed in this study

Data from NPSAS:93 and NPSAS:2000 are used to compare changes in net tuition and net price over time, after adjusting for inflation. As with The Cost Study, the current study separated public from private not-for-profit colleges and universities and then further separated the public and private 4-year sectors into two aggregated Carnegie classifications: 1) research and doctoral institutions and 2) comprehensive and baccalaureate institutions. The study also analyzed net price changes for public 2-year institutions (also known as community colleges). The analysis excluded students who attended for-profit institutions and other lessthan-4-year institutions, as well as those who attended more than one institution. Sample sizes for the excluded institutions in the NPSAS surveys were relatively small and would have yielded few meaningful comparisons. Also, in order to ensure that the amount of tuition<sup>1</sup> paid and the amount of financial aid awarded were comparable between 1992–93 and 1999-2000, only full-time undergraduates attending for the full academic year (i.e., at least 9 months) were included in the analysis. (These students are referred to as

<sup>&</sup>lt;sup>1</sup>Use of the term "tuition" as opposed to "fees" is arbitrary. The terms can be interchangeable to a large extent. Some institutions only charge tuition, some only fees, and some both.

"full-time students" throughout the report.) The percentage of students who attended full time, full year ranged from about 50 to 60 percent at 4-year institutions, depending on the institution sector and the NPSAS year, and from 14 to 19 percent at public 2-year colleges.

#### Measures of net tuition and net price

To determine the actual tuition amounts students paid, as opposed to the published sticker price, two measures of net tuition were defined:

- *net tuition* 1: total tuition minus federal grants
- *net tuition* 2: total tuition minus all grants

The first net tuition measure takes into account federal grants (primarily Pell), which are awarded to the lowest income students. Changes in net tuition 1 show how much federal grants alone would reduce tuition (mostly for low-income students) if other financial aid sources were not available. The second net tuition measure takes into account all grants—federal, state, institutional, and other.<sup>2</sup>

Tuition is only part of what a college education costs students and families. The total price of attendance, which is estimated by colleges in student budgets, is based on the average tuition as well as living expenses for different types of students. It includes books and supplies, rent, food, and other living expenses in addition to tuition. Typically, nontuition expenses represent about two-thirds of the total price at public 4-year institutions and somewhat less than half of the total price at private not-for-profit 4-year institutions. This study analyzed changes for three measures of net total price of attendance:

- net price 1: total price minus federal and state grants³
- *net price* 2: total price minus all grants
- *net price* 3: total price minus all grants and loans<sup>4</sup>

Net price 1, the price students would pay after subtracting federal and state grants from total price, is the price before the institution commits its own funds to institutional aid

and before the student commits to a student loan. Net price 2, the price of attendance after subtracting all grants, is the amount students would pay without taking out a student loan. Net price 3 is the amount students and their families pay out of pocket after taking into account all sources of financial aid, including loans (both subsidized and unsubsidized).<sup>5</sup>

#### **Changes in Net Tuition and Net Price**

After adjusting for inflation, the average total tuition increased between 1992–93 and 1999–2000 across all institution types examined. When federal grants were subtracted from total tuition (net tuition 1), the average net tuition also increased over time except at public 2-year colleges (figure A). However, when *all* grants were subtracted from tuition (net tuition 2), no changes in average net tuition were detected for any institution type. These findings suggest that total grant aid increased enough to help students and families meet the average increase in total tuition between 1992–93 and 1999–2000.

Consistent with the findings for college tuition, after taking inflation into account, the average total price of college attendance increased across all institution types, as did net price after subtracting federal and state grants (net price 1). After all grants were subtracted (net price 2), the price of attendance still increased for many undergraduates. Although the increase in total grants was enough to cover the increase in tuition for undergraduates at all institution types, it did not cover the increase in price (which includes living expenses) for undergraduates attending research and doctoral institutions (both public and private not-for-profit) and public 2-year colleges. Not until loans were also subtracted from price (net price 3) was no increase observed between the average amount students paid in 1992-93 and what they paid in 1999-2000 across all institution types. At public 4-year institutions and private not-forprofit comprehensive and baccalaureate institutions, net price 3 (total price minus all grants and loans) actually declined between 1992-93 and 1999-2000. The decline in net price 3 is consistent with the observed increase in borrowing over the same time frame. In other words, compared with their peers in 1992-93, full-time students at public 4-year institutions and private not-for-profit comprehensive and baccalaureate institutions in 1999–2000 paid less out of pocket and increased their debt.

<sup>&</sup>lt;sup>2</sup>Grants from "other sources" include employer tuition reimbursements, National Merit Scholarships, and grants from private sources such as religious, community, or professional organizations.

<sup>&</sup>lt;sup>3</sup>Net price 1 is not meant to be analogous to net tuition 1. Net tuition 1 (tuition minus federal grants) is a measure typically used to show the purchasing power of Pell Grants. Net price 1 (price minus federal and state grants) is the amount institutions typically take into account in determining whether and how much institutional aid will be awarded.

<sup>&</sup>lt;sup>4</sup>Work-study, which is awarded to about 5 percent of undergraduates, is not included in the net price calculations. Although work-study is officially financial aid, in practice work-study earnings are no different from the earnings received from any other job held while enrolled.

<sup>&</sup>lt;sup>5</sup>Does not include federal loans taken out by undergraduates' parents, which are available only to dependent students' parents, among whom about 6 percent took out such loans in 1999–2000 (Berkner et al. 2002).

Figure A. Overall changes in net tuition and net price for full-time, full-year undergraduates between 1992–93 and 1999–2000, by institution type

	Net t	uition	Net price			
	Net tuition 1 (tuition minus federal grants)	Net tuition 2 (tuition minus all grants)	Net price 1 (price minus federal and state grants)	Net price 2 (price minus all grants)	Net price 3 (price minus all grants and loans)	
Public 4-year						
Research and doctoral	+	ns	+	+	-	
Comprehensive and baccalaureate	+	ns	+	ns	-	
Private not-for-profit						
Research and doctoral	+	ns	+	+	ns	
Comprehensive and baccalaureate	+	ns	+	ns	_	
Public 2-year	ns	ns	+	+	ns	

<sup>+</sup> Increase (p<0.05).

Not all students were affected equally by changes in net price between 1992–93 and 1999–2000. When all grants were taken into consideration (net price 2), students in the lowest income quartile experienced no significant change in net price for any institution type (i.e., no change in net price 2 was detected). In contrast, in nearly all cases, middle- and high-income students did experience an increase in price after all grants were subtracted (net price 2). In other words, between 1992–93 and 1999–2000, the increase in combined federal, state, institutional, and other grant aid awarded was sufficient to offset increases in the price of attendance for low-income students, but not for middle- or high-income students.

The following discussion describes tuition and price changes for each institution type analyzed in the study.

#### Public 4-year colleges and universities

Tuition changes. Adjusting for inflation, between 1992–93 and 1999–2000, the average total tuition at public research and doctoral institutions increased from about \$4,000 to \$4,800 (figure B). After subtracting federal grants (net tuition 1), net tuition rose from about \$3,500 to \$4,200. However, when all grants were subtracted from tuition (net tuition 2), no increase was detected in net tuition amounts

(about \$3,000). Similar patterns were observed for public comprehensive and baccalaureate institutions: total tuition increased from about \$2,900 to \$3,400; net tuition 1 increased from about \$2,300 to \$2,700; but no difference was detected in net tuition 2 after all grants were subtracted (about \$2,000).

Price changes at public research and doctoral institutions. Between 1992–93 and 1999–2000, the average total price of attendance at public research and doctoral institutions increased from about \$12,200 to \$13,600 (figure C). After subtracting federal and state grants (net price 1) or all grants (net price 2), net price still increased. However, when all grants and loans were subtracted from total price, the average amount that undergraduates paid out of pocket was actually less in 1999–2000 (\$8,900) than in 1992–93 (\$9,700).

Price changes at public comprehensive and baccalaureate institutions. At public comprehensive and baccalaureate institutions, the total price of attendance increased for full-time undergraduates (from \$10,300 to \$11,200), as did net price 1 (price minus federal and state grants) (from \$9,300 to \$9,900). When all grants were subtracted (net price 2), however, no increase was detected in the average net price. As at public research and doctoral institutions, the net price of attendance declined between 1992–93 and 1999–2000

<sup>-</sup> Decrease (p<0.05).

ns No significant change detected.

NOTE: Comparisons were made after adjustments for inflation.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1992–93 and 1999–2000 National Postsecondary Student Aid Study (NPSAS:93 and NPSAS:2000).

<sup>&</sup>lt;sup>6</sup>The analysis could not take into account tax credits enacted in the 1990s to assist middle-income students, which may have reduced the burden of the increase in price for certain middle-income students and their families.

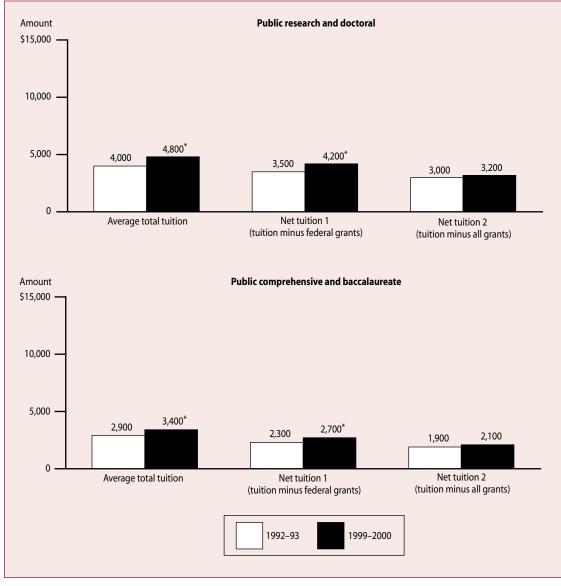


Figure B. Among full-time, full-year undergraduates attending public 4-year institutions, average total tuition and net tuition in 1992–93 and 1999–2000, in constant 1999 dollars

NOTE: All estimates for the 1992–93 academic year were converted from 1992 to 1999 dollars using the average annual Consumer Price Index for All Urban Consumers (CPI-U) published in the CPI-U table by the U.S. Department of Labor, Bureau of Labor Statistics.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1992–93 and 1999–2000 National Postsecondary Student Aid Study (NPSAS:93 and NPSAS:2000).

(from \$7,700 to \$6,900) after subtracting all grants and loans from the total price of attendance (net price 3).

*Price changes by student income level.* Both the average total price and net price 1 (price minus federal and state grants) increased across all income levels for students attending public research and doctoral institutions and for middle-and high-income students attending public comprehensive and baccalaureate institutions. However, when all grants

were subtracted (net price 2), no increase was detected for low-income students at either type of public 4-year institution. Increases, on the other hand, were observed for middle- and high-income students for net price 2 (figure D). When loans and grants were subtracted (net price 3), no increases were detected for any income group at either type of institution, and declines in price due to increased borrowing were detected for low- and middle-income students.

<sup>\*1992-93</sup> and 1999-2000 amounts significantly different (p<0.05).

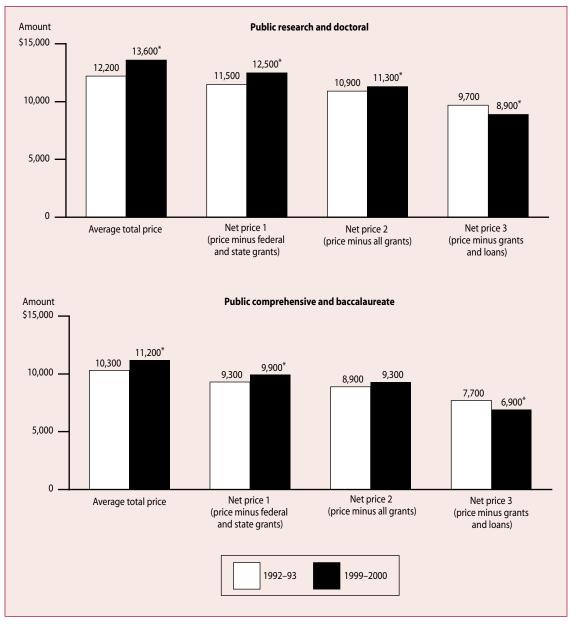


Figure C. Among full-time, full-year undergraduates attending public 4-year institutions, average total price of attendance and various net prices in 1992–93 and 1999–2000, in constant 1999 dollars

NOTE: All estimates for the 1992–93 academic year were converted from 1992 to 1999 dollars using the average annual Consumer Price Index for All Urban Consumers (CPI-U) published in the CPI-U table by the U.S. Department of Labor, Bureau of Labor Statistics.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1992–93 and 1999–2000 National Postsecondary Student Aid Study (NPSAS:93 and NPSAS:2000).

<sup>\*1992-93</sup> and 1999-2000 amounts significantly different (p<0.05).

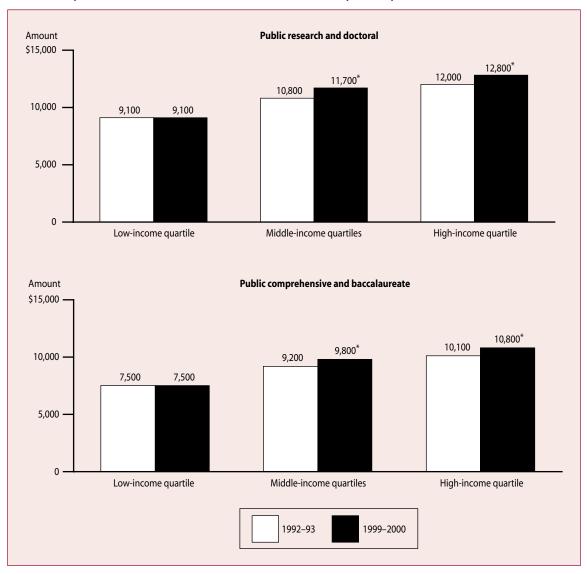


Figure D. Among full-time, full-year undergraduates attending public 4-year institutions, the net price after subtracting all grants (net price 2) in 1992–93 and 1999–2000, in constant 1999 dollars, by income quartiles

NOTE: All estimates for the 1992–93 academic year were converted from 1992 to 1999 dollars using the average annual Consumer Price Index for All Urban Consumers (CPI-U) published in the CPI-U table by the U.S. Department of Labor, Bureau of Labor Statistics.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1992–93 and 1999–2000 National Postsecondary Student Aid Study (NPSAS:93 and NPSAS:2000).

<sup>\*1992-93</sup> and 1999-2000 amounts significantly different (p<0.05).

#### Private not-for-profit 4-year colleges and universities

Tuition changes. After adjusting for inflation, average total tuition at private not-for-profit research and doctoral institutions increased from about \$16,300 in 1992–93 to about \$19,700 in 1999–2000 (figure E). Tuition levels still increased between the two periods after federal grants were subtracted (net tuition 1). However, after all grants were subtracted (net tuition 2), no change was detected in average net tuition levels (about \$12,000). Tuition amounts for private not-for-profit comprehensive and baccalaureate institutions followed a similar pattern: average total tuition increased from about \$12,300 to \$14,000; net tuition increased from \$11,500 to \$13,200 after federal grants were subtracted; and no difference was detected in net tuition after all grants were subtracted (about \$8,000).

Price changes at private not-for-profit research and doctoral institutions. The total price of attending private not-for-profit research and doctoral institutions increased from about \$25,200 to \$29,300 (figure F). The net price after subtracting federal and state grants (net price 1) also increased, as did the net price after subtracting all grants combined (net price 2). However, when loans and grants were subtracted from total price (net price 3), undergraduates paid roughly \$18,000 in both 1992–93 and 1999–2000 to attend private not-for-profit research and doctoral institutions.

Price changes at private not-for-profit comprehensive and baccalaureate institutions. At private not-for-profit comprehensive and baccalaureate institutions, the average total price of attendance increased from about \$19,600 to \$22,200. The net price after subtracting federal and state grants (net price 1) was also higher in 1999–2000 than in 1992–93. However, after all grants were subtracted from total price (net price 2), no difference was detected in average net price. When loans and grants were subtracted from total price (net price 3), undergraduates paid less out of pocket to attend private not-for-profit comprehensive and baccalaureate institutions in 1999–2000 (\$11,600) than they did in 1992–93 (\$12,900).

Price changes by student income level. Examining price changes by income level revealed that total price and net price 1 (minus federal and state grants) increased across all income levels for students attending private not-for-profit research and doctoral institutions. Total price and net price 1 increased for middle- and high-income students attending comprehensive and baccalaureate institutions. When all

grants were subtracted (net price 2), both middle- and high-income students at private not-for-profit research and doctoral institutions still faced an increase in price, while only middle-income students faced such an increase at private not-for-profit comprehensive and baccalaureate institutions (figure *G*). In other words, at private not-for-profit comprehensive and baccalaureate institutions, neither low-income nor high-income students faced a higher attendance price after all grants were subtracted, while at research and doctoral institutions, this was the case only for low-income students. After loans and grants were subtracted from total price (net price 3), only high-income students attending research and doctoral institutions paid a higher price of attendance.

#### **Public 2-year colleges**

Tuition changes. Like colleges and universities in the 4-year sector, community colleges saw an increase in the average total tuition for full-time students between 1992–93 and 1999–2000, from about \$1,400 to \$1,600 after adjusting for inflation (figure H). However, unlike the pattern for 4-year institutions, when federal grants were subtracted from net tuition (net tuition 1), no change in tuition could be detected for community colleges. It appears, then, that federal grants increased enough to cover the increase in tuition between 1992–93 and 1999–2000 for full-time students at community colleges. When all grants were subtracted (net tuition 2), net tuition at community colleges was roughly \$900 for both years.

*Price changes.* The average total price of attending community colleges for full-time students increased from about \$8,000 to \$9,100 between 1992–93 and 1999–2000. Increases in price were also observed after federal and state grants were subtracted (net price 1), as well as after all grants were subtracted (net price 2). However, no difference was detected between 1992–93 and 1999–2000 in the net price that community college students paid after loans and grants were subtracted from the total price (net price 3); full-time community college students paid roughly \$7,000 in both 1992–93 and 1999–2000.

Price changes by student income level. When examining price changes by income levels, no change in net price was detected for low-income students for any net price measure. Middle-income students faced increases in net price 1 (minus federal and state grants) and net price 2 (minus all grants). No change was detected in net price 3 (minus all grants and loans) for either low- or middle-income students. Only high-income students attending community

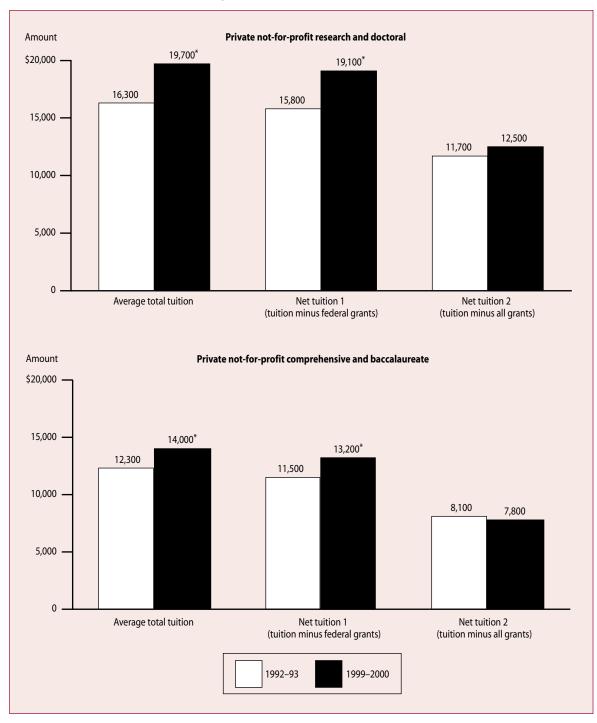


Figure E. Among full-time, full-year undergraduates attending private not-for-profit 4-year institutions, average total tuition and net tuition in 1992–93 and 1999–2000, in constant 1999 dollars

NOTE: All estimates for the 1992–93 academic year were converted from 1992 to 1999 dollars using the average annual Consumer Price Index for All Urban Consumers (CPI-U) published in the CPI-U table by the U.S. Department of Labor, Bureau of Labor Statistics.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1992–93 and 1999–2000 National Postsecondary Student Aid Study (NPSAS:93 and NPSAS:2000).

<sup>\*1992-93</sup> and 1999-2000 amounts significantly different (p<0.05).

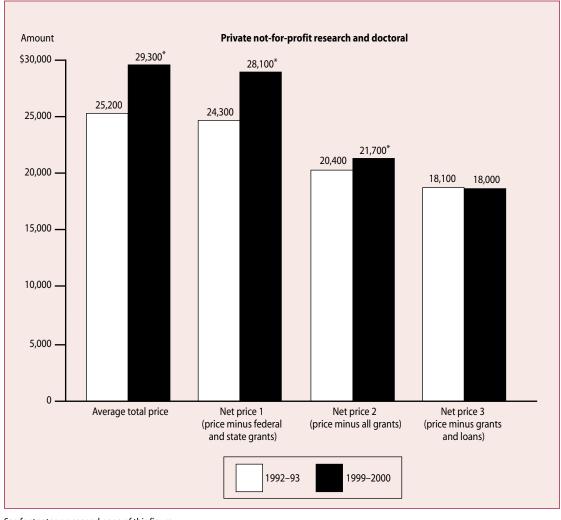


Figure F. Among full-time, full-year undergraduates attending private not-for-profit 4-year institutions, average total price of attendance and various net prices in 1992–93 and 1999–2000, in constant 1999 dollars

See footnotes on second page of this figure.

colleges paid a higher net price after loans and grants were subtracted from total price (net price 3).

#### **Conclusions**

The results of this study indicate a measurable increase in the average total tuition and average total price of college attendance between 1992–93 and 1999–2000 (after adjusting for inflation) across all included institution types. However, when all grants were subtracted from tuition (net tuition 2), no change could be detected in the average amount that full-time undergraduates paid between 1992–93 and 1999–2000. The same was not found for the net price of attendance. As reflected in net price 2, when living expenses and other nontuition costs were taken into account, all grants combined were not sufficient to offset

the increase in price for those attending public or private not-for-profit 4-year research and doctoral institutions or public 2-year colleges. However, not all students were affected equally by the changes in price. The increase in all grants (combined federal, state, institutional, and other grant aid) appeared to be sufficient to offset increases in total price for those undergraduates who could least afford to pay an increase—low-income students. This finding was consistent across all institution types included in the study.

After loans and grants were subtracted from total price (net price 3), with two exceptions, no increases in net price were observed for any income group attending any institution type. The only students who paid a higher net price in 1999–2000 than in 1992–93, once borrowing was taken into account, were undergraduates in the highest income

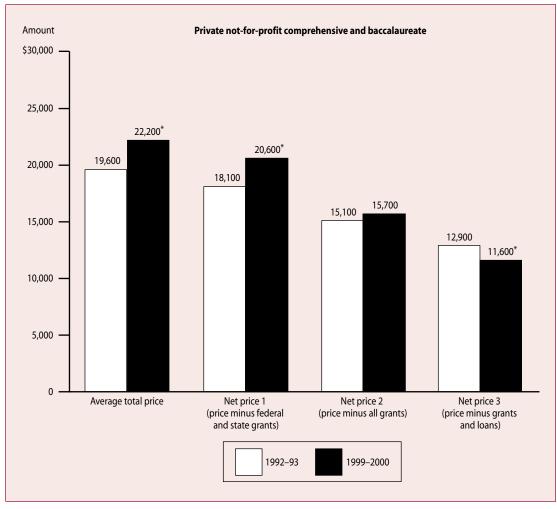


Figure F. Among full-time, full-year undergraduates attending private not-for-profit 4-year institutions, average total price of attendance and various net prices in 1992–93 and 1999–2000, in constant 1999 dollars—Continued

\*1992-93 and 1999-2000 amounts significantly different (p<0.05).

NOTE: All estimates for the 1992–93 academic year were converted from 1992 to 1999 dollars using the average annual Consumer Price Index for All Urban Consumers (CPI-U) published in the CPI-U table by the U.S. Department of Labor, Bureau of Labor Statistics.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1992–93 and 1999–2000 National Postsecondary Student Aid Study (NPSAS:93 and NPSAS:2000).

quartile who attended either private not-for-profit 4-year research and doctoral institutions or public 2-year colleges. However, increased borrowing by low- and middle-income students at public 4-year institutions reduced the average net price they paid. These students paid less out of pocket in 1999–2000 than in 1992–93, but increased their loan debt.

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Private not-for-profit research and doctoral Amount \$30,000 26,000\* 25,000 -23,400 20,200\* 20,000 -18,200 16,000 15,400 15,000 -10,000 5,000 -Low-income quartile Middle-income quartiles High-income quartile Private not-for-profit comprehensive and baccalaureate Amount 19,500 \$20,000 18,800 15,600<sup>\*</sup> 15,000 13,800 11,500 11,300 10,000 5,000 Low-income quartile Middle-income quartiles High-income quartile 1999-2000 1992-93

Figure G. Among full-time, full-year undergraduates attending private not-for-profit 4-year institutions, the net price after subtracting all grants (net price 2) in 1992–93 and 1999–2000, in constant 1999 dollars, by income quartiles

NOTE: All estimates for the 1992–93 academic year were converted from 1992 to 1999 dollars using the average annual Consumer Price Index for All Urban Consumers (CPI-U) published in the CPI-U table by the U.S. Department of Labor, Bureau of Labor Statistics.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1992–93 and 1999–2000 National Postsecondary Student Aid Study (NPSAS:93 and NPSAS:2000).

<sup>\*1992-93</sup> and 1999-2000 amounts significantly different (p<0.05).

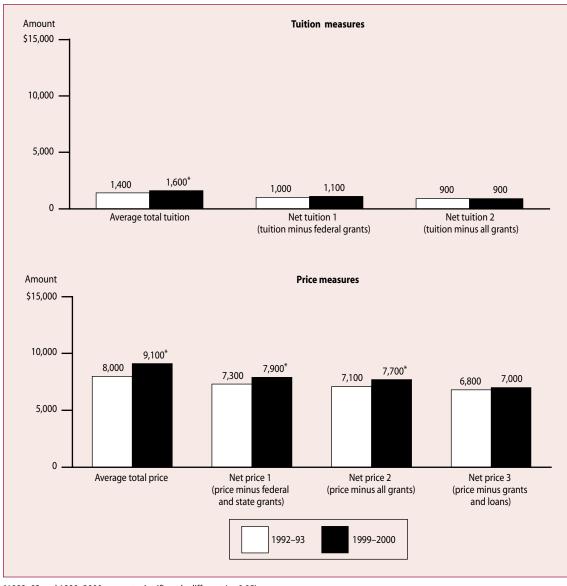


Figure H. Among full-time, full-year undergraduates attending public 2-year colleges, average total tuition, net tuition, total price, and various net prices in 1992–93 and 1999–2000, in constant 1999 dollars

\*1992-93 and 1999-2000 amounts significantly different (p<0.05).

NOTE: All estimates for the 1992–93 academic year were converted from 1992 to 1999 dollars using the average annual Consumer Price Index for All Urban Consumers (CPI-U) published in the CPI-U table by the U.S. Department of Labor, Bureau of Labor Statistics.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1992–93 and 1999–2000 National Postsecondary Student Aid Study (NPSAS:93 and NPSAS:2000).

Data source: The NCES 1992-93 and 1999-2000 National Postsecondary Student Aid Study (NPSAS:93 and NPSAS:2000).

For technical information, see the complete report:

Horn, L., Wei, C.C., and Berker, A. (2002). What Students Pay for College: Changes in Net Price of College Attendance Between 1992–93 and 1999–2000 (NCES 2002–174).

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# Short-Term Enrollment in Postsecondary Education: Student Background and Institutional Differences in Reasons for Early Departure, 1996–98

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 Beginning Postsecondary Students Longitudinal Study (BPS).

This report builds on previous studies of early attrition<sup>1</sup> from postsecondary education by providing a more comprehensive look at students' reasons for early total departure from postsecondary education.2 Using the 1996/98 Beginning Postsecondary Students Longitudinal Study (BPS:96/98) to examine attrition in the first 3 years of postsecondary education, this study addresses two main issues: student background characteristics associated with departure without a credential from postsecondary education, and among students who did leave, the reasons they gave for their departure. With respect to both issues, this report focuses on understanding how the process of departure from college differs for students who begin at 2-year compared with 4-year institutions. The analysis includes only students who began at these two types of institutions, and it is also restricted to students at public or private not-for-profit institutions, rather than for-profit institutions. The following provides a summary of the key findings for each of the five main questions answered in the report.

# What Proportion of Students Left College Without a Credential and Did Not Return in the First 3 Years?

While almost one-third (32 percent) of beginning postsecondary students left without a credential within 3 academic years (figure A), students who began at 4-year institutions were less likely than those who began at 2-year institutions to do so (17–19 percent vs. 35–44 percent).

The percentage of 1995–96 beginning postsecondary students who left without a credential and did not return by spring 1998 was greatest in the first year of enrollment and smallest in the third year of enrollment. Among students who began at public 4-year institutions, fewer left in the third year than in the first or second year of enrollment, but no differences were detected between departure

<sup>1</sup>In this report, "attrition," "departure," and "leaving college" all refer to 1995–96 beginning postsecondary students departing without receiving a credential and not returning by spring 1998. This pattern is also described as "early attrition" or "short-term enrollment"

<sup>2</sup>Total (or system) departure, in which students leave postsecondary education altogether, is distinct from institutional departure, in which students leave one institution but enroll at another (Tinto 1993). This report only examines departure from postsecondary education entirely (i.e., total departure).

rates in the first 2 years. No differences were detected by year in the percentages of students beginning at private not-for-profit 4-year institutions who left. The percentage of public 2-year college students who left school within the first year was larger than that from any other type of institution

# What Factors Were Associated With Early Departure From Postsecondary Education by Institution Type?

A number of student characteristics were associated with departure from public 4-year, private not-for-profit 4-year, and public 2-year institutions. While many characteristics were associated with departure from all three types of institutions, some differences were detected only among students from public and private not-for-profit 4-year institutions.

#### Students' educational expectations

Not all students plan to complete a degree when they enter college. Among all beginning postsecondary students in 1995–96, the expectations and objectives of students who began at public 2-year institutions differed from those of students who began at 4-year institutions. Even among students who began at public 2-year institutions, educational expectations were relatively high (i.e., higher than could be accomplished at a 2-year institution): 33 percent eventually expected to complete a bachelor's degree, and another 29 percent expected to complete an advanced degree, i.e., a degree beyond the bachelor's. But students who began at public 2-year institutions were less likely than students who began at 4-year institutions (59 percent at both public and private not-for-profit 4-year institutions) to expect to complete an advanced degree. They were also more likely to expect that their eventual educational attainment would be less than a bachelor's degree (16 percent vs. 1–2 percent of those who began at 4-year institutions). Finally, students who began at community colleges expressed a range of reasons for enrolling at such an institution: 38 percent indicated that they chose that institution to prepare for transfer to a 4-year college or university; 22 percent chose the institution to gain job skills; and another 16 percent enrolled for personal enrichment.

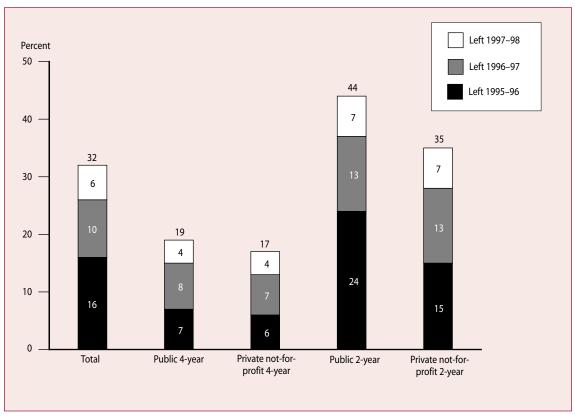


Figure A. Percentage of 1995–96 beginning postsecondary students who left without a credential and did not return by spring 1998, by first institution type and last year of attendance

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1996/98 Beginning Postsecondary Students Longitudinal Study (BPS: 96/98).

Among students at all three types of institutions, both the eventual educational expectations of students and their initial degree objectives at the first institution attended were associated with departure from postsecondary education within 3 years. Among students who identified the level of education they ultimately expected to complete, those who identified higher expected levels of education were less likely than those who identified lower expected levels to leave college (figure B). In addition, those who did not know their expected eventual educational outcome were more likely than those who expected to complete advanced degrees to leave within 3 years.

Furthermore, initial degree objectives from the *first* institution at which the student enrolled were associated with departure from postsecondary education among students at all three types of institutions, with lower objectives generally associated with a higher rate of departure. For example, among students who began at public 4-year institutions, 40 percent of those whose degree objectives at their first

institution did not include a bachelor's degree left postsecondary education within 3 years, compared with 16 percent of those who did plan to get a bachelor's degree there. This relationship was found even after taking into account many other factors associated with departure.

#### Other characteristics

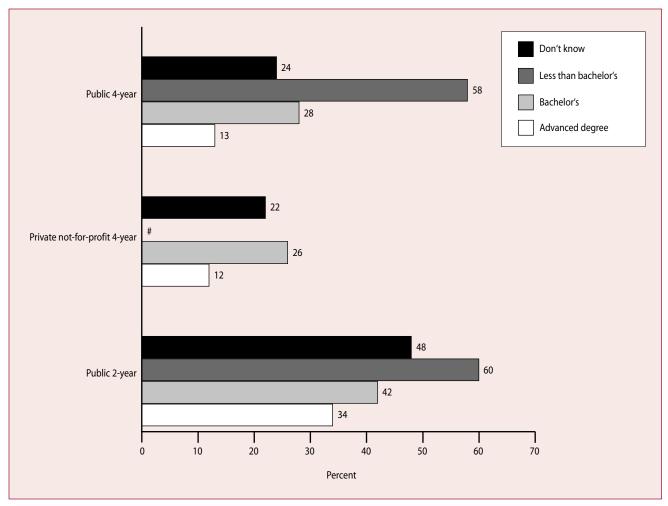
Lower academic performance during the first year of enrollment was associated with a higher rate of attrition at all three types of institutions, even when taking into account other factors related to departure from post-secondary education. Transfer between institutions and changes in number of dependents from their initial entry into college until 1998 were also associated with their departure among students who began at public institutions, even when other variables were taken into consideration. Those who transferred to another institution were less likely to have left college. In addition, students from all three types of institutions who had more dependents in 1998 than when they began college had higher rates of

attrition than those who never had dependents. For example, among students who began at public 2-year institutions, 61 percent of those who subsequently had children left college by 1998, compared with 37 percent of those who never had children. Thus, changes such as these that can occur during students' postsecondary enrollment may supersede the effects of their initial enrollment characteristics.

Furthermore, when examining nontraditional student characteristics,<sup>3</sup> students with nontraditional characteristics were often more likely to leave within 3 years than their counterparts without these characteristics. For example, among students who began at public 4-year institutions, those who delayed postsecondary enrollment more than a

<sup>3</sup>Nontraditional student characteristics include the following: being 24 years old or older, delaying postsecondary enrollment by more than a year after high school, enrolling less than full time, being independent, working full time, being currently or previously married, being a single parent, having dependents, or not having a regular high school diploma.

Figure B. Percentage of 1995–96 beginning postsecondary students who left without a credential and did not return by spring 1998, by educational expectations and first institution type



#Rounds to zero.

NOTE: Refers to student's response to the question, "What is the highest level of education you ever expect to complete?" when asked during the base year (1995–96) interview.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1996/98 Beginning Postsecondary Students Longitudinal Study (BPS:96/98).

year after high school were more likely than those who had gone directly to college (33 vs. 15 percent) to depart. Among students who began at private not-for-profit 4-year colleges and universities, 62 percent of those who had ever been married when first enrolled had departed within 3 years without a credential, compared with 15 percent of those who had never been married. At public 2-year institutions, students who worked part time or did not work while they were enrolled were less likely than those who worked full time (33 and 43 percent, respectively, vs. 59 percent) to leave college. These relationships were found even when taking into account other factors associated with departure.

Some characteristics, however, were associated with departure from 4-year institutions, but not public 2-year institutions. Students facing a lower price of attendance were more likely to depart from 4-year institutions, while this relationship was not found among students who began at public 2-year institutions after taking other factors into account. In addition, among students who began at 4-year

institutions, attending colleges with higher graduation rates was associated with lower attrition. However, this relationship was not detected among students who began at public 2-year institutions.

## What Reasons Did These Short-Term Enrollees Give for Their Departure?

The 1995–96 beginning postsecondary students who left by 1998 without a credential gave a variety of reasons for their departure (figure C). Students were generally more likely to say that they left because they needed to work or to give other financial reasons for their departure than to give other types of reasons. About one-quarter (26 percent) of short-term enrollees cited needing to work as a reason for their departure, and 16 percent identified other financial reasons. Ten percent said that they had completed their desired classes or that they had conflicts at home or personal problems; 8 percent cited a change in their family status; 7 percent said they were taking time off from their studies; 6 percent reported that they were not satisfied or that they

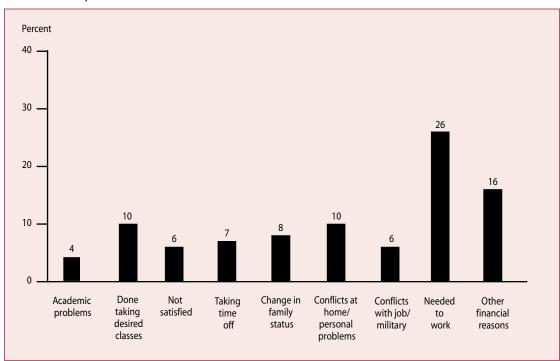


Figure C. Percentage of 1995–96 beginning postsecondary students leaving by spring 1998 who gave various reasons for their departure

NOTE: Respondents could give up to three reasons, including other reasons not listed here. Sixty-one percent identified only one of these reasons, and 24 percent did not cite any of these reasons.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1996/98 Beginning Postsecondary Students Longitudinal Study (BPS:96/98).

had conflicts with their jobs; and 4 percent identified academic problems as a cause of their departure.

Among students who left, those who began at 4-year institutions were more likely than those who began at public 2-year institutions to say that they left because of academic problems (9 vs. 2 percent) or a change in family status (12 vs. 6 percent). Those who began at public 2-year institutions were more likely than those who began at 4-year institutions to say they left because they were done taking the classes they wanted (12 vs. 5 percent) or because they needed to work (29 vs. 17 percent).

# What Other Characteristics of Short-Term Enrollees Were Associated With Their Reasons for Departure?

Among beginning postsecondary students who left early, women were more likely than men to say that they left because of a change in family status or because of conflicts at home or personal problems. In contrast, men were more likely than women to say they left because of academic problems or because they needed to work. Higher income students who left were less likely than their lower income counterparts to say that they left because of a change in family status. In addition, students in the middle two income quartiles were more likely than those in the highest quartile to leave because they needed to work (30 vs. 13 percent).

Although short-term enrollees cited academic problems relatively infrequently as a reason for their departure, the evidence above showed that first-year grades were consistently associated with early attrition in all institution types. There was some evidence that students without nontraditional characteristics were more likely than those with these characteristics to cite academic problems as a cause of departure from postsecondary education. Students who enrolled full time during their first year were more likely than students who had mixed patterns of attendance or who attended part time to report academic problems as a cause of their early departure (7 vs. 0.2 and 2 percent, respectively). In addition, short-term enrollees who worked more hours while enrolled during their first year of postsecondary education were less likely than those who worked fewer hours to say they left because of academic problems.

## Were Differences in Reasons for Departure by Institution Type Found After Controlling for Other Characteristics?

The results suggest that the reasons for leaving differ between students who began at public 2-year institutions and those who began at 4-year institutions. These differences may be related to the different student populations at 2-year compared with 4-year institutions. For example, reasons given for departure varied between students with and without various nontraditional characteristics, and these students also differed with respect to the types of institutions in which they began their postsecondary education. Students with nontraditional characteristics (such as not having a regular high school diploma or being financially independent) who left were less likely than students without these characteristics to report that they left because of academic problems, as were short-term enrollees who began at 2-year institutions compared with those who began at 4-year institutions. On the other hand, students with nontraditional characteristics who left postsecondary education without a credential were more likely than those without these characteristics to say they were done taking the classes they wanted, as were short-term enrollees who began at public 2-year institutions compared with those who began at 4-year institutions. Among all beginning students as well as among those who left early, students from public 2-year institutions were more likely than those from 4-year institutions to have nontraditional student characteristics.

After taking into account other factors associated with various reasons for departure, short-term enrollees who began at public 2-year institutions were still less likely than those who began at 4-year institutions to say they left because of a change in family status and more likely to say they left because they needed to work. In the multivariate analyses, no differences were found in the rates at which short-term enrollees from different types of institutions reported leaving because of academic problems or because they had completed the classes they wanted. However, in both cases, initial degree objectives were related to leaving: those who planned to complete a bachelor's degree at their first institution were more likely to leave for academic reasons than those who planned to complete an associate's degree, and those who did not plan to obtain any credential from their first institution were more likely than others to leave because they were done taking the classes they wanted.

#### Other Results

Among students who left college within 3 years of first enrollment, some of the reasons they gave were consistent with their characteristics. For example, middle-income students were more likely than high-income students to say they left because they needed to work. Students who had never intended to complete a credential of any kind from the institution where they began were more likely than those seeking a degree or certificate to indicate that they left because they were finished. However, this reason was not given by even a majority of those with no degree goals, suggesting that other factors may have deterred them.

Relatively few student characteristics were associated with leaving because of a change in family status. However, students who had more dependents in 1998 than when they began postsecondary enrollment were more likely than others to say they left because of a change in family status. In addition, women were more likely than men to cite this cause. These results are consistent with other literature on this reason for leaving college (Bonham and Luckie 1993).

While academic problems were not frequently cited as a cause for student departure, students who had lower grades were more likely to give this reason than those with higher grades. However, this relationship was not found once other

factors were taken into account. In the multivariate model, not working while enrolled and full-time enrollment were associated with leaving for academic reasons. These results suggest that leaving because of academic problems is more common among students who do not have nontraditional characteristics.

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## A Profile of Participation in Distance Education: 1999–2000

Anna C. Sikora

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).

During the 1990s, distance education availability, course offerings, and enrollments increased rapidly. The percentage of 2- and 4-year degree-granting institutions offering distance education courses rose from 33 to 44 percent between 1995 and 1997, and the number of such courses nearly doubled. In 1997, one-fifth of the nation's 2- and 4-year degree-granting institutions also planned to start offering distance education courses in the next 3 years (Lewis et al. 1999). While previous reports have studied institutional (Lewis et al. 1999) and faculty (Bradburn 2002) participation in distance education, this report focuses on student participation. This report examines the participation of undergraduate and graduate/first-professional students in distance education.

Students responding to the 1999–2000 National Postsecondary Student Aid Study (NPSAS:2000) were asked, "During the 1999–2000 school year, did you take any courses for credit that were distance education courses? By distance education, I mean courses delivered off campus using live, interactive TV or audio; prerecorded TV or audio; CD-ROM; or a computer-based system such as the Internet, e-mail, or chat rooms." Students who reported taking distance education courses were asked about their experiences with distance education.

This report uses data from NPSAS:2000 to address several research questions:

- Which students participated in distance education in 1999–2000? Were any student characteristics related to participation in distance education?
- Which types of technology did students use to take their distance education courses?
- How satisfied were students with their distance education courses?

Students' overall participation, as well as their participation by type of distance education technology, is examined in terms of numerous student characteristics, including demographics (such as gender, race/ethnicity, and age); indicators of socioeconomic status (such as parents' highest level of education and students' family income); family status (marital status and whether students had dependent children); institution and academic characteristics (such as

institution type, and students' class level, degree program, and field of study); and employment characteristics. This report also includes a multivariate analysis that shows how various student characteristics were related to participation in distance education after controlling for the covariation of related variables

#### **Student Participation in Distance Education**

The findings of this study suggest that even though distance education participation rates were relatively low in 1999–2000 (8 percent of undergraduates and 10 percent of graduate/first-professional students reported taking distance education courses), clear patterns of participation emerged for both undergraduates and graduate/first-professional students. Students who reported participating tended to be those with family responsibilities and limited time. They were more likely to be enrolled in school part time and to be working full time while enrolled.

#### Participation of undergraduates

Among undergraduates, characteristics associated with family and work responsibilities (such as being independent, older, married, or having dependents) were associated with higher rates of participation in distance education. Gender was related to participation as well: females were more likely than males to participate (figure A). The participation rates of undergraduates attending public 2-year institutions and those seeking associate's degrees also tended to be higher than those of their counterparts in other types of institutions and degree programs. In addition, participation in distance education varied by undergraduate field of study. Undergraduates majoring in education participated in distance education at a higher rate than did those majoring in most other fields of study.

Students who reported participating in distance education were asked if their entire program was taught through distance education. Among undergraduates who participated in distance education, those who had characteristics associated with higher overall rates of participation were also generally more likely than those who lacked these characteristics to report that their entire program was taught through distance education.

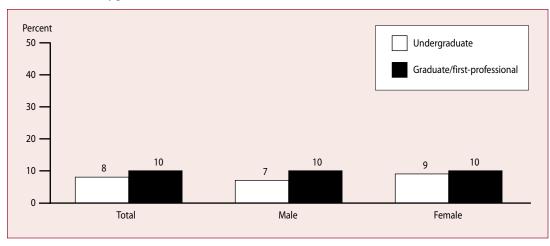


Figure A. Percentage of 1999–2000 undergraduate and graduate/first-professional students who participated in distance education, by gender

NOTE: Includes students who participated either only at the institution where they were primarily enrolled or both at the institution where they were primarily enrolled and somewhere else. Students who participated in distance education only at an institution other than the one where they were primarily enrolled were excluded.

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

#### Participation of graduate and first-professional students

Similar patterns of participation emerged among graduate and first-professional students. While a gender difference was not detected, married students and those with dependent children were more likely than their counterparts to participate in distance education. Greater work intensity also appeared to contribute to higher participation. Due to low incidence and resulting small sample sizes, it was not possible to conduct subgroup comparisons of the availability of graduate and first-professional students' entire programs via distance education.

#### **Distance Education Delivery**

Among those who took distance education courses, both graduate/first-professional and undergraduate students were more likely to do so via the Internet than via either live or prerecorded TV or audio (figure B). Graduate and first-professional students were less likely than undergraduates to participate in distance education courses via prerecorded TV or audio but were more likely than undergraduates to participate via live TV or audio or via the Internet.

#### Satisfaction With Distance Education

Undergraduate and graduate/first-professional students who participated in distance education were asked, "Compared to other courses you've taken, are you more satisfied, equally satisfied, or less satisfied with the quality of instruction you've received in your distance education courses?" About one-half of both undergraduates (47 percent) and

graduate/first-professional students (51 percent) reported being equally satisfied with their distance education courses and their regular classroom courses (figure C). However, a higher proportion of undergraduates reported being less satisfied with distance education courses (30 percent) than reported being more satisfied (23 percent). Among graduate/first-professional students, 27 percent reported being less satisfied and 22 percent reported being more satisfied.

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Percent Undergraduate 100 • Graduate/first-professional 90 80 70 67 60 60 50 43 39 40 37 28 30 20 10 -0 Live TV or radio Prerecorded TV or radio Internet

Figure B. Among 1999–2000 undergraduate and graduate/first-professional students who participated in distance education, percentage who participated via live TV or audio, prerecorded TV or audio, or the Internet

NOTE: Includes students who participated either only at the institution where they were primarily enrolled or both at the institution where they were primarily enrolled and somewhere else. Students who participated in distance education only at an institution other than the one where they were primarily enrolled were excluded.

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

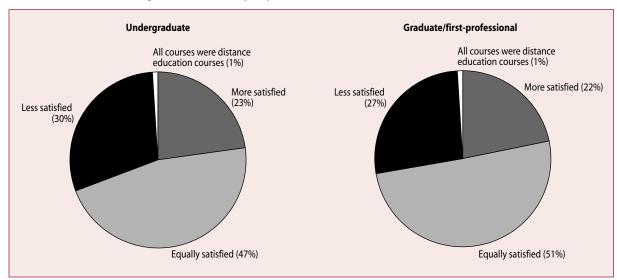


Figure C. Among 1999–2000 undergraduate and graduate/first-professional students who participated in distance education, percentage distribution according to satisfaction with quality of instruction in distance education relative to classroom-based courses

NOTE: Includes students who participated either only at the institution where they were primarily enrolled or both at the institution where they were primarily enrolled and somewhere else. Students who participated in distance education only at an institution other than the one where they were primarily enrolled were excluded. Detail may not sum to totals because of rounding.

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

# Beyond 9 to 5: The Diversity of Employment Among 1992–93 College Graduates in 1997

Ellen M. Bradburn and Rachael Berger

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 Baccalaureate and Beyond Longitudinal Study (B&B).

Numerous studies have examined the employment benefits of earning a bachelor's degree, concluding that higher levels of education sharply increase one's earning potential and employment opportunities (Cappelli et al. 1997). In particular, several studies have demonstrated the labor market advantage that students who concentrate in applied fields, such as business and engineering, experience with respect to higher salaries and full-time employment (e.g., Grogger and Eide 1995; Pascarella and Terenzini 1991; Rumberger and Thomas 1993). However, today's labor market does not necessarily guarantee a college graduate a traditional 9 to 5 job, nor is this type of employment the only option. Bachelor's degree recipients are wellrepresented in the contingent (short-term) workforce (Bureau of Labor Statistics 2001; Hipple 1998), but there is little research that examines the experiences of bachelor's degree recipients who are not full-time professional employees, but instead have alternative employment.

Although alternative employment is defined differently in various studies, this analysis examines both *alternative* working arrangements and occupation types. Alternative working arrangements examined here include self-employment, part-time employment, and employment in multiple jobs. An aggregate variable indicating whether or not the respondent was in any of these three employment situations is also included. In addition, this analysis explores the occupation type of the respondents: clerical and support occupations and field professions\* are both considered alternative employment for this study because they include jobs historically filled by workers without bachelor's degrees (Decker, Rice, and Moore 1997).

This study uses data from the 1993/97 Baccalaureate and Beyond Longitudinal Study (B&B:93/97), representing college graduates who received their bachelor's degrees in academic year 1992–93. Survey participants were sampled from the 1992–93 National Postsecondary Student Aid Study (NPSAS:93) and were first surveyed in their final year of college, with follow-ups conducted in 1994 and 1997,

approximately 1 year and 4 years after graduation. The analysis focuses primarily on employment in 1997 and includes those who were employed and not enrolled for further study at that time. The data are used to address the following questions: How prevalent is alternative employment among bachelor's degree recipients who are not enrolled? Which bachelor's degree recipients are most likely to work in alternative employment, by various demographic, family, and academic characteristics, particularly by gender? What are the differences between patterns of alternative employment when graduates are 1 year out of college and when they are 4 years out of college? How do those in alternative employment differ from those in traditional employment in terms of their reasons for taking their job, benefits, salaries, and job satisfaction?

#### **Prevalence of Alternative Employment**

In 1997, about two-thirds (68 percent) of employed 1992–93 bachelor's degree recipients who were not enrolled for further study worked in jobs considered traditional for college graduates—that is, they worked full time for someone else in one professional job. Self-employment, working part time, and being employed in multiple jobs were each relatively uncommon among employed, nonenrolled 1992–93 bachelor's degree recipients (5 percent were self-employed, 5 percent were employed part time, and 7 percent worked in multiple jobs). In all, 15 percent reported working in at least one of these three types of alternative working arrangements. Also, 13 percent reported working in clerical and support occupations, and an additional 8 percent reported working in field professions.

## Demographic, Family, and Academic Characteristics

Consistent with other current research (Callaghan and Hartmann 1991; Polivka 1996a, 1996b), this analysis indicates that gender was associated with many types of alternative employment (figure A). Among 1992–93 bachelor's degree recipients who were employed but not enrolled in 1997, women were more likely than men to have some type of alternative working arrangement (16 vs. 14 percent). However, the gender differences varied with

<sup>\*&</sup>quot;Field professions" include jobs such as those in farming and forestry, protective services, and health and recreation services, professions that are likely to involve long or nontraditional hours or work outside of a conventional office setting.

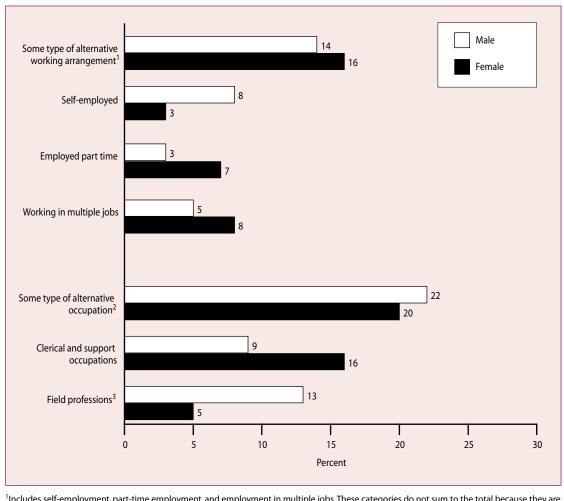


Figure A. Percentage of employed 1992–93 bachelor's degree recipients not enrolled who were in alternative employment, by gender: 1997

<sup>1</sup>Includes self-employment, part-time employment, and employment in multiple jobs. These categories do not sum to the total because they are not mutually exclusive.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1993/97 Baccalaureate and Beyond Longitudinal Study (B&B:93/97).

the specific type of alternative working arrangement considered. Women were more likely than men to have part-time employment (7 vs. 3 percent) or multiple jobs (8 vs. 5 percent), while men were more likely than women to be self-employed (8 vs. 3 percent). Women were also more likely than men to work in clerical or support occupations (16 vs. 9 percent), while men were more likely than women to work in field professions (13 vs. 5 percent). Except for working in multiple jobs, these differences in alternative employment remained even after controlling for other variables.

Family characteristics were related to various alternative working arrangements among women, but few differences by family characteristics were detected among men. For example, among women, having dependents was associated with a greater likelihood of having some type of alternative working arrangement (24 vs. 13 percent), specifically, self-employment (5 vs. 3 percent) or part-time employment (15 vs. 4 percent). However, these differences were not detected among men. Among both men and women, marital status was related to working part time. However, while married women were more likely than single women to work part time (10 vs. 4 percent), married men were *less* likely than their single counterparts to work part time (2 vs. 4 percent).

<sup>&</sup>lt;sup>2</sup>Detail may not sum to totals because of rounding.

<sup>&</sup>lt;sup>3</sup>These include such fields as farming and forestry, protective services, and health and recreation services. See the glossary of the full report for further details.

Some aspects of the academic experiences of 1992–93 bachelor's degree recipients were associated with various types of alternative employment in 1997, 4 years after college completion. Undergraduate grade-point average (GPA) was associated with the likelihood of working part time, having a clerical or support occupation, and having a field profession. As GPA increased, so did the prospect of having part-time employment. In contrast, as GPA increased, the likelihood of having a clerical and support or field occupation decreased.

Several studies have shown that students who concentrate in applied fields such as business and engineering are more likely to be employed full time (Grogger and Eide 1995; Pascarella and Terenzini 1991; Rumberger and Thomas 1993). Consistent with these studies, this analysis shows that business and engineering majors were less likely than average to report having a part-time job (2 percent each vs. 5 percent). Undergraduate major was also associated with type of occupation. Nineteen percent of social science majors reported working in clerical and support occupations. In contrast, education, engineering, and health majors were less likely than average to work in clerical and support occupations (7, 2, and 6 vs. 13 percent). And health majors were less likely than average to work in field professions (2 vs. 8 percent). Because education, engineering, and health are applied fields in which students are preparing for specific professional careers, students who major in these fields are particularly likely to be employed in them after completing college (Horn and Zahn 2001). By definition, the areas for which they have prepared (teaching, medical professions, and engineering) are included in the professional occupations.

## Alternative Employment 1 and 4 Years After College Completion

This analysis also examines how the alternative employment experiences of college graduates differed when they were 1 year and 4 years out of college (figure B). Employed 1992–93 bachelor's degree recipients who were not enrolled were more likely to have some type of alternative working arrangement in 1997 than they were in 1994 (15 vs. 11 percent). Specifically, in 1997 compared with 1994, they were more likely to have multiple jobs (7 vs. 3 percent) or to be self-employed (5 vs. 1 percent). Conversely, in 1997, they were less likely to work part time or to have clerical and support occupations or field professions.

Many gender differences in alternative employment persisted from 1 year to 4 years out of college. In both 1994 and 1997, women were more likely than men to have some

type of alternative working arrangement (13 vs. 10 percent in 1994; 16 vs. 14 percent in 1997). In 1994, women were more likely than men to work part time (9 vs. 6 percent) or to have clerical and support jobs (23 vs. 14 percent), while men were more likely than women to work in field professions (16 vs. 7 percent) or to be self-employed (2 vs. 1 percent). These patterns were consistent with the differences found for 1997, as described in the previous section.

Working in alternative employment in 1994 was associated with a greater likelihood of doing so in 1997. Specifically, 45 percent of those who were self-employed in 1994 were also self-employed in 1997, compared with 5 percent of those who were not self-employed in 1994. About half (51 percent) of those who had multiple jobs in 1994 also did in 1997, compared with 5 percent of those who did not have multiple jobs in 1994. In addition, part-time workers in 1994 were more likely than their full-time counterparts to be working part time in 1997 as well (18 vs. 4 percent). Finally, one-third (36 percent) of those who had clerical and support jobs in 1994 also had clerical and support jobs in 1997, compared with 7–10 percent of those with other types of jobs in 1994. Similarly, 43 percent of those with field professions in 1994 were still in positions of this type in 1997, compared with 4-5 percent of those with other occupations in 1994.

## Alternative Employment and Other Labor Market Experiences

Workers have a range of reasons for voluntarily or involuntarily working in alternative employment, balancing the disadvantages and benefits associated with particular jobs. Studies suggest a number of reasons why a worker may not have a traditional job. For example, a worker may not be able to find permanent work, or he or she may choose alternative employment to obtain flexible hours, to make a transition into a new job or field, or to earn more money (Lester 1996; Rothstein 1996).

Among 1992–93 bachelor's degree recipients who were employed but not enrolled in 1997, those with some type of alternative working arrangement were more likely than others to report having the freedom to make decisions as a reason for taking their job (10 vs. 4 percent; figure C). Parttime workers were more likely than those working full time to cite convenience (12 vs. 8 percent) or having time for non-work-related activities (5 vs. 2 percent) as a reason for choosing their job. Also, those who were self-employed were more likely to cite income potential as a reason for choosing their job (17 vs. 10 percent). On the other hand, those with some type of alternative working arrangement

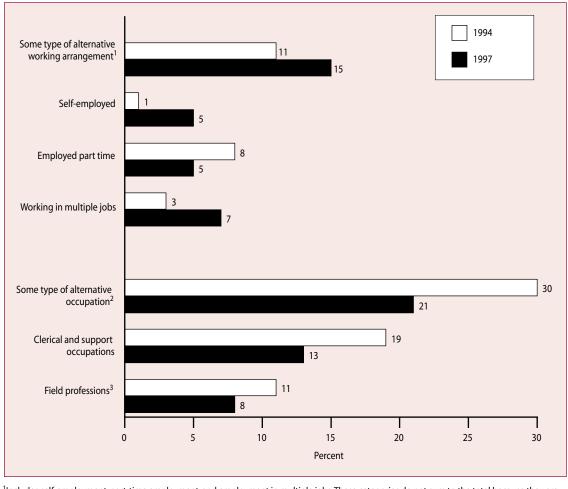


Figure B. Percentage of employed 1992–93 bachelor's degree recipients not enrolled who were in alternative employment: 1994 and 1997

<sup>1</sup>Includes self-employment, part-time employment, and employment in multiple jobs. These categories do not sum to the total because they are not mutually exclusive.

<sup>3</sup>These include such fields as farming and forestry, protective services, and health and recreation services. See the glossary of the full report for further details.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1993/97 Baccalaureate and Beyond Longitudinal Study (B&B:93/97).

were less likely to report interesting work (15 vs. 19 percent), advancement opportunities (9 vs. 18 percent), good starting salary (8 vs. 12 percent), or good job security (4 vs. 6 percent) as a reason for taking their job.

Part-time workers were less likely than full-time workers to receive each of the benefits examined—health insurance benefits (41 vs. 91 percent), paid sick leave (39 vs. 88 percent), paid vacation (39 vs. 90 percent), retirement benefits (44 vs. 82 percent), family-related benefits (31 vs. 70 percent), and job training (29 vs. 47 percent). Among full-time workers, those with some type of alternative working arrangement were less likely than others to receive each benefit examined. Full-time workers who were self-

employed or had multiple jobs were less likely than others to receive benefits. In addition, full-time workers employed in field professions were generally less likely than those employed in professional occupations or clerical and support occupations to receive benefits. Fewer differences in benefits were detected among part-time workers.

Among graduates who worked full time, several differences in income were detected by alternative employment. Those who were self-employed had a higher income than their counterparts who worked for someone else, while those with multiple jobs had a lower income than those with only one job. Those with professional occupations earned more than those with clerical and support occupations or field

<sup>&</sup>lt;sup>2</sup>Detail may not sum to totals because of rounding.

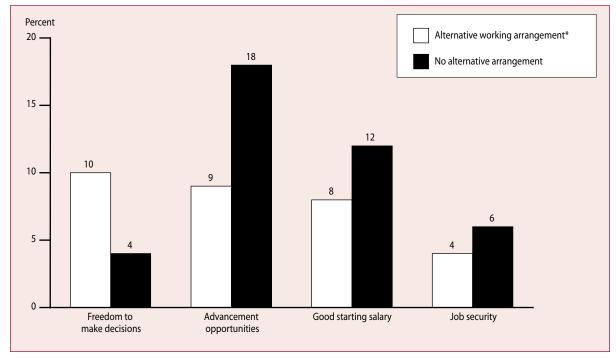


Figure C. Percentage of employed 1992–93 bachelor's degree recipients not enrolled who gave various reasons for taking their jobs, by alternative working arrangement: 1997

\*Includes self-employment, part-time employment, and employment in multiple jobs. These categories are not mutually exclusive.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1993/97 Baccalaureate and Beyond Longitudinal Study (B&B:93/97).

professions. In contrast, no income differences were found among part-time workers by self-employment, number of jobs worked, or type of occupation.

Gender differences were also observed in the relationship between income and some types of alternative employment. Among full-time male workers, self-employment was associated with higher income and working in multiple jobs was associated with lower income. These results did not apply to their female counterparts. Also, even among the alternatively employed, there were gender differences in income. For example, full-time self-employed men earned more than their female counterparts (\$43,600 vs. \$29,800). And within each occupation type, men earned more than their female counterparts. Clearly, a gender gap in earnings persists even among those with various types of employment.

While the 1992–93 bachelor's degree recipients in alternative employment generally had fewer benefits and often had lower incomes, the analysis also shows that they often gave different reasons for choosing their jobs. Therefore, their satisfaction with their work might depend on which job characteristics are being considered. For example, part-time workers were less likely than full-time workers to be very

satisfied with their job security (55 vs. 65 percent), fringe benefits (36 vs. 56 percent), and promotion opportunities (28 vs. 40 percent). However, there were no differences found between full-time and part-time workers' satisfaction with pay, job challenge, working conditions, and relationships with coworkers.

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# Gender and Racial/Ethnic Differences in Salary and Other Characteristics of Postsecondary Faculty: Fall 1998

Ellen M. Bradburn and Anna C. Sikora

This article was originally published as the Executive Summary of the Statistical Analysis Report of the same name. The sample survey data are from the National Study of Postsecondary Faculty (NSOPF).

Disparities in salary, rank, and tenure among faculty members have been an interest of leaders and policymakers both inside and outside academe. Researchers have consistently found that faculty characteristics such as experience, research productivity, institution type, and teaching field relate to faculty pay and outcomes (Fairweather 1995; Bellas 1997; Bellas and Toutkoushian 1999). Differences by gender and race/ethnicity are also evident, with relatively few women and minority faculty teaching at doctoral institutions and holding tenure and the highest ranking positions (Jusenius and Scheffler 1981; Alpert 1989; Smart 1991; Ashraf 1996; Nettles, Perna, and Bradburn 2000). Additionally, wage gaps between male and female faculty remain after controlling for numerous sociodemographic, human capital, productivity, and employment characteristics (Barbezat 1991; Glazer-Raymo 1999; Nettles, Perna, and Bradburn 2000). These gender and racial/ethnic equity issues are important to individuals currently working within the professoriate and to those who hope to attract a diverse pool of talent to the profession in the future (American Association of University Professors 1999).

Using data from the 1999 National Study of Postsecondary Faculty (NSOPF:99), this report examines how gender and race/ethnicity relate to a number of faculty outcomes and characteristics, including the following: salary, rank, tenure status, education, experience, institution type, teaching field, workload, and research productivity. The report focuses on full-time faculty and staff who had instructional duties for credit in fall 1998,1 comparing men and women as well as members of four racial/ethnic groups: White, non-Hispanic; Black, non-Hispanic; Asian/Pacific Islander; and Hispanic. It also includes a regression analysis that shows the residual relationship of gender and race/ethnicity to salary after taking into account other faculty characteristics. As a follow-up to the report Salary, Promotion, and Tenure Status of Minority and Women Faculty in U.S. Colleges and Universities (Nettles, Perna, and Bradburn 2000), which used data from the 1993 National Study of Postsecondary

<sup>1</sup>Throughout this report, "full-time faculty and staff who had instructional duties for credit" are often referred to simply as "faculty." Included are full-time faculty who had for-credit instructional duties, as well as staff who did not have faculty status, but who did have for-credit instructional duties. Teaching assistants are not included.

Faculty (NSOPF:93), the current report also examines changes in faculty outcomes and characteristics between 1992 and 1998.

### **Differences Between Male and Female Faculty Members**

Overall, men's salaries were higher than women's salaries: full-time male faculty averaged about \$61,700 in base salary from the institution in 1998, compared with \$48,400 for full-time female faculty (figure A). Furthermore, men's salary advantage was found among White,<sup>2</sup> Asian, Black, and Hispanic faculty as well. The male-female difference in base salary ranged from about \$7,000 among Black faculty to about \$14,0003 among White faculty. The regression analysis also showed that, after controlling for race/ ethnicity, type of institution, teaching field, level of instruction, tenure status, rank, highest degree, years since highest degree, age, average proportion of time spent on teaching and on research, number of classes taught, and total number of publications or other permanent creative works, full-time female faculty members earned nearly 9 percent<sup>4</sup> less than their male counterparts.

Other faculty outcomes and characteristics also differed by gender in fall 1998. Overall, men held higher ranks and were more likely than women to have tenure (figure B). Men were much more likely than women to be full professors, and 60 percent of men had tenure, compared with 42 percent of women. Women were also more likely than men to have jobs that were not on the tenure track. Men's and women's highest degree and years of experience also

<sup>&</sup>lt;sup>2</sup>For brevity throughout this report, "White" denotes "White, non-Hispanic, ""Black" refers to "Black, non-Hispanic," and "Asian" refers to "Asian/Pacific Islander."

<sup>&</sup>lt;sup>3</sup>These salary differences were calculated as follows: \$53,640 (Black male average salary) – \$46,870 (Black female average salary) = \$6,770 (salary difference between Black males and females); \$61,950 (White male average salary) – \$48,200 (White female average salary) = \$13,750 (salary difference between White males and females); \$66,350 (Asian male average salary) – \$54,690 (Asian female average salary) = \$11,660 (salary difference between Asian males and females); and \$58,990 (Hispanic male average salary) – \$46,890 (Hispanic female average salary) = \$12,100 (salary difference between Hispanic males and females).

<sup>&</sup>lt;sup>4</sup>This percentage difference was calculated using male and female average base salaries that were adjusted to take into account differences associated with other variables in the analysis: \$58,690 (adjusted male average salary) - \$53,620 (adjusted female average salary) = \$5,070 (gender salary difference) / \$58,690 = .086 x 100 = 9 percent

Salary \$100,000 Male Female 80,000 66,350 61,680 61,950 58,990 60,000 54,690 53,640 48,370 48,200 46,890 46,870 40,000 20,000 · 0 Asian/ White, Black, Total Hispanic non-Hispanic Pacific Islander non-Hispanic

Figure A. Base salary of full-time instructional faculty and staff at degree-granting institutions, by gender and race/ethnicity: Calendar year 1998

NOTE: Includes full-time instructional faculty and staff at Title IV degree-granting institutions with at least some instructional duties for credit. Refers to base salary during calendar year 1998 received from the institution at which the respondent was sampled. Dollar figures are rounded to the nearest 10. Included in total but not shown separately are American Indian/Alaska Native faculty.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1999 National Study of Postsecondary Faculty (NSOPF:99).

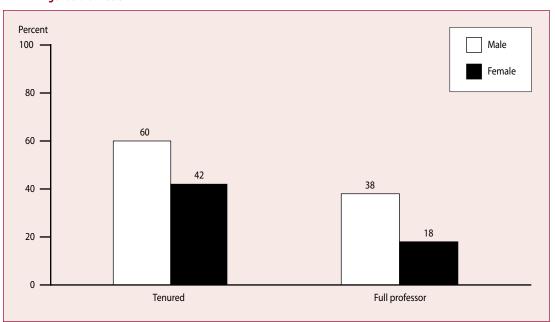


Figure B. Percentage of full-time instructional faculty and staff at degree-granting institutions who were senior faculty, by gender: Fall 1998

NOTE: Includes full-time instructional faculty and staff at Title IV degree-granting institutions with at least some instructional duties for credit. SOURCE: U.S. Department of Education, National Center for Education Statistics, 1999 National Study of Postsecondary Faculty (NSOPF:99).

differed. While about three-quarters (74 percent) of men held doctoral or first-professional degrees, 54 percent of women held these degrees, and women were much more likely than men to have completed their education with a master's degree. Men had also held their highest degrees for longer periods of time, on average, than women and had been teaching longer both in their current jobs and in higher education overall. On the other hand, no differences were detected between women and men in the number of jobs in higher education during their careers. Since women's careers were shorter, this result suggests more frequent job turnover among women.

Men were more likely than women to be employed at public doctoral institutions, while women were more likely to work at public 2-year colleges. Gender differences in teaching field were evident as well: men were more likely than women to teach in the natural sciences and engineering, while women were more likely to teach in the health sciences or in the social sciences and education.

Teaching and research activities of male and female faculty members also differed. Women spent a greater average proportion of their total work time on activities related to teaching, averaging about 60 percent of their work time on such activities, compared with about 55 percent for men. Conversely, about 70 percent of men reported that they were engaged in some type of research activity, compared with about 62 percent of women. Men had also produced more publications or other permanent creative works than women over the previous 2 years.

Because non-Hispanic Whites are the largest racial/ethnic group of faculty, gender differences overall are driven by the differences between White men and White women. Less is known about the extent of gender differences among other racial/ethnic groups. This report indicates that most of the gender differences among White faculty also existed among Asian faculty, while fewer such differences existed among Black and Hispanic faculty. Yet several differences did emerge. Black women were more likely than Black men to be employed at community colleges. In addition, Black men were more likely to teach in the natural sciences and engineering, while Black women were more likely to teach in the health sciences or social sciences and education. Both Black and Hispanic men were more likely than their female counterparts to hold the most senior positions, and like Asian and White men, Black and Hispanic men tended to have more education than their female counterparts.

#### **Differences Among Racial/Ethnic Groups**

Overall, Asian/Pacific Islander faculty salaries were higher than White faculty salaries, which were higher than Black faculty salaries. Full-time White faculty averaged \$57,000 in base salary from their institutions in 1998, compared with \$62,800 for Asian faculty and \$50,400 for Black faculty. No salary difference was found between Hispanic faculty, who earned about \$54,400 on average, and White faculty. After controlling for the other variables in this analysis, no differences were observed in average salaries across racial/ethnic categories.

The analysis of faculty outcomes and characteristics in fall 1998, which makes racial/ethnic comparisons separately for men and women, shows that racial/ethnic differences were more often found among men than among women. When racial/ethnic differences did emerge, there were more differences between Whites and Asians than between Whites and Blacks. Hispanic faculty displayed the fewest differences from White faculty overall. In some cases, small sample sizes and large standard errors meant that apparent differences were not statistically conclusive.

In general, full-time Asian/Pacific Islander faculty were more likely than full-time White faculty to have several kinds of characteristics that are associated with higher salaries. For example, they were more likely to work at public doctoral institutions and to teach in the natural sciences and engineering. They also spent a higher average proportion of their time engaged in research, and they produced more recent publications or other permanent creative works. In contrast, Black faculty were less likely than White faculty to have certain characteristics associated with higher pay. Thus, Black faculty were less likely than White faculty to be full professors or to hold tenure. They were also less likely to work at doctoral institutions and more likely to teach in the social sciences and education. While Asian faculty were more likely than White faculty, who in turn were more likely than Black faculty, to have doctoral or first-professional degrees, White faculty had more experience than faculty belonging to any of the other three racial/ethnic groups (figure C). Compared with Asian, Black, and Hispanic faculty, White faculty had held their highest degrees and their current jobs longer. White faculty were also older than their Asian and Hispanic colleagues.

#### **Other Findings**

The multiple regression analysis confirmed that other faculty characteristics besides gender were related to

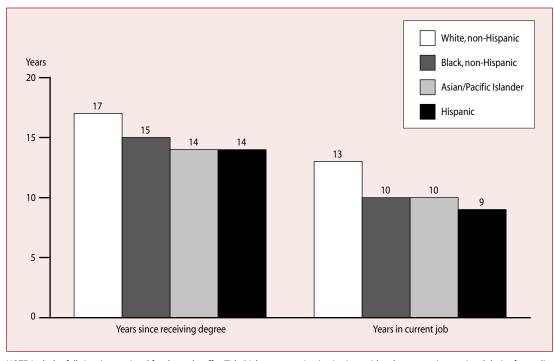


Figure C. Years of experience of full-time instructional faculty and staff at degree-granting institutions by race/ethnicity: Fall 1998

NOTE: Includes full-time instructional faculty and staff at Title IV degree-granting institutions with at least some instructional duties for credit. SOURCE: U.S. Department of Education, National Center for Education Statistics, 1999 National Study of Postsecondary Faculty (NSOPF:99).

salaries. Tenure status, academic rank, highest degree earned, and number of years since receiving highest degree were all associated with salary. Full professors earned more than associate and assistant professors and faculty in other ranks. Faculty holding doctoral or first-professional degrees earned about 12 percent<sup>5</sup> more than faculty holding other degrees, and those who held their highest degrees for more than 15 years earned an average of at least \$6,000<sup>6</sup> more than their colleagues with less experience.

Institution type, teaching field, and teaching and research activities were also associated with salaries. Compared with faculty who taught at public 2-year institutions, faculty who taught at public and private not-for-profit doctoral institu-

tions earned significantly higher salaries after adjusting for the other variables used in the analysis. Faculty who taught in business, law, communications, and health sciences earned significantly higher salaries than faculty in the natural sciences and engineering. Faculty in the natural sciences and engineering earned more than their counterparts in the humanities. Additionally, faculty who reported producing a total of more than 10 publications or other permanent creative works over the previous 2 years earned more than their counterparts who had produced fewer works. Salaries were also higher for those faculty members who spent an average of 50 percent or less of their time on teaching activities.

A comparison of results from the 1993 and 1999 administrations of NSOPF also showed that differences among faculty have persisted over time. Overall, the status of faculty across racial/ethnic groups changed little between 1992 and 1998. Women's average salary (in constant 1998 dollars) rose significantly between 1992 and 1998, resulting from an increase in salary among White women in particular. But while salaries among other racial/ethnic groups also appeared to have increased for women (and, in some cases, for men), the standard errors were large, and there was not

<sup>&</sup>lt;sup>5</sup>This percentage difference was calculated using average base salaries by highest degree adjusted to control for differences associated with other variables in the analysis: \$58,980 (adjusted average salary for faculty holding doctoral/first-professional degrees) – \$52,540 (adjusted average salary for faculty holding other degrees) = \$6,440 (salary difference) / \$52,540 = 0.12 x 100 = 12 percent salary difference.

<sup>&</sup>lt;sup>6</sup>These salary differences were calculated as follows: \$60,690 (adjusted average salary for faculty with more than 15 years of experience) – \$54,280 (adjusted average salary for faculty with 11 to 15 years of experience) = \$6,410 (salary difference); \$60,690 (adjusted average salary for faculty with more than 15 years of experience) – \$53,250 (adjusted average salary for faculty with 6 to 10 years of experience) = \$7,440 (salary difference); and \$60,690 (adjusted average salary for faculty with more than 15 years of experience) – \$50,950 (adjusted average salary for faculty with 0 to 5 years of experience) = \$9,740 (salary difference).

enough statistical evidence to conclude that these results were significant. In addition to having higher average salaries in 1998 than in 1992, White women were also more likely to have doctoral or first-professional degrees and to be full professors. Despite these changes, no change was detected in the gap between the average salary of White men and women between 1992 and 1998. In fact, no significant changes were detected in the salary gaps between male and female full-time instructional staff between 1992 and 1998 across the four racial/ethnic groups examined.

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**Data source:** The NCES 1993 and 1999 National Study of Postsecondary Faculty (NSOPF:93 and NSOPF:99).

For technical information, see the complete report:

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## Enrollment in Postsecondary Institutions, Fall 2000 and Financial Statistics, Fiscal Year 2000

Laura G. Knapp, Janice E. Kelly, Roy W. Whitmore, Shiying Wu, and Lorraine M. Gallego

This article was originally published as the Summary of the E.D. Tabs report of the same name. The universe data are from the NCES Integrated Postsecondary Education Data System (IPEDS).

#### Introduction

This report presents findings from the Integrated Post-secondary Education Data System (IPEDS) spring 2001 data collection, which included enrollment data for fall 2000, financial statistics for fiscal year 2000, and student financial aid data for academic year 1999–2000. These data were collected through the IPEDS web-based data collection system.

IPEDS collects data from about 9,400 postsecondary institutions in the United States (the 50 states and the District of Columbia) and its outlying areas. For IPEDS, a postsecondary institution is defined as an organization that is open to the public and has as its primary mission the provision of postsecondary education. IPEDS defines postsecondary education as formal instructional programs with a curriculum designed primarily for students who are beyond the compulsory age for high school. This includes academic, vocational, and continuing professional education programs and excludes institutions that offer only avocational (leisure) and adult basic education programs.

Participation in the IPEDS spring 2001 data collection was a requirement for the approximately 6,600 institutions that participated in Title IV federal student financial aid programs such as Pell Grants or Stafford Loans during the 2000–01 academic year.<sup>2</sup> In addition, institutions that did not participate in Title IV programs were offered the opportunity to participate in the IPEDS data collection process.

Tabulations in this report present data collected from the approximately 6,600 Title IV postsecondary institutions in spring 2001. Institutions were asked to provide data on enrollments, finance, student financial aid, and graduation rates; however, this report focuses primarily on enrollment

data, with a few summary tables on finance and student financial aid. Graduation rate data are not included because Title IV 4-year institutions were not required to provide these data in spring 2001.<sup>3</sup>

#### **Characteristics of Enrolled Students**

In fall 2000, 15.9 million students were enrolled in the 6,600 Title IV postsecondary institutions in the United States and its outlying areas. Of these students, 86.3 percent were enrolled in undergraduate programs, 11.7 percent were enrolled in graduate programs, and 1.9 percent were enrolled in first-professional programs. The majority of students, 59.5 percent, were enrolled full time, while 40.5 percent were enrolled part time (table A).

About 56.4 percent of postsecondary students enrolled in Title IV institutions in fall 2000 were women, while the remaining 43.6 percent were men. White, non-Hispanic students constituted 63.3 percent and minority students constituted 27.9 percent of enrollment in Title IV institutions in fall 2000. The remaining enrollment in Title IV institutions was made up of students whose race/ethnicity was unknown and nonresident aliens (5.3 percent and 3.4 percent, respectively) (table A).

#### Characteristics of Students at Degree-Granting and Non-Degree-Granting Institutions<sup>4</sup>

During fall 2000, 15.7 million students attended Title IV institutions located within the United States. Almost all of these students (15.3 million) attended degree-granting institutions, while fewer than 400,000 students attended non-degree-granting institutions (table B).

<sup>&</sup>lt;sup>3</sup>According to the regulations implementing the Student Right-to-Know Act, institutions offering athletically related student aid are required to report graduation rates beginning with the group of students who entered the institution between September 1, 1996, and August 31, 1997. Four-year institutions must start providing these data in the IPEDS spring 2003 data collection. All other institutions are required to respond as part of their Program Participation Agreement.

<sup>&</sup>lt;sup>4</sup>Degree-granting institutions are those that grant associate's, bachelor's, master's, doctor's, or first-professional degrees. Non-degree-granting institutions award only certificates of completion; these institutions are primarily occupational/vocational schools awarding certificates in such programs as cosmetology, nursing, mechanics, aviation systems, computer and information sciences, dental assistant, and law enforcement.

<sup>&</sup>lt;sup>1</sup>The outlying areas are American Samoa, the Federated States of Micronesia, Guam, the Marshall Islands, the Northern Marianas, Palau, Puerto Rico, and the Virgin Islands.

<sup>&</sup>lt;sup>2</sup>Institutions participating in Title IV programs are accredited by an agency or organization recognized by the U.S. Department of Education, have a program of over 300 clock hours or 8 credit hours, have been in business for at least 2 years, and have a signed Program Participation Agreement (PPA) with the Office of Postsecondary Education (OPE), U.S. Department of Education.

Table A. Enrollment in Title IV institutions, by student level, attendance status, gender, and race/ethnicity:
United States and outlying areas, fall 2000

Student level, attendance	United States and outlying areas		United States	
status, gender, and race/ethnicity	Total students	Percent	Total students	Percent
Total students	15,924,028	100.0	15,701,409	100.0
Student level				
Undergraduate	13,745,168	86.3	13,542,772	86.3
Graduate	1,868,734	11.7	1,851,913	11.8
First-professional	310,126	1.9	306,724	2.0
Attendance status				
Full time	9,467,092	59.5	9,292,349	59.2
Part time	6,456,936	40.5	6,409,060	40.8
Gender				
Men	6,949,309	43.6	6,859,383	43.7
Women	8,974,719	56.4	8,842,026	56.3
Race/ethnicity				
White, non-Hispanic	10,086,497	63.3	10,086,012	64.2
Black, non-Hispanic	1,728,544	10.9	1,726,907	11.0
Hispanic	1,646,125	10.3	1,436,317	9.1
Asian/Pacific Islander	930,358	5.8	922,445	5.9
American Indian/Alaska Native	147,193	0.9	147,178	0.9
Race/ethnicity unknown	850,932	5.3	848,741	5.4
Nonresident alien	534,379	3.4	533,809	3.4

NOTE: Detail may not sum to totals because of rounding. The outlying areas are American Samoa, the Federated States of Micronesia, Guam, the Marshall Islands, the Northern Marianas, Palau, Puerto Rico, and the Virgin Islands. A first-professional student is one who is enrolled in any of the following degree programs: chiropractic, dentistry, law, medicine, optometry, osteopathic medicine, pharmacy, podiatry, theology, or veterinary medicine.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Integrated Postsecondary Education Data System (IPEDS), Spring 2001.

A majority of students attending both degree-granting institutions and non-degree-granting institutions attended school full time (58.8 percent and 72.7 percent, respectively). Likewise, the majority of students attending both degree-granting and non-degree-granting institutions were women (56.1 percent and 64.6 percent, respectively). However, the proportion of students attending degreegranting or non-degree-granting institutions differed by race/ethnicity. Table B shows that 64.6 percent of the students attending degree-granting institutions were White, non-Hispanic, 26.6 percent were minority students, and the remainder were either students whose race/ethnicity was unknown (5.4 percent) or nonresident aliens (3.5 percent). Although students attending non-degree-granting institutions were also mostly White, non-Hispanic (51.8 percent), 41.4 percent were minority students, while 6.8 percent consisted of students whose race/ethnicity was unknown and nonresident aliens.

#### Residence and Migration of First-Time, Degree/Certificate-Seeking Undergraduate Students

The spring 2001 IPEDS collection included enrollment by state of residence<sup>5</sup> for all students (both full time and part time) who were considered first-time, degree/certificate-seeking undergraduates in fall 2000. Table C includes the percentage of a state's enrollment of first-time, degree/certificate-seeking undergraduate students in Title IV degree-granting institutions who were residents of other states. In the District of Columbia, the highest percentage of first-time, degree/certificate-seeking undergraduate students came from other states (89.8 percent). Three states also had more than half of their first-time, degree/certificate-seeking

<sup>&</sup>lt;sup>5</sup>The state identified by the student as his/her permanent address at the time of application to the institution. This may be the legal residence of a parent or guardian or the state in which the student has a driver's license or is registered to vote. It is not necessarily the state in which the student's high school is located.

Table B. Enrollment in Title IV institutions, by degree-granting status, level and control of institution, attendance status, gender, and race/ethnicity: United States, fall 2000

Level and control of	All institutions		Degree-granting		Non-degree-granting	
institution, attendance status, gender, and race/ethnicity	Total students	Percent	Total students	Percent	Total students	Percen
Total students	15,701,409	100.0	15,312,289	100.0	389,120	100.0
Level of institution						
4-year	9,365,805	59.6	9,363,858	61.2	1,947	0.5
2-year	6,061,897	38.6	5,948,431	38.8	113,466	29.2
Less-than-2-year	273,707	1.7	†	†	273,707	70.3
Control of institution						
Public	11,891,450	75.7	11,752,786	76.8	138,664	35.6
Private not-for-profit	3,137,108	20.0	3,109,419	20.3	27,689	7.1
Private for-profit	672,851	4.3	450,084	2.9	222,767	57.2
Attendance status						
Full time	9,292,349	59.2	9,009,600	58.8	282,749	72.7
Part time	6,409,060	40.8	6,302,689	41.2	106,371	27.3
Gender						
Men	6,859,383	43.7	6,721,769	43.9	137,614	35.4
Women	8,842,026	56.3	8,590,520	56.1	251,506	64.6
Race/ethnicity						
White, non-Hispanic	10,086,012	64.2	9,884,335	64.6	201,677	51.8
Black, non-Hispanic	1,726,907	11.0	1,652,641	10.8	74,266	19.1
Hispanic	1,436,317	9.1	1,370,604	9.0	65,713	16.9
Asian/Pacific Islander	922,445	5.9	905,068	5.9	17,377	4.5
American Indian/Alaska Native	147,178	0.9	143,483	0.9	3,695	0.9
Race/ethnicity unknown	848,741	5.4	827,748	5.4	20,993	5.4
Nonresident alien	533,809	3.4	528,410	3.5	5,399	1.4

†Not applicable.

 $NOTE: All\ less-than-2-year\ institutions\ are\ non-degree-granting. Detail\ may\ not\ sum\ to\ totals\ because\ of\ rounding.$ 

SOURCE: U.S. Department of Education, National Center for Education Statistics, Integrated Postsecondary Education Data System (IPEDS), Spring 2001.

undergraduate students coming from other states: New Hampshire (61.4 percent), Rhode Island (59.4 percent), and Vermont (62.9 percent). Two states, Illinois and New Jersey, had less than 10 percent of their first-time, degree/certificate-seeking undergraduate enrollment coming from other states (9.8 percent and 9.7 percent, respectively). Overall, 15.4 percent of the 2.5 million first-time, degree/certificate-seeking undergraduate students at Title IV postsecondary schools in fall 2000 attended an institution outside of their home state of residence.

Table C also includes the percentage of first-time, degree/certificate-seeking students who left their state of residence to attend a Title IV degree-granting institution in a different state. This percentage varied considerably, ranging from a low of 6.6 percent in Mississippi to a high of 66.2 percent in the District of Columbia. Other states with less than 10 percent of their first-time, degree/certificate-seeking students leaving to attend school in another state were Alabama (9.5 percent), Arizona (8.7 percent), California (7.9 percent), Louisiana (8.7 percent), Michigan (9.7 per-

cent), North Carolina (8.1 percent), Oklahoma (9.7 percent), Texas (8.1 percent), and Utah (7.9 percent). Only the District of Columbia sent more than half of its first-time, degree/certificate-seeking students elsewhere to attend college.

#### **Revenues of Degree-Granting Institutions**

The finance component of the spring 2001 IPEDS collected information on the revenues and expenditures of Title IV institutions during fiscal year 2000. Revenue data were collected by source of revenue, such as tuition and fees and government appropriations, while expenditure data were collected by purpose of expenditure, including instruction, research, and public service.

As shown in table D, the largest source of revenues differed by level and control of institution. Public 4-year institutions received about one-third (32.2 percent) of their current funds revenues from government appropriations, while public 2-year institutions received more than half (56.6 percent) of their current funds revenues from government

Table C. Migration of all first-time, degree/certificate-seeking undergraduate students in Title IV degree-granting institutions, by state: Fall 2000

State	Percent of out-of-state students enrolled <sup>1</sup>	Percent of resident students enrolled in an out-of-state institution	
Alabama	22.0	9.5	
Alaska	11.3	47.5	
Arizona	30.5	8.7	
Arkansas	17.6	11.5	
California	12.6	7.9	
Colorado	25.8	14.8	
Connecticut	34.0	42.9	
Delaware	49.7	30.5	
District of Columbia	89.8	66.2	
Florida	20.1	10.4	
Georgia	16.6	13.5	
Hawaii	20.2	28.1	
Idaho	24.4	24.1	
Illinois	9.8	17.5	
Indiana	24.8	12.0	
lowa	27.4	12.1	
Kansas	17.4	11.4	
Kentucky	20.1	12.7	
Louisiana Maine	15.3 36.4	8.7 38.9	
Maryland			
Massachusetts	26.9 41.2	33.3 27.7	
Michigan	10.6	9.7	
Minnesota Mississippi	20.0 14.7	16.9 6.6	
Missouri	24.4	15.6	
Montana	24.4	26.4	
Nebraska	18.2	15.7	
Nevada	18.5	18.5	
New Hampshire	61.4	49.7	
New Jersey	9.7	35.7	
New Mexico	21.4	25.3	
New York	23.1	17.2	
North Carolina	21.0	8.1	
North Dakota	37.0	28.3	
Ohio	14.5	13.6	
Oklahoma	20.8	9.7	
Oregon	24.8	18.5	
Pennsylvania	26.1	15.0	
Rhode Island	59.4	32.6	
South Carolina	21.8	12.0	
South Dakota	35.4	28.3	
Tennessee	24.8	16.0	
Texas	12.7	8.1	
Utah	28.1	7.9	
Vermont	62.9	49.5	
Virginia	26.1	19.3	
Washington	13.6	19.1	
West Virginia	28.0	17.3	
Wisconsin	17.5	15.3	
Wyoming	31.3	33.6	

 $<sup>^{1}</sup>$ Among all first-time, degree/certificate-seeking undergraduate students enrolled in the state, the percentage who came from another state.

 $<sup>^2</sup>$ Among all first-time, degree/certificate-seeking undergraduate residents of the state, the percentage who enrolled out of state.

 $SOURCE: U.S.\ Department\ of\ Education, National\ Center\ for\ Education\ Statistics, Integrated\ Postsecondary\ Education\ Data\ System\ (IPEDS), Spring\ 2001.$ 

Table D. Revenues of Title IV degree-granting institutions, by level and control of institution and source of funds: United States, fiscal year 2000

	4-year		2-year		
Source of funds	Revenue (in thousands)	Percent	Revenue (in thousands)	Percen	
	Public institutions				
Total current funds revenues <sup>1</sup>	\$128,993,211	100.0	\$28,320,453	100.0	
Tuition and fees	23,376,317	18.1	5,749,285	20.3	
Government appropriations	41,587,088	32.2	16,032,852	56.6	
Government grants and contracts <sup>2</sup>	17,816,472	13.8	3,375,750	11.9	
Private gifts, grants, and contracts	7,168,328	5.6	320,452	1.1	
Endowment income	1,146,964	0.9	23,199	0.1	
Sales and services of educational activities	4,595,919	3.6	221,339	0.8	
Auxiliary enterprises	13,596,395	10.5	1,577,906	5.6	
Hospitals	13,990,587	10.8	0	0.0	
Independent operations	523,500	0.4	25,996	0.1	
Other sources	5,191,640	4.0	993,673	3.5	
	Private not-for-profit institutions				
Total revenues and investment return <sup>3</sup>	\$119,708,625	100.0	\$1,801,179	100.0	
Tuition and fees	29,257,523	24.4	394,289	21.9	
Government appropriations	720,123	0.6	11,869	0.7	
Government grants and contracts	10,013,604	8.4	69,490	3.9	
Private gifts, grants, and contracts	15,499,395	12.9	85,529	4.7	
Contributions from affiliated entities	847,221	0.7	56,839	3.2	
Investment return	37,698,219	31.5	65,299	3.6	
Sales and services of educational activities	2,837,784	2.4	27,822	1.5	
Sales and services of auxiliary enterprises	8,261,507	6.9	56,100	3.1	
Hospital revenue <sup>4</sup>	7,208,600	6.0	883,998	49.1	
Independent operations revenue	3,073,809	2.6	911	0.1	
Other revenue	4,290,841	3.6	149,033	8.3	
	Private for-profit institutions				
Total revenues and investment return <sup>3</sup>	\$2,381,042	100.0	\$2,061,790	100.0	
Tuition and fees	2,050,136	86.1	1,670,896	81.0	
Government appropriations, grants,					
and contracts <sup>5</sup>	143,324	6.0	127,502	6.2	
Private grants and contracts	1,109	#	1,042	0.1	
Investment income and investment gains					
(losses)	10,340	0.4	8,197	0.4	
Sales and services of educational activities	· ·	1.4	36,908	1.8	
Sales and services of auxiliary enterprises	102,103	4.3	54,510	2.6	
Other revenue	40,266	1.7	162,735	7.9	

#Rounds to zero.

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

SOURCE: U.S. Department of Education, National Center for Education Statistics, Integrated Postsecondary Education Data System (IPEDS), Spring 2001.

 $<sup>^{1}</sup> Public institutions follow the standards of the Government Accounting Standards Board (GASB). \\$ 

<sup>&</sup>lt;sup>2</sup>Excludes Pell Grants. Federally supported student aid that is received through students is included under tuition and auxiliary enterprises.

<sup>&</sup>lt;sup>3</sup>Private institutions follow the standards of the Financial Accounting Standards Board (FASB).

<sup>&</sup>lt;sup>4</sup>Of the approximately 140 Title IV degree-granting private not-for-profit 2-year institutions, only 5 institutions reported hospital revenues; however, the hospital revenues account for 49.1 percent of the total revenues of these institutions.

<sup>&</sup>lt;sup>5</sup>Data for government appropriations, grants, and contracts are not collected separately from private for-profit institutions.

appropriations. Both public 4-year and public 2-year institutions received about one-fifth of their current funds revenues from tuition and fees (18.1 percent and 20.3 percent, respectively).

Private not-for-profit 4-year institutions received about onethird of their revenues (31.5 percent) from investment return and a quarter of their revenues (24.4 percent) from tuition and fees. Private for-profit institutions, regardless of level, received the largest proportion of their revenues from tuition and fees. Four-year private for-profit institutions received 86.1 percent of their revenues from tuition and fees, and 2-year private for-profit institutions received 81.0 percent of their revenues from tuition and fees.

## First-Time, Full-Time Undergraduate Financial Aid Recipients<sup>6</sup>

The student financial aid component of the spring 2001 IPEDS collected information on the proportion of first-time, full-time degree/certificate-seeking undergraduates who

received financial aid at any time during the 1999–2000 academic year. In fall 1999, there were 1.8 million first-time, full-time degree/certificate-seeking undergraduates. About 70 percent of these students received some form of financial aid. Proportions of first-time, full-time degree/certificate-seeking undergraduates who received financial aid varied by control and level of institution, ranging from about 56 percent at public 2-year institutions to about 82 percent at both private for-profit 2-year institutions and private not-for-profit 4-year institutions (table E).

**Data source:** The NCES Integrated Postsecondary Education Data System (IPEDS), Spring 2001.

For technical information, see the complete report:

Knapp, L.G., Kelly, J.E., Whitmore, R.W., Wu, S., and Gallego, L.M. (2002). Enrollment in Postsecondary Institutions, Fall 2000 and Financial Statistics, Fiscal Year 2000 (NCES 2002–212).

**Author affiliations:** L.G. Knapp, consultant; J.E. Kelly, R.W. Whitmore, S. Wu, and L.M. Gallego, Research Triangle Institute.

**For questions about content,** contact Aurora D'Amico (aurora.d'amico@ed.gov).

**To obtain the complete report (NCES 2002–212),** visit the NCES Electronic Catalog (http://nces.ed.gov/pubsearch).

Table E. Fall enrollment of first-time, full-time degree/certificate-seeking undergraduates and those with financial aid in Title IV degree-granting institutions, by control and level of institution: United States, academic year 1999–2000

	Fall enrollment	Financial aid recipients		
Level and control of institution		Number	Percent	
Total	1,815,469	1,253,022	69.0	
Public 4-year	770,443	538,883	69.9	
Public 2-year	522,892	290,815	55.6	
Private not-for-profit 4-year	405,426	333,179	82.2	
Private not-for-profit 2-year	17,402	11,561	66.4	
Private for-profit 4-year	38,931	28,894	74.2	
Private for-profit 2-year	60,375	49,690	82.3	

 $SOURCE: U.S.\ Department\ of\ Education, National\ Center\ for\ Education\ Statistics, Integrated\ Postsecondary\ Education\ Data\ System\ (IPEDS), Spring\ 2001.$ 

<sup>&</sup>lt;sup>6</sup>Financial aid, as used here, includes federal grants, state and local grants, institutional grants, and student loans; PLUS loans and other loans made directly to parents are not included.

## Hispanic Serving Institutions: Statistical Trends From 1990 to 1999

Christina Stearns and Satoshi Watanabe

This article was originally published as the Introduction to the Compendium report of the same name. The universe data are from the NCES Integrated Postsecondary Education Data System (IPEDS).

#### Introduction

Economic realities today place considerable pressure on American youth to pursue postsecondary education. A high school diploma no longer guarantees high-paying employment, and the labor market is such that an individual's chances for economic success can be improved by obtaining postsecondary degrees. As a result, demand for postsecondary education has grown in the past decade, as is evidenced by the fact that many Americans are enrolling in colleges and universities in greater numbers than ever before. This is especially true for the Hispanic population, which is experiencing rapid growth. Hispanic Americans' enrollment in colleges and universities increased by 68 percent in just 9 years—from about 782,000 in 1990 to 1,317,000 in 1999.

As Hispanic enrollment grows, Hispanic serving institutions (HSIs) play an increasingly important role in providing Hispanic Americans with access to college education. HSIs, for the purposes of this report, are degree-granting institutions where at least 25 percent of full-time-equivalent undergraduates who are U.S. citizens or resident aliens are Hispanic. This report, the first from the U.S. Department of Education's National Center for Education Statistics (NCES) to focus exclusively on HSIs, tracks 335 Title IV3 degreegranting institutions that met the 25 percent Hispanic enrollment criterion in 1999. The HSIs on this list include public, private not-for-profit, and private for-profit institutions in the United States and Puerto Rico. This report provides a statistical overview of the growth in HSI enrollment and degrees during the 1990s. It also presents an overview of HSI staff in 1999 and salary changes from the middle to the end of the decade.

It is important to note that the institutions tracked in this report do not comprise an official list of institutions eligible for federal funding under the Title V Developing Hispanic-Serving Institutions Program. To be eligible for this program, an institution must meet additional criteria found in Title V of the Higher Education Act (HEA) of 1965, as amended.<sup>4</sup> In particular, institutions must assure that at least 50 percent of their Hispanic students are low-income individuals. Furthermore, institutions must be not-for-profit.<sup>5</sup> Other qualification criteria for the program exist as well, and eligibility is contingent on the submission of an application.

The purpose of this report, therefore, is not to describe an official list of HSIs, but instead to provide a policy-relevant picture of current trends in college education for Hispanics. The broader definition of HSIs used in this report brings into focus a set of institutions that enrolled 45 percent of all Hispanic college students in the United States in 1999.

The enrollment data used to identify this report's set of HSIs are from the 1999 Integrated Postsecondary Education Data System, "Fall Enrollment Survey" (IPEDS-EF:99). In the IPEDS survey system, data on race/ethnicity are collected for U.S. citizens and resident aliens only. Nonresident aliens, regardless of race, are reported as a separate group. For this report, institutions were selected as HSIs based on the percentage of students who were Hispanic after nonresident aliens were excluded from the total number of enrolled students in each institution. However, to provide a complete picture of the proportion of the entire student body that was Hispanic, the percentages presented in this report include the nonresident aliens in the total number of students. (Data on the percentages of U.S. citizens and resident aliens enrolled in HSIs who were Hispanic can be found in the appendix to the report.)

This report tracks the same set of 335 institutions (276 in the United States and 59 in Puerto Rico) between 1990–91

<sup>&</sup>lt;sup>1</sup>This report provides data on associate's, bachelor's, master's, doctor's, and first-professional degrees.

<sup>&</sup>lt;sup>2</sup>Enrollment in 1990 is based on total fall enrollment in all institutions in the United States that were accredited by an agency or association that was recognized by the U.S. Department of Education. Enrollment in 1999 is based on total fall enrollment in all U.S. degree-granting institutions that were eligible to participate in Title IV federal financial aid programs. Enrollment in Puerto Rico is excluded in both years.

<sup>&</sup>lt;sup>3</sup>At Title IV institutions, eligible students can receive Pell Grants and other federal aid (e.g., Direct Loans) under Title IV programs. For an institution to participate in Title IV financial aid programs, it must offer a program of over 300 clock hours or 8 credit hours, have accreditation recognized by the U.S. Department of Education, have been in business for at least 2 years, and have signed a Program Participation Agreement (PPA) with the Department.

<sup>&</sup>lt;sup>4</sup>Identification of Hispanic serving institutions pursuant to Section 302(d)(1) of Public Law 102–325 (20 U.S.C. 1059c), most recently amended December 20, 1993, in Section 2(a)(7) of Public Law 103–208.

<sup>&</sup>lt;sup>5</sup>Application of the Title V criteria would have had a considerable effect on the list of HSIs tracked in this report. For example, if for-profit institutions had been excluded from the list of HSIs in this report, 115 fewer institutions would have qualified as HSIs.

and 1999–2000. It does not identify the varying number of institutions that met the definition of HSIs in each year. If the 25 percent enrollment criterion were applied in a different year, a different number of institutions might qualify. For instance, if the criterion had been applied to 1990 data, 111 institutions in the United States and 53 institutions in Puerto Rico would have been designated as Hispanic serving institutions.<sup>6</sup> By tracking a single set of 335 institutions from 1990–91 to 1999–2000, this report presents a tabular illustration of the role of HSIs in America's postsecondary education system.

The data presented in this report provide a statistical overview of the work of HSIs with students of Hispanic origin as well as with students from diverse racial and ethnic backgrounds. In addition, the institution- and state-level statistics in the complete report can assist HSIs in comparing their own experiences with those of other HSIs throughout the country and within their own states.

#### **Enrollment**

Enrollment in HSIs in the United States grew rapidly between 1990 and 1999. During this period, the number of students enrolled increased by 14 percent, exceeding the 7 percent growth for all institutions. As a result, the proportion of all U.S. college and university students who were enrolled in HSIs grew during the decade, from 9 percent in 1990 to 10 percent in 1999. In Puerto Rico, the number of students enrolled at HSIs grew as well, increasing by 11 percent from 1990 to 1999.

The number of women enrolled in HSIs in the United States grew 18 percent between 1990 and 1999, compared with a 9 percent growth among men. At all institutions in the United States, the number of women grew at a faster rate than the number of men as well (10 percent vs. 3 percent growth between 1990 and 1999). In 1999, women accounted for 58 percent of students at HSIs in the United States and 56 percent of students at all institutions in the United States.

The growth in enrollment at HSIs in the United States also varied by race/ethnicity. In fact, the growth was almost entirely a product of a surge in enrollment of minority students. Between 1990 and 1999, the number of minority students enrolled in HSIs increased by 49 percent—a rate comparable to the 48 percent increase for all institutions.

<sup>6</sup>Based on IPEDS-EF:90 data.

Over the same period, White enrollment in HSIs declined by 20 percent, compared with only a 4 percent decline in all institutions. As a result of these differences in growth trends, by 1999, minorities outnumbered Whites in HSIs (64 percent vs. 34 percent). In 1990, by contrast, White and minority students were represented in almost equal proportions. Nonresident aliens accounted for 3 percent of students at HSIs in 1990 and 2 percent of students at HSIs in 1999.

Among minorities, the number of Hispanic students enrolled in HSIs in the United States grew faster than the number of students of any other race or ethnicity (figure 1). From 1990 to 1999, the number of Hispanic students grew from 359,000 to 588,000. This growth raised the proportion of Hispanic students to 42 percent and made them the largest racial or ethnic group at these institutions. The number of students who were Blacks, Asians or Pacific Islanders, or American Indians or Alaska Natives also grew during the decade, but these increases were smaller.

Despite the 64 percent growth in Hispanic enrollment in HSIs from 1990 to 1999, the percentage of all Hispanic students enrolled in HSIs actually declined slightly, from 46 percent to 45 percent. This small decline can be attributed to the fact that Hispanic enrollment in non-HSIs grew even faster than Hispanic enrollment in HSIs.

A relatively large proportion of the growth in enrollment between 1990 and 1999 at HSIs in the United States occurred at private institutions. Although the total number of students enrolled in private HSIs in 1999 was far smaller than the number enrolled in their public counterparts (153,000 in private HSIs vs. 1,246,000 in public HSIs), enrollment in private HSIs rose considerably over the decade, with the enrollment growth substantially exceeding the growth in public institutions. In both 2-year and 4-year private HSIs, Hispanic enrollment more than doubled between 1990 and 1999.

Changes in the racial and ethnic representations in enrollment at HSIs occurred at the undergraduate, graduate, and first-professional levels, to varying degrees. At all three levels, the shift was an increase in minority enrollment, particularly Hispanic enrollment (figure 2).

Overall enrollment in HSIs at the graduate level grew faster than both undergraduate and first-professional enrollment, increasing 24 percent, from 76,000 in 1990 to 95,000 in 1999. This increase in the number of graduate students was

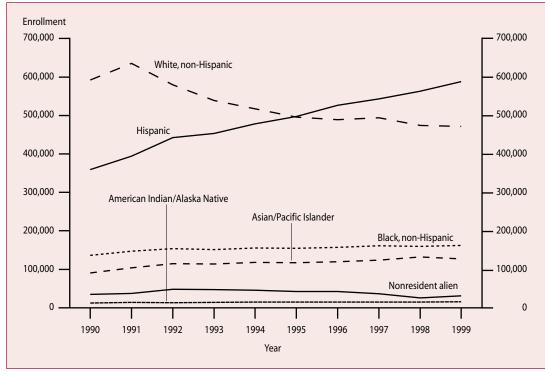


Figure 1. Total fall enrollment in Hispanic serving institutions in the United States, by race/ethnicity: 1990-99

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1990 through 1999 Integrated Postsecondary Education Data System, "Fall Enrollment Survey" (IPEDS-EF:90 through IPEDS-EF:99).

due primarily to increasing minority enrollment in HSIs, particularly that of Hispanic students, which more than doubled from 1990 to 1999. The increase can also be partially attributed to a 56 percent increase in the number of nonresident aliens.

Undergraduate enrollment in HSIs in the United States fluctuated more throughout the decade than did graduate enrollment. By 1999, however, the number of undergraduate students had increased substantially, rising from 1,143,000 in 1990 to 1,297,000 in 1999. The slower pace of undergraduate growth compared with graduate growth is in part due to a substantial drop in White undergraduate enrollment in HSIs, which declined 22 percent from 1990 to 1999 (whereas White graduate student enrollment dropped only 5 percent during the same period).

#### **Degrees**

The number of degrees awarded by HSIs in the United States grew by 36 percent between 1991–92 and 1999–2000. In contrast, the number of degrees conferred by all institutions in the United States grew by 13 percent between

1991–92 and 1999–2000. The increase in degree recipients at HSIs resulted in an increase in the share of all degrees in the United States that were conferred at HSIs, from 5 percent in 1991–92 to 6 percent in 1999–2000. The number of degrees awarded by HSIs in Puerto Rico also increased, by 31 percent between 1991–92 and 1999–2000.

At each degree level, the number of minorities receiving degrees at HSIs in the United States grew more than the number of Whites. Consequently, the total number of degree recipients at HSIs who were minorities grew by 87 percent between 1991–92 and 1999–2000, while the number of White degree recipients declined by 4 percent. The number of Hispanic degree recipients grew by 95 percent, more than the increase in the number of recipients from any other racial or ethnic group.

#### Associate's degrees

Associate's degrees accounted for 46 percent of the 149,028 degrees awarded by HSIs in the United States in 1999–2000. The number of associate's degrees awarded by HSIs in the United States between 1991–92 and 1999–2000 rose

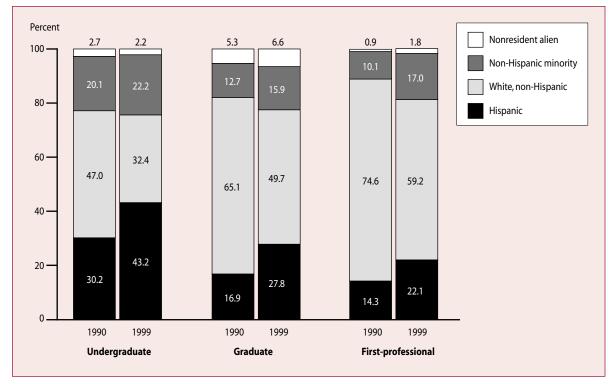


Figure 2. Percentage distribution of enrollment in Hispanic serving institutions in the United States, by level and race/ethnicity: 1990 and 1999

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

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1990 and 1999 Integrated Postsecondary Education Data System, "Fall Enrollment Survey" (IPEDS-EF:90 and IPEDS-EF:99).

43 percent, compared with a growth in the number awarded by all U.S. degree-granting institutions of only 12 percent. In Puerto Rico, the number of associate's degrees awarded by HSIs grew 29 percent.

Among Hispanics who were awarded associate's degrees in the United States in 1999-2000, 53 percent earned them at HSIs. By 1999–2000, 40 percent of all associate's degrees conferred by HSIs in the United States were earned by Hispanics, making them the most represented racial or ethnic recipient group (figure 3). Between 1991-92 and 1999–2000, the number of associate's degrees awarded by HSIs to Hispanics increased 97 percent, whereas the number awarded to Whites decreased 2 percent. This pattern was similar to that for all institutions: the number of associate's degrees awarded to Whites remained rather stable, while the number for Hispanics increased by 89 percent. The number of associate's degrees awarded by HSIs to non-Hispanic minorities grew substantially as well: degrees awarded to Blacks, Asians or Pacific Islanders, and American Indians or Alaska Natives grew by 59 percent,

109 percent, and 99 percent, respectively, between 1991–92 and 1999–2000.

#### Bachelor's degrees

Bachelor's degrees accounted for 39 percent of all degrees awarded by HSIs in the United States in 1999–2000. The number of bachelor's degrees awarded by HSIs rose 26 percent between 1991–92 and 1999–2000, while the number of bachelor's degrees conferred by all institutions in the United States rose 9 percent. In Puerto Rico, the number of bachelor's degrees conferred by HSIs rose 23 percent.

In 1991–92, Whites receiving a bachelor's degree at HSIs outnumbered Hispanics receiving a bachelor's degree at HSIs by more than 2 to 1. By 1999–2000, however, Whites and Hispanics earned bachelor's degrees at HSIs in almost equal proportions (figure 3). The number of Hispanics earning a bachelor's degree at HSIs grew by 87 percent between 1991–92 and 1999–2000. While this growth was the highest of any racial or ethnic group, non-Hispanic minority groups also showed an increase in the number of

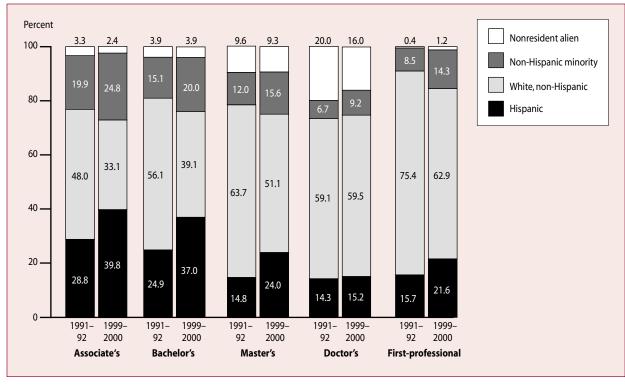


Figure 3. Percentage distribution of degrees conferred by Hispanic serving institutions in the United States, by level of degree and race/ethnicity: 1991–92 and 1999–2000

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

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1992 Integrated Postsecondary Education Data System, "Completions Survey" (IPEDS-C:91–92); and IPEDS, Fall 2000.

bachelor's degrees received. However, the number of Whites receiving bachelor's degrees at HSIs declined 12 percent, compared to only a 1 percent decline at all institutions.

#### Master's degrees

Master's degrees accounted for 13 percent of all degrees awarded by HSIs in the United States in 1999–2000. The number of master's degrees conferred by HSIs in the United States rose 46 percent between 1991–92 and 1999–2000, compared with the national increase of 30 percent. In Puerto Rico, there was a 129 percent increase in master's degrees conferred by HSIs.

The master's degrees conferred by HSIs in the United States as a proportion of those conferred by all U.S. degree-granting institutions remained rather constant during this period, at 4 percent. Among Hispanics who received master's degrees in the United States in 1999–2000, 25 percent earned them at HSIs. In comparison, only 3 percent of Whites and 5 percent of non-Hispanic minorities who

received their master's degrees in 1999–2000 received them from HSIs.

The number of Hispanic students earning master's degrees at HSIs grew 136 percent between 1991–92 and 1999–2000. This rate of growth was more than that experienced by any other racial or ethnic group at HSIs and exceeded the national Hispanic rate of growth of 102 percent. As a result of this growth, the proportion of master's degree recipients at HSIs who were Hispanic rose from 15 percent in 1991–92 to 24 percent in 1999–2000 (figure 3).

#### **Doctor's degrees**

Doctor's degrees accounted for less than 1 percent of all degrees awarded by HSIs in the United States in 1999–2000. The number of doctor's degrees awarded by HSIs rose 74 percent between 1991–92 and 1999–2000, while the number of doctor's degrees awarded by all institutions rose 10 percent. In Puerto Rico, the increase in doctor's degrees conferred by HSIs was 111 percent.

Despite the increase in doctor's degrees conferred by HSIs, in 1999–2000, only 2 percent of all doctor's degrees awarded in the United States were awarded by HSIs. Among the 731 recipients of doctor's degrees at HSIs in the United States in 1999–2000, the most popular fields of study were education and psychology, which accounted for 33 percent and 16 percent, respectively, of doctor's degrees conferred.

The number of Hispanics receiving their doctor's degrees from HSIs grew 85 percent between 1991–92 and 1999–2000. The percentage increase in the number of Whites receiving doctor's degrees from HSIs was also substantial (75 percent), while for Blacks and Asians or Pacific Islanders, the percentage increases were more than that for Hispanics. The proportion of recipients at HSIs who were Hispanic increased slightly (from 14 percent in 1991–92 to 15 percent in 1999–2000). The proportion who were White increased slightly as well (from 59 percent in 1991–92 to 60 percent in 1999–2000) (figure 3).

### First-professional degrees<sup>7</sup>

First-professional degrees accounted for 1 percent of all degrees awarded by HSIs in 1999–2000. The number of first-professional degrees awarded by HSIs in the United States rose 7 percent, slightly less than the 8 percent increase in first-professional degrees awarded by all institutions. In HSIs in Puerto Rico, the increase was 3 percent.

Law was by far the most conferred degree by HSIs in the United States in 1999–2000, accounting for 63 percent of first-professional degrees conferred. Medicine, the second most popular field of study, accounted for 24 percent.

The number of Hispanics receiving first-professional degrees at HSIs in the United States grew 47 percent during this period, compared with a 35 percent increase at all U.S. institutions. As a result, the proportion of all Hispanic first-professional degree recipients who earned their degree at an HSI grew from 9 percent in 1991–92 to 10 percent in 1999–2000. However, the number of Hispanic recipients of first-professional degrees at HSIs actually grew at a slower rate than the number of recipients from any other minority group between 1991–92 and 1999–2000. Despite this trend, Hispanics remained the second most represented group at HSIs (after Whites), accounting for 22 percent of all first-professional degree recipients (figure 3).

### **Faculty and Staff**

In 1999, Hispanic serving institutions employed 163,000 people, or 6 percent of all employees of U.S. degree-granting institutions. Instructional and research faculty accounted for 46 percent of HSI staff, while nonprofessional staff accounted for 34 percent. Nonfaculty professionals; executive, administrative, and managerial professionals; and instruction and research assistants accounted for 12 percent, 5 percent, and 4 percent, respectively, of HSI staff.

Among Hispanics who were employed by degree-granting institutions in 1999, 30 percent were employed by HSIs. (Among Hispanics employed by 2-year institutions, this proportion was even higher, with over half working at HSIs.) Hispanics accounted for 25 percent of all employees at HSIs, making them the second largest racial or ethnic group after Whites. At 2-year HSIs, Hispanics were slightly less represented, particularly at 2-year private schools, where 17 percent of employees were Hispanic. However, to put these percentages in context, only 5 percent of employees in all U.S. degree-granting institutions in 1999 were Hispanic. Non-Hispanic minorities made up similar proportions of employees at HSIs and at all institutions: 16 percent and 15 percent, respectively.

Nonprofessional staff employed at HSIs were more likely to be Hispanic than to be any other race or ethnicity (figure 4). In contrast, Whites accounted for the largest proportions of faculty; instruction and research assistants; nonfaculty professionals; and executive, administrative, and managerial staff at HSIs.

### **Salaries**

In 1995–96, full-time instructional faculty members employed by HSIs earned an average of \$53,929 per year (after adjustments for inflation), which was virtually the same as the national average (table A). Between 1995–96 and 1999–2000, average faculty salaries at all degreegranting institutions increased by 3 percent, slightly more than the 1 percent increase experienced at HSIs. As a result, by 1999–2000, HSI salaries for full-time instructional faculty members had fallen \$1,236 below the national average.

HSIs in Puerto Rico experienced a larger increase in salaries during this period than did HSIs in the United States. Between 1995–96 and 1999–2000, salaries increased 25 percent (after adjustments for inflation), to \$41,675 in 1999–2000.

<sup>&</sup>lt;sup>7</sup>First-professional degrees are awarded in the fields of dentistry (D.D.S. or D.M.D.), medicine (M.D.), optometry (O.D.), osteopathic medicine (D.O.), pharmacy (D.Phar.), podiatric medicine (D.P.M.), veterinary medicine (D.V.M.), chiropractic medicine (D.C. or D.C.M.), law (LL.B. or J.D.), and theological professions (M.Div. or M.H.L.).

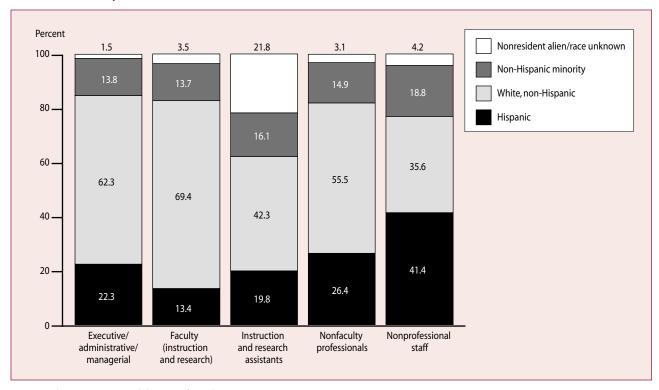


Figure 4. Percentage distribution of staff in Hispanic serving institutions in the United States, by primary occupation and race/ethnicity: 1999

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

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1999 Integrated Postsecondary Education Data System, "Fall Staff Survey" (IPEDS-S:99).

Table A. Average salaries of full-time instructional faculty on 9-month contracts at HSIs in the United States and at all institutions, in constant 1999–2000 dollars: 1995–96 and 1999–2000

1995-96	1999–2000	Percent increase
\$53,929	\$54,652	1.3
\$54,032	\$55,888	3.4
	\$53,929	\$53,929 \$54,652

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1995 and 1999 Integrated Postsecondary Education Data System, "Salaries, Tenure, and Fringe Benefits of Full-Time Instructional Faculty Survey" (IPEDS-SA:95–96 and IPEDS-SA:1999–2000).

In both 1995–96 and 1999–2000, salaries at private HSIs in the United States were lower than at public HSIs. The national trend was the opposite: salaries at private institutions tended to be higher than salaries at their public counterparts. However, it is important to note that the private HSIs include a relatively high proportion of private 2-year colleges, where salaries tend to be lower. In contrast, these lower salaries had little effect on the average salaries

at all private degree-granting institutions, because private 2-year institutions comprise a very small proportion of the general body of degree-granting institutions.

Differences between salaries at HSIs in the United States and at all institutions varied by academic rank. Full professors at HSIs, who are paid more than any other academic rank, made 93 percent of the national average salary for full professors in 1999–2000. Associate professors and lecturers at HSIs made less than the averages at all institutions as well (97 percent and 96 percent, respectively, of the national averages). Assistant professors, instructors, and those with no academic rank, however, earned higher salaries at HSIs.

### Summary

This report presents a tabular illustration of changes among the 1999–2000 set of 335 HSIs in the United States and Puerto Rico and compares these changes to the national average for all institutions. The set of institutions used in this report was identified by NCES based on the enrollment selection criterion described above, using data from the 1999 IPEDS "Fall Enrollment Survey" (IPEDS-EF:99).

The data presented in this report show that the 1990s were a period of growth for HSIs. Overall enrollment grew 14 percent between 1990 and 1999, while Hispanic students enrolled at HSIs grew to 42 percent of all HSI-enrolled students by 1999. The number of degrees conferred by HSIs rose 36 percent between 1991–92 and 1999–2000, while the number of degrees awarded to Hispanics grew 95 percent. Given that overall enrollment in degree-granting institutions and the nation's Hispanic population are both projected to rise between 1999 and 2011 (Gerald and Hussar 2001), HSIs are likely to continue to play an important role in providing Hispanic Americans with access to post-secondary education.

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**Data source:** The NCES 1990 through 1999 Integrated Postsecondary Education Data System: "Completions Survey" (IPEDS-C:91–92); "Fall Enrollment Survey" (IPEDS-EF:90 through IPEDS-EF:99); "Fall Staff Survey" (IPEDS-S:99); "Salaries, Tenure, and Fringe Benefits of Full-Time Instructional Faculty Survey" (IPEDS-SA:95–96 and IPEDS-SA:1999–2000); and IPEDS, Fall 2000.

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

Stearns, C., and Watanabe, S. (2002). *Hispanic Serving Institutions:* Statistical Trends From 1990 to 1999 (NCES 2002–051).

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# Public Library Programs Programs for Adults in Public Library Outlets

Laurie Lewis and Elizabeth Farris

This article was originally published as the Executive Summary of the Statistical Analysis Report of the same name. The sample survey data are from the "Programs for Adults in Public Library Outlets" survey, conducted through the NCES Fast Response Survey System (FRSS).

### **Background**

Public libraries offer a variety of services to their communities, including collections, reference and referral, and programming. Depending on the type of community in which a library is located, the library may emphasize programs and other types of services for particular segments of the population (e.g., children, senior citizens, or those with limited English skills), or it may emphasize particular types of services (e.g., collections of various types or extensive reference assistance). This report provides nationally representative data on programs for adults in public library outlets. It is based on a survey conducted in fall 2000 by the National Center for Education Statistics (NCES), U.S. Department of Education, using its Fast Response Survey System (FRSS). The survey—which defined "programs" as planned activities for groups or individuals that are offered by libraries to provide information, instruction, or cultural enrichment—obtained information on three areas of interest for adult programming in public library outlets:

- adult literacy programs, including adult basic literacy skills, pre-GED, GED, family literacy, and English as a second language instruction for adults;
- programs for adult lifelong learning, such as book or film discussions, cultural performances, recreational activities, employment and career guidance, college/ continuing education guidance, financial planning/ investment information, parenting skills, citizenship preparation, and computer/Internet instruction; and
- provision of Internet access for adult independent use.

These activities form part of the numerous services that libraries may provide their users, and the degree of emphasis that individual libraries place on these activities may be related to the role that an individual library plays in its community.

This report provides information about programs for adults that are offered by public library outlets. As defined in the FRSS survey, a public library outlet is a unit (usually a building) that provides direct public library service. An outlet may be a main or central library, a branch library, or a bookmobile. An outlet was considered to offer a program if the outlet provided funding, materials, or staff to support the program or if the library system ran the program within or on behalf of the library outlet. Programs that used library space rented from the library or made available to outside groups by the library, but with no other involvement of the library outlet or system, were not considered offerings of the library outlet. Results are presented for public library outlets overall, and by outlet size (small, medium, and large, as measured by the number of persons who entered the library outlet in a typical week, referred to in this report as the number of library visits per week) and metropolitan status (urban, suburban, and rural).

### **Key Findings**

### **Adult literacy programs**

Public libraries are one source of adult literacy programming within communities. Literacy programming includes direct literacy instruction, as well as activities such as providing funding, materials, and staff to support the program of another literacy provider. The fall 2000 FRSS survey asked public library outlets about their adult literacy program offerings during the previous 12 months. Findings from the survey include the following:

- Adult literacy programs, including adult basic literacy skills, pre-GED, GED, family literacy, and English as a second language, were offered by 17 percent of public library outlets (figure A).
- The likelihood of offering adult literacy programs was related to outlet size, with 5 percent of small outlets, 19 percent of medium-sized outlets, and 31 percent of large outlets offering adult literacy programs (figure A). Urban outlets offered literacy programs more often than outlets in rural areas (26 percent compared with 15 percent).
- Programs in adult basic literacy skills (defined as skills at the fourth-grade level and below) were offered by 63 percent of outlets that offered adult literacy programs. Pre-GED (defined as skills from the fifth- through the eighth-grade levels), GED (defined as skills from the ninth-grade level through

- high school equivalency), English as a second language, and family literacy programs were offered by 42 to 48 percent of outlets that offered adult literacy programs.
- About half of the outlets offering adult literacy programs offered such programs specifically for adults who were limited English speaking and/or recent immigrants (50 percent) or for parents (48 percent). Adult literacy programs specifically for high school dropouts were offered by 40 percent of outlets offering adult literacy programs. About a quarter (26 percent) of outlets with adult literacy programs offered programs specifically for adults with learning disabilities, and 11 percent offered programs specifically for adults with hearing impairments.
- Outlets that did not offer adult literacy programs during the 12 months prior to the survey were asked to indicate how important various reasons were in the outlet's decision *not* to offer such programs. Not having the staff or resources to offer adult literacy programs was indicated as very important in the outlet's decision by 77 percent of outlets. About half of the outlets (53 percent) indicated that the presence of other groups or educational institutions in the community (including other library outlets) that offer adult literacy programs was very important in their decision not to offer such programs. An emphasis on other groups (e.g., children, senior citizens) in the outlet's programming was indicated as very important by 37 percent of outlets. The reason least often indicated as very important in the outlet's decision not to offer adult literacy programs was that the community served by the outlet does not have a strong need for adult literacy programs (20 percent); almost half of the outlets (48 percent) indicated that this reason was not important in their decision.

### Lifelong learning programs

Lifelong learning services for adults encompass many kinds of activities and programs to meet the cultural, recreational, and educational needs of the adults served by library outlets. The fall 2000 FRSS survey asked public library outlets whether they offered nine types of adult lifelong learning programs during the 12 months prior to the survey, whether any lifelong learning programs were offered specifically for five listed groups of adults, and to what extent various factors were barriers to providing lifelong

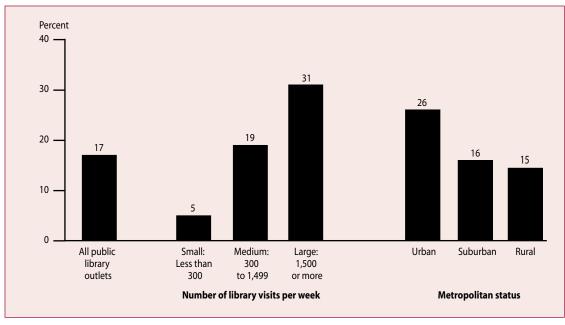


Figure A. Percent of public library outlets that offered adult literacy programs during the last 12 months, by number of library visits per week and metropolitan status: 2000

SOURCE: U.S. Department of Education, National Center for Education Statistics, Fast Response Survey System (FRSS), "Programs for Adults in Public Library Outlets," FRSS 66, 2000. (Originally published as figure 2 on p. 9 of the complete report from which this article is excerpted.)

learning programs for adults with learning and/or physical disabilities. Results of the survey include the following:

- Computer/Internet instruction, offered by 56 percent of all public library outlets, was the most frequently offered type of adult lifelong learning program (table A). Forty-three percent of outlets offered book/film discussions or presentations, 41 percent offered cultural performances, and 39 percent offered recreational activities, such as crafts, travel, or hobbies. Programs on parenting skills were offered by 20 percent of outlets, financial planning/investment information programs by 18 percent of outlets, employment/career guidance programs by 17 percent of outlets, and college/continuing education guidance programs by 15 percent of outlets. Programs for citizenship preparation were offered by 5 percent of outlets.
- Large and medium-sized outlets were more likely than small outlets to offer all the types of adult lifelong learning programs except citizenship preparation programs, which did not vary significantly by outlet size (table A). Large outlets were also more likely than medium-sized outlets to offer most of the programs, with the exception of programs on employment/career guidance and college/continuing

- education guidance. Urban outlets were more likely than rural outlets to offer all the types of lifelong learning programs except citizenship preparation and college/continuing education guidance programs.
- About a quarter of all outlets offered adult lifelong learning programs specifically for senior citizens or for parents (24 percent for each). Programs specifically for adults who are limited English speaking and/or recent immigrants were offered by 9 percent of outlets, for adults with physical disabilities by 6 percent of outlets, and for adults with learning disabilities by 5 percent of outlets.
- All library outlets were asked to what extent certain factors were barriers to the outlet's offering lifelong learning programs for adults with learning and/or physical disabilities. Insufficient accessibility to library facilities for the disabled was not perceived to be a barrier to offering such programs by most libraries, with 70 percent of outlets indicating it was not a barrier. Insufficient accessibility was perceived to be a major barrier by 12 percent of outlets. The remaining factors (lack of staff training in working with adults with disabilities, lack of assistive/adaptive devices for adults with disabilities, and insufficient library materials for the blind or physically disabled)

Table A. Percent of public library outlets that offered specific types of adult lifelong learning programs during the last 12 months, by number of library visits per week and metropolitan status: 2000

Library outlet characteristic	Computer/ Internet instruction	Book/film discussions or presen- tations	Cultural perform- ances	Recreational activities (e.g., crafts, travel, hobbies)	Parenting skills	Financial planning/ investment information	Employ- ment/career guidance	College/ continuing education guidance	Citizenship preparation
All public library outlets	56	43	41	39	20	18	17	15	5
Number of library visits per week									
Small: Less than 300	36	22	11	24	6	4	8	9	5
Medium: 300 to 1,499	59	45	48	40	22	19	20	18	4
Large: 1,500 or more	77	69	71	59	38	38	24	18	5
Metropolitan status									
Urban	68	56	60	52	28	30	31	21	7
Suburban	59	50	51	50	24	26	18	14	6
Rural	49	34	28	29	15	11	12	13	3

NOTE: Percentages sum to more than 100 because library outlets could offer more than one type of adult lifelong learning program.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Fast Response Survey System (FRSS), "Programs for Adults in Public Library Outlets," FRSS 66, 2000. (Originally published as table 7 on p.13 of the complete report from which this article is excerpted.)

were rated as not a barrier by 17 to 24 percent of outlets and as a major barrier by 33 to 39 percent of outlets.

### **Internet Access**

The Internet is a major tool for communication and for education and job-related tasks. Public libraries are one of the providers of Internet access to the public. The fall 2000 FRSS survey asked public library outlets whether they provided Internet access to adults for their independent use and to what extent various factors were barriers to providing such access. Findings include the following:

- Most public library outlets (92 percent) reported providing Internet access to adults for their independent use (figure B). Small outlets were less likely to provide Internet access than were medium-sized or large outlets (84 percent compared with 96 and 98 percent, respectively). No differences were observed by metropolitan status.
- All library outlets were asked to what extent various factors (insufficient space for computers, insufficient number of computers with Internet access, insufficient number of telecommunications lines for Internet access, lack of library staff to assist Internet users, and lack of specialized training among library

- staff) were barriers to providing Internet access to adults for their independent use. Across all public library outlets, these factors were generally not perceived as being major barriers to providing Internet access; the percentage of outlets rating each factor as a major barrier ranged from 9 percent for lack of specialized training among library staff to 29 percent for insufficient space for computers.
- There were differences in perceived barriers between the library outlets that provided Internet access and those that did not. All of the factors were more likely to be identified as major barriers by outlets that did not provide Internet access than by outlets that did provide Internet access.

**Data source:** The NCES Fast Response Survey System (FRSS), "Programs for Adults in Public Library Outlets," FRSS 66, 2000.

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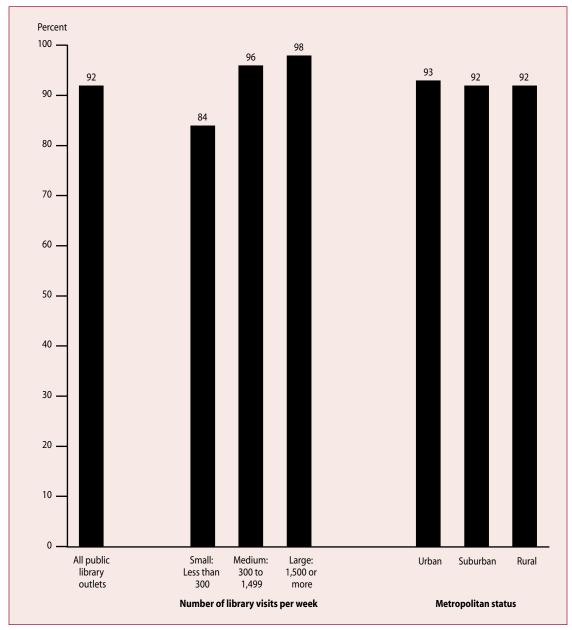


Figure B. Percent of public library outlets that provide Internet access to adults for their independent use, by number of library visits per week and metropolitan status: 2000

SOURCE: U.S. Department of Education, National Center for Education Statistics, Fast Response Survey System (FRSS), "Programs for Adults in Public Library Outlets," FRSS 66, 2000. (Originally published as figure 3 on p.17 of the complete report from which this article is excerpted.)

# State Library Agencies: Fiscal Year 2001

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

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

### Introduction

This report contains data on state library agencies in the 50 states and the District of Columbia for state fiscal year (FY) 2001. The data were collected through the State Library Agencies (StLA) Survey, the product of a cooperative effort between the Chief Officers of State Library Agencies (COSLA), the U.S. National Commission on Libraries and Information Science (NCLIS), the National Center for Education Statistics (NCES), and the U.S. Census Bureau. The FY 2001 survey is the eighth in the StLA series.

### **Background**

A state library agency is the official agency of a state that is charged by state law with the extension and development of public library services throughout the state and that has adequate authority under state law to administer state plans in accordance with the provisions of the Library Services and Technology Act (LSTA) (P.L. 104-208). Beyond these two roles, state library agencies vary greatly. They are located in various departments of state government and report to different authorities. They are involved in various ways in the development and operation of electronic information networks. They provide different types of services to different types of libraries. They provide important reference and information services to state governments and administer the state libraries and special operations such as state archives, libraries for the blind and physically handicapped, and the State Center for the Book.<sup>1</sup> The state library agency may also function as the state's public library at large, providing library services to the general public. This report provides information on the range of roles played by state library agencies and the various combinations of fiscal, human, and informational resources invested in such work.

The state library agencies of Hawaii, Maryland, and the District of Columbia are administrative offices that are charged with statewide library development and administration of LSTA funds and may provide additional services. Unlike other state library agencies, however, they do not function as state libraries.

### **Purpose of survey**

The purpose of the StLA Survey is to provide state and federal policymakers, researchers, and other interested users with descriptive information about state library agencies. The data collected are useful to (1) chief officers of state library agencies; (2) policymakers in the executive and legislative branches of federal and state governments; (3) government and library administrators at the federal, state, and local levels; (4) the American Library Association and its members or customers; and (5) library and public policy researchers. Decisionmakers use this survey to obtain information about services and fiscal practices.

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

#### **Congressional authorization**

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

### **Content of this article**

The remainder of this article presents highlights of StLA Survey results for FY 2001.

### Governance

■ Nearly all state library agencies (47 states and the District of Columbia) are located in the executive branch of government. In three states (Arizona, Michigan, and Tennessee), the agency is located in the legislative branch.

<sup>&</sup>lt;sup>1</sup>The State Center for the Book, which is part of the Center for the Book program sponsored by the Library of Congress, promotes books, reading, and literacy, and is hosted or funded by the state.

<sup>&</sup>lt;sup>2</sup>The NCES Public Libraries Survey collects data from U.S. public libraries. The Academic Libraries Survey collects data from postsecondary institution libraries. The "School Library Media Center Questionnaire" of the NCES Schools and Staffing Survey collects data from elementary and secondary school library media centers.

■ Of the state library agencies located in the executive branch, almost two-thirds (31 states) are part of a larger agency, most commonly the state department of education (12 states). Six other state library agencies have direct connections to education through their locations within departments or agencies that include *education*, *college*, *university*, or *learning* in their titles.

### **Allied and Other Special Operations**

- State library agencies in 14 states reported having one or more allied operations.
- In nine states (Alaska, Arizona, Connecticut, Florida, Kentucky, Nevada, Oklahoma, Texas, and Virginia), state library agencies serve as the state archives and provide state records management services. The Tennessee state library agency also serves as the state archives, and Kansas state records are managed by the state library agency. In four states (Arizona, California, Kansas, and Oklahoma), state library agencies serve as the primary state legislative research organization. The state history museum or art gallery is an allied operation of the Alaska, Arizona, and Connecticut state library agencies. Expenditures for allied operations totaled \$23.9 million, or 2.1 percent of total expenditures.
- State library agencies in 17 states contracted with public or academic libraries in their states to serve as resource or reference/information service centers. State library agencies in 23 states hosted or provided funding for a State Center for the Book.

## **Electronic Services and Information Electronic networks, databases, and catalogs**

Almost all state library agencies (46 states and the District of Columbia) planned or monitored the development of electronic networks. State library agencies in 40 states and the District of Columbia operated electronic networks. State library agencies in 48 states and the District of Columbia supported the development of bibliographic databases via electronic networks, and state library agencies in 47 states and the District of Columbia supported the development of full text or data files via electronic networks.<sup>3</sup>

- Almost all state library agencies (49 agencies) provided or facilitated library access to online databases through subscription, lease, license, consortial membership, or agreement.
- State library agencies in 41 states and the District of Columbia facilitated or subsidized electronic access to the holdings of other libraries in their states through Online Computer Library Center (OCLC) participation. Over half provided access via a webbased union catalog (30 states) or Telnet gateway (22 states).
- State library agencies in 47 states had combined expenditures for statewide database licensing of over \$49.7 million. Of these, Texas had the highest expenditure (\$10.4 million) and, among states that reported expenditures for statewide database licensing, South Dakota spent the least (\$6,000). With the exception of South Dakota, all state library agencies with such expenditures provided statewide database licensing services to public libraries in their states, and at least two-thirds provided statewide database licensing services to the following user groups: academic, school, and special libraries; library cooperatives; and other state agencies.
- Over three-fourths (76.2 percent) of the total expenditures for statewide database licensing were from state funds; 23.8 percent were from federal sources. Of the states reporting statewide database licensing expenditures, 16 states funded this activity with state dollars only, 12 states used federal dollars only, and 19 states used multiple funding sources. California, the District of Columbia, and Oregon reported no statewide database licensing expenditures.⁴

### **Internet access**

All state library agencies facilitated library access to the Internet in one or more of the following ways: providing training or consulting to state or local library staff or state library end users in the use of the Internet; providing a subsidy to libraries for Internet participation; providing equipment to libraries to access the Internet; providing access to directories,

<sup>&</sup>lt;sup>3</sup>The development of bibliographic databases via electronic networks and the development of full text or data files via electronic networks are both classified as "database development activities." These activities include the creation of new databases or files as well as the conversion of existing materials into electronic format.

<sup>&</sup>lt;sup>4</sup>This tally of states by source of funds does not include Ohio. Ohio's data were imputed due to nonresponse; the imputed data are included in the national totals but suppressed at the state level.

- databases, or online catalogs; and managing gopher/web sites, file servers, bulletin boards, or listservs.
- Nearly all state library agencies (47 states) had Internet workstations available for public use, ranging in number from 2 to 4 (16 agencies); 5 to 9 (13 agencies); 10 to 19 (10 agencies); 20 to 29 (4 agencies); and 30 or more (4 agencies). Louisiana reported the largest number of public-use Internet terminals (48).
- State library agencies for 31 states and the District of Columbia were applicants to the Universal Service (E-rate discount) program established by the Federal Communications Commission (FCC) under the Telecommunications Act of 1996 (P.L. 104–104).<sup>5</sup>

## **Library Development Services**Services to public libraries

- All state library agencies provided the following types of services to public libraries: administration of Library Services and Technology Act (LSTA) grants; collection of library statistics; continuing education programs; and library planning, evaluation, and research. Nearly all state library agencies (48 to 50 agencies) provided consulting services, library legislation preparation or review, and review of technology plans for the E-rate discount program.
- Services to public libraries provided by 42 to 47 state library agencies were administration of state aid, interlibrary loan referral services, literacy program support, reference referral services, state standards or guidelines, statewide public relations or library promotion campaigns, and summer reading program support. Almost three-quarters of state library agencies (37 agencies) provided union list<sup>6</sup> development.
- Almost two-thirds of state library agencies (32 agencies) provided OCLC Group Access Capability (GAC).
- Twelve state library agencies reported accreditation of public libraries, and 23 state library agencies reported certification of public librarians.

#### Services to academic libraries

- Over three-quarters of state library agencies (39 to 43 agencies) provided the following services to academic libraries: administration of LSTA grants, continuing education, and interlibrary loan referral services. The state library agencies for California, Colorado, Illinois, Montana, and New York administered state aid to academic libraries.
- Over two-thirds of state library agencies (36 agencies) provided reference referral services, 30 agencies provided consulting services, and 30 agencies provided union list development.
- No state library agency accredits academic libraries.
   Only the Washington State Library Agency reported certification of academic librarians.

### Services to school library media centers

- About three-quarters of state library agencies provided continuing education (38 agencies) or interlibrary loan referral services (41 agencies) to school library media centers (LMCs).
- Two-thirds of state library agencies provided administration of LSTA grants (34 agencies) or reference referral services (34 agencies) to LMCs, and 30 agencies provided consulting services to LMCs.
- The state library agencies for California, Colorado, Illinois, and Montana administered state aid to school LMCs.
- No state library agency reported accreditation or certification of LMC librarians.

#### Services to special libraries

- The majority of state library agencies (39 to 42 agencies) served special libraries<sup>7</sup> through administration of LSTA grants, continuing education, and interlibrary loan referral.
- Over two-thirds of state library agencies (37 agencies) provided reference referral services to special libraries. About two-thirds provided consulting services (33 agencies) or union list development (33 agencies). Over half of state library agencies (26 agencies) provided library planning, evaluation, and research to special libraries.

<sup>&</sup>lt;sup>5</sup>Under this program, the FCC promotes affordable access to the Internet and the availability of Internet services to the public, with special attention given to schools and libraries.

<sup>&</sup>lt;sup>6</sup>A union list is a list of titles of works, usually periodicals, in physically separate library collections. Location data indicate libraries in which a given item may be found.

<sup>&</sup>lt;sup>7</sup>A special library is a library in a business firm, professional association, government agency, or other organized group; a library that is maintained by a parent organization to serve a specialized clientele; or an independent library that may provide materials or services, or both, to the public, a segment of the public, or other libraries. The scope of collections and services is limited to the subject interests of the host or parent institution. Special libraries include libraries in state institutions.

- The state library agencies for California, Illinois, Montana, New Mexico, New York, Rhode Island, and Washington administered state aid to special libraries.
- Only the Nebraska state library agency accredits special libraries, and only the library agencies for Indiana, Nebraska, and Washington State reported certification of librarians of special libraries.

### Services to systems

- About two-thirds of state library agencies (32 to 35 agencies) provided the following services to library systems:<sup>8</sup> administration of LSTA grants; consulting services; continuing education; interlibrary loan referral; library legislation preparation or review; and library planning, evaluation, and research. Thirty state library agencies provided library systems with services for the collection of library statistics.
- About half of state library agencies (25 to 29 agencies) served library systems through administration of state aid, reference referral, state standards or guidelines, statewide public relations or library promotion campaigns, union list development, and review of technology plans for the E-rate discount program.
- Six state library agencies reported accreditation of library systems, and five agencies reported certification of systems librarians.

### **Service Outlets**

■ State library agencies reported a total of 141 service outlets—49 main or central outlets, 71 other outlets (excluding bookmobiles), and 21 bookmobiles. The user groups receiving library services through these outlets, and the number of outlets serving them, included the general public (105 outlets); state government employees (96 outlets); blind and physically handicapped individuals (56 outlets); residents of state correctional institutions (37 outlets); and residents of other state institutions (25 outlets).9

#### **Collections**

- The number of book and serial volumes held by state library agencies totaled 22.9 million. Two state library agencies each had over 2 million book and serial volumes: New York had 2.5 million and Michigan had 2.3 million volumes. The number of book and serial volumes held by other state library agencies were 1,000,000 to 1,999,999 (3 states); 500,000 to 999,999 (11 states); 200,000 to 499,999 (9 states); 100,000 to 199,999 (11 states); 50,000 to 99,999 (5 states); and under 50,000 (7 states). The state library agencies for Hawaii, Maryland, and the District of Columbia do not maintain collections. 10
- The number of serial subscriptions held by state library agencies totaled over 99,000,11 with Connecticut, Indiana, and New York holding the largest number (over 10,000 each). The number of serial subscriptions held by other state library agencies were 5,000 to 9,999 (3 states); 2,000 to 4,999 (5 states); 1,000 to 1,999 (10 states); 500 to 999 (13 states); 100 to 499 (10 states); and 1 to 99 (4 states).

### Staff

- The total number of budgeted full-time-equivalent (FTE) positions in state library agencies was 3,986.5. Librarians with American Library Association-Master of Library Science (ALA-MLS) degrees accounted for 1,229.9 of these positions, or 30.9 percent of total FTE positions; other professionals accounted for 19.9 percent of total FTE positions; and other paid staff accounted for 49.3 percent. Rhode Island reported the largest percentage (60.0 percent) of ALA-MLS librarians, and Virginia reported the smallest (12.5 percent).
- Most of the budgeted FTE positions (54.7 percent) were in library services; 18.1 percent were in library development; 12.6 percent were in administration; and 14.6 percent were in other services¹² such as allied operations. Over two-thirds of the library development positions were for public library development.

<sup>&</sup>lt;sup>8</sup>A system is a group of autonomous libraries joined together by formal or informal agreements to perform various services cooperatively, such as resource sharing or communications. Systems include multitype library systems and public library systems, but not multiple outlets under the same administration.

<sup>&</sup>lt;sup>9</sup>The number of outlets by user group may not sum to total outlets because some outlets serve multiple user groups.

<sup>&</sup>lt;sup>10</sup>In Hawaii, the library collection is reported on the NCES Public Libraries Survey. In Maryland, Enoch Pratt Central, the central library of the Enoch Pratt Free Library, is designated by state law as the State Library Resource Center. In the District of Columbia, the Martin Luther King Memorial Library, the central library of the District of Columbia Public Library, functions as a resource center for the municipal government.

<sup>&</sup>lt;sup>11</sup>This is the total number of serial titles subscribed to, including duplicates.

 $<sup>^{12} {\</sup>rm This}$  includes staff not reported under administration, library development, or library services, such as staff in allied operations.

### Income<sup>13</sup>

- State library agencies reported a total income or revenue of approximately \$1.2 billion in FY 2001. Most income was from state sources (85.5 percent), followed by federal sources (12.7 percent) and other sources (1.8 percent).<sup>14</sup>
- State library agency income from state sources totaled \$995.5 million, with almost two-thirds (\$650.1 million) designated for state aid to libraries. In nine states, over 75 percent of the state library agency income from state sources was designated for state aid to libraries, with Massachusetts having the largest percentage (96.3 percent). Five states (Hawaii, Idaho, New Hampshire, South Dakota, and Wyoming) and the District of Columbia targeted no state funds for aid to libraries. 15
- Federal income totaled approximately \$148.0 million, with 94.7 percent from LSTA grants.

### **Expenditures**

- State library agencies reported total expenditures of over \$1.1 billion in FY 2001. Over four-fifths (85.7 percent) of these expenditures were from state funds, followed by federal funds (12.7 percent) and funds from other sources (1.7 percent).
- In five states and the District of Columbia, over 90 percent of total expenditures were from state (or District of Columbia) sources: District of Columbia (97.9 percent), Massachusetts (94.3 percent), Maryland (93.7 percent), Pennsylvania (93.4 percent), Rhode Island (92.0 percent), and New York (91.8 percent). The state with the smallest percentage of expenditures from state sources was Utah (55.0 percent).

- Financial assistance to libraries accounted for 71.1 percent of total expenditures of state library agencies, and over two-thirds of such expenditures were targeted to either individual public libraries (50.6 percent) or public library systems (20.7 percent). Most of these expenditures were from state sources (89.5 percent); 10.1 percent were from federal sources.
- Thirteen state library agencies reported expenditures for allied operations. These expenditures totaled \$23.9 million and accounted for 2.1 percent of total expenditures of state library agencies. Of states reporting such expenditures, Virginia reported the highest expenditure (\$4.9 million) and West Virginia the lowest (\$3,000).¹6
- Thirty-six state library agencies had a combined total of \$27.8 million in grants and contracts expenditures to assist public libraries with state or federal education reform initiatives. The area of adult literacy and family literacy accounted for 87.1 percent of such expenditures, and prekindergarten learning accounted for 12.9 percent. Expenditures were focused exclusively on prekindergarten learning projects in five states (Connecticut, Kentucky, North Carolina, Utah, and Vermont) and exclusively on adult literacy and family literacy projects in nine states (Alabama, Illinois, Indiana, Kansas, Michigan, New Jersey, Rhode Island, West Virginia, and Wyoming).

*Data source:* The NCES State Library Agencies (StLA) Survey, fiscal year 2001.

For technical information, see the complete report:

Holton, B., Kroe, E., O'Shea, P., Sheckells, C., Dorinski, S., and Freeman, M. (2002). *State Library Agencies: Fiscal Year 2001* (NCES 2003–309).

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**To obtain the complete report (NCES 2003–309),** visit the NCES Electronic Catalog (http://nces.ed.gov/pubsearch).

<sup>&</sup>lt;sup>13</sup>Income is referred to as revenue in other NCES fiscal surveys.

<sup>&</sup>lt;sup>14</sup>Federal income includes State Program income under the LSTA (P.L. 104–208), income from Title II of the Library Services and Construction Act (LSCA) (P.L. 101–254), and other federal income. Note: LSCA was superseded by LSTA, but LSCA Title II funds are still active.

<sup>&</sup>lt;sup>15</sup>The District of Columbia Public Library functions as a state library agency and is eligible for federal LSTA funds in this capacity. The state library agency for Hawaii is associated with the Hawaii State Public Library System and operates all public libraries within its jurisdiction. The state funds for aid to libraries for these two agencies are reported on the NCES Public Libraries Survey, rather than on the StLA Survey, because of the unique situation of these two state agencies, and in order to eliminate duplicative reporting of these data.

<sup>&</sup>lt;sup>16</sup>Although Alaska reported allied operations, the expenditures were not from the state library agency budget.

### CROSSCUTTING STATISTICS

# Federal Support for Education: Fiscal Years 1980 to 2002

Charlene M. Hoffman

This article was excerpted from the Introduction and Highlights of the report of the same name. The data are primarily from the U.S. Office of Management and Budget, the U.S. Department of Education's Budget Service, the National Science Foundation, and the budget offices of other federal agencies.

### Introduction

This report attempts to provide a comprehensive picture of total federal financial support for education since fiscal year (FY) 1980.\* In addition to Department of Education programs, the many other federal programs that support education are included. The report also includes other types of federal support that are sometimes overlooked.

### Categories of federal support

This report puts federal education funding into three categories: on-budget funds, off-budget support, and nonfederal funds generated by federal legislation.

On-budget funds are provided through programs funded by congressional appropriations. Although some consolidation of education programs in one federal agency was achieved with the establishment of the U.S. Department of Education in 1980, many large and significant federal education programs remain outside the Department. In addition, many federal programs involving education have other

\*Some data have been revised from Federal Support for Education: Fiscal Years 1980 to 2001 (Hoffman 2001) and Digest of Education Statistics: 2001 (Snyder and Hoffman 2002). In addition to the data covering FY 1980 to FY 2002, appendix tables in the full report include historical data from FY 1965, FY 1970, and FY 1975.

primary purposes. In order to account fully for all federal support for education, programs residing in other federal departments and agencies having significant educational components are included, even if they have additional purposes.

Off-budget support is federal money that has been excluded from the budget by law. Off-budget support in this report consists of the loan capital that is provided directly by the federal government under the William D. Ford Federal Direct Student Loan (FDSL) program.

Nonfederal funds generated by federal legislation result from federal loan guarantees and interest subsidies to support loan capital raised through various private and public sources. Nonfederal funds are also made available for education purposes when federal programs require matching funds or offer incentives and subsidies. Almost all such nonfederal education funds go to postsecondary education.

### Federal tax expenditures

Education programs can be supported either by direct funding or by indirect funding mechanisms such as tax

expenditures. In this report, federal tax expenditures include only reductions in tax revenue received by the federal government due to deductions, exemptions, and credits allowable in the tax code. Unless otherwise noted, tables and discussions of federal support in this report do not include federal tax expenditures.

### **Outlays versus appropriations or obligations**

To the extent possible, outlays were used in this report rather than appropriations or obligations, with the exception that obligations were used for academic research at postsecondary institutions. Outlays are the actual amount of dollars spent. Appropriations are the amount of funds made available in legislation providing funds for federal programs. Obligations are spending commitments by the federal government that will require outlays either immediately or in the future.

### Highlights

The federal government provides support for education well beyond programs funded through the Department of Education. Federal support for education, excluding estimated federal tax expenditures, was an estimated \$147.9 billion in FY 2002 (table A). In current dollars (i.e., before adjusting for inflation), this represents an increase of \$85.1 billion, or 136 percent, since FY 1990. In constant dollars (i.e., after adjusting for inflation), federal support for education increased 77 percent between FY 1990 and FY 2002.

For FY 2002, on-budget federal funds for education programs were estimated to be \$109.5 billion, an increase of 112 percent since FY 1990 in current dollars or an increase of 59 percent after being adjusted for inflation. Off-budget support and nonfederal funds generated by federal legislation (predominantly postsecondary education loans) were estimated at \$38.5 billion, a rise of 244 percent in current dollars between FY 1990 and FY 2002 and 158 percent in constant dollars.

### **Department of Education outlays**

In FY 2002, Department of Education outlays totaled an estimated \$47.8 billion (table B), reflecting an increase of 55 percent between FY 1990 and FY 2002, after being

Table A. Federal support for education, by category, level, and other educational purpose: Selected fiscal years, 1980–2002

Level	FY 1980	FY 1985	FY 1990	FY 1995	FY 2002 <sup>1</sup>
		[In billions	of <b>current</b> do	ollars]	
Total	\$39.3	\$47.8	\$62.8	\$95.8	\$147.9
On-budget	34.5	39.0	51.6	71.6	109.5
Elementary and secondary	16.0	16.9	22.0	33.6	54.6
Postsecondary	11.1	11.2	13.7	17.6	22.6
Libraries, museums, and other	1.5	2.1	3.4	4.7	6.4
Research at educational institutions	5.8	8.8	12.6	15.7	25.9
Off-budget support and nonfederal funds <sup>2</sup>	4.9	8.7	11.2	24.2	38.5
	[	In billions of <b>co</b>	onstant FY 20	02 dollars]	
Total	\$81.7	\$74.0	\$83.5	\$110.2	\$147.9
On-budget	71.6	60.4	68.7	82.4	109.5
Elementary and secondary	33.3	26.2	29.2	38.7	54.6
Postsecondary	23.1	17.3	18.2	20.3	22.6
Libraries, museums, and other	3.2	3.3	4.5	5.4	6.4
Research at educational institutions	12.0	13.7	16.8	18.0	25.9
Off-budget support and nonfederal funds <sup>2</sup>	10.1	13.5	14.9	27.8	38.5

<sup>&</sup>lt;sup>1</sup>Estimated.

SOURCE: U.S. Department of Education, Office of the Under Secretary, Budget Service, unpublished data, and National Center for Education Statistics, compiled from data appearing in U.S. Office of Management and Budget, Budget of the United States Government, fiscal years (FY) 1982 to 2003 (selected years); National Science Foundation, Federal Funds for Research and Development, FY 1980 to 2002 (selected years); and unpublished data obtained from various federal agencies. (Originally published as an untitled table on p. iv of the complete report from which this article is excerpted.)

<sup>&</sup>lt;sup>2</sup>Off-budget support and nonfederal funds generated by federal legislation.

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

Table B. Federal agencies providing the largest amounts of on-budget funds for education: Selected fiscal years, 1980–2002

Agency	FY 1980	FY 1985	FY 1990	FY 1995	FY 2002
		[In billi	ons of <b>curren</b>	<b>t</b> dollars]	
Dept. of Education	\$13.1	\$16.7	\$23.2	\$31.4	\$47.8
Dept. of Health and Human Services	5.6	5.3	8.0	12.5	22.9
Dept. of Agriculture	4.6	4.8	6.3	9.1	11.9
Dept. of Labor	1.9	1.9	2.5	4.0	6.4
Dept. of Defense	1.6	3.1	3.6	3.9	4.7
Dept. of Energy	1.6	2.2	2.6	2.7	3.6
National Science Foundation	0.8	1.1	1.6	2.1	3.2
Dept. of Veterans Affairs	2.4	1.3	0.8	1.3	2.3
National Aeronautics and Space Administration	0.3	0.5	1.1	1.8	2.1
		[In billions of	constant FY	2002 dollars]	
Dept. of Education	\$27.3	\$25.9	\$30.9	36.1	\$47.8
Dept. of Health and Human Services	11.7	8.2	10.6	14.3	22.9
Dept. of Agriculture	9.5	7.4	8.3	10.5	11.9
Dept. of Labor	3.9	3.0	3.3	4.6	6.4
Dept. of Defense	3.2	4.8	4.8	4.5	4.7
Dept. of Energy	3.3	3.5	3.4	3.1	3.6
National Science Foundation	1.7	1.8	2.1	2.4	3.2
Dept. of Veterans Affairs	4.9	2.0	1.0	1.5	2.3
National Aeronautics and Space Administration	0.5	0.8	1.5	2.0	2.1

<sup>\*</sup>Estimated.

SOURCE: U.S. Department of Education, Office of the Under Secretary, Budget Service, unpublished data, and National Center for Education Statistics, compiled from data appearing in U.S. Office of Management and Budget, Budget of the United States Government, fiscal years (FY) 1982 to 2003 (selected years); National Science Foundation, Federal Funds for Research and Development, FY 1980 to 2002 (selected years); and unpublished data obtained from various federal agencies. (Originally published as an untitled table on p. iv of the complete report from which this article is excerpted.)

adjusted for inflation. The Department of Education's share of total federal on-budget education funds rose from 38 percent in FY 1980 to 45 percent in FY 1990 and then decreased to 44 percent in FY 2002 (figure A).

### Recipients of federal education support

Almost 60 percent of federal education support, excluding estimated federal tax expenditures, went to educational institutions in FY 2002. Nineteen percent was used for student support. The remaining 21 percent went to banks and other lending agencies, libraries, museums, and federal institutions.

### Federal support for educational institutions

Twelve percent of school and college revenues in FY 2002 were from the federal government, with the remaining revenues coming from state and local governments, individuals, and private organizations and endowments. Of the estimated \$731.7 billion in direct income by schools and colleges in FY 2002, revenues from federal sources amounted to \$88.6 billion and revenues from other sources amounted to \$643.1 billion.

The estimated federal share of expenditures of educational institutions declined from 14 percent in FY 1980 to 10 percent in FY 1990 and then increased to 12 percent in FY 2002. Among elementary and secondary educational institutions, the federal share declined from 12 percent in FY 1980 to 7 percent in FY 1990 and then increased to 9 percent in FY 2002. Among postsecondary institutions, the federal share declined from 18 percent in FY 1980 to 14 percent in FY 1990 and then rose to 17 percent in FY 2002.

### On-budget funds by education level or other educational purpose

Between FY 1980 and FY 1990, after being adjusted for inflation, federal on-budget funds for elementary and secondary education decreased 12 percent; postsecondary education funds declined 21 percent (derived from table A). Other education funds (which include funds for libraries, museums, cultural activities, and miscellaneous research) increased 40 percent; and funds for research at universities and university-administered research and development centers increased 39 percent.

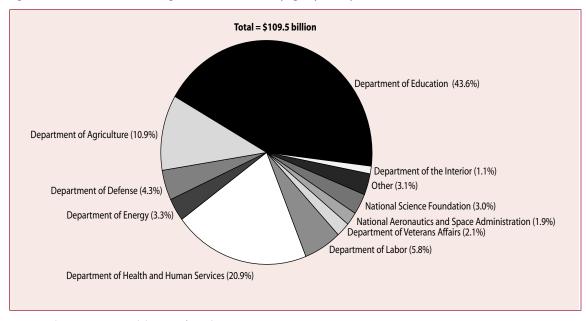


Figure A. Estimated federal on-budget funds for education, by agency: Fiscal year 2002

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

SOURCE: U.S. Department of Education, National Center for Education Statistics, compiled from data appearing in the U.S. Office of Management and Budget, *Budget of the United States Government*, fiscal year (FY) 2003; and National Science Foundation, *Federal Funds for Research and Development*, FY 2000, 2001, and 2002. (Originally published as figure 2 on p.7 of the complete report from which this article is excerpted.)

In the more recent period, between FY 1990 and FY 2002, federal on-budget funds for elementary and secondary education increased 87 percent in constant dollars, postsecondary education funds increased 24 percent, other education funds increased 42 percent, and research funds at colleges and universities increased 54 percent.

### Estimated federal tax expenditures

Between FY 1980 and FY 1990, estimated federal tax expenditures, after being adjusted for inflation, decreased 8 percent. Between FY 1990 and FY 2001, expenditures went up 67 percent. Estimated federal tax expenditures' share of total federal support in education was 24 percent in FY 2001.

#### References

Hoffman, C.M. (2001). *Federal Support for Education: Fiscal Years* 1980 to 2001 (NCES 2002–129). U.S. Department of Education. Washington, DC: National Center for Education Statistics.

Snyder, T.D., and Hoffman, C.M. (2002). Digest of Education Statistics: 2001 (NCES 2002–130). U.S. Department of Education, National Center for Education Statistics. Washington, DC: U.S. Government Printing Office.

### Data sources:

NCES: Common Core of Data (CCD); 1987–1999 Integrated Postsecondary Education Data System, "Finance Survey" (IPEDS-F:FY1987–1999) (selected years); Integrated Postsecondary Education Data System (IPEDS), Spring 2001; and unpublished tabulations.

Other: U.S. Office of Management and Budget, *Budget of the United States Government*, FY 1967–2003 editions (selected years); U.S. Department of Education, Office of the Under Secretary, Budget Service, unpublished data; National Science Foundation, *Federal Funds for Research and Development*, FY 1965–2002 editions (selected years); and various federal agencies, unpublished data.

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

Hoffman, C.M. (2002). Federal Support for Education: Fiscal Years 1980 to 2002 (NCES 2003–006).

Author affiliation: C.M. Hoffman, NCES.

**For questions about content,** contact Charlene M. Hoffman (charlene.hoffman@ed.gov).

**To obtain the complete report (NCES 2003–006),** visit the NCES Electronic Catalog (http://nces.ed.gov/pubsearch).

# DATA PRODUCTS, OTHER PUBLICATIONS, AND FUNDING OPPORTUNITIES

### DATA PRODUCTS Data File: Common Core of Data Local Education Agency Dropout and Data File: Common Core of Data State Public Elementary/Secondary Education Dropout and Completion File: School Years 1991–92 OTHER PUBLICATIONS Findings From The Condition of Education 2002: Private Schools— A Brief Portrait Directory of Public Elementary and Secondary Education Agencies: 2000-2001 Findings From The Condition of Education 2002: Nontraditional Undergraduates The Condition of Education 2002 in Brief Programs and Plans of the National Center for Education Statistics: 2002 Edition Defining and Assessing Learning: Exploring Competency-Based Initiatives Technology in Schools: Suggestions, Tools, and Guidelines for Assessing Technology in Elementary and Secondary Education Technology in Schools Task Force, National Forum on Education Statistics ....... 94 FUNDING OPPORTUNITIES

### **Data Products**

### Data File: Common Core of Data Local Education Agency Dropout and Completion Data: School Years 1991–92 Through 1996–97

This data file, constructed from data collected through the Common Core of Data (CCD) "Public Elementary/ Secondary School Universe Survey" and "Local Education Agency Universe Survey," contains dropout and completion counts and rates for school years 1991–92 through 1996-97. This file separates the dropout and completion data for local education agencies (school districts) into their own file and adds three new variables to the file: dropout rates, high school 4-year completion rates, and enrollment base. The data in this file are at the school district level; state-level data are available in a separate file, the Common Core of Data State Public Elementary/Secondary Education Dropout and Completion File: School Years 1991–92 Through 1996-97 (NCES 2002-365). Like other CCD data, the data in these files were provided by state education agencies (SEAs) from their administrative records.

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

For questions about this data product, contact Beth A. Young (beth.young@ed.gov).

**To obtain this data product (NCES 2002–366),** visit the NCES Electronic Catalog (http://nces.ed.gov/pubsearch).

### Data File: Common Core of Data State Public Elementary/Secondary Education Dropout and Completion File: School Years 1991–92 Through 1996–97

This data file was constructed from data collected through the Common Core of Data (CCD) "Public Elementary/Secondary School Universe Survey" and "Local Education Agency Universe Survey." The file contains state dropout and completion counts and rates for school years 1991–92 through 1996–97. It separates these data into their own file and adds three new variables to the file: dropout rates, high school 4-year completion rates, and enrollment base. The data in this file are at the state level; district-level data are available in a separate file, Common Core of Data Local Education Agency Dropout and Completion Data: School Years 1991–92 Through 1996–97 (NCES 2002–366). Like other CCD data, the data in these files were provided

by state education agencies (SEAs) from their administrative records.

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

For questions about this data product, contact Beth A. Young (beth.young@ed.gov).

**To obtain this data product (NCES 2002–365)**, visit the NCES Electronic Catalog (http://nces.ed.gov/pubsearch).

### Data File: State Library Agencies Survey: Fiscal Year 2001

The State Library Agencies (StLA) Survey is conducted annually by NCES as a cooperative effort with the Chief Officers of State Library Agencies (COSLA), the U.S. National Commission on Libraries and Information Science (NCLIS), and the U.S. Census Bureau. The StLA Survey provides state and federal policymakers, researchers, and other interested users with descriptive information about state library agencies in the 50 states and the District of Columbia. The StLA Survey for fiscal year 2001, the eighth in the series, collected data on 423 items, including services to libraries and systems, electronic services and information, public service hours, service outlets, service and development transactions, collections, allied operations, staff, income, and expenditures.

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

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

**To obtain this data product (NCES 2003–342),** visit the NCES Electronic Catalog (http://nces.ed.gov/pubsearch).

### Other Publications

### Findings From The Condition of Education 2002: Private Schools—A Brief Portrait

Martha Naomi Alt and Katharin Peter

This examination of private schools was originally published as a special analysis in the 2002 edition of *The Condition of Education*, a congressionally mandated NCES annual report. Republished separately in this

booklet, the analysis examines private schools, how they differ by type (Catholic, other religious, and nonsectarian), and how they differ from public schools. The data presented are from several NCES surveys.

Author affiliations: M.N. Alt and K. Peter, MPR Associates, Inc.
For questions about content, contact John Wirt (john.wirt@ed.gov).
To obtain this publication (NCES 2002–013), call the toll-free ED Pubs number (877–433–7827) or visit the NCES Electronic Catalog (http://nces.ed.gov/pubsearch).

## Directory of Public Elementary and Secondary Education Agencies: 2000–2001

Lena McDowell and John Sietsema

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, Department of Defense Dependents Schools, and Bureau of Indian Affairs schools. The agencies are organized by state or jurisdiction and, within each state or jurisdiction, by agency type. Seven types of agencies are listed: regular school districts, supervisory union components, supervisory union administrative centers, regional educational service agencies (RESAs), state-operated agencies, federally operated agencies, and other agencies.

The entry for each listed agency (if complete) includes the following information: agency name, mailing address, and phone number; name of county; metropolitan status code; grade span; student membership (number of students enrolled); number of regular high school graduates; number of students with Individualized Education Programs (IEPs); number of teachers; and number of schools. The information presented comes primarily from the NCES Common Core of Data (CCD), "Local Education Agency Universe Survey," 2000–01. Preceding the information on individual agencies are several tables providing summary information, such as numbers and percentages of agencies by type, size, and state.

Author affiliations: L. McDowell and J. Sietsema, NCES.

For questions about content, contact Lena McDowell (lena.mcdowell@ed.gov) or John Sietsema (john.sietsema@ed.gov).

**To obtain this publication (NCES 2003–310),** call the toll-free ED Pubs number (877–433–7827) or visit the NCES Electronic Catalog (<a href="http://nces.ed.gov/pubsearch">http://nces.ed.gov/pubsearch</a>).

## Findings From The Condition of Education 2002: Nontraditional Undergraduates

Susan Choy

This examination of nontraditional undergraduates (such as those who are financially independent or attend part time) was originally published as a special analysis in the 2002 edition of The Condition of Education, a congressionally mandated NCES annual report. Republished separately in this booklet, the analysis uses data from the NCES 1999-2000 National Postsecondary Student Aid Study (NPSAS:2000) to describe nontraditional undergraduates in terms of their demographic characteristics, enrollment patterns, ways of combining school and work, and participation in distance education. In addition, it uses data from the NCES 1996/98 Beginning Postsecondary Students Longitudinal Study (NPSAS:96/98) to examine the relationship between nontraditional status and persistence in postsecondary education.

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

For questions about content, contact John Wirt (john.wirt@ed.gov). To obtain this publication (NCES 2002–012), call the toll-free ED Pubs number (877–433–7827) or visit the NCES Electronic Catalog (http://nces.ed.gov/pubsearch).

### The Condition of Education 2002 in Brief

John Wirt and Andrea Livingston

The 2002 edition of *The Condition of Education*, a congressionally mandated NCES annual report, presents 44 indicators of the status and progress of education in the United States. *The Condition of Education 2002 in Brief* is a convenient reference brochure that contains abbreviated versions of 22 indicators from the full-length report, including both graphics and descriptive text.

Topics covered in *The Condition of Education 2002 in Brief* include enrollments in preschool, elementary/ secondary, and postsecondary education; student achievement; high school dropout, college transition, and college persistence rates; trends in high school coursetaking, school choice, and the qualifications of teachers; the impacts of work on college students,

distance education, and faculty salaries; and levels of education funding. The data presented are from many sources, both government and private.

Author affiliations: J. Wirt, NCES; A. Livingston, MPR Associates, Inc. For questions about content, contact John Wirt (john.wirt@ed.gov). To obtain this publication (NCES 2002–011), call the toll-free ED Pubs number (877–433–7827) or visit the NCES Electronic Catalog (http://nces.ed.gov/pubsearch).

### Programs and Plans of the National Center for Education Statistics: 2002 Edition

Celestine Davis (editor)

This report summarizes current NCES statistical programs, major publications, and plans for future work. It includes descriptions, timelines, and plans for all NCES data collections, such as the Common Core of Data, Integrated Postsecondary Education Data System, National Assessment of Educational Progress, Early Childhood Longitudinal Study, Third International Mathematics and Science Study–Repeat, and National Postsecondary Student Aid Study. Also included are descriptions of NCES centerwide programs and services, such as statistical standards, training, technology, and customer service.

Editor affiliation: C. Davis, NCES.

**For questions about content,** contact William C. Sonnenberg (william.sonnenberg@ed.gov).

**To obtain this publication (NCES 2003–040),** call the toll-free ED Pubs number (877–433–7827) or visit the NCES Electronic Catalog (http://nces.ed.gov/pubsearch).

### **NCES Statistical Standards**

This publication presents the 2002 revised statistical standards and guidelines for NCES, which is the principal statistical agency in the U.S. Department of Education. The purpose of these standards and guidelines is to guide NCES staff and contractors in their data collection, analysis, and dissemination activities. The standards and guidelines are also intended as a clear statement for data users regarding how data should be collected in NCES surveys and the limits of acceptable applications and use. Users should note that the contents of this publication are reviewed continually in relation to technological and statistical advances.

For questions about content, contact Marilyn M. Seastrom (marilyn.seastrom@ed.gov).

**To obtain this publication (NCES 2003–601),** call the toll-free ED Pubs number (877–433–7827) or visit the NCES Electronic Catalog (http://nces.ed.gov/pubsearch).

## Defining and Assessing Learning: Exploring Competency-Based Initiatives

Elizabeth A. Jones and Richard A. Voorhees, with Karen Paulson

This report is a hands-on resource that provides basic information about the construction and use of competency assessments in postsecondary education and other learning environments. It includes the results of eight case studies of competency-based programs, and based on these case studies, it presents a set of operating principles to guide best practices in this field. The report also examines issues involved in compiling, analyzing, maintaining, and reporting data about students' competencies and presents information about the theory of competency-based education.

Defining and Assessing Learning: Exploring Competency-Based Initiatives is a product of the National Post-secondary Education Cooperative (NPEC) Working Group on Competency-Based Initiatives. Working group members were selected for their expertise in utilizing competencies in a variety of settings.

**Author affiliations:** E.A. Jones, West Virginia University; R.A. Voorhees, Community Colleges of Colorado; K. Paulson, National Center for Higher Education Management Systems.

For questions about content, contact Nancy B. Borkow (nancy.borkow@ed.gov).

**To obtain this publication (NCES 2002–159),** call the toll-free ED Pubs number (877–433–7827) or visit the NCES Electronic Catalog (http://nces.ed.gov/pubsearch).

# Technology in Schools: Suggestions, Tools, and Guidelines for Assessing Technology in Elementary and Secondary Education

Technology in Schools Task Force, National Forum on Education Statistics

This guide describes how to measure technology use by examining planning and policies, finance, equipment and infrastructure, technology applications, maintenance and support, professional development, and technology integration. The guide is designed to facilitate the preparation, collection, and assessment of information needed in making decisions about the distribution and use of computers in the educational environment. *Technology in Schools* was prepared

under the NCES Cooperative Education Statistics System and is directed toward state and local education agencies.

**Author affiliations:** Technology in Schools Task Force members included state education agency managers and school district technology coordinators, practitioners, and leaders from 10 states, as well as consultants from NCES and the Education Statistics Services Institute.

**For questions about content,** contact Lee Hoffman (lee.hoffman@ed.gov).

**To obtain this publication (NCES 2003–313),** call the toll-free ED Pubs number (877–433–7827) or visit the NCES Electronic Catalog (http://nces.ed.gov/pubsearch).

### **Funding Opportunities**

### **The AERA Grants Program**

Jointly funded by the National Science Foundation (NSF), NCES, and the Institute of Education Sciences, this training and research program is administered by the American Educational Research Association (AERA). The program has four major elements: a research grants program, a dissertation grants program, a fellows program, and a training institute. The program is intended to enhance the capability of the U.S. research community to use large-scale 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. The following are examples of grants recently awarded under the program:

### **Research Grants**

- Albert Beaton, Boston College—Examining Changes in International Multilevel Variance and Student Correlates of Mathematics Achievement Using Data From TIMSS 1995 and TIMSS 1999
- Sharon Judge, University of Tennessee—Resilient and Vulnerable At-Risk Children: What Makes the Difference?
- Xiaofeng Liu, University of South Carolina— Professional Support, School Conditions, and First-Year Teacher Attrition
- Ann O'Connell, University of Connecticut— Factors Associated With Growth in Proficiency During Kindergarten and Through First Grade

- David Post, University of Pittsburgh—Academic Achievement by Working Eighth-Grade Students in Ten Nations
- Linda Renzulli, University of Georgia—School Choice Whose Choice?

#### **Dissertation Grants**

- Guanglei Hong, University of Michigan—Causal Inference for Multi-Level Observational Data With Applications to Educational Research
- Doo Hwan Kim, University of Chicago—My Friend's Parents and My Parent's Friends: Impact of Parental Resources on Student's Competitiveness for College
- Natalie Lacireno-Paquet, George Washington
  University—Charter School Responses to Policy
  Regimes and Markets: The Effect on Service to
  Disadvantaged Students
- Kate Mahoney, Arizona State University— Linguistic Influences in Differential Item Functioning for English Learners on the NAEP Mathematics, 1996
- Colin Ong-Dean, University of California, San Diego—Parents' Role in the Diagnosis and Accommodation of Disabled Children in the Educational Context
- Ying Zhou, Pennsylvania State University— Examining the Influences on Faculty Departure Using NSOPF:99

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

### **The NAEP Secondary Analysis Grant Program**

The NAEP Secondary Analysis Grant Program was developed to encourage education researchers to conduct secondary analysis studies using data from the National Assessment of Educational Progress (NAEP) and the NAEP High School Transcript Studies. This program is open to all public or private organizations and consortia of organizations. The program is typically announced annually, in the late fall, in the *Federal Register*. Grants awarded under this program run from 12 to 18 months and awards range from \$15,000 to \$100,000. The following grants were awarded for fiscal year 2002:

- Henry Braun, Educational Testing Service— Using State NAEP Data to Examine Patterns in Eighth-Grade Mathematics Achievement and the Efficacy of State Education Policy Initiatives
- Hua-Hua Chang, University of Texas at Austin— Improving the DIF Detection Procedures for NAEP Data Analysis
- Kendrick Curry, United Negro College Fund Special Programs Corporation—The Trickle Down Effect: How Teacher Quality and Recruitment Practices Affect the Achievement of African American Students in a Three-State Metropolitan Area
- Matthias von Davier, Educational Testing Service—A Tool for Improved Precision Reporting in Secondary Analysis of National and State Level NAEP Data

- Laura Desimone, Vanderbilt University— Preparation, Professional Development, and Policy in Mathematics: Does It All Add Up?
- Claudia Gentile, Educational Testing Service— Reading Test Design, Validity, and Fairness: A Re-Analysis of Data From the 2000 Fourth-Grade Reading Assessment
- Susan Lubienski, Iowa State University—A Closer Look at Mathematics Achievement and Instructional Practices: Examinations of Race, SES, and Gender in a Decade of NAEP Data
- Laura O'Dwyer, Boston College—Estimating the Full NAEP Population Distribution: Imputing Scores for Excluded SD and LEP Students Using Hierarchical Linear Modeling Techniques
- Norman Webb, University of Wisconsin— Informing State Mathematics Reform Through State NAEP

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

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