# Introduction

The National Center for Education Statistics (NCES) collects statistics on the condition of education in the United States, analyzes and reports the meaning and significance of these statistics, and assists states, local education agencies, and postsecondary institutions in improving their statistical systems. NCES supports a wide range of activities, providing policy-relevant data on issues as diverse as: enrollment trends, access of minorities to postsecondary education, the academic achievement of students, comparisons of U.S. education with systems in other countries, and the impact of education on employment and economic productivity.

NCES' programs are directed toward:

- Maintaining and analyzing the following major cross-sectional databases: at the elementary-secondary level—the Common Core of Data, the Schools and Staffing Survey, and the Private School Universe Survey; and at the postsecondary level—the Integrated Postsecondary Education Data System, the National Postsecondary Student Aid Study, the National Survey of Postsecondary Faculty, and the Survey of Earned Doctorates Awarded in the United States. Together, these studies provide accurate, timely, and relevant data on the condition of American education as well as how it has changed over time. In addition, NCES conducts a National Household Education Survey covering various educational topics such as early childhood and adult education, program participation, home activities, and parental involvement in education.
- Producing and analyzing data from NCES' longitudinal studies: the National Longitudinal Study of 1972; the High School and Beyond Study; the National Education Longitudinal Study of 1988, which began with cohorts in grades 8, 10, or 12; and the Beginning Postsecondary Students Longitudinal Study and Baccalaureate and Beyond Longitudinal Study, which follow students attending or completing postsecondary institutions. These studies address a variety of important education issues including differences in student achievement, effects of financial aid on access to postsecondary education, youth employment, high school dropouts, discipline and order in schools, and the quality of education in public and private schools.
- Producing the National Assessment of Educational Progress (NAEP), which assesses academic achievement in a number of domains, including reading, mathematics, writing, science, history, and geography. NAEP is administered every 2 years in grades 4, 8, and 12 at the national level, and at selected combinations of these grades and domains in states that choose to participate.
- Participating in international surveys of educational achievement and programs to develop cross-national education data and indicators such as the Third International Mathematics and Science Study (TIMSS), the largest, most comprehensive international study of schools and students ever undertaken. TIMSS goes beyond comparisons of test scores to examine various aspects of

students' learning, including course content, teaching techniques, and school environment.

- Administering targeted surveys through the Fast Response Survey System and the Postsecondary Education Quick Information System which provide data rapidly on current policy issues.
- Collecting and reporting information on libraries through the Public Library Survey and the Academic Library Survey.
- Analyzing and reporting data on vocational education.
- Synthesizing information from various surveys for NCES' annual publications: *Digest of Education Statistics, The Condition of Education, and Projections of Education Statistics.*

Each chapter in this publication contains a brief introduction; a section on data uses; summaries of the various programs and plans; a list of selected publications, tabulations, and data files; an NCES contact person; and a data collection calendar for that group of programs.

# Who Uses NCES Statistics?

NCES, along with other components of the Office of Educational Research and Improvement, has developed an information program that provides the users of education statistics with access to a wide range of data. Statistical information is provided in printed and electronic formats through the NCES publications program, the National Library of Education, and ED Pubs.

Education statistics are used for a variety of purposes from research to policy formation. Congress uses data to study education issues, to plan federal education programs, to apportion federal funds among the states, and to serve the needs of constituents. Federal agencies (such as the U.S. Departments of Defense, Labor, and Commerce, and the National Science Foundation) are concerned with the supply of trained manpower coming out of our schools and colleges and also with the subjects that are being taught there. State and local officials confront problems of staffing and financing public education. They use NCES statistics in all aspects of policy development and program administration. Educational organizations, such as the American Council on Education, the National Education Association, and the American Federation of Teachers, use the data for planning and research. The news media (such as national television networks, national news magazines, and many of the nation's leading daily newspapers) frequently use NCES statistics to inform the public about such matters as student achievement and school expenditures per student. Business organizations use trend data on enrollments and expenditures to forecast the demand for their products. The general public uses education statistics to become more knowledgeable and to make informed decisions about current educational issues. These users access NCES statistics in a variety of ways.

# What Kind of Data Does NCES Collect?

NCES collects statistical data on all levels of education from preprimary education through graduate study, including adult education. The surveys address a full range of education issues including: student access, participation, and progress; achievement and attainment of students; organization and management of education institutions; curriculum, climate, and diversity of educational institutions; and financial and human resources of institutions; as well as economic and other outcomes of education. NCES surveys involve a broad spectrum of people and institutions involved in education.

The following examples of topics illustrate the scope of NCES data collection and analysis activities:

- Adults are asked about their participation in adult education and other learning activities;
- Parents are surveyed about their participation in their childrens' education;
- Teachers are asked to report information about their classes;
- Student dropout rates and achievement are measured;
- Staffing ratios of public schools are compiled;
- Comprehensive finance data are collected;
- Student participation rates in financial aid programs are gathered;
- Institutions indicate program offerings; and
- Libraries report information on patrons.

NCES data and tabulations are made available at various levels of aggregation, ranging from the institutional to the national level (see table 1). The availability of data on a particular level of education is based on a variety of factors, including survey design, sample size, and protection of confidential data. The level of aggregation of the data may be related to how the data are available, whether in printed copy or only electronically. The aggregation of data required for a particular use can be an important determinant in the selection of the most appropriate survey database. Those who are interested in national-level public school enrollments have a variety of possible sources of information, while those needing enrollments for specific schools have only one choice. Some sample surveys, such as the National Household Education Survey, are limited to national-level estimates because of the design of the survey and the sample size. Data from other surveys such as the Common Core of Data (CCD), are published as state-level summaries and district tabulations for large districts. In addition, data files are available from the CCD which contain school and school district level records. Detailed data for individual schools, school districts, and colleges generally are made available only through electronic means because of the volume of the data. Table 1 summarizes the levels at which NCES data are available, either in printed or electronic format.

Data about:	Schools- Institutions	Districts- Localities	States	Nation			
ELEMENTARY/SECONDARY							
Students	CCD	CCD SDDB	CCD SDDB NAEP	CCD, NLS–72, DOVE HS&B, NELS:88, PSS TIMSS, NAEP, FRSS SDDB, NHES, HSTS IRL, CPS			
Teachers-Staff	CCD	CCD	CCD NAEP SASS	CCD, SASS, NAEP, PSS DOVE, HS&B, NELS:88 TIMSS, FRSS, B&B			
Schools	CCD	CCD	CCD SASS	NAEP, TIMSS, FRSS CCD, PSS, SASS, HS&B, NELS:88			
School Librarie	S		SASS	SASS			
Finances		CCD	CCD	CCD			
Assessment			NAEP	NAEP, NLS–72, HS&B NELS:88, TIMSS, IRL			
<b>Private Schools</b>	PSS		PSS	PSS			
		POSTSECC	NDARY				
Students	IPEDS	IPEDS	IPEDS	NPSAS, IPEDS, BPS DOVE, B&B, NLS–72 HS&B, NELS:88, NHES CPS, PEQIS			
Faculty-Staff	IPEDS	IPEDS	IPEDS	IPEDS, NSOPF, PEQIS			
Institutions	IPEDS	IPEDS	IPEDS	IPEDS, PEQIS, NPSAS			
Finances	IPEDS	IPEDS	IPEDS	IPEDS			
Student Aid				NPSAS, BPS, B&B			

# Table 1.—NCES survey data available by level of education

Data about:	Schools– Institutions	Districts– Localities	States	Nation		
POSTSECONDARY, continued						
Completions	IPEDS	IPEDS	IPEDS	BPS, B&B, NLS:72 IPEDS, HS&B, NELS:88 SED, CPS, DOVE		
	LIFELONG LEARNING					
Adult Educatio	on			NHES, NALS, IALS B&B, CPS, NELS:88		
Libraries	ALS	ALS	PLS ALS	PLS, ALS, NHES		
Households		SDDB	SDDB	NHES, NELS:88, SDDB NALS, IALS, HS&B, CPS		

# Table 1.—NCES survey data available by level of education (Continued)

The data in table 1 are derived from the following sources:

Source	
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ALS: Academic Library Survey	
B&B: Baccalaureate and Beyond	
BPS: Beginning Postsecondary Students Longitudinal Study	
CCD: Common Core of Data	
DOVE: Data on Vocational Education	
FRSS: Fast Response Survey System	
HS&B: High School and Beyond	
HSTS: High School Transcript Study	
IALS: International Adult Literacy Survey	151
IPEDS: Integrated Postsecondary Education Data System	
IRL: International Reading Literacy Study	149
NAEP: National Assessment of Educational Progress	
NAALS: National Assessment of Adult Literacy Survey	
NELS:88: National Education Longitudinal Study of 1988	
NHES: National Household Education Survey	
NLS-72: National Longitudinal Study School Class of 1972	
NPSAS: National Postsecondary Student Aid Study	79
NSOPF: National Study of Postsecondary Faculty	
PEQIS: Postsecondary Education Quick Information System	
PLS: Public Libraries Survey	165
PSS: Private School Universe Survey	
SASS: Schools and Staffing Survey	
SDDB: School District Data Book	
SED: Survey of Earned Doctorates	
TIMSS: Third International Mathematics and Science Study	153

## How to Access NCES Data

The traditional method of accessing government statistics is through the use of publications. To meet this demand, NCES issues well over 100 publications each year. These documents include early releases, bulletins, statistical reports, directories, and handbooks of standard terminology. While many of these publications report the findings of specific surveys, three publications cover the field of education statistics from a broad perspective: the *Digest of Education Statistics* (http:// nces.ed.gov/pubs/digest97/index.html), *Projections of Education Statistics* (http://nces.ed.gov/pubs/98/pj200), and *The Condition of Education* (http://nces.ed.gov/pubs98/condition98/index.html). More detailed descriptions of these publications appear in chapter 10.

The National Library of Education (http://www.ed.gov/nle) provides education statistics and research findings in response to more than 50,000 letters, telephone calls, personal visits, and other communications each year. About 3 percent of these inquires come from members of Congress and congressional committees; 15 percent come from government agencies, including federal, state, and local governments; 24 percent come from educational institutions and organizations; 22 percent come from the news media; 25 percent come from business firms and a variety of other private organizations; and 11 percent come from the general public, including parents, teachers, students, and concerned citizens. These inquiries range from simple requests for specific information to more detailed questions that may require special tabulations, analyses, or reports. The information specialists in the National Library of Education have a detailed knowledge of NCES data as well as related statistics emanating from the Bureau of the Census, Bureau of Labor Statistics, Bureau of Economic Analysis, and a variety of other public and private agencies. In addition to providing answers or referrals, the National Library of Education staff members can provide assistance in ordering any of the Office of Educational Research and Improvement publications, as well as providing referrals regarding materials in electronic format, or locating information on the NCES (http://nces.ed.gov) or U.S. Department of Education (http://www.ed.gov) Web sites.

In order to be most effective, NCES approaches technology as integral to its mission. Programs and individual projects are designed to be consistent with NCES' overall vision of expanding access to NCES data. Eventually computer and telecommunications technologies will enable all elements of the educational community—learners, parents, teachers, and administrators, as well as observers and policymakers—to come directly to NCES for information. Technology tools developed by NCES will help reduce the burdens of data collection, enhance accuracy and timeliness of analysis, and increase the ease of access to education statistics.

For additional information, contact:

National Library of Education U.S. Department of Education 400 Maryland Avenue SW Washington, DC 20202–5721 E-mail address: library@inet.ed.gov Telephone number in the United States: 1–800–424–1616; from metropolitan Washington: (202) 219–1692

The National Library of Education has also begun operations for ED Pubs, the U.S. Department of Education's one-stop information products center.

Customers can contact ED Pubs at:

ED Pubs P.O. Box 1398 Jessup, MD 20794–1398 E-mail address: edpubs@inet.ed.gov Telephone number: 1–877–4ED–Pubs (1–877–433–7827), toll free; TTY/TDD: 1–877–576–7734, toll free.

To identify and order current U.S. Department of Education publications and products, use the ED Pubs Online Ordering System (http://www.ed.gov/pubs/edpubs.html).

# **National Education Data Resource Center**

The National Education Data Resource Center (NEDRC) is a service that NCES makes available to the public to broaden access to NCES data and information from the studies and surveys. This service is intended to provide education information and data to those who cannot take advantage of the available NCES computer products, or those who do not have appropriate facilities to process survey data sets.

The NEDRC service will conduct special analysis on NCES data sets to provide tables and related information that may be needed by teachers, researchers, policymakers, and others who need access to the most current education-related data. The NEDRC services are provided at no charge. Best results from the NEDRC services are provided when questions are well defined and yield tables. Those requiring more extensive research and in-depth analysis are best served by accessing the NCES data sets directly through the NCES Web site (http://nces.ed.gov/data.html), or by accessing the data on CD-ROM.

The following NCES data sets are accessible through the NEDRC service:

- Baccalaureate and Beyond (B&B)
- Beginning Postsecondary Students (BPS)
- Common Core of Data (CCD)
- High School and Beyond (HS&B)
- Integrated Postsecondary Education Data System (IPEDS)
- Library Surveys
- Academic Library Survey (ALS) Public Library Survey (PLS) School Libraries (SL) State Library Agencies (SLA)
- National Education Longitudinal Study (NELS:88)
- National Longitudinal Study of 1972 (NLS-72)
- National Postsecondary Student Aid Study (NPSAS)
- National Study of Postsecondary Faculty (NSOPF)
- Private School Universe Survey (PSS)
- Recent College Graduates Study (RCG)
- Schools and Staffing Survey (SASS)

More detailed information about these data sets can be obtained from the respective sections of this publication or at the NCES Web site (http://nces.ed.gov/surveys/datasurv.html).

# How to submit a request to NEDRC

When making a request, please include the following information:

- Name and title
- Organization
- Telephone and FAX number
- E-mail address
- Organization mailing address
- Name and year of the data set from which information is to be obtained (e.g., NELS:88)
- Specific survey from which information is to be obtained (e.g., NELS: Parent Questionnaire)
- Variables to be analyzed
- Populations of interest (e.g., public school teachers with 1 year of experience)
- Type of statistical analysis to be performed (e.g., cross tabulations)
- Requested medium of final product (e.g., diskette, hard copy, E-mail)

All requests need to be submitted in writing. Requests for data analysis can be submitted to the NEDRC in three ways:

- E-mail: nedrc@pcci.com
- Mail:
  - National Education Data Resource Center c/o Pinkerton Computer Consultants, Inc. 1900 N. Beauregard St. Suite 200 Alexandria, VA 22311–1722
- Telephone: (703) 845–3151; FAX: (703) 820–7465

You may need to use the phone number if you would like to ask a question about data availability before you submit your written request.

#### MAJOR PUBLICATION

Brochure: Products Available from NCES (March 1997)

For more information on NEDRC, contact:

Carl Schmitt Elementary/Secondary and Libraries Studies Division Elementary/Secondary Co-operative System and Institutional Studies Program National Center for Education Statistics 555 New Jersey Avenue NW Washington, DC 20208–5651 Telephone number: (202) 219–1642 E-mail address: carl\_schmitt@ed.gov

# **NCES Center-Wide Programs and Services**

In order to fulfill the National Center for Educations Statistics (NCES) mission, "...to collect, analyze, and disseminate statistics and other information related to education in the United States and in other nations...," NCES must strive to develop high-quality, customer-driven products that are readily available to all education stakeholders.

NCES is engaged in a set of agency-wide activities that are intended to help attain these goals. First, with respect to high quality, NCES' reputation as a statistical agency is dependent on the integrity and the relevance of the information it produces. Second, with respect to customer-driven products, the value of NCES to the education community is contingent upon a full understanding of the data needs and interests of our customers. Third, with respect to availability, NCES' success in making as much information available as possible hinges upon the effective use of technological advances.

# **Statistics**

### **Standards and Technical Review**

NCES has its own set of statistical standards that provide the guiding principles for data collection, analysis, and reporting of education data. NCES staff and contractors use these standards in an ongoing effort to ensure the development of high quality education data. From study design to final analysis, NCES products are subjected to a rigorous technical review process that involves statistical and subject-matter experts from NCES and the broader education community.

During study design and data collection, NCES uses a combination of internal work groups, external technical review groups, and contractors to design and collect data to meet the needs of the education community. Data collection and processing frequently involves the collaboration of NCES staff and several contractors configured in a manner designed to ensure checks and balances on quality control. Analyses are conducted only after analysis plans are developed and reviewed. Finally, the report review process usually involves a series of reviews by subject-matter and technical colleagues, culminating in a formal review by a combination of internal and external reviewers.

NCES continually strives to increase the efficiency of the full review process, while at the same time maintaining high standards. At the present time, work is under way to identify emerging issues and to update the 1992 statistical standards that are currently in use. Over the past several years, NCES has also participated in an agency-wide effort to evaluate existing quality control procedures and to develop and effect new ones.

#### **Quality Control**

In the fall of 1996, the Commissioner convened the Task Force on Quality Systems to study NCES quality control procedures, with the goal of identifying ways to improve the current procedures. The first phase of this task force included a review of current procedures and resulted in a set of 9 findings and 20 recommendations. These findings and recommendations focused on five areas: spread existing skills within NCES, improve documentation and communication, improve uses of computer systems for checking key results, improve the review process, and improve contract procedures.

NCES is using Quality Improvements Teams to develop action plans for the recommendations. A number of projects are under way. For example, NCES' guidelines for tabular presentations are being updated, and a report that documents analytic techniques applied in NCES publications is in development. In addition, checklists are being drafted which will promote improved communications between analysts and programmers, to increase consistency in the review of electronic data products, and to document table production.

### Methodology

In an effort to document NCES data collection procedures, the Statistical Standards Program is sponsoring and monitoring the development of a handbook of NCES data collections. The handbook will document key aspects of the design, collection, and processing of NCES surveys. A related report that summarizes the imputation procedures in NCES data collections is also under development. In a complementary project, the Statistical Standards Program conducted a review of the response rates in each NCES data collection. The results of this review will also be published in an NCES report.

Periodically, statistical questions emerge that break new ground for NCES. The Statistical Standards Program consults and advises in these situations, and in some instances a panel of experts is used to consult on or review specific problems. Recent examples of this process include reviews of the procedures used in developing a statistical link between the results from the Third International Mathematics and Science Study and the National Assessment of Educational Progress; of the response probability decision rules that are applied in NCES assessments; and of the NCES policies and procedures for analyzing data with low response rates.

### Research

The Statistical Standards Program initiated research in two areas. The Education Statistics Services Institute has been commissioned to extend some earlier developmental work they conducted on total survey error for NCES. And, in a collaborative project with faculty at the University of Michigan, NCES staff will examine methodological and analytic issues involved in using longitudinal data.

### Confidentiality

Much of the data that NCES collects is provided by individual respondents—students, parents, teachers, and administrators. NCES is required by law to develop and enforce standards designed to protect the confidentiality of individually identifiable respondents. This requirement includes the collection, reporting, and publication of data. The Statistical Standards Program has two major functions in this area. First, the program leads the Disclosure Review Board Team, comprised of members from each NCES division, representatives of the Statistical Standards Program, and a representative from the Census Bureau. This team reviews disclosure risk analyses conducted on NCES data files to ensure that data released on public use data files do not place the identity of any individual respondents in jeopardy.

The second major activity in this area is designed to make data that fail the Disclosure Review Board test available to researchers on a restricted basis. (Similar restricted-use data licenses, a concept pioneered by NCES, are now being used in other federal statistical agencies.) These licenses provide external researchers access to individually identifiable NCES data covered under federal statutes and regulations by subjecting authorized users to the laws, regulations, and penalties that apply to the NCES use of confidential data. Under the license agreement, authorized users are subject to unannounced inspection visits. The Statistical Standards Program monitors the licensing process and the inspections.

Based on an analysis of inspection reports program staff developed a set of recommendations for improved quality control and increased customer service. As a result, annual reminder letters are being used to update information on licensees and authorized users. In addition, an automated system is being developed for the field inspections. This will facilitate immediate corrections of potential security problems and will allow NCES staff to monitor licensees more effectively.

For more information on the NCES Statistical Standards Program, contact:

Marilyn McMillen Chief Statistician Office of the Deputy Commissioner Statistical Standards Program National Center for Education Statistics 555 New Jersey Avenue NW Washington, DC 20208–5650 Telephone number: (202) 219–1781 E-mail address: marilyn\_mcmillen@ed.gov

# **Customer Service**

NCES is committed to providing a range of customer-driven products that are tailored to the needs of different members of the education community. In an effort to meet this goal, a variety of data release formats are used on a regular basis. Detailed data are made available in a variety of formats—from published statistical compendia and online data almanacs, to micro-data files that are available for secondary analysis. NCES reports range from detailed technical methodological and analytic reports that provide an in-depth analysis of a particular topic or issue to Statistical Briefs and Issue Briefs that provide a short focused analysis of a specific topic. In a new effort to make NCES data analyses available to a broader audience, NCES is launching the *Education Statistics Quarterly*, a periodical that will include findings from all NCES reports on a quarterly basis. Currently, all NCES publications are available online at the NCES Web site (http://nces.ed.gov). NCES also continues to explore new and innovative ways to use the World Wide Web to make education information available to as many data users as possible. (For more information, please see subsequent NCES "Technology" and "World Wide Web" descriptions in this chapter.)

#### **Customer Service Survey**

The NCES Commissioner established a Customer Service Team to ensure that sufficient effort is devoted to the continual monitoring of our customer's information needs. As part of an ongoing effort to better understand the data needs and interests of the education community, this team conducts a biennial customer service survey. The purpose of the survey is to assess customer satisfaction with NCES products and services, and to identify areas that need improvement. The last customer survey was conducted in 1997. The next survey is planned for the spring of 1999. The survey's respondents do not include all of NCES' customers; instead, the survey focuses on specific customer groups. The 1997 survey targeted two large groups of current and potential users: federal, state, and local policymakers, as well as academic researchers.

The response rate to the 1997 survey was 84 percent. The survey results indicate strong satisfaction with NCES and its products. However, awareness of NCES does vary considerably

between respondent groups and particular products. NCES' customers use data for many purposes. Three main uses cited in the survey were: general information, research and analysis, and planning. The data also suggest that the more experienced the user, the higher the level of satisfaction. The survey does indicate less satisfaction with the timeliness of NCES publications and data files, and the need for NCES to increase awareness of agency products and services. These are areas that NCES managers are seeking to improve.

### **Outreach Partnerships**

In an effort to improve dissemination and increase the use of NCES' education statistics, NCES has developed "partnerships" with external organizations whose members are either interested in education data or could become potential users. With NCES acting as a data "broker," these new collaborative relationships provide an excellent means for expanding NCES' customer base and learning more about the needs of specific data users. And by making use of existing communication channels in other organizations, NCES is also able to make contact with potential customers.

Collaborative activities include: providing information on NCES products in association newsletters and online services; developing links to Web sites; providing training on NCES databases and other activities; developing individual workshops for specific data users; and identifying and assessing data needs. This two-way interaction with outside networks increases the utility of NCES products and services by more accurately reflecting the needs of various constituencies.

# **Practitioner's Web Page**

Through focus groups and customer surveys, NCES has determined that local education practitioners (e.g., educators, administrators, counselors, librarians, and parents) are not adequately aware of NCES products and services. As a result, NCES decided to develop a Web page that is targeted to the data needs of these groups. This new online service, called "The K–12 Practitioners' Circle" (http://nces.ed.gov/practitioners), presents education data in a user-friendly manner and provides links to a wide range of NCES publications and other relevant resources. While alerting users to NCES findings on both continuing and emerging education issues, it also provides information on relevant research studies, and other practical resource materials that local practitioners would find useful. The new Web page will be updated regularly to respond to pressing education issues and NCES will be encouraging feedback from its users.

For more information on the NCES Customer Service Program, contact:

Barbara Marenus Office of the Commissioner National Center for Education Statistics 555 New Jersey Avenue NW Washington, DC 20208–5574 Telephone number: (202) 219–1835 E-mail address: barbara\_marenus@ed.gov

# Training

One way of ensuring that NCES staff members maintain state-of-the-art skills is through inhouse training seminars on new and emerging statistical techniques and practices. The NCES training officer plans and coordinates these seminars on an as-needed basis. For example, in fiscal year 1998, there were seminars on: variance estimation; imputation of missing data; statistical significance testing; multiple regression analysis; logistic regression analysis; path analysis; hierarchical linear modeling; and special software such as SUDAAN and Wesvar PC-computer programs for handling survey data from complex sample designs. In addition to statistical methods, seminars also cover topics such as contract management and emerging educational priorities, issues, and policies. Although these seminars are tailored to the needs of NCES staff, they are open to the general public. Any interested staff members from other government agencies, professional associations, private companies, or other organizations may attend.

NCES also offers training seminars for external data users to promote and facilitate the effective use of NCES databases such as the National Education Longitudinal Study of 1988, the National Household Education Survey, the Schools and Staffing Survey, the Third International Mathematics and Science Study, the National Assessment of Educational Progress, and the Integrated Postsecondary Education Data System. These data users include faculty members and graduate students in higher education institutions, as well as researchers and data analysts at state and local education agencies, professional associations, and other federal agencies. Seminars are usually offered each summer and are about 4 to 5 days long. During these seminars, participants learn how to access and analyze NCES data. Participants also review certain statistical topics such as sample design, variance estimation, imputation, and sampling weights. To participate in these seminars, browse the NCES Web site (http://nces.ed.gov) for seminar announcements and specifications for applying.

Instructors for both in-house and external-data-users seminars are usually NCES' staff members who have extensive knowledge and experience in the given subject matter. Sometimes nationally known experts in pertinent fields are invited to give lectures.

An announcement for each seminar will be posted on the NCES Web site (http://nces. ed.gov).

For more information on the NCES Customer Service Program, contact:

Samuel S. Peng Training Officer Office of the Commissioner National Center for Education Statistics 555 New Jersey Avenue NW Washington, DC 20208–5654 Telephone number: (202) 219–1643 E-mail address: samuel\_peng@ed.gov

# Technology

NCES uses technological advances to make programs and internal activities more efficient and effective. Advances in technology are also helping to position NCES for future operations and new methods of data collection, analysis, and dissemination.

Programs and individual projects are designed to be consistent with an overall vision of expanding access to NCES data. Eventually, computer and telecommunications technologies will

enable all members of the educational community—learners, parents, teachers, and administrators, as well as observers and policymakers—to come directly to NCES for information. Technology tools developed by NCES will help reduce the burdens of data collection, enhance accuracy and timeliness of analysis, and increase the ease of access to education statistics.

A variety of plans are being implemented to fully incorporate current and emerging technologies into the NCES working environment, and to provide both internal and external customers with timely education statistics information in useful formats. Internal activities include acquiring and supporting up-to-date desktop hardware and software to facilitate statistical analyses, developing integrated software solutions for program management, and leveraging local and wide area network resources to share information.

NCES currently provides access to its databases through a variety of mechanisms. These include the dissemination of data via diskettes and CD-ROMs, or through NCES' Web site. However, developments in Web-related software and data warehousing provide new opportunities to broaden and strengthen NCES' data offerings. A new initiative has been undertaken to construct a data warehouse that will ultimately contain most of NCES' databases.

Several developments will enhance the utility of the Web site by speeding the access time and expanding the material available. Planned improvements in indices, subject categorizations, and database search utilities will improve the ability of users to get answers to questions. Software now being developed will also allow users to conduct online analyses with the Common Core of Data (elementary-secondary) and the Integrated Postsecondary Education Data System databases.

Current activities to enhance electronic access to NCES data include:

- Disseminating of products and services via the Internet and World Wide Web;
- Improving data administration and developing of a data warehouse resource;
- Developing and supporting of improved CD-ROM products for NCES databases;
- Fostering increased capabilities of data suppliers and users to submit and retrieve NCES data electronically through the Internet; and
- Expanding customer options for retrieving timely education data.

## World Wide Web

An important component of the NCES Technology Program is the NCES Web site (http://nces.ed.gov). NCES constituents with access to the Internet can also tap a rich collection of education-related information at the U.S. Department of Education's (ED) World Wide Web site (http://www.ed.gov). Other data sets too large for Web access and restricted-use survey data sets are made available on CD-ROMs direct from NCES or other organizations.

NCES' Web site is its largest and most visible dissemination platform. Since the site's inception in May 1996, it has grown to nearly 30,000 pages. Current usage statistics indicate that approximately 140,000 user sessions and almost 1,400,000 page views take place on a monthly basis. NCES has a full-time Webmaster and a Web team consisting of liaisons from all divisions and the Commissioner's office. The Web site is becoming NCES' primary mode of communication with its varied constituencies.

Features of the NCES Web site include:

- Announcements of recently released and forthcoming publications and data sets;
- A complete catalog of NCES publications and data products searchable by title, author, subject, survey or program area, and other criteria (http://nces.ed.gov/pubsearch/index.asp);
- A searchable staff directory, by subject specialty or name;
- The full contents of all NCES publications for viewing, printing, or downloading;
- Significant portions of the most recent NCES publications for browsing online;
- Statistical tables and education indicators for quick answers to questions;
- The most recent data sets for downloading and analysis;
- Descriptions of NCES programs, including separate Web pages for all surveys and program areas;
- A national public school locator (see example below); and
- A "Newsflash" subscription service (http://nces.ed.gov/newsflash/index.asp) about breaking NCES news.

An example of one of the search services available through the site is the NCES National Public School Locator (http://nces.ed.gov/ccdweb/school/school.asp). This feature allows customers to locate a school based on name, location, state, or other similar variables. The National Public School Locator includes statistics on individual school characteristics such as teacher counts, number of students, student-teacher ratio, and school membership by race-ethnicity. The NCES Web site also provides a direct link to the extensive collection of education-related materials at the U.S. Department of Education's Web site that includes:

- Information on the President's and Secretary's education priorities and department press releases;
- Descriptions of ED programs;
- Searchable ED staff directory;
- Searchable bibliographic database of over 20,000 education related studies;
- Funding opportunities;
- Event calendars;
- Directories of effective programs;
- Directory of education-related information centers;
- Research findings and syntheses;
- Publications for teachers, parents, and researchers; and
- Pointers to public Internet resources at Regional and Development Centers, Regional Laboratories, ERIC Clearinghouses, and other ED-funded institutions.

Some of the future plans for the NCES Web site include enhancing its utility by speeding the access time, expanding the material available, and by allowing more interactive capabilities within NCES databases. Planned improvements in indices, subject categorizations, and database search utilities will improve the ability of users to get answers to a range of questions more quickly. Additionally, online forums and chats on education and related issues will become commonplace as NCES strives to build a community of those interested in education information.

For more information on the NCES World Wide Web site, contact:

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# **Online Internet Survey Operations**

NCES initiated electronic data submissions in universe collections in the mid-1990s. NCES is currently piloting the collection of sample survey data from individual respondents over the Internet. This effort involves breaking new territory in education data collection in the application of data encryption methods necessary for the protection of confidential data.

As NCES surveys are periodically redesigned, the Technology Program will utilize the Internet to provide a comprehensive online environment for the collection, editing, tabulation, and publication of survey data. The first survey to be redesigned in this manner is the Integrated Postsecondary Education Data System (IPEDS). The first online collection for IPEDS will be conducted in summer 1999. An online collection and processing environment will allow NCES to increase timeliness and quality of data, while minimizing the reporting burden placed upon our respondents. Online Internet survey operations will also provide for uniformity and consistency across NCES surveys and provide a solid foundation to support the NCES data warehousing initiative.

### **NCES Data Warehouse**

The concept of providing an integrated collection of related data from multiple sources in order to respond to complex inquiries has been around for some time. Data warehouses are the next logical step in the expansion of automated information systems. These warehouses include more data and enable more powerful and flexible analysis. With education statistics, analyses have often been constructed with specific survey data. Cross-survey or time-trend analyses frequently required long and expensive data massaging and custom analysis. A data warehouse of education information will provide a rich, yet convenient resource for in-depth research. It will also provide a mechanism to respond to simple, but specific queries such as: 'how do enrollment changes in my school district compare with those in other similar districts in another state?'

The objective is to build a new education information source within the Web site that will eventually provide integrated access to survey and linked survey data, metadata, survey instruments and documentation, and ultimately reports and other published analysis. The warehouse will be distinguished from existing NCES products in three respects: it will be exclusively Internet based; it will contain a growing repository of linked data from different surveys; and it will feature tools that enable customers to easily find, extract, and analyze NCES data directly. The NCES Data Warehouse will be designed to expand and improve as more data are uploaded and Internet tools become more powerful. From a customer perspective, the major benefit of the data warehouse will be more extensive Internet access to NCES survey data and documentation.

### **Technology Research**

In addition to incorporating current technologies into its programs and operations, NCES helps sponsor a broad agenda to extend technological capabilities. This is a complementary effort in support of the National Science Foundation's "Digital Government Initiative."

NCES is currently working on three research topics:

- The use of relational database technologies to natively support statistical functions such as standard error calculations for complex sample survey data;
- The development of clustered index algorithms for spatial databases; and
- The development of statistical analysis techniques for time-event indexed video databases.

For more information on the NCES Technology Program, contact:

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### **NCES Data Archive**

NCES has sponsored the International Archive of Education Data at the Inter-University Consortium for Political and Social Research (ICPSR), University of Michigan, to archive NCES databases. This archive is a work in progress that is designed to include a vast range of national and international data on education collected primarily by NCES from the 1960s to the present. These databases are available at no charge, in ASCII flat file format which can be used with statistical processing software such as SAS and SPSS.

The goal of the archive is to share information about education with researchers, academics, policymakers, service providers, and other customers. NCES currently maintains over 500 national data collections relating to education. The data are collected from elementary and secondary schools, colleges, and universities, as well as from elementary, secondary, and postsecondary students and teachers. Each data collection contains an abstract, codebook, and one or more data files for research use. No statistical tables or printed reports are included. This archive makes this wealth of data publicly available and readily accessible. Additional NCES databases, both new and old, will be routinely added to the archive.

This archiving project will preserve and enrich the research resources of NCES, as well as produce an archive of data sets that can be used effectively in the era of Internet and the World Wide Web. It will also significantly enhance documentation of NCES data to make them more user-friendly. The publicly available data can be accessed and downloaded directly from the ICPSR Web site (http://www.icpsr.umich.edu/index.html).

For more information on the Data Archive, contact:

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# **Elementary and Secondary Education**

Equity between schools and school districts, access to preschool programs, student trends, persistence, and the climate in our schools and classrooms are some of the most important issues surrounding elementary and secondary education today. Other important issues include school finance, school safety, teacher qualifications, school reform, teacher professional development, and the education of special needs populations.

The National Center for Education Statistics (NCES) program at the elementary and secondary level provides information on the condition of public and private education. The core program includes national, state, and local data collection systems on public elementary and secondary education (i.e., the Common Core of Data Survey). Important additions to NCES' data collection programs in the last decade include the Schools and Staffing Survey, the Private School Universe Survey, and the National Household Education Survey. These surveys, along with the National Education Longitudinal Survey, the National Longitudinal Survey of 1972, High School and Beyond, the National Assessment of Educational Progress, and the Third International Mathematics and Science Survey, supply a wealth of information about elementary and secondary education in the nation.

# **Data Uses**

The statistics collected from state education agencies and from other elementary-secondary surveys are used extensively by people outside of NCES. They are used for testimony before congressional committees, for planning in various federal executive departments, and for projects developed by professional organizations. They are used by state executive and legislative staff, by state and local education agencies, and by associations of local school systems. Other users are colleges, universities, other education research facilities, various businesses that work with educational institutions, and the media (by reporting on educational issues and events).

Federal, state, and local governments make numerous requests for data. For example, representatives often request data on the demographic characteristics of school districts in their states, federal agencies request data on numbers of teachers and pupils by school level and type; state governments request data on high school dropouts and teacher attrition rates; and local governments request analyses of teacher demographics. In addition to federal, state, and local governmental requests for elementary and secondary information, foreign governments also request data on trends in American public schools.

The media often need a great deal of data on elementary and secondary education for their reporting. For example, the media has used analyses of first-time teachers in the United States, characteristics of public schools, dropout rates, test scores, and urban school trends in their reporting.

Colleges and universities request copies of data tapes and CD-ROMs of many of the elementary and secondary surveys. Some items of interest for postsecondary researchers have been teacher qualifications in mathematics and science, poverty status of schools and school districts, free lunch eligibility of students, dropout rates and high school completions, class size, crime and violence, and persistence and attainment.

Business organizations, including marketing and survey firms, use the mailing lists of schools and districts to do their research. Also, parents use data on elementary and secondary schools and school districts (such as per pupil expenditures and class size) when they are in the process of moving their families to a new location.

# Studies

#### **Common Core of Data**

The Common Core of Data (CCD) is NCES' primary database on elementary and secondary public education in the United States. The annual CCD is a comprehensive national statistical database of all public elementary and secondary schools and school districts that contains comparable data across all states.

The objectives of the CCD are twofold. First, it is designed to provide an official listing of public elementary and secondary schools and school districts in the nation that can be used to select samples for other NCES surveys, and to provide directory information for a variety of users. Second, the CCD provides basic information and descriptive statistics on public elementary and secondary schools, students, and staff.

The data sets within CCD can be used separately or in conjunction with one another to provide information on many topics of interest. For example, they can be used to analyze differences in expenditures for education across large and small, or urban, suburban, and rural school districts. The CCD produces dropout rates for different types of school districts and tracks changes over time. It also measures changes in the racial-ethnic distribution of students in public schools. The school universe allows users to look at characteristics such as pupil-teacher ratios at various instructional levels, or to use the addresses in the school directory found on NCES' Web site (http://nces.ed.gov) to request school records for transferring students. In addition an annually produced CD-ROM links all of the CCD data, financial and non-fiscal, with school district-level data from the 1990 decennial Census in an easy-to-use format.

The CCD is an important resource for policymakers at the state and local levels. The CCD provides basic statistics on schools, school districts, and states. Some examples of descriptive statistics available from CCD are: student enrollment by race-ethnicity, number and types of schools, revenues and expenditures of school districts, and number of high school completers and dropouts. The CCD is also used to choose samples for other NCES databases.

#### DESIGN

The CCD survey collects data about all public elementary and secondary schools, all local education agencies, and all state education agencies throughout the United States. The CCD contains three categories of information: general descriptive information on schools and school districts, data on students and staff, and fiscal data. The general descriptive information includes name, address, phone number, and type of locale (e.g., rural or urban). The data on students and staff include demographic characteristics. The fiscal data cover revenues and expenditures.

The CCD is made up of six surveys sent to state education departments. Most of the data are obtained from administrative records maintained by the state education agencies (SEAs). Statistical information is collected annually from public elementary and secondary schools (approximately 85,000), public school districts (approximately 16,000), the 50 states, the District of Columbia, the U.S. Department of Defense overseas dependents' schools, and five outlying areas. The SEAs compile CCD data into prescribed formats and transmit the information to NCES.

#### **COMPONENTS**

**Public School Universe**—Information on all public elementary and secondary schools in operation during a school year, including: school location and type, address and telephone number, enrollment by grade and student characteristics, number of classroom teachers, and the number of free lunch eligible students. Location address, Title I status, magnet school status, charter school status, and migrant student enrollment were added in the 1998–99 school year.

Local Education Agency Universe—Includes address and phone number, location and type of agency, current number of students and staff, number of students with special individual education plans, and the number of high school completers and dropouts in the previous year. Location, address, migrant student enrollment, and students with limited English proficiency served were added in the 1998–99 school year.

**State Aggregate Non-Fiscal Survey**—Information on all students and staff aggregated to the state level, including number of students by grade level, full-time equivalent staff by major employment category, and number of high school completers in the previous year.

**National Public Education Finance Survey**—Detailed finance data at the state level, including: average daily attendance; school district revenues by source (local, state, and federal); and expenditures by function (instruction, support services, and noninstruction) and subfunction (e.g., school administration). This survey also includes capital outlay and debt service expenditures.

**School District Finance Survey**—Detailed data by school district, including revenues by source expenditures by function and subfunction, and enrollment. These data are collected annually through the Bureau of Census' F–33, Survey of Local Governments. Data are collected from all districts in years ending in "2" and "7" and from a large sample in remaining years.

**Early Estimates**—State summary data on numbers of students; teachers and high school graduates; and revenues and expenditures. These estimates are released during the school year in which they are collected.

#### MAJOR PUBLICATIONS

Issue Brief: Do Districts Enrolling High Percentages of Minority Students Spend Less? (December 1996)
Issue Brief: Do Rich and Poor Districts Spend Alike? (December 1996)
Protecting the Privacy of Student Education Records (March 1997)
Characteristics of Small and Rural School Districts: School Year 1986–87 to 1993–94 (April 1997)
Selected Papers in School Finance, 1995 (June 1997)
Statistics in Brief: Public School Student, Staff, and Graduate Counts by State, School Year 1995–96 (June 1997)
Guidelines for Protecting the Privacy of Student Records (July 1997)
Brochure: Spanish Version of "Protecting the Privacy of Student Education Records" (July 1997)
Basic Data Elements for Elementary and Secondary Information Systems (July 1997)
Developments in School Finance, 1996 (July 1997)
Directory of Public Elementary and Secondary Education Agencies, 1994–95 (September 1997)
Key Statistics on Public Elementary and Secondary Schools and Agencies: School Year 1993–94 (September 1997)

*Evaluation of Coverage in the Common Core of Data Program* (October 1997)

- Public Elementary and Secondary School Revenues and Expenditures by State, Fiscal Year 1995 (October 1997)
- Public Elementary and Secondary Schools and Districts: School Year 1995–96 (February 1998)
- Early Estimates—Public Elementary and Secondary Education Statistics: School Year 1997–98 (March 1998)
- Overview of Public Elementary and Secondary Schools and Agencies: School Year 1995–96 (April 1998)
- *Revenues and Expenditures for Public Elementary and Secondary Education: School Year 1995–96* (May 1998)
- Characteristics of the 100 Largest Public Elementary and Secondary School Districts in the United States (July 1998)

Directory of Public Elementary and Secondary Education Agencies, 1995–96 (July 1998)

- Public School Student, Staff, and Graduate Counts by State, School Year 1996–97 (September 1998)
- Overview of Public Elementary and Secondary Schools and Agencies: School Year 1996–97 (November 1998)

#### DATA FILES

Common Core of Data Public Education Agency Universe, 1992–93 (August 1994)

- Common Core of Data Public School Universe, 1992–93 (August 1994)
- Public Elementary and Secondary School Membership, Graduates, and Staff, by State: School Years 1983–84 through 1992–93 (August 1994)

CD-ROM: Common Core of Data Disk, 1991–92 through 1995–96 (November 1998)

The CCD can be found on the Internet (http://nces.ed.gov/ccd/idex.html). For further information on the CCD, contact the following NCES staff members (listed by CCD survey):

#### Local Education Agency Universe and Public School Universe

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#### National Public Education Finance Survey and School District Finance Survey

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#### State Aggregate Non-Fiscal Survey

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#### **Early Estimates: Elementary and Secondary Education**

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#### **Schools and Staffing Survey**

The Schools and Staffing Survey (SASS) is a comprehensive survey of American public and private K–12 schools. Its linked sampling plan provides information on schools (and in the public sector, their associated districts), the principals who head these schools, and the teachers who work in them. The survey was designed in the mid-1980s in response to the school reform movement of that decade. Its primary purposes have been to monitor teacher supply and demand conditions, characteristics and qualifications of teachers and principals, and basic conditions in schools. Along these dimensions, the survey was designed to provide comparable information on both the public and private sectors, as well as trend data over time. In addition, SASS provides state representative data for the public sector.

SASS' large sample sizes (approximately 6,000 school districts; 10,000 public schools; 3,500 private schools; 60,000 public school teachers; and 12,000 private school teachers) allow extensive disaggregation of data by important characteristics of schools, such as the poverty level of the students, urbanicity, and minority enrollment; and of teachers; such as their demographic characteristics and teaching assignment field. SASS data were first collected in the 1987–88 school

year, and again in the 1990–91 and 1993–94 school years. One year after each collection, a followup survey of teachers was conducted to measure teacher attrition and mobility (see the "Teacher Followup Survey" desciption in this section). SASS is being redesigned for its next administration in school year 1999–2000, and is planned to be conducted every 5 years.

Data from SASS have been used by Congress, the U.S. Department of Education and other federal agencies, state education agencies, educational associations, business firms that market educational services, and the education research community for the following purposes:

- To provide information on aspects of teacher supply and demand, shortages, and turnover, such as methods of covering unfilled vacancies and policies, practices, and circumstances influencing supply and demand conditions.
- To describe the qualifications of teachers to teach in their subject fields and, in particular, to monitor the rate of out-of-field teaching (i.e., teachers teaching in a subject area without a college major or minor in that field).
- To monitor rates of attrition from the teaching profession, the reasons for attrition, and the characteristics of teachers leaving the profession.
- To provide information on school conditions and programs, including basic descriptors of schools, enrollments, organization, curriculum, student programs and services, staffing, student characteristics, school climate, and teacher workplace conditions.
- To profile the teacher workforce, including demographic characteristics, academic background, qualifications to teach in fields of assignment, workload, career plans, compensation, and perceptions of the teaching profession and their workplace.
- To profile the principal workforce, including demographic characteristics, academic background, qualifications, and training for administration, and to assess school climate and decisionmaking.

#### DESIGN

The sample design for SASS is a stratified probability sample in which schools are selected first, and then within schools, the principal is surveyed, as well as a sample of teachers. The SASS sample has been designed to support the following types of estimates and comparisons: national and state estimates for public schools and teachers; national estimates for private schools and teachers by religious affiliation or type of school; and national comparisons of elementary, secondary, and combined schools and teachers. The teacher sample also supports comparisons of new versus experienced teachers, and teachers by teaching assignment field.

In 1993–94, three new components were included in SASS: a student records questionnaire, a school library-media center questionnaire, and a library-media center questionnaire. Of these three, only the library-media center component will be continued in future collections. Also in 1993–94, an oversample of schools having more than 19.5 percent American Indian students and all Bureau of Indian Affairs schools were included in the SASS sample, thus providing the most comprehensive data set on Indian education in the nation.

#### CORE COMPONENTS

**School District Questionnaire**—Survey of public school districts on measures of teacher shortages, district policies on graduation requirements, teacher salaries, compensation, retirement, and hiring of teachers.

**School Questionnaire**—Survey of public and private schools and Bureau of Indian Affairs schools, on school programs and services offered; school policies and conditions; student characteristics; staffing patterns; student-teacher ratios; and teacher turnover. The private school questionnaire includes questions parallel to the public school district questionnaire.

**School Administrator Questionnaire**—Survey of public school principals, private school heads, and Bureau of Indian Affairs school principals about their demographic characteristics; training, experience, professional background, salaries and benefits; and their perceptions of school climate and conditions.

**Teacher Questionnaire**—Survey of public and private school teachers and Bureau of Indian Affairs school teachers, about demographic characteristics; teacher preparation and qualifications, including degrees held, and continuing professional development; teaching experience; certification; career history and plans; teaching assignments; working conditions; salaries; and perceptions of school environment and the teaching profession.

Teacher Followup Survey—See description later in this section.

#### ADDITIONAL COMPONENTS OF THE 1993–94 SASS

**Student Records Questionnaire**—Survey of administrative records of students who attend public, private, and Bureau of Indian Affairs schools; collects information on demographic characteristics; types of services students receive, mathematics, science, and other courses taken; number of advanced placement courses taken; reasons for dropping out; and number of transcripts sent to colleges and universities.

**Library-Media Center Questionnaire**—Survey of public and private school libraries or media centers on staffing, size and type of collections, expenditures, technology and equipment, and volume of use.

**Library Media Specialist/Librarian Questionnaire**—Survey of public and private library-media specialists or librarians on compensation, qualifications, and attitudes toward working conditions.

#### MAJOR PUBLICATIONS

*Teacher Supply in the U.S.: Sources of Newly Hired Teachers in Public and Private Schools* (July 1993)

The Patterns of Teacher Compensation (June 1996)

Schools and Staffing in the United States: A Statistical Profile: 1993–94 (July 1996)

*Out-of-Field Teaching and Educational Equality* (October 1996)

How Different? How Similar? Comparing Key Organizational Qualities of American Public and Private Secondary Schools (October 1996)

SASS by State, 1993–94 Schools and Staffing Survey: Selected State Results (November 1996)

- Issue Brief: Public School Choice Programs, 1993–94: Availability and Student Participation (January 1997)
- Issue Brief: *Teachers' Sense of Community: How Do Public and Private Schools Compare?* (January 1997)

- Issue Brief: Are Limited English Proficient (LEP) Students Being Taught by Teachers with LEP Training? (January 1997)
- The Schools and Staffing Survey: Recommendations for the Future (January 1997)
- The Status of Teaching as a Profession, 1990–91 (January 1997)
- Teacher Professionalization and Teacher Commitment: A Multilevel Analysis (February 1997)
- A Profile of Policies and Practices for Limited English Proficient Students: Screening Methods, Program Support, and Teacher Training (February 1997)
- Time Spent Teaching Core Academic Subjects in Elementary Schools: Comparisons Across Community, School, Teacher, and Student Characteristics (March 1997)
- Issue Brief: Schools Serving Family Needs: Extended Day Programs in Public and Private Schools (March 1997)
- Issue Brief: Programs for Aspiring Principals: Who Participates? (March 1997)
- Issue Brief: Credentials and Tests in Teacher Hiring: What Do Districts Require? (March 1997)
- *Characteristics of American Indian and Alaskan Native Education*, 1993–94 (March 1997)
- E.D. TABS: SASS Student Records Questionnaire: School Year 1993–94, With Special Emphasis on American Indian and Alaskan Native Students (May 1997)
- Public and Private School Principals in the United States: A Statistical Profile, 1987–88 to 1993–94 (June 1997)
- America's Teachers: Profile of a Profession, 1993–94 (July 1997)
- Measurement Error Studies (July 1997)
- Job Satisfaction Among America's Teachers: Effects of Workplace Conditions, Background Characteristics, and Teacher Compensation (August 1997)
- An Analysis of the Total Non-Response in the 1993–94 Schools and Staffing Survey (SASS) (November 1997)
- Public School Districts in the United States: A Statistical Profile, 1987–88 to 1993–94 (February 1998)
- Toward Better Teaching: Professional Development in 1993–1994 (July 1998)
- 1994–95 Teacher Followup Survey Data File User's Manual—Public Use Version (September 1998)

#### DATA FILES

CD-ROM: SASS 1993–94 Electronic Codebook and Public Use Data (November 1995)

User's Manual: SASS 1993–94 Data File, Volume II: Restricted-Use Codebook (July 1997)

- CD-ROM: The Schools and Staffing Survey and Teacher Followup Survey Electronic Codebook and Restricted-Use Data for 3 Cycles of SASS and TFS (April 1998)
- CD-ROM: The Schools and Staffing Survey (SASS) and Teacher Followup Survey (TFS) Electronic Codebook and Public-Use Data for Three Cycles of SASS and TFS (July 1998)

Issue Brief: How Widespread Is Site-Based Decision Making in the Public Schools? (January 1997)

SASS can be found on the Internet (http://nces.ed.gov/surveys/sass.html). For further information on SASS, contact:

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#### **Teacher Followup Survey**

The Teacher Followup Survey (TFS) is designed to measure teacher attrition from the profession and teacher mobility. The survey follows a sample of the teachers who were respondents in the Schools and Staffing Survey (SASS) in the previous school year, and identifies those who left teaching, those who remained in the same schools, and those who moved to other schools. The data are used to measure rates of teacher attrition, retention, and mobility at the national level in both public and private schools.

Attrition can be examined in terms of primary destinations of those who leave, reasons for leaving the profession, characteristics of those who leave (attrition rates disaggregated by sex, raceethnicity, age-experience, and field of teaching, as well as by characteristics of schools from which teachers leave). Data from the base year SASS Teacher Questionnaire allow analysis of other factors related to attrition, such as qualifications, salary, satisfaction, and other working conditions. The survey improves understanding of teachers' decisions to leave the profession, and the effect of their attrition on the workforce and schools.

#### DESIGN

Two questionnaires comprise the TFS: the Teacher Followup Survey Questionnaire for Former Teachers, and the Teacher Followup Survey Questionnaire for Continuing Teachers (those who remained in the same school as well as those who moved to another school). These questionnaires ask teachers about their current status, occupational changes and plans, reasons for staying in (or leaving) teaching, and attitudes about the teaching profession.

The TFS was first conducted in the 1988–89 school year with a sample from the 1987–88 SASS of about 2,500 teachers who had left teaching and 5,000 who were still in teaching. The sample size is approximately the same for every cycle of the TFS. The TFS was also conducted in 1991–92 and again in 1994–95, each a followup to the SASS sample of the previous year. The next TFS will be conducted in the 2000–2001 school year.

#### COMPONENTS

**Questionnaire for Former Teachers**—Survey of former teachers to ascertain: primary activity or occupational status; plans to remain in current position; further education; plans for returning to teaching; reasons for leaving teaching; possible areas of dissatisfaction with teaching; salary; marital status; number of children; and other background information that may be related to their attrition.

**Questionnaire for Continuing Teachers**—Survey of continuing teachers to ascertain: change or retention in school; occupational status; teaching assignment field; further education; reasons for leaving previous school; areas of dissatisfaction; expected duration in teaching; and basic demographic characteristics.

#### MAJOR PUBLICATIONS

Characteristics of Stayers, Movers, and Leavers: TFS 1991–92 (May 1994) E.D. TABS: Characteristics of Stayers, Movers, and Leavers: TFS 1994–95 (June 1997) Toward Better Teaching: Professional Development in the 1993–94 (July 1998)

#### DATA FILES

CD-ROM: Schools and Staffing Survey (SASS) and Teacher Followup Survey Electronic Codebook and Restricted Use Data for 3 Cycles of SASS and TFS (April 1998)
1993–94 School and Staffing Survey: Teacher Followup Survey (May 1998)
1994–95 Teacher Followup Survey Data File User's Manual—Public Use Version (September 1998) The TFS can be found on the Internet (http://nces.ed.gov/surveys/sass.html). For further information on TFS, contact:

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#### **Private School Universe Survey**

With increasing concern about alternatives in education, the interest and need for data on private education has also increased. NCES has prioritized the collection of data on the universe of private elementary and secondary schools that are comparable to the Common Core of Data (CCD) universe survey for public schools.

The purposes of Private School Survey (PSS) data collection activities are: to build an accurate and complete list of private schools to serve as a sampling frame for NCES sample surveys of private schools; and to report data on the total number of private schools, teachers, and students in the survey universe. The PSS is conducted every 2 years with collections in 1989–90, 1991–92, 1993–94, 1995–96, and 1997–98 school years. The next survey will be in the 1999–2000 school year.

The PSS produces data similar to that of the CCD for the public schools, and can be used for public-private comparisons. The data are useful for a variety of policy and research-relevant issues, such as the growth of religiously affiliated schools, the number of private high school graduates, the length of the school year for various private schools, and the number of private school students and teachers.

#### DESIGN

The target population for the universe survey consists of all private schools in the United States that meet NCES criteria of a school (e.g., private school is an institution which provides instruction for any of grades K–12, has one or more teachers to give instruction, is not administered by a public agency, and is not operated in a private home). The survey universe is composed of schools identified from a variety of sources. The main source is a list frame, initially developed for the 1989–90 PSS. The list is updated regularly matching it with lists provided by nationwide private school associations, state departments of education, and other national guides and sources which list private schools. The other source is an area frame search conducted by the Bureau of the Census.

#### COMPONENTS

**1997–98 Private School Survey**—Survey of private schools to ascertain: level of school; religious orientation or other affiliation; size of school; length of school year and school day; total enrollment (K–12); race-ethnicity of students; whether a school is coeducational and the gender of students in single sex schools; number of high school graduates; number of teachers; program emphasis; whether school offers a kindergarten program; and whether a school has a library or library media center.

#### MAJOR PUBLICATIONS

Private School Universe Survey, 1991–92 (July 1994) Private School Universe Survey, 1993–94 (May 1996) Private Schools in the United States: A Statistical Profile, 1993–94 (July 1997) Private School Universe Survey, 1995–96 (March 1998)

The Private School Survey can be found on the Internet (nces.ed.gov/surveys/pss.html). For more information on the Private School Survey, contact:

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#### **National Household Education Survey**

The National Household Education Survey (NHES) is the first general purpose survey conducted by NCES to collect education data through a household-based survey. Historically, NCES has collected data from teachers, students, and schools through school-based surveys, and from administrative records data through surveys of school districts and state education agencies. With a household-based survey, the NHES has the potential to address many issues in education that have not been addressed previously by NCES data collection activities. Full-scale NHES collections have been conducted in the springs of 1991, 1993, 1995, and 1996. Topical components covered in these collections have been: Early Childhood Education/Early Childhood Program Participation (NHES:91 and NHES:95), Adult Education (NHES:91 and NHES:95), School Readiness (NHES:93), School Safety and Discipline (NHES:93), Parent and Family Involvement in Education (NHES:96), Civic Involvement (NHES:96), and Household and Public Library Use (NHES:96). The NHES will be conducted again in the spring of 1999 and on a biennial basis thereafter.

The NHES provides data on a wide range of current education issues. The issues vary by component and are provided in the component descriptions above.

DESIGN

The NHES is designed as a mechanism for collecting detailed information on educational issues from a relatively large and targeted sample of households in a timely fashion. Households are selected using random-digit-dialing methods and data are collected using computer-assisted telephone interviewing procedures. The sample for the NHES is drawn from the civilian population in households having a telephone in the 50 states and the District of Columbia.

In each previous NHES, between 44,000 and 64,000 households were screened and individuals within households who met predetermined criteria were sampled for more detailed or extended interviews. The data are weighted to permit estimates of the entire population. The NHES survey for a given year typically consists of a screener questionnaire which collects household composition and demographic data and extended interviews on two substantive components addressing education-related topics. Generally, between 10,000 and 15,000 interviews have been obtained for each component.

One of the goals of the NHES is to produce reliable estimates of the characteristics of children and adult educational experiences for the total targeted populations and for domains defined by race and ethnicity. Estimates by race and ethnicity are of great interest, especially for monitoring education trends over time. Therefore, the NHES design samples minorities at a higher rate in order to increase the reliability of estimates for these groups.

A design feature implemented in the NHES:96 is the collection of demographic and educational information on members of all households, rather than just those households potentially eligible for a topical component. In addition, this expanded screening feature includes a brief set of questions on the use of public libraries. The total household sample size is large enough to produce state estimates for these brief topical questions.

Throughout its history, the NHES has collected data in ways that permit estimates to be tracked across time. This includes repeating topical components on a rotating basis in order to provide comparative data across survey years. In addition, each administration of the NHES has benefited from experiences with previous cycles, resulting in enhancements to the survey procedures and content. Thus, while the survey affords the opportunity for tracking phenomenon across time, it is dynamic in addressing new issues and including conceptual and methodological refinements.

During the spring of 1991, NCES fielded an NHES on Early Childhood Education and Adult Education. Approximately 60,000 households were screened to identify a sample of about 14,000

children, 3- to 8-year-olds. The parents of these children were interviewed. At the same time, about 12,500 adult household members were sampled and questioned about their participation in adult education. (See the "National Household Education Survey (Adult Component)" description in chapter 4.)

In the spring of 1993, the two topical components covered were School Readiness and School Safety and Discipline. Altogether, nearly 64,000 households were screened. In the School Readiness component, parents of approximately 11,000 children, 3- to 7-year-olds were asked about their children's experiences. In the School Safety and Discipline component, parents of about 12,500 children in grades 3 through 12 were interviewed about their children's school environment. A sample of about 6,500 students in grades 6 through 12 were also interviewed about safety and discipline in their schools.

The components addressed in the spring of 1995, Early Childhood Program Participation and Adult Education, were similar to those addressed in 1991. Altogether, about 44,000 households were screened. In the Early Childhood Program Participation component, about 14,000 parents of children from birth through third grade were interviewed. For the Adult Education component, about 19,500 civilian adults were interviewed. (Again, see the "National Household Education Survey [Adult Component] in chapter 4.)

The two larger topical components covered in the spring of 1996 were Parent and Family Involvement in Education and Civic Involvement. The population of interest for the Parent and Family Involvement in Education component were children from age 3 through 12th grade. Nearly 21,000 parents were interviewed. The populations of interest for the Civic Involvement component were youth in 6th through 12th grades, parents of youth in 6th through 12th grades, and civilian adults age 18 and older. Interviews were obtained with about 8,000 youth, about 9,000 parents of youth, and about 2,000 adults. The screener component of the 1996 survey also addressed household public library use. Adults in almost 55,000 households were interviewed. The sample was selected to support state level estimates of household public library use.

#### COMPONENTS

**Early Childhood Education/Early Childhood Program Participation Component** (NHES:91 and NHES:95)—Participation in nonparental care-education; characteristics of programs and care arrangements; early school experiences, including delayed kindergarten entry and retention in grade; home activities with family members; and child, family, and household characteristics. For school-age children, these components also include items concerning participation in after school programs and activities. In the future, these items for school age children will be described as a separate component.

Adult Education Components (NHES:91 and NHES:95)—Participation in adult education activities in the previous 12 months and characteristics for participants; main reasons for participation; the subject matter, duration, sponsorship, purpose, and cost of course; barriers to participation of sampled nonparticipants.

**School Readiness Component (NHES:93)**—Accomplishments and difficulties of preschoolers in several developmental domains; school adjustment and teacher feedback to parents of kindergartners and primary students; participation in center-based programs; early school experiences, including delayed kindergarten entry and retention in grade; home activities with family members; general health and nutritional status; and child, family, and household characteristics.

School Safety and Discipline Component (NHES:93)—Perceptions of the school learning environment; victimization; safety at school; school discipline policy; availability of alcohol and other drugs at school; peer and family norms concerning alcohol and drug use; alcohol-drug education; and child, family, household, and school characteristics.

**Parent and Family Involvement in Education Component (NHES:96)**—Family involvement with the school, homework, and the child outside of school; homeschooling; communication with teachers and other school personnel; perceptions of the school learning environment; school practices to involve families; involvement of nonresidential parents; and child, family, household, and school characteristics.

Adult Civic Involvement Component (NHES:96)—Reading materials in the home; sources of information on politics and national issues; participation in community and civic activities; political attitudes; knowledge of government; and opinions about improving public education.

**Youth Civic Involvement Component (NHES:96)**—Family involvement in education; perception of school learning environment; participation in activities that indicate personal responsibility and promote civic involvement; participation in and school support of community and civic activities; sources of information on politics and national issues; reading materials in the home; political attitudes; knowledge of government; and, participation in courses related to government or politics.

**Household and Library Component (NHES:96)**—Distance to the closest public library; household use of a public library in the past month and past year; ways in which public library was used in the past month; purposes for which public library was used in the past month; and detailed household characteristics.

#### MAJOR PUBLICATIONS

Parents' Reports of School Practices to Involve Families (November 1996) Student Participation in Community Service Activity (April 1997) The 1993 National Household Education Survey: Reinterview Results for the School Safety and Discipline and School Readiness Components (May 1997) Overview of the NHES 91, 93, 95, and 96 (June 1997) Feasibility of Conducting Followup Surveys in the National Household Education Survey (June 1997) An Overview of Response Rates in the NHES: 1991, 1993, 1995, and 1996 (June 1997) Student Interest in National News and Its Relationship to School Courses (July 1997) Fathers' Involvement in Their Children's Schools (October 1997) A Guide to Using Data from NHES of 96, 95, 93, and 91 (November 1997) The Elementary School Performance and Adjustment of Children Who Enter Kindergarten Late or Repeat Kindergarten (November 1997) Trends in Degrees Conferred, 1969–70 to 1993–94: A Chartbook (December, 1997) An Experiment in Random-Digit Dial Screening (December 1997) Students do Better When Their Fathers Are Involved at School (April 1998)

How Involved are Fathers in Their Children's Schools? (April 1998)

- What Factors are Associated with Fathers' and Mothers' Involvement in Their Children's Schools (April 1998)
- Brochure: National Household Education Survey (NHES) (May 1998)
- Adult Participation in English-as-a-Second-Language Courses (June 1998)
- Characteristics of Children's Early Care and Education Programs: Data from the 1995 National Household Education Survey (July 1998)

Nonresident Fathers Can Make a Difference in Children's School Performance (July 1998)

#### DATA FILES

User's Manual: NHES 96 Volume 1: Design and Procedures (September 1997)

User's Manual: NHES 96 Volume 3: Parent Involvement in Education and Parent Civic Involvement (PI/PCI) Data File (November 1997)

User's Manual: NHES 96 Volume 4: Youth Civic Involvement (YCI) Data File (September 1997) NHES:96/95/93/91 Public Use Data Files and Electronic Code Book (ECB) (August 1997)

Electronic Code Book (ECB) User's Guide for the National Household Education Surveys of 1996, 1995, 1993 and 1991 (September 1997)

NHES can be found on the Internet (http://nces.ed.gov/nhes). For further information on NHES, contact:

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#### **Fast Response Survey System**

The Fast Response Survey System (FRSS) was established in 1985 to collect issue-oriented data quickly with minimum response burden. The FRSS was designed to meet the data needs of U.S. Department of Education analysts, planners, and decisionmakers when information could not be collected quickly through traditional NCES surveys.

#### DESIGN

FRSS surveys collect and report data on key education issues at the elementary and secondary level. A similar survey system, the Postsecondary Education Quick Information System, conducts time-sensitive surveys at the postsecondary level (see description in chapter 4). Data collected through FRSS surveys are representative at the national level, drawing from a universe that is appropriate for each study. FRSS collects data from state education agencies and national samples of other educational organizations and participants, including:

- Local education agencies;
- Public and private elementary and secondary schools;
- Elementary and secondary school teachers and principals; and
- Public and school libraries.

In order to present high quality data quickly, the FRSS provides the following services: research on survey topics and questionnaire design; pretest of survey questionnaires; quality control of survey data; national estimates reported within 1 year of survey mail-out; guarantee of response rates of 90 percent or higher; tabulations and other analyses of data; and preparation of survey reports. The FRSS also has the capability of conducting brief surveys of households using random-digit-dialing telephone techniques.

### MAJOR PUBLICATIONS

Arts Education in Public Elementary and Secondary Schools, 1994 (October 1995) Parents and Schools: Partners in Student Learning, 1996 (October 1996) E.D. TABS: Advanced Telecommunications in U.S. Public Elementary and Secondary Schools, 1995 (February 1996) Racial and Ethnic Classifications Used by Public Schools (March 1996) Nutrition Education in Public Elementary and Secondary Schools (August 1996) Advanced Telecommunication in U.S. Public Elementary and Secondary Schools, Fall 1996 (February 1997) Advanced Telecommunications in U.S. Private Schools, K-12, Fall 1995 (May 1997) Parent Involvement in Children's Education: Efforts by Public Elementary Schools (February 1998) Issue Brief: Internet Access in Public Schools (March 1998) Status of Education Reform in Public Elementary and Secondary Schools: Principals' Perspectives (May 1998) Racial and Ethnic Classifications Used by Public Schools (July 1998) State Survey on Racial and Ethnic Classifications (August 1998) Fast Response Survey System Brochure (September 1998)

For further information on the FRSS, contact:

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## School Crime Supplement to the National Crime Victimization Survey

NCES supports a supplement to the Bureau of Justice Statistics' National Crime Victimization Survey (NCVS). The NCVS is a household survey that collects data on crime from a nationally representative sample of about 45,000 households. The School Crime Supplement is an additional set of items asked of all youth in the households ages 12 through 19. The Bureau of Justice Statistics and the National Institute of Justice supported the first School Crime Supplement in 1989. A second School Crime Supplement was supported by NCES in 1995. The next School Crime Supplement (also supported by NCES) will take place in 1999, and is planned for every 2 years thereafter. The focus of the supplement is on crimes committed against 12- to 19-year-olds in elementary and secondary schools.

The School Crime Supplement contains items that will allow estimates to be tracked over time. The general topic covered by items in the questionnaire is school environment, including preventive measures employed by the school, the availability of drugs and alcohol, victimization in school, avoidance behaviors, weapons, and gangs.

#### DESIGN

The School Crime Supplement is conducted from January through June of the collection year in all NVCS sample households. Within these households, eligible respondents for the School Crime Supplement are household members between the ages of 12 and 19 who attended school at any time in the previous 6 months. The school had to be one which would advance them toward the receipt of a high school diploma. These persons are administered the supplemental questions only after the entire NCVS interview is completed. More than 10,000 interviews of youth are obtained in the School Crime Supplement.

The same rotation scheme employed for the NCVS survey design is used for the School Crime Supplement. The sample of households is divided into groups or rotations. One rotation group enters the sample every 6 months and the corresponding rotation group from a previous sample is phased out. Households remain in the sample for 3 years, and each household is interviewed once every 6 months during that time. A rotation scheme is used in order to reduce the burden on respondents that could result if they were permanently in the sample.

Households in the sample for the first time are in the incoming rotation. These households are interviewed in person. Households in the sample for their second through sixth interviews are in the continuing rotations. These households are interviewed by telephone. The exception is households in the sample for their fifth NCVS interview. These households are interviewed in person to reestablish personal contact. In 1995, about 30 percent of the households were interviewed by telephone from a centralized dialing facility using computer-assisted telephone interviewing techniques. Other

telephone interviews were conducted by the same interviewer who conducted the personal interviews. The Census Bureau conducts the data collection.

Reports released by the Bureau of Justice Statistics on NCES data can be found on the Internet (http://www.ojp.usdo.gov/bjs).

#### MAJOR PUBLICATIONS

Issue Brief: *Gangs and Victimization at School* (July 1995) *Students' Reports of School Crime: 1989 and 1995* (April 1998)

For further information on the School Crime Supplement to the NCVS, contact:

Kathryn A. Chandler Early Childhood, International and Crosscutting Studies Division Interagency and Household Studies Program National Center for Education Statistics 555 New Jersey Avenue NW Washington, DC 20208–5651 Telephone number: (202) 219–1767 E-mail address: kathryn\_chandler@ed.gov

# **Other Activities**

### **1990 Census Mapping Project and School District Data Book**

The 1990 Census Mapping Project was initiated in 1988. Under this initiative, sponsored by NCES and coordinated by the Council of Chief State School Officers, all states participated in a program to develop school district maps. In the 1990 decennial census, the Bureau of the Census developed the Topologically Integrated Geographic Encoding and Referencing (TIGER) System, in which 10,000,000 census block boundaries were digitally encoded (to 6 decimal places). The boundaries of approximately 15,274 local education agencies, special education districts, Indian reservations, and military installations which have education activities within their boundaries were similarly digitized and encoded in the TIGER system, thus making it possible to convert the data from census blocks to education entities and produce tabulations.

In 1992, under the sponsorship of NCES, the Census Bureau produced the 1990 Census School District Special Tabulation files using the basic record file of 1990 decennial census data. These tabulations contain aggregate data describing attributes of groups of persons and households in school districts.

With the exception of two data items (total population and total housing units), data were sample-based estimates. In many cases, the special tabulations used a process of splitting census blocks to develop estimates for a school district. Files were used in combination with NCES data (i.e., Common Core of Data) and other Census data (i.e., School District Financial Survey–F33) to produce the School District Data Book. The School District Data Book is an electronic library containing social, economic, and administrative data for each of the 15,274 public school districts in the United States in 1990. The School District Data Book contains the most comprehensive demographic database ever developed for the nation's school system.

The School District Data Book is contained on a set of 44 CD-ROMs. This large database of approximately 20 gigabytes of data (after reduction by data compression techniques) provides up to

10,000 data items for each school district. The mapping features enable users to view maps of all individual school districts in the nation for the first time.

The School District Data Book provides an effective way for the U.S. Department of Education and Congress to access, analyze, and interpret data from the 1990 Census School District Special Tabulations. Since this information can benefit state and local education agencies as well as researchers, policy analysts, and administrators in a variety of other organizations, NCES implemented a program to meet these broader needs.

The School District Data Book can be found on the Internet (http://nces.ed.gov/surveys/sddb/introd.htm).

#### MAJOR PUBLICATIONS

School District Data Book Reference Manual (November 1994) Profile of Children in U.S. School Districts (September 1996)

For further information on the 1990 Census Mapping Project and the School District Data Book, contact:

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### **Decennial Census School District 2000 Project**

In 1998, NCES initiated a multiyear project relating to the special tabulation specification of the 2000 Census and the 1999–2000 TIGER/Line files school district boundary. Similar to the 1990 Census Mapping Project, the Decennial Census School District 2000 Project will provide socialeconomic demographic characteristics of children and public school districts in the United States by using the school district special tabulation files from the 2000 census, the 1999–2000 CCD, and the 2000 School District Financial Survey–F33. These project products will be used to support research and policy analysis at national, state, and individual school districts.

For further information on the 1990 Census Mapping Project and the Decennial Census School District 2000 Project, contact:

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# **Education Finance Statistical Center**

The number and sophistication of policy requests to NCES for school finance information are constantly shifting and expanding. The Education Finance Statistics Center (EFSC) is designed to conduct research to improve the collection and reporting of education finance information. EFSC projects explore definitional, measurement, collection, reporting, and analysis issues related to education finance.

The EFSC is currently conducting several research activities

- Creating of a "peer" school district financial analysis;
- Assessing changes that will occur in governmental accounting;
- Devising a student-level resource measure;
- Devising a school-level financial reporting model;
- Creating geographic and inflation cost adjustments;
- Researching inequities in school district financing; and
- Attempting to devise measures of adequacy, productivity, and efficiency in education.

Among the projects NCES anticipates exploring in the next year are:

- Anticipating changes in accounting standards—School district financial accounting will change dramatically after the Governmental Standards Accounting Board issues new guidelines, effective after June 15, 2000. NCES plans to publish a new accounting handbook for local and state school systems to assist states and school districts in their financial reporting before 2001.
- The acquisition, analysis, and reporting of school-level data—Congress has mandated that NCES develop a "model" school-level financial reporting system. As of May 1997, only eight states collected school-level fiscal data. Since there are some 84,705 public elementary and secondary schools, NCES needs to explore using national samples, repositories of state data, and electronic (Web) harvesting in order to obtain school-level financial data without extraordinary burden.
- Using geographic and inflationary cost adjustments—Geographic cost adjustments for state, county, and school district level expenditure data have been developed for NCES. Although some exploratory work has been undertaken on inflationary cost adjustments, the development and application of these indices needs further conceptual development.

### MAJOR PUBLICATIONS

Selected Papers in School Finance, 1996 (March 1998) Inequalities in Public School District Revenues (July 1998) Developments in School Finance, 1997 (July 1998) Persons seeking NCES finance information, publications, and data should visit the Internet (http://nces.ed.gov/edfin). For further information on the EFSC, contact:

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## **Elementary and Secondary Handbooks**

The purpose of these handbooks is to promote the use of a standard vocabulary and to encourage the maintenance of accurate and complete data. The data terms included in the handbooks reflects the best judgement of individuals representing all facets of education as to what data might be useful in making appropriate, cost-effective, and timely decisions about elementary and secondary education.

These handbooks are not data collection instruments, nor do they reflect any type of federal data maintenance requirements. They are presented as a communication tool to aid the public and practitioners operating within the United States education system in making information about students, school personnel, secondary courses, and the allocation of federal funds to state and local school districts more effective in meeting multiple needs.

#### Student Data Handbook

Accurate and comprehensive information is needed in order to make appropriate decisions about students within both public and private schools. These information needs are being met in an increasing number of instances by automated management information systems that allow data to be used in a variety of ways. These information systems are effective only to the extent that data are consistently entered according to established terms and definitions.

This handbook focuses on the importance of consistency in how student data are defined and maintained at various levels within the education enterprise—from schools and school districts (both public and private) to state and federal agencies. In addition to providing data terms and "best practice" definitions, the handbook makes suggestions about how data could be organized in a student data system to promote timely and effective use of student information for student services.

#### Staff Data Handbook

Education agencies and institutions maintain information about staff to facilitate the efficient and effective functioning of the education enterprise. Staffing information is needed for daily administrative purposes and for making long-term program and policy decisions. Staffing information can also be used to monitor efforts to improve the education system.

This handbook focuses on the importance of consistency in how data are defined and maintained at various levels within the education enterprise—from schools and school districts (both public and private), to state and federal agencies. In addition to providing data terms and "best

practice" definitions, the handbook makes suggestions about how data could be organized in a staff data system to promote timely and effective use of staffing information.

### A Pilot Standard National Courses Classification System for Secondary Education

The selection of course titles and descriptions included in this handbook reflects the combined judgement of individuals representing all facets of education, from public and private institutions; federal, state and local and agencies; and national professional associations; as well as educational practitioners and researchers.

Ideally, this classification system will facilitate communication (electronic and otherwise) between education agencies and organizations; enable questions of local, state, and national interest to be answered in greater detail; and provide a common methodology to allow for mapping of secondary education courses into a common classification system.

This handbook focuses on the importance of consistency in reporting, and how secondary education courses are defined and maintained within the education enterprise. In addition to providing course titles and "best practice" descriptions, the handbook also makes suggestions concerning how information about courses such as level, credit, sequence, and other unique characteristics can be maintained and reported.

### Financial Accounting for Local and State School Systems

The handbook defines the national standards for public education agencies to use in reporting financial data. The standards are intended for use by school districts in preparing their comprehensive annual financial reports that are submitted to state education agencies and by state education agencies in their reports to the U.S. Department of Education.

The purpose of the handbook is to ensure that education finance data can be reported in a comprehensive and uniform manner. The handbook gives an overview of accounting systems and provides guidelines on setting up a chart of accounts for public education agencies. Specific funds, programs, functions and objects, and their accounting costs are defined and organized in accordance with generally accepted accounting principles. The handbook provides the framework for collecting and reporting school finance data that are comprehensive and comparable.

#### MAJOR PUBLICATIONS

Student Data Handbook for Early Childhood, Elementary, and Secondary Education (June 1994) Staff Data Handbook: Elementary, Secondary and Early Childhood Education (January 1995) A Pilot Standard National Courses Classification System for Secondary Education (January 1995) Financial Accounting for Local and State School Systems (Reprinted September 1997) For further information on the Elementary and Secondary Handbooks, contact:

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## **National Cooperative Education Statistics System**

The National Cooperative Education Statistics System serves as the umbrella for a number of efforts to improve the quality, timeliness, and comparability of statistics used for education policymaking at all levels of government. This system was begun in 1988, under the mandate of the Hawkins-Stafford Education Improvement Amendments (Public Law 100–297). Soon after, NCES established the National Forum on Education Statistics, an appointed group representing national, state, and federal interests in elementary-secondary education data to address issues of data policy and develop ways of improving data systems. The system also includes training and technical assistance efforts such as the week-long Fellows Program and two major annual professional conferences. It has been the means for NCES to work in collaboration with state and local educators to develop guidelines that provide assistance in data collection, reporting, and in both the technical and policy aspects of maintaining student records.

#### **National Forum on Education Statistics**

The National Forum on Education Statistics is broadly representative of elementarysecondary education at all levels of policy. It is composed of representatives from NCES, the 50 states, the District of Columbia, 5 outlying territories, local education agencies, and professional associations and federal agencies involved in the collection and reporting of education statistics. The forum's primary mission is to work with NCES to improve the overall quality, timeliness, and comparability of education statistics across the nation. It puts into practice the goals of the National Elementary/Secondary Cooperative Statistics System, which was mandated by the Hawkins-Stafford Education Improvement Amendments of 1988 (Public Law 100–297) and continued in the 1994 Improving America's Schools Act.

Under the direction of its Steering Committee, the forum maintains three standing committees: the National Education Statistics Agenda Committee; the Technology, Dissemination, and Communication Committee; and the Policies, Programs, and Implementation Committee. At present, the forum is addressing such important issues as facilitating uniform development in state-automated data systems; promoting the adoption of guidelines and common definitions that will foster best-practice procedures in many areas of data collection and reporting; and developing guidelines for the selection of hardware, software, and network services for education data and for maintaining data about school finance and education facilities. The group is an active partner with the U.S. Department of Education in efforts to reduce redundancy across data collections and thereby lessen the burden of reporting. In addition to these efforts, the forum is available to respond to specific requests from the Commissioner of NCES and to raise issues and make recommendations of its own. By bringing federal and state representatives together to work cooperatively toward improving the quality of education statistics, the forum plays an important role in determining the future of our nation's education statistics system.

In 1990, the National Forum issued its first publication, *Guide to Improving the National Education Data System.* This guide contains 36 recommendations for improving the nation's elementary and secondary education statistics system. Other forum products include the SPEEDE/ExPRESS format (see description on next page) for transmitting student records electronically, guidelines for protecting the privacy of student records (with an accompaning brochure on this topic for parents), and reports on data needs in the areas of early childhood education and equity. The forum produced a format for reporting incidents of school crime, violence, and discipline and a handbook for nontechnical policymakers to use in selecting education hardware, software, and networking services called *Technology @ Your Fingertips*.

The forum is a means for providing technical assistance to states and encouraging the development of more efficient data systems. It sponsors a state-to-state personnel exchange and recommends to NCES innovative data projects to be supported under contract with state education agencies. Reports of site visits assessing 33 state education agency data systems in terms of their potential for increased automation are also available.

The forum can be found on the Internet (http://www.nces.ed.gov/forum).

### MAJOR PUBLICATIONS

Recommendations of the Crime, Violence, and Discipline Reporting Task Force, National Education Statistics Agenda Committee, National Forum (December 1996)
The National Forum on Education Statistics (Policies and Procedures Manual) (July 1997)
Forum Report: Report of the Core Data Task Force—Report to NESAC (July 1997)
Protecting the Privacy of Student Education Records (March 1997)
Guidelines for Protecting the Privacy of Student Records (July 1997)
Spanish Version of "Protecting the Privacy of Student Education Records" (July 1997)
Basic Data Elements for Elementary and Secondary Information Systems (July 1997)
Technology At Your Fingertips (December 1997)
Safeguarding Your Technology (September 1998)

### **SPEEDE/ExPRESS: Electronic Data Interchange for Education**

Electronic Data Interchange (EDI) is the exchange of routine information in computerprocessable format, covering such traditional applications as inquiries, payments, financial reporting, and education information.

Hard copy transmission of educational information is costly and time consuming. Through EDI, education institutions, organizations, and agencies can reap the benefits of timely and accurate information, while avoiding costly error-prone data reentry. The translation and electronic transmission of this information can occur over networks in a matter of seconds.

EDI works on the principle of standard formatting. A standard format for different applications exists which spells out what information is included, where it is to be located, and in what form. This makes possible a common language between computers.

SPEEDE/ExPRESS has developed into a strong and focused single effort to develop these EDI standards for education (elementary-secondary and postsecondary) and to promote their use. EDI standards that have already been developed or are currently being developed include student transcripts, personnel information, education institutional profile, financial aid information, and survey specific requests. Among the direct and indirect benefits that users of EDI receive are: reduction of paperwork and associated savings, faster transmission of critical educational administrative information, improvement in the reliability of information exchanged between educational entities, and more effective data management and reporting.

SPEEDE/ExPRESS can be found on the Internet (http://nces.ed.gov/edi.html). For further information on SPEEDE/ExPRESS, contact:

Gerald Malitz Office of the Deputy Commissioner Technology Support Program National Center for Education Statistics 555 New Jersey Avenue NW Washington, DC 20208–5651 Telephone number: (202) 219–1364 E-mail address: gerald malitz@ed.gov

#### **Annual Meetings–Conferences**

The NCES Data Conference, held in Washington, DC, each year at the end of July, includes presentations and workshops on current NCES surveys and national issues related to education statistics. New products, such as data sets on CD-ROM or electronic handbooks, are demonstrated, and hands-on training in their use is often available. This conference issues an open call for proposals, and thus reflects a wide range of topics and presenters. There is no registration fee and the Data Conference is open to the public. The NCES Web site (http://nces.ed.gov) gives full information about registration.

Each year NCES co-sponsors a Management Information Systems (MIS) Conference with a host state. The purpose of this 3-day meeting, usually held in late February, is to encourage those who work with education MIS systems to share their innovations, developmental efforts, and issues with one another. A demonstration room is available to exhibit MIS software and programs in the public domain. Florida, California, Louisiana, and Texas have hosted past MIS conferences. The call for papers is issued in October or November of each year and, along with the conference announcement, it is posted on the NCES Web site.

For further information regarding the National Cooperative Education Statistics System's annual meetings and conferences, contact:

Ghedam Bairu Elementary/Secondary and Libraries Studies Division Elementary/Secondary Co-Operative System and Institutional Studies Program National Center for Education Statistics 555 New Jersey Avenue NW Washington, DC 20208–5651 Telephone number: (202) 219–1649 E-mail address: ghedam bairu@ed.gov

#### **Cooperative System Fellows Program**

As part of its ongoing effort to increase cooperation among federal, state, and local education data collectors, and to improve the overall quality and timeliness of education statistics, NCES initiated the Cooperative System Fellows Program in 1990. Twice each year, Fellows are nominated by local, state, higher education, and library agencies across the country and convene in Washington, DC, for 1 week. The purpose is to provide the participants with an overview of NCES' many activities and to foster professional ties between education professionals and members of the federal statistical community.

During their stay, the Fellows take part in a series of planned activities including presentations by NCES staff on its major data collections, reports, and dissemination practices; projects to automate state and local data systems; and efforts to integrate existing data collections. In addition, Fellows explore their own professional interests and objectives. During the week, mentors selected from NCES' staff work with the Fellows and lead discussions on various topics, answer questions, and offer guidance and advice. An effort is made to help the Fellows achieve their individual program objectives. The Fellows Program is held in May and November of each year and includes approximately 30 Fellows at each session. There is no charge and NCES reimburses participants' expenses.

The Cooperative System Fellows Program can be found on the Internet (http://nces.ed.gov/surveys/sddb/fellow.htm). For further information on all of the Cooperative activities, contact:

Summer King Elementary/Secondary and Libraries Studies Division Elementary/Secondary Co-Operative System and Institutional Studies Program National Center for Education Statistics 555 New Jersey Avenue NW Washington, DC 20208–5651 Telephone number: (202) 219–1368 E-mail address: summer\_king@ed.gov

## **Plans for Elementary and Secondary Education**

The core surveys of the NCES elementary and secondary program are: the Common Core of Data (CCD), the Schools and Staffing Survey (SASS), the National Household Education Survey (NHES), and the Private School Universe Survey. Some topical supplements may be attached to these continuing surveys so that current data on key issues can be produced. The Fast Response Survey System (FRSS) collects additional topical data for policymakers within a short time frame.

Beginning with the 1998–99 school year, the CCD began collecting an expanded set of information intended to greatly enhance the surveys' usefulness as a sampling frame and provide baseline statistics on several programs of interest. States will be asked to identify charter and magnet schools, schools that participate in Title I programs, and the numbers of students receiving special services for migrant children, or those who have limited English proficiency. This additional information, coupled with the CCD's current content and unique identifiers for every public school and agency, will make it possible to explore ways of merging information from different surveys, and to reduce the chances that the same information will be requested on more than one federal survey.

NCES is also currently analyzing CCD data to determine whether it is possible to convert dropout reports that do not follow NCES conventions into the standard CCD format. If this can be

done, beginning with the 1998–99 school year, the CCD will be able to produce both dropout and high school graduation rates for at least 30 states.

On or around the year 2000, the CCD finance surveys expect to incorporate changes in response to the revised Government Accounting Standards Board (GASB) standards. The final shape of these standards is not yet known.

SASS has been redesigned for its next administration in 1999–2000. The sample design and data collection methodology will remain the same, but a new conceptual framework will shift the focus of SASS from teacher supply and demand to measurement of teacher and school capacity (the objectives of recent school reform agendas). Teacher capacity is defined by measures of teacher quality, teacher career paths (including induction experience), professional development, and classroom instructional practices. School capacity is defined by measures of school organization and decisionmaking, curriculum and instruction, parental involvement, school safety and discipline, and school resources. Although the framework requires new item modules, important items from past surveys will be retained for trend data. The Teacher Followup Survey will continue to be implemented 1 year after the SASS.

The NHES has become a source of many key indicators of the educational status of children and adults. For the most part, the NHES:99 is a composite collection of previously administered education indicators. It will provide the second, third, fourth, or fifth point on a trend line. In the NHES:99, breadth of coverage in topics and populations will necessitate less depth of coverage. However, the questionnaire will cover indicators from previous NHES components, such as Early Childhood Program Participation, including after school program participation-activities, School Readiness, School Safety and Discipline, Parent and Family Involvement in Education, and Civic Involvement. The NHES:99 is being conducted in the winter-spring of 1999.

The NHES:01 and 03 are currently being planned. Topics for NHES:01 are likely to include Early Childhood Program Participation, and After School Program Participation/Activities. Topics for NHES:03 are likely to include School Readiness and Parent Involvement in Education.

NCES will continue to support the collection of educational enrollment and attainment on an annual basis in the October Supplement to the Current Population Survey. The additional topical component regarding select education characteristics, grade repetition—language and English proficiency—disability will be collected every 4 years. The computer-use component will also be conducted every 4 years.

The School Survey on Crime and Safety (SSOCS) is a new survey sponsored by NCES that will collect information from school principals on crime and safety in U.S. elementary and secondary schools. SSOCS will first be administered in the spring of 2000. However, in many ways it will replicate the Principal/School Disciplinarian survey on School Violence conducted by NCES in 1997. Thus, some information on changes over time will be available even in 2000. After that initial survey, NCES plans to conduct SSOCS every 2 years to provide continued updates on crime and safety in U.S. schools.

NCES is working on the Decennial Census School District 2000 Project. The project will use data from the 2000 census, 1999–2000 Common Core of Data, and the 2000 School District Financial Survey–F33. The project's product will provide substantial social-economic demographic data on individual public school district to data users, researchers, and policymakers.

The FRSS will continue to identify and report on issues of current interest. Studies being prepared now include Summer Programs for Migrant Students: 1998; Adult Services Provided by Public Libraries: 1998; and Teacher Survey on Professional Development: 1998. As part of the FRSS, NCES will collect data every 2 years beginning in 1998 to provide information for the Secretary of Education's biennial reports on Teacher Quality, which are intended to monitor progress toward the goal of having dedicated and outstanding teachers in every classroom.

The National Cooperative Education Statistics System will continue to serve as the vehicle for improving the elementary-secondary data system across the nation. Under the Forum on Education Statistics, it will sponsor projects in individual states to adopt common data standards and definitions, and to develop more efficient ways of collecting and reporting data electronically. Federal-State Forum task forces will complete data standards or guidelines in the areas of reporting data about school facilities, protecting the privacy of education staff records, sharing data among different agencies, and identifying key data elements in the area of school finance that are needed to produce comparable and useful education indicators. Future Education Finance Statistics Center activities will revolve around development challenges in education finance, with the goal of increasing theoretical knowledge, analytic capacity, data collection frequency and methodology, and financial reporting.

# Data Collection Calendar for Elementary and Secondary Education

Surveys				Year c	of Data	a Col	lectio	on								
	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
Common Core of Data																
Public School Universe	X	X	x	x	x	x	x	x	x	x	x	x	x	X	X	x
Local Education Agency Universe	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
State Aggregate Non-Fiscal Report	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
National Public Education Finance Survey	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
F33 Survey of Local Governments (School District- Finance)	X	x	x	X	x	x	X	x	x	x	x	x	x	x	x	x
Early Estimates	х	x	х	x	х	x	x	х	x	х	х	х	х	х	х	х
Schools and Staffing Survey																
Teacher Demand And Shortage Questionnaire (District	v	v														
Questionnaire)	X	х														
School Administrator Questionnaire	x			x					x							
Teacher Questionnaire	x			x					x							
School Questionnaire	x			x										x		

## Data Collection Calendar for Elementary and Secondary Education (Continued)

Surveys

## Year of Data Collection

	1990	1991	1992	1993	1994	1995	1996	1999	2000	2001	2003	2005
Library-Media Center Question- Naire Teacher Followup Survey		X			X	X				x	x	X
National Household Education Survey												
Early Childhood Education/ Early Childhood Program Participation		X					X		X		X	X
After School Program Participation/ Activities								X		X		Х
School Readiness				х						x		x
School Safety and Discipline				x						x		
Parent and Family Involvement in Education								x	x			x
Youth Civic Involvement								x	x			

## Data Collection Calendar for Elementary and Secondary Education (Continued)

## Year of Data Collection

Surveys

	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
Household Library Use							x							
Private School Survey		X		X		X		x		x		x		x
Current Population Survey (October Supplement)	x	x	x	x	x	x	x	x	x	x	x	x	x	x
Computer Use	X			Х				Х				Х		
Private School Tuition		х			x			x		x				x
Selected Education Characteristics: Grade Recitation/ Language/English Proficiency/ Disability			x			x				x				x
Summer Activities								X						
School Crime Supplement to the National Crime Victimization Survey						x				x			x	x
						X				X			*	×

# **Postsecondary and Adult Education**

Social, demographic, educational, and economic issues challenge postsecondary education today. Among the most critical are questions regarding access to postsecondary education for various populations; the effects of shifting enrollment patterns; the cost of postsecondary education; student financing of postsecondary education; education outcomes; the long-range financial outlook for colleges and universities; demand for and supply of qualified faculty and staff; and job opportunities for graduates.

The National Center for Education Statistics (NCES) program in postsecondary education provides statistical information used by planners, policymakers, and educators in addressing these issues. One major source of this information is the Integrated Postsecondary Education Data System (IPEDS), an annual series of surveys conducted by NCES that provides a variety of data on the nation's 10,600 public and private postsecondary institutions. Special studies of student financial aid, postsecondary faculty, and doctoral degree recipients complement IPEDS, as do surveys of the participation of the adult population in educational activities through the National Household Education Survey. In addition, postsecondary education transcript studies have been conducted in conjunction with the National Longitudinal Study of 1972, the High School and Beyond Study, the Beginning Postsecondary Students Longitudinal Study (see the "National Longitudinal Studies" in chapter 5), and the Recent College Graduates Study. Another postsecondary longitudinal survey system, Baccalaureate and Beyond, is collecting institutional and student data from postsecondary students over a period of several years (see "National Longitudinal Studies," chapter 6). The National Study of Postsecondary Faculty gathers data on postsecondary faculty.

## **Data Uses**

The NCES postsecondary education data systems provide information such as trends in enrollment and degree completion; patterns of expenditures and revenues of institutions; patterns of student financial aid; workload of faculty; and the relationship between educational experience and labor market outcomes. These data are used to describe the condition of postsecondary education and to monitor changes. Federal program staff have used IPEDS and student aid survey data to address policy issues on financial aid programs. Policymakers at the state and institutional level have used IPEDS data for planning purposes. Government commissions have used these data to monitor compliance with federal legislation.

Thousands of requests for information, based on the IPEDS and other postsecondary programs, are received by NCES each year. Those requesting data fall roughly into seven categories:

- Federal agencies;
- State agencies;
- National and regional education associations;
- Individual institutions;
- The media;
- The business community; and
- The general public.

Members of the executive branch, Congress or congressional committees, and a number of independent federal agencies use information from NCES on a regular basis. For example, an office of the legislative branch used IPEDS information to develop a profile of proprietary, less-than-2-year institutions. Several executive branch offices use the information to track baccalaureate and higher degree data by selected fields of study and minority status of degree recipients. An independent federal agency uses the information to track degree completions in engineering and scientific fields of study.

State higher education agencies regularly use the data to help determine salary and fringe benefit packages for their full-time instructional staff. Other state agencies use the completions and institutional data on an annual basis to evaluate the availability of specific career training programs. Several state agencies have used the residence and migration data to determine where their high school graduates enroll in postsecondary education institutions.

National and regional education associations annually request tabulations to determine enrollment patterns by racial-ethnic categories and fields of study, and finance data to review the economic health of postsecondary education institutions. Individual institutions use similar information at an institutional level for peer analyses and institutional planning purposes. These peer analyses range from comparing selected financial ratios to comparing proportions of minority student enrollments.

The media, business community, and the general public use the information in a variety of ways. For example, one newspaper used the data to develop a major article that compares public 4-year institutions across selected states. Members of the business community have used degree completion data to target minority recruitment efforts in selected fields of study. The general public regularly requests information on which institutions offer degrees in specific fields of study.

# **Studies**

## **Integrated Postsecondary Education Data System**

The Integrated Postsecondary Education Data System (IPEDS), established as the core postsecondary education data collection program for NCES, is a system of surveys designed to collect data from all primary providers of postsecondary education. IPEDS is a single, comprehensive system designed to encompass all institutions and educational organizations whose primary purpose is to provide postsecondary education. The IPEDS system is built around a series of interrelated surveys to collect institution-level data in such areas as enrollments, program completions, faculty, staff, finances, and academic libraries.

### DESIGN

Within IPEDS, postsecondary education is defined as "the provision of a formal instructional program whose curriculum is designed primarily for students who are beyond the compulsory age for high school. This includes programs whose purpose is academic, vocational, and continuing professional education, and excludes adult basic education programs."

Organizations that provide instructional programs as described in the definition above are considered institutions within the IPEDS universe if their primary purpose is the provision of postsecondary education. The size of the institution, diversity of program offerings, levels of awards, degree or certification curricula, type of accreditation, or other distinguishing criteria are considered characteristics of particular institutions. These criteria are not used to determine which institutions are included in or excluded from the IPEDS universe.

This universe of postsecondary education institutions is divided into three categories based on the highest degree awarded or the length of the longest program:

- Baccalaureate or higher degree institutions;
- Two-year award institutions (that is, institutions must have at least a 2-year program but less than a 4-year program); and
- Less-than-2-year institutions.

Each of these three categories is further disaggregated by type of financial control: public, private nonprofit, and private for profit. The resulting nine institutional categories are called "sectors" within the IPEDS universe and are used, in conjunction with accreditation status, to determine which data collection forms institutions complete.

Despite the diversity of institutions across these sectors, since institutions are the primary unit for data collection, institutional units must be defined as consistently as possible. IPEDS does not request separate reports from more than one component within an individual institution. However, separate branch campuses are asked to report as individual units, thus each institution in a multiinstitutional system and each separate branch in a multicampus system reports separately. IPEDS defines a branch institution as "a campus or site that is not temporary, is located in a community beyond a reasonable commuting distance from its parent institution, and offers organized programs of study, not just courses." This last criterion is the most important. It means that at least one degree or award program can be completed entirely at the site, without requiring any attendance at the main campus, or any other institution within the system.

The IPEDS universe of postsecondary institutions includes only those institutions that are open to the general public. Therefore, training sites at prisons, military bases, and corporations, are not considered as separate institutions or branches in IPEDS, regardless of how the institutional system classifies such training sites. Data on enrollment, finance, completions, and from such locations or training sites, are to be incorporated into the data reported by the main campus or any other institution or branch campus in the system that is most appropriate.

With respect to postsecondary education provided in conjunction with hospitals, the intent of IPEDS is to include only those hospitals that contain one or more separate entities whose primary purpose is the provision of postsecondary education. A school of nursing or a school of radiology are two examples of such entities. Hospitals offering only internships or residency programs are not to be included, nor are hospitals that only offer training as part of a medical school program. Training conducted as part of a medical school program should be included in the reports of the postsecondary institution offering the medical program. Hospitals operating more than one school are treated as a single postsecondary entity. This is consistent with the practice for all other postsecondary institutions, where NCES only requests reports for the institution as a whole, not separate reports for each program within the institution.

Since the definition of postsecondary education excludes noncredit continuing education programs and education units, organizational entities that provide only these educational services are not included as institutions. Schools whose only mission is to prepare students to take a particular test, such as the CPA examination or the Bar examination, are not included in IPEDS. These programs are not considered academic, vocational, or continuing professional. Organizations that offer training at many sites (such as H&R Block) may be consolidated into a single institutional unit when deemed appropriate by NCES. High schools with vocational programs are also excluded from IPEDS because their primary purpose is not postsecondary education.

#### DATA COLLECTION PRINCIPLES

The collection of IPEDS data from this diverse universe of institutions is based upon several principles. First, data elements identify characteristics common to all providers of postsecondary education. Within these data elements, specific values define characteristics of different types of providers of postsecondary education. As mentioned in the "Design" section, although accreditation is not a requirement for inclusion in IPEDS, it is a data element that distinguishes specific institutions in IPEDS.

Second, the data elements and the component surveys in IPEDS, through which they are collected, are interrelated to avoid duplicative reporting and enhance the analytic potential of the database. For example, enrollment data from one survey may be used in conjunction with data on degrees granted, faculty, or financial resources from other surveys. To deal with the problems of data comparability involved in interstate and interinstitutional comparisons, IPEDS includes questions that help to clarify what is or is not included in a reported count or total.

Third, the surveys are compatible, but are adapted to meet the needs and characteristics of the different sectors of postsecondary education providers. In general, the survey questionnaires for postsecondary institutions granting baccalaureate and higher degrees are the most extensive. Forms for the other sectors request less data. This feature accommodates the varied operating characteristics, program offerings, and reporting capabilities of postsecondary institutions, while yielding comparable statistics for all institutions.

Prior to 1993, NCES sampled the private, less-than-2-year sectors. However, the Higher Education Act of 1992 mandated the completion of IPEDS surveys in a timely and accurate manner for all institutions that participate, or are applicants for participation, in any federal student financial assistance program authorized by Title IV of the Higher Education Act of 1965, as mandated (20 U.S.C. 1094(a)(17). Thus, beginning in the 1993 survey year, NCES began to survey in detail all postsecondary institutions that met this mandate. Those that are not eligible to participate in federal student financial aid programs currently receive only a basic Institutional Characteristics form.

Between 1993 and 1996, NCES began to examine the universe of accredited institutions in order to form a crosswalk between the IPEDS data files and those maintained by the Office of Postsecondary Education (OPE) for student financial aid purposes. During this period, OPE discontinued their policy of differentiating institutions by level of accreditation (i.e., those accredited at the higher education level (formerly the Higher Education General Information Survey (HEGIS) universe) and those with occupational-vocational accreditation). Since IPEDS was no longer able to identify the HEGIS institutions, a new approach was developed to categorize institutions for mailout and analysis purposes. Thus, beginning with the 1997 mailout, the IPEDS universe is subdivided based on accreditation, level of institution, and degree-granting status.

First, IPEDS identifies and separates institutions according to accreditation status. Accredited institutions, those with Program Participation Agreements (PPAs) that are eligible for federal student financial aid, will be surveyed in detail. Institutions that are not accredited, and thus not eligible for federal student financial aid, will only receive the Institutional Characteristics survey (IC4 or IC4A).

Second, institutions are divided into groups by degree-granting status and level of award: (1) all institutions that grant a baccalaureate (bachelor's degree) or higher award, including postbaccalaureate certificates, receive a full packet of surveys; (2) institutions granting the associate's degrees as the highest award also receive a full package; and (3) all other institutions (those granting only certificates at the subbaccalaureate level) receive a partial packet of surveys.

The full packet (groups one and two) includes:

- Institutional Characteristics (IC);
- Fall Enrollment, including age and residence data;
- Fall Enrollment in Occupationally Specific Programs;
- Completions;
- Graduation Rate Survey (GRS);
- Finance;
- Salaries of Full-Time Instructional Faculty (SA);
- Fall Staff; and
- Academic Libraries.

The certificate-granting schools in group three are required to complete the IC survey, the GRS, and the CN which is made up of four or five parts (depending on the year in which the data are collected) that request minimal data on enrollment, completions, finance, and either staff or library information.

As mentioned earlier, institutions without PPA's with the U.S. Department of Education (and are thus not participating in federal student financial aid under Title IV) are asked to complete the IC survey only.

IPEDS attempts to minimize institutional respondent burden by coordinating data collection with the state education agencies and other federal offices and agencies that regularly collect data from institutions. These coordinating efforts include:

**State Agencies**—In many states, IPEDS institutional data are provided by the state higher education agency from data collected on state surveys. Alternatively, state agencies may extract data from IPEDS surveys rather than conduct their own surveys.

**Office for Civil Rights (OCR)**—Racial-ethnic degree and enrollment compliance data are incorporated into IPEDS surveys and are provided annually to OCR.<sup>1</sup>

**Equal Employment Opportunity Commission (EEOC)**—In 1993, NCES began collecting fall staff data for EEOC in much the same way that data are collected for OCR.<sup>2</sup>

**Office of Vocational and Adult Education**—The Occupationally Specific Enrollment survey was incorporated into IPEDS in response to the Carl D. Perkins Vocational Education Act. IPEDS is also part of the Vocational Education Plan for Postsecondary Education (P.L. 98–524).

<sup>&</sup>lt;sup>1</sup>The Office for Civil Rights is required to monitor compliance with the U.S. Department of Education's regulations implementing Title VI of the Civil Rights Act of 1964 (34 CFR 100.13), or defined in any ED regulations implementing Title IX of the Education Amendments of 1972. In addition, the collection of racial-ethnic data in vocational programs is mandated by Section 421(a)(1) of the Carl D. Perkins Vocational Education Act. The reporting of these mandated data are incorporated into IPEDS.

<sup>&</sup>lt;sup>2</sup>The collection of fall staff data from institutions with 15 or more full-time staff are mandated by P.L. 88-352, Title VII of the Civil Rights Act of 1964, as amended by the Equal Employment Opportunity Act of 1972 (29 CFR 1602, subparts O, P, and Q).

**State Occupational Coordinating Committees and Career Information Systems**—IPEDS Institutional Characteristics survey incorporates many data elements required by state Career Information Delivery Systems thereby reducing or eliminating the need for these organizations to conduct their own surveys.

### COMPONENTS

**Institutional Characteristics**—Address, county, telephone number, room and board charges, tuition, required fees, control or affiliation, calendar system, levels of awards offered, types of programs, and accreditation. In addition, the IC survey collects the instructional activity and unduplicated headcount data, needed to compute a standardized full-time equivalent (FTE) enrollment statistic for the entire academic year. FTE is useful for gauging the size of the educational enterprise at the institution.

**Fall Enrollment**—Full- and part-time enrollment by level (undergraduate first-professional and graduate); and by race-ethnicity and sex of student. Beginning in 1990, racial-ethnic data were collected annually. (Prior to 1990 racial-ethnic data were collected in even-numbered years.) Age distributions are collected in odd-numbered years by student level; data on state of residence of first-time freshmen (first-time first-year students) are collected in even-numbered years. Four-year institutions are also required to complete enrollment data by level, race-ethnicity, and sex for nine selected fields of study in even-numbered years for the OCR. Additional questions are asked of students enrolled in branch campuses in foreign countries, those enrolled exclusively in remedial courses, and those exclusively at extension divisions.

**Fall Enrollment in Occupationally Specific Programs**—Data on numbers of students enrolled in occupational–specific programs at the subbaccalaureate level, by race-ethnicity and sex of student, and by 6-digit Classification of Instructional Programs (CIP) code. Total unduplicated count of students enrolled in these programs (new in 1995) is also requested.

**Completions**—Degree completions by level (associate's, bachelor's, master's, doctor's, and first-professional) and other formal awards by length of program, by race-ethnicity and sex of recipient, and by 6-digit CIP code. Completion data by race-ethnicity at the 2-digit CIP level became an annual collection in 1990. Beginning in 1995, race-ethnicity is collected at the 6-digit CIP level. Additional questions about numbers of completers with double majors and numbers of degrees granted at branch campuses in foreign countries added in 1995.

**Graduation Rates Survey**—Numbers of students entering the institution as full-time, first-time, degree, or certificate-seeking in a particular year (cohort), by race-ethnicity and sex; length of time to complete; number still persisting; number transferred to other institutions; number of students receiving athletically-related student aid in the cohort, and their time to completion. Worksheets are provided to calculate rates, including average rates over 4 years. This survey was developed to help institutions comply with requirements of Student Right-to-Know.

**Fall Staff**—Number of full-time faculty by race-ethnicity, sex, contract length, and salary class intervals; number of other persons employed full time by race-ethnicity, primary occupational activity, and salary class intervals; part-time employees by primary occupational activity, race-ethnicity and sex; tenure of full-time faculty by academic rank and new hires by primary occupational activity, both by race-ethnicity, and sex. Number of persons contributing services or

contracted for by the institution. Beginning with the 1993 survey year, Fall Staff replaced the EOC-6 survey conducted by the Equal Employment Opportunity Commission.

**Salaries, Tenure, and Fringe Benefits of Full-Time Instructional Faculty**—Number of full-time instructional faculty by rank, sex, tenure status, and length of contract; total salary outlay; and fringe benefits and number of full-time instructional faculty covered by these benefits. This survey became annual in 1990.

**Financial Statistics**—Current fund revenues by source (e.g., tuition and fees, government, and private gifts); current fund expenditures by function (e.g., instruction, research, plant maintenance, and operation), physical plant assets and indebtedness, and endowment investments.

Academic Libraries—Number of libraries and branches; library staff in FTE's; library operating expenditures by category, including salaries and fringe benefits; book and media collections; library services (by fiscal year and in a typical week); and electronic services.

**Consolidated Form**—Enrollment and program completions by race-ethnicity and sex, finance data, and either fall staff or libraries.

Collected from all institutions eligible for Title IV programs that do not complete the full package of IPEDS surveys described above.

### MAJOR PUBLICATIONS

Minority Undergraduate Participation in Postsecondary Education (June 1995)
Basic Student Charges at Postsecondary Institutions: Academic Year 1994–95 (November 1995)
Historically Black Colleges and Universities, 1976–1994 (September 1996)
1997 Directory of Postsecondary Institutions: Volume I: Degree-Granting Institutions (March 1998)
Current Funds Revenues and Expenditures of Institutions of Higher Education FY 1987 through FY 1995 (July 1997)
Fall Staff in Postsecondary Institutions, 1995 (February 1998)
Residence and Migration of First-Time Freshmen Enrolled in Degree-Granting Institutions: Fall 1996 (March 1998)
Directory of Postsecondary Institutions: Volume II: Non Degree-Granting Institutions (March 1998)
Degrees and Other Awards Conferred by Degree-Granting Institutions: 1995–96 (September 1998)
American Indians and Alaska Natives in Postsecondary Education (November 1998)

CD-ROM: Integrated Postsecondary Data System, 1992 (September 1995)

CD-ROM: Integrated Postsecondary Education System, 1993 (July 1996)

CD-ROM: Integrated Postsecondary Education Data System, 1994 (January 1997)

CD-ROM: Integrated Postsecondary Education Data System 1995 (January 1997)

IPEDS can be found on the Internet (http://nces.ed.gov/ipeds/index.html). For further information on IPEDS, contact:

Susan Broyles Postsecondary Studies Division Institutional Surveys Program National Center for Education Statistics 555 New Jersey Avenue NW Washington, DC 20208–5652 Telephone number: (202) 219–1359 E-mail address: susan\_broyles@ed.gov

## **National Household Education Survey (Adult Component)**

The National Household Education Survey (NHES) is the first general purpose survey conducted by NCES to collect education data through a household-based survey As a household-based survey, the NHES has the potential to address many issues in education that have not been addressed previously by NCES data collection activities. Full-scale NHES collections have been conducted in the springs of 1991, 1993, 1995, and 1996. Topical components covered in these collections have been: Early Childhood Education Program Participation (NHES:91 and NHES:95), Adult Education (NHES:91 and NHES:95), School Readiness (NHES:93), School Safety and Discipline (NHES:93), Parent and Family Involvement in Education (NHES:96), Civic Involvement (NHES:96), and Household and Public Library Use (NHES:96). The NHES will be conducted again in the spring of 1999 and on a biennial basis thereafter.

The NHES provides data on a wide range of current education issues. The issues vary by component and are provided in the "components" description, below.

#### DESIGN

The NHES is designed as a mechanism for collecting detailed information on educational issues from a relatively large and targeted sample of households in a timely fashion. Households are selected using random-digit-dialing methods, and data are collected using computer-assisted telephone interviewing procedures. The sample for the NHES is drawn from the civilian population in households with a telephone in the 50 states and the District of Columbia.

In each previous NHES, between 44,000 and 64,000 households were screened. Individuals with households who met predetermined criteria were sampled for more detailed or extended interviews. The data are weighted to permit estimates of the entire population. The NHES survey for a given year typically consists of a screener questionnaire which collects household composition and demographic data, and extended interviews on two substantive components addressing education-related topics. Generally, between 10,000 and 15,000 interviews have been obtained for each substantive component.

One of the goals of the NHES is to produce reliable estimates of the characteristics of children and adult educational experiences for the total targeted populations and for domains defined by race-ethnicity. Estimates by race and ethnicity are of great interest—especially for monitoring education trends over time. Therefore, the NHES sample design samples minorities at a higher rate in order to increase the reliability of estimates for these groups.

A design feature implemented in the NHES:96 is the collection of demographic and educational information on members of all households, rather than just those households potentially eligible for a topical component. In addition, this expanded screening feature includes a brief set of

questions on household use of public libraries. The total household sample size is large enough to produce state estimates for these brief topical questions.

Throughout its history, the NHES has collected data in ways that permit estimates to be tracked across time. This includes repeating topical components on a rotating basis in order to provide comparative data across survey years. In addition, each administration of the NHES has benefited from experiences with previous cycles, resulting in enhancements to survey procedures and content. Thus, while the survey affords the opportunity for tracking phenomenon across time, it is dynamic in addressing new issues and including conceptual and methodological refinements.

During the spring of 1991, NCES fielded an NHES on Early Childhood Education and Adult Education. Approximately 60,000 households were screened to identify a sample of about 14,000 children, 3 years to 8 years old. The parents of these children were interviewed (see the "National Households Education Survey" description in chapter 3). At the same time, about 12,500 civilian adult household members were sampled and questioned about their participation in adult education.

The components addressed in the spring of 1995, Early Childhood Program Participation and Adult Education, were similar to those addressed in 1991. Altogether, about 44,000 households were screened. In the Early Childhood Program Participation component, about 14,000 parents of children from birth through third grade were interviewed (see chapter 3). For the Adult Education component, about 19,500 civilian adults were interviewed.

### **COMPONENTS**

Adult Education Components (NHES:91 and NHES:95)—Participation in adult education activities in the previous 12 months and characteristics for participants; main reasons for participation; the subject matter, duration, sponsorship, purpose, and cost of course; and barriers to participation of sampled nonparticipants.

**Early Childhood Education/Early Childhood Program Participation Component** (NHES:91 and NHES:95)—Participation in nonparental care/education; characteristics of programs and care arrangements; early school experiences, including delayed kindergarten entry and retention in grade; home activities with family members; and child, family, and household characteristics. For school-age children, these components also include items concerning participation in after school programs and activities. In the future, these items for school age children will be described as a separate component.

**School Readiness Component** (NHES:93)—Accomplishments and difficulties of preschoolers in several developmental domains; school adjustment and teacher feedback to parents of kindergartners and primary students; participation in center-based programs; early school experiences, including delayed kindergarten entry and retention in grade; home activities with family members; general health and nutritional status; and child, family, and household characteristics.

School Safety and Discipline Component (NHES:93)—Perceptions of the school learning environment; victimization; safety at school; school discipline policy; availability of alcohol and other drugs at school; peer and family norms concerning alcohol and drug use; alcohol/drug education; and child, family, household, and school characteristics.

**Parent and Family Involvement in Education Component (NHES:96)**—Family involvement with the school, homework, and the child outside of school; homeschooling; communication with teachers and other school personnel; perceptions of the school learning environment; school practices to involve families; involvement of nonresidential parents; and child, family, household, and school characteristics.

Adult Civic Involvement Component (NHES:96)—Reading materials in the home; sources of information on politics and national issues; participation in community and civic activities; political attitudes; knowledge of government; and opinions about improving public education.

**Youth Civic Involvement Component (NHES:96)**—Family involvement in education; perception of school learning environment; participation in activities that indicate personal responsibility and promote civic involvement; participation in and school support of community and civic activities; sources of information on politics and national issues; reading materials in the home; political attitudes; knowledge of government; and participation in courses related to government or politics.

**Household and Library Component (NHES:96)**—Distance to the closest public library; household use of a public library in the past month and past year; ways in which public library was used in the past month; purposes for which public library was used in the past month; and detailed household characteristics.

### MAJOR PUBLICATIONS

Forty Percent of Adults Participate in Adult Education Activities: 1994–95 (November 1995)
Adult Civic Involvement in the United States (February 1997)
Participation of Adults in Basic Skills Courses (March 1997)
Use of Public Library Services by Households in the United States: 1995–96 (March 1997)
E.D. TABS: Adult Civic Involvement in the United States: NHES 96 (March 1997)
Use of Public Library Services by Households in the U.S.: 1995–96 (March 1997)
Participation of Adults in English as a Second Language Classes (May 1997)
An Experiment in Random-Digit Dial Screening (December 1997)

## DATA FILES

User's Manual: NHES 96, Volume 2: Household and Library Data File (September 1997) User's Manual: NHES 96, Volume 5: Adult Civic Involvement (ACI) Data File (November 1997)

NHES can be found on the Internet (http://nces.ed.gov/nhes). For further information on NHES, contact:

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Chris Chapman Early Childhood, International, and Crosscutting Studies Division Interagency and Household Studies Program National Center for Education Statistics 555 New Jersey Avenue NW Washington, DC 20208–5651 Telephone number: (202) 219–4182 E-mail address: chris chapman@ed.gov

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## National Postsecondary Student Aid Study

The National Postsecondary Student Aid Study (NPSAS) is a comprehensive nationwide study of students enrolled in less-than-2-year institutions, community colleges, 4-year colleges, and major universities located in the United States and Puerto Rico. Undergraduate, graduate, and first-professional students who receive financial aid, as well as those who do not receive aid, participate in NPSAS.

The NPSAS collects information on student demographics, family income, education expenses, employment, education aspirations, parental demographic characteristics, parental support, and how students and their families meet the costs of postsecondary education. In addition to describing characteristics of students enrolled in postsecondary education, the results are used in part to help determine future federal policy regarding student financial aid.

The first NPSAS was conducted during the 1986–87 school year. Data were gathered from institutional records on about 60,000 students at 1,100 colleges, universities, and other postsecondary institutions. About 43,000 of these students and 13,000 parents also completed questionnaires.

During 1989–90, information from institutional records on about 69,000 students at 1,130 postsecondary institutions was collected. About 51,400 students and 16,000 parents also completed computer-assisted telephone interviews.

During 1992–93, information from institutional records on about 77,000 students at 1,000 postsecondary institutions was collected. About 52,000 students and 12,500 parents were interviewed by telephone.

The 1995–96 NPSAS has a smaller sample due to budget constraints. Institutional administrative records data were collected on about 60,000 students at 830 institutions. About 31,000 students were interviewed by telephone.

These data provided information on the cost of postsecondary education, the distribution of financial aid, and the characteristics of both aided and nonaided students and their families.

Following each survey, NCES publishes three major reports: Undergraduate Financing of Postsecondary Education; Student Financing of Graduate and Professional Education; and Profile of Undergraduates in American Postsecondary Institutions. The next NPSAS is scheduled for 1999–2000.

### DESIGN

With the increased use of technology, the design for the NPSAS sample has changed over the years. The 1995–96 design no longer involves an initial sample of geographic areas, and institutions within geographic areas. To be eligible for inclusion in the institutional sample, an institution must satisfy the following conditions:

- Offer an education program designed for persons who have complete secondary education;
- Offer an academic, occupational, or a vocational program;
- Offer access to persons other than those employed by the institution;
- Offer more than just correspondence courses;
- Offer at least one program lasting 3 months or longer; and
- Be located in the 50 states, the District of Columbia, or Puerto Rico.

Additional information on the sample design for each NPSAS is described in the *Methodology Report* for each cycle.

NPSAS data come from multiple sources, including institutional records and student and parent interviews. Detailed data concerning participation in student financial aid programs are extracted from the Department of Education's financial aid application system, the National Student Loan Data System, and institutional records. In 1986–87, family circumstances, demographic data, and plans and aspirations were collected using student and parent questionnaires. Beginning with the 1989–90 NPSAS, student and parent data were collected using a computer-assisted telephone interview.

The 1986–87 NPSAS sampled students enrolled in the fall of 1986. Beginning with the 1989–90 NPSAS, students enrolled at any time during the year were eligible for the study. This design change provided the data necessary to estimate full-year financial aid awards.

Beginning with the 1989–90 survey, NPSAS includes a longitudinal component and collects baseline data for a specified cohort of students. Students who began their postsecondary education during 1989–90 were interviewed in 1992, and again in 1994, to examine such issues as persistence and effects of financial aid on subsequent enrollment. Students who graduated with a baccalaureate degree during 1992–93 were surveyed again in 1994, and again in 1997, to examine issues such as the transition from college to work and access to graduate school. Students who began in 1995–96 were followed in 1998. These longitudinal surveys, known as the Beginning Postsecondary Student Longitudinal Study and the Baccalaureate and Beyond Longitudinal Study, are described more thoroughly in chapter 6.

NPSAS covers a number of topics of interest to policymakers, educators, and researchers. For example, NPSAS analyzes the participation of students in financial aid programs. The goal is to identify institutional, student, family, and other characteristics related to program participation. Special population enrollment in postsecondary education is also analyzed. These populations include students with disabilities, racial-ethnic minorities, students taking remedial-developmental courses, students from families with low incomes, and older students. Another component of NPSAS is the study of the distribution of students by major field of study. Major fields of particular interest include mathematics, science, and engineering, as well as teacher preparation and health studies.

NPSAS generates data on factors associated with choice of postsecondary institution, participation in postsecondary vocational education, parental support for postsecondary education, and occupational and educational aspirations.

#### COMPONENTS

**Student Records (from institutional records)**—Year in school; major field of study; type and control of institution; attendance status; tuition and fees; admission tests scores; financial aid received; price of attendance; student budget information and expected family contribution for aided students; grade point average; age; and date first enrolled.

**Student Telephone Interview**—Financial aid at other schools attended during year; other sources of financial support; reasons for selecting the school they are attending; current marital status; age; race-ethnicity; sex; highest degree expected; employment and income; voting in recent elections; and community service.

**Parent Interview (limited sample of some students/parents)**—Parents' marital status; age; highest level of education achieved; income; amount of financial support provided to children; types of financing used to pay child's educational expenses; occupation; and industry.

### MAJOR PUBLICATIONS

Profile of Undergraduates in U.S. Postsecondary Education Institutions: 1989–90 (March 1993) Student Financing of Graduate and First-Professional Education (March 1993) Financing Undergraduate Education: 1990 (June 1993) Profile of Older Undergraduates: 1989–90 (May 1995) Minority Undergraduate Participation in Postsecondary Education (June 1995) Profile of Part-Time Undergraduates in Postsecondary Education: 1989–90 (July 1995) Profile of Undergraduates in U.S. Postsecondary Education Institutions: 1992–93 (October 1995) Student Financing of Graduate and First-Professional Education, 1992–93 (November 1995) Costs of Undergraduate Education Before and After Student Financial Aid (November 1995) How Low Income Undergraduates Finance Postsecondary Education: 1992–93 (May 1997) Student Financing of Graduate and First-Professional Education, 1995–96: With Profiles of Students in Selected Degree Programs (April 1996) Profile of Undergraduates in U.S. Postsecondary Education Institutions: 1995–96: With an essay on: Undergraduates Who Work (May 1998) First-Generation Students: Undergraduates Whose Parents Never Enrolled in Postsecondary *Education* (June 1998) Choosing a Postsecondary Institution (November 1998) Student Financing of Undergraduate Education: 1995–96, With an Essay on Student Loans (November 1998)

### DATA FILES

CD-ROM: NPSAS:87 and Electronic Codebook (October 1995) CD-ROM: National Postsecondary Student Aid Study: 1992–93 Data Analysis System Public Use File (December 1995) CD-ROM: NPSAS: National Postsecondary Student Aid Study: 1995–96 (July 1998) NPSAS can be found on the Internet (http://nces.ed.gov/npsas). For further information the NPSAS, contact:

Andrew G. Malizio Postsecondary Studies Division Postsecondary Longitudinal and Sample Survey Studies Program National Center for Education Statistics 555 New Jersey Avenue NW Washington, DC 20208–5652 Telephone number: (202) 219–1448 E-mail address: andrew\_malizio@ed.gov

## National Study of Postsecondary Faculty

The National Study of Postsecondary Faculty (NSOPF) was developed in response to a continuing need for data on faculty and instructors. Faculties are the resource around which the process and outcomes of postsecondary education revolve. They often determine curriculum content, student performance standards, and the quality of students' preparation for careers. Through their research, development, and public service activities faculties make valuable contributions to society. For these reasons, it is essential to understand who they are; what they do; and whether, how, and why they are changing. The NSOPF was designed to provide data about faculty to postsecondary education researchers, planners, and policymakers. NSOPF is currently the most comprehensive study of faculty in postsecondary educational institutions.

NSOPF contains data that can be applied to policy and research issues related to postsecondary faculty. For example, NSOPF can be used to analyze whether the postsecondary labor force is declining or increasing. NSOPF data can also be used to analyze faculty job satisfaction and how it correlates with an area of specialization, how background and specialization skills relate to present assignments, and the relationship of academic rank and outside employment. Benefits and compensation can also be studied across institutions, and faculty can be aggregated by sociodemographic characteristics.

#### DESIGN

The first cycle of NSOPF was conducted by NCES with support from the National Endowment for the Humanities (NEH) in 1987–88 (NSOPF–88) with a sample of 480 colleges and universities, over 3,000 department chairpersons, and over 11,000 instructional faculty.

The second cycle of NSOPF was conducted by NCES with support from NEH and the National Science Foundation in 1992–93 (NSOPF–93). NSOPF–93 was limited to surveys of institutions and faculty, but with a substantially expanded sample of 974 colleges, and universities, and 31,354 faculty and instructional staff. NSOPF–88 was limited to faculty and staff who had some instructional responsibilities (e.g., teaching one or more courses for credit, supervising thesis or dissertation committees, and individualized instruction) while NSOPF–93 included these individuals, as well as faculty who had no instructional responsibilities (e.g., those engaged exclusively in research, administration, or public service). Faculty status was determined by each institution.

A two-stage stratified random sample design was used for both studies. The first-stage sampling frame consisted of a subset of postsecondary institutions drawn from the Integration Postsecondary Education Data System universe. The subset of institutions included all nonproprietary U.S. postsecondary institutions that grant a 2 year or higher degree, and whose accreditation at the higher education level is recognized by the U.S. Department of Education. A

modified Carnegie classification was used to stratify institutions by type and control. The secondstage sampling frame consisted of a subset of faculty and instructional staff drawn from lists of faculty and instructional staff provided by the institutions selected in the first-stage sampling. This subset of faculty and instructional staff were surveyed by mail with computer-assisted telephone interviewing nonresponse followup.

Both studies gathered information regarding the backgrounds, responsibilities, workloads, salaries, benefits, attitudes, and future plans of both full- and part-time faculties. In addition, information was gathered from institutional and department-level respondents (department-level data collected in 1988 only) on such issues as faculty composition, turnover, recruitment, retention, and tenure policies.

#### COMPONENTS

**Institutional Survey (1988 and 1993)**—Counts of faculty; hires and departures; employment and tenure status; policies regarding tenure; retirement; and benefits for faculty.

**Department Chairperson Survey (NSOPF–88 only)**—Faculty composition in department; tenure status of faculty in department; faculty hires and departures in department; hiring practices; activities to assess faculty performance; and professional and developmental activities.

**Faculty Survey (1988 and 1993)**—Social-demographic characteristics; academic and professional background; field of instruction; employment history; current employment status, including rank and tenure; workload; courses taught; publications; job satisfaction and attitudes; career and retirement plans; and benefits and compensation.

#### MAJOR PUBLICATIONS

*Faculty and Instructional Staff: Who Are They and What Do They Do?* (October 1994)

- Institutional Policies and Practices Regarding Faculty in Higher Education (NSOPF-93) (November 1996)
- 1993 National Study of Postsecondary Faculty (NSOPF–93): Institutional Policies and Practices Regarding Faculty in Higher Education (December 1996)

America's Teachers: Profile of a Profession, 1993–94 (July 1997)

*Characteristics and Attitudes of Instructional Faculty and Staff in the Humanities* (October 1997) *1993 NSOPF Methodology Report* (October 1997)

Retirement and Other Departure Plans of Instructional Faculty and Staff in Higher Education Institutions (December 1997)

### DATA FILES

National Survey of Postsecondary Faculty (NSOPF) 1993 (August 1993)

1993 NSOPF Revised Restricted Faculty File (January 1997)

National Study of Postsecondary Faculty NSOPF:88/93: Public Access Data Analysis System (DAS) (March 1997)

1993 NSOPF Public Release Faculty File (February 1998)

NSOPF can be found on the Internet (http://nces.ed.gov/surveys/nsopf.html). For more information on the NSOPF, contact:

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## **Survey of Earned Doctorates Awarded in the United States**

This survey has collected basic statistics from the universe of doctoral recipients in the United States each year since the 1920s. It is supported by NCES in conjunction with the National Science Foundation, the National Endowment for the Humanities, the U.S. Department of Agriculture, and the National Institutes of Health.

From the Survey of Earned Doctorates data, it is possible to determine whether the number of doctoral recipients is increasing or decreasing, by field of study. The various sources of financial aid for doctoral students can be assessed, as can the average time it takes to complete the degree. Future or present employment can be studied, which is useful to postsecondary institutions and research facilities. Trend data on who is receiving doctorates by sex, race-ethnicity, and other characteristics can also be analyzed.

### DESIGN

Survey forms are mailed to graduate deans each May for distribution to individuals receiving their doctorates between July 1 and June 30 of the next year. The data are collected, edited, and published by the National Academy of Sciences (NAS). By the end of the summer, the NAS publishes general survey results in a summary report and in a four-page flyer. NAS also provides detailed tabulations to each sponsoring agency.

### COMPONENTS

**Survey of Earned Doctorates**—Sex; age; race-ethnicity; marital status; citizenship; disabilities; dependents; specialty field of doctorate; all institutions attended from high school to completion of doctorate; time spent in completion of doctorate; source of financial support for graduate study; education debt incurred; postdoctoral plans; and educational attainment of parents.

The Survey of Earned Doctorates can be found on the Internet http://www.nsf.gov/sbe/srs/ssed/start.htm). For more information on the Survey of Earned Doctorates, contact:

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## **Postsecondary Education Quick Information System**

Policy analysts, program planners, and decisionmakers in postsecondary education frequently need data on emerging issues quickly. It is not always feasible for NCES to use its large, recurring surveys to provide such data quickly due to the length of time required to implement large-scale data collection efforts. NCES established topics Postsecondary Education Quick Information System (PEQIS) in 1991, to collect timely data on focused issues needed for program planning and policy development with a minimum burden on respondents. Recent survey topics include distance learning, remedial education, campus crime and security, finances, and accommodation of disabled students. In addition to obtaining information on emerging issues quickly, PEQIS surveys are used to assess the feasibility of developing large-scale data collection efforts on a given topic, or to supplement other NCES postsecondary surveys.

### DESIGN

PEQIS employs a standing sample (panel) of approximately 1,500 postsecondary education institutions and a panel of 51 state higher education agencies. PEQIS is designed to conduct brief surveys of postsecondary institutions or state higher education agencies on topics of national importance. Surveys are generally limited to two or three pages of questions, with a response burden of about 30 minutes per respondent. Most PEQIS institutional surveys use a previously recruited, nationally-representative panel of institutions. The sampling frame for the PEQIS panel recruited in 1992, was constructed from the 1990–91 Integrated Postsecondary Education Data System (IPEDS) Institutional Characteristics file. The PEOIS frame developed in 1992, included 2-year and 4-year (including graduate-level) institutions (both institutions of higher education and other postsecondary institutions), and less-than-2-year institutions of higher education located in the 50 states, the District of Columbia, and Puerto Rico. The PEQIS sampling frame was stratified by instructional level (4year, 2-year, less-than-2-year), control (public, private nonprofit, and private for-profit), highest level of offering (doctor's-first professional, master's, bachelor's, and less than bachelor's), total enrollment, and status as either an institution of higher education or other postsecondary institution. Within each of the strata, institutions were sorted by region (Northeast, Southeast, Central, and West), whether the institution had a relatively high minority enrollment, and whether the institution had research expenditures exceeding \$1 million.

Each institution in the PEQIS panel was asked to identify a campus representative to serve as survey coordinator. The campus representative facilitates data collection by identifying the appropriate respondent for each survey and forwarding the questionnaire to that person.

#### MAJOR PUBLICATIONS

Deaf and Hard of Hearing Students in Postsecondary Education (March 1994)
Higher Education Finances and Services (February 1995)
Outcomes of Recent Changes in Federal Student Financial Aid (November 1995)
Programs at Higher Education Institutions for Disadvantaged Precollege Students (December 1995)
Remedial Education at Higher Education Institutions in Fall 1995 (October 1996)
Campus Crime and Security at Postsecondary Education Institutions (February 1997)
Distance Education in Higher Education Institutions (November 1997)
Issue Brief: Distance Education in Higher Education Institutions: Incidence Audience and Plans to Expand (February 1998)

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For more information on PEQIS, contact:

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## **NCES Items in the Current Population Survey**

The Current Population Survey (CPS) is a monthly household survey conducted by the Bureau of the Census to provide information about employment, unemployment, and other characteristics of the civilian noninstitutionalized population. Since the mid-1960s, NCES has funded a supplement each October. The supplement routinely gathers data on school enrollment and educational attainment for elementary, secondary, and postsecondary education. Related data are also collected about preschooling and the general adult population. In addition, NCES regularly funds additional items on education-related topics, such as language proficiency, disabilities, computer use and access, student mobility, and private school tuition.

#### DESIGN

The CPS is a nationally representative probability sample survey of households. A multistage stratified sampling scheme is used to select sample households. The survey is conducted in approximately 50,000 dwelling units monthly. Dwelling units are in-sample for 4 successive months, out-of-sample for the next 8 months, and then returned to the sample for the following 4 months. An adult member of each household provides information for all members of the household.

### COMPONENTS

**Basic CPS**—Household membership and characteristics; demographic characteristics; and labor force participation.

**October Supplement**—Basic annual school enrollment for preschool, elementary-secondary and postsecondary students; and educational background information needed to produce dropout estimates on an annual basis.

Computer Use (1984, 1989, 1993, and 1997)—Availability of computers at school, home, and work; reasons for and frequency of computer use at school, home and work; and availability of the Internet at school, home and work.

Private School Tuition (1979, 1985, 1988, 1991, 1994, and 1997)—Type of private school and amount of private school tuition.

Selected Education Characteristics (1992 and 1995)—Grade retention; language spoken at home; English proficiency; disability status; and whether ever attended school in the United States (1995 only).

**Summer Activities (1996)**—For elementary and secondary students. Enrollment in academic activities during the summer; frequency of and reasons for attendance in academic activities during the summer; employment status during the summer; participation in community service or volunteer activities during the summer; and participation in organized summer activities.

### MAJOR PUBLICATIONS

Dropout Rates in the United States: 1995 (July 1997) Dropout Rates in the United States: 1996 (December 1997)

The CPS can be found on the Internet (http://wwwl.bls.census.gov/cps/cpsmain.htm). For further information on the CPS October Supplement, contact:

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# **Other Activities**

## **National Postsecondary Education Cooperative**

The National Postsecondary Education Cooperative (NPEC) is one of three cooperatives created by the U.S. Congress and supported by NCES. Voluntary partnership of governmental and nongovernmental providers and users of education data, NPEC's mission is "To identify and communicate ongoing and emerging issues germane to postsecondary education; and to promote the quality, comparability, and utility of postsecondary data and information that support policy development, implementation, and evaluation." NPEC consists of a Council with nearly 140 members representing agencies, organizations, and associations from all sectors of the postsecondary community including public, nonprofit, and proprietary institutions; state postsecondary agencies; state and regional organizations; national postsecondary associations; and federal offices with an interest in postsecondary education. Members are nominated to the Council by state agencies and postsecondary associations. Members serve a 3-year term, with one-third of the membership rotating each year.

Project activities include an annual meeting of the Council and meetings of working groups and subcommittees of the NPEC Steering Committee. These meetings help the Council reach its goals and manage its membership and communication activities. The Steering Committee generally approves three to five new projects per year. In the first 3 years of the Council, members participated in a Delphi study to identify the future trends affecting postsecondary education, and held two invitational policy panels to discuss the data implications of definitions of access and technologymediated instruction. In addition, NPEC projects are addressing better coordination of data collection and reporting, good practices in data collection and reporting, exchanges of student unit record data, and the utility and adequacy of student outcomes measures for policymakers.

NPEC has established a Web site within the NCES site. It has produced three papers and two videos from its working group efforts. Other informational items produced include a brochure about the Cooperative, a quarterly newsletter, and a communications packet for members.

### MAJOR PUBLICATIONS

Enhancing the Quality and Use of Student Outcomes Data (September 1997)
Student Outcomes Information for Policy-Making (November 1997)
Better Decisions through Better Data (January 1998)
Unit Record Versus Aggregate Data: Perspectives on Postsecondary Education Data Collection, Retention, and Release (April 1998)
Technology and its Ramifications for Data Systems (August 1998)
Reconceptualizing Access in Postsecondary Education (August 1998)

NPEC can be found on the Internet (http://nces.ed.gov/npec). For more information about NPEC, contact:

Nancy Schantz Postsecondary Studies Division Postsecondary Co-Operative System, Analysis, and Dissemination Program National Center for Education Statistics 555 New Jersey Avenue NW Washington, DC 20208–5652 Telephone number: (202) 219–1590 E-mail address: nancy\_schantz@ed.gov

## **NCES–State Postsecondary Education Coordination Network**

This project provides coordination and communication between NCES and state education agencies to enhance and expedite NCES data collection and dissemination activities. Project activities include meetings with the Network Steering Committee and an annual national meeting and IPEDS workshop with State Higher Education Executive Officers (SHEEO) Network representatives. This network issues a quarterly bulletin containing information about NCES and state activities. It also provides an advisory service summarizing developing postsecondary education issues and related data needs. Additionally, the network maintains a library service providing information about state and federal postsecondary education data collections. There is also a personnel exchange service that provides funds for staff of state higher education agencies to meet each other and share technical assistance information regarding their data collection and dissemination efforts. The Network Director visits state higher agencies, attends postsecondary association meetings, and makes recommendations regarding new and developing issues in need of national data to inform education policymakers.

For more information on SHEEO, contact:

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### **IPEDS Workshops**

**State Coordinator Workshops**—These are conducted on an annual basis, usually in the spring. A full-day workshop provides the IPEDS State Coordinators and other interested parties with up-todate information on IPEDS, plans for the future, anticipated changes, and other issues of interest. This forum allows for exchange of ideas and practices, and a general sharing of information among the various state coordinators, federal agencies, and education association representatives.

**Regional Workshops**—IPEDS staff conduct regional workshops on an as-needed basis. These are generally held when new surveys (such as the Graduation Rate Survey) are implemented, or when

significant changes are made to the survey forms that warrant training of institutional respondents. Workshops are held in various key cities across the nation to allow respondents to attend one close to their institution's location. Attendees are provided with materials such as new survey forms, *Guidelines for Survey Respondents*, and frequently asked questions and answers to help them understand the changes and the new requirements. Regional workshops were last held in 1993 (on all IPEDS surveys) and in 1997 (for the Graduation Rate Survey).

**Cooperative System Fellows Program**—In 1990, NCES initiated the Cooperative System Fellows Program as part of its ongoing effort to increase cooperation among federal, state, and local education data collectors and to improve the overall quality and timeliness of education statistics. Twice each year, Fellows are nominated by local, state, higher education, and library agencies across the country and convene in Washington, DC, for 1 week. The purpose is to provide the participants with an overview of NCES' many activities and to foster professional ties between education professionals and members of the federal statistical community.

During their stay, the Fellows take part in a series of planned activities including presentations by NCES staff on NCES' major data collections, reports, and dissemination practices; projects to automate state and local data systems; and efforts to integrate existing data collections. In addition, Fellows explore their own professional interests and objectives. During the week, mentors selected from NCES staff work with the Fellows and lead discussions on various topics, answer questions, and offer guidance and advice. An effort is made to help the Fellows achieve their individual program objectives. The Fellows Program is held in May and November of each year, and includes approximately 30 Fellows at each session. There is no charge and NCES reimburses participants' expenses.

## **Postsecondary Handbooks**

NCES develops, disseminates, and encourages the use of handbooks to promote commonality and consistency in the data elements and definitions that are used to define, measure, and report postsecondary education data. This activity is an important part of NCES's efforts to improve the quality and comparability of education data.

Handbooks have been an integral part of NCES's postsecondary program since the late 1960s. In 1966, NCES established a common language that higher education institutions could use to record and report on major fields of study. This language, codes from the Higher Education General Information Survey (HEGIS), evolved into the Classification of Instructional Programs (CIP) that encompasses not only the academic programs included in the HEGIS program codes but vocational and occupational program codes as well. The CIP was implemented in 1986 with the beginning of the Integrated Postsecondary Education Data System (IPEDS) and was revised in 1990. It forms the basis for the IPEDS Completion report. A revision of the 1990 CIP is currently under way and should be completed by the year 2000.

In 1973, NCES published the *Higher Education Facilities Inventory and Classification Manual*. This manual, initially developed by a group of facilities experts, evolved through several versions and was issued and used with the approval of professional groups, state agencies, and institutional associations. Last published in 1974, the manual was widely used and adapted. In recognition of the fact that planning for and use of facilities had changed significantly and many states and institutions were beginning to devise their own classifications structures, the State Higher Education Executive Officers (SHEEO) assembled a Working Group on College and University Facilities in 1989. The work of these groups resulted in the *1992 Postsecondary Education Facilities Inventory and Classification Manual (FICM)*. The 1992 *FICM* provides a common framework and coding structure for use in collecting and reporting inventory data on postsecondary institution buildings, and on the space within those structures, primarily rooms. The manual also suggests to

institutions a pattern for compiling essential data on their physical facilities, and provides a set of common building definitions and room codes so that reported data are reasonably consistent and comparable across institutions and states.

NCES has published the first handbook on faculty and staff in postsecondary institutions. The *1998 Human Resources in Postsecondary Institutions Handbook* provides postsecondary institutions with coding structures, data element definitions, analytic conventions, and recommendations for developing and maintaining a central data file on the institution's faculty and staff that will be useful for resource and policy analysis and planning at the institutional level. This handbook, as with all other NCES handbooks and manuals, was developed in conjunction with a technical panel of experts in the field of faculty and human resource issues and problems. One objective in developing this handbook was to provide institutions with the tools necessary to report high quality data to the IPEDS Staff and Salary surveys, and to facilitate their participation in the National Survey of Postsecondary Faculty.

The development of the *Postsecondary Student Handbook* is a cooperative effort between NCES, SHEEO, and the American Association of Collegiate Registrars and Admissions Officers. The primary objective of this handbook is to promote commonality and consistency in the data elements and definitions that are used to define, track, measure, and report postsecondary student data. The handbook identifies a comprehensive and uniform set of data elements, definitions, and coding descriptors to use in postsecondary student record keeping systems. The handbook also provides recommendations for standardizing the methods and practices by which data on students are collected, reported, and exchanged; suggests a framework for developing or upgrading student tracking systems; and identifies and promotes sound practices for institutional reporting to state and federal agencies. A revised edition of this handbook will be published in 1999.

#### MAJOR PUBLICATION

#### Handbook on Human Resources: Recordkeeping and Analysis (May 1998)

For further information on NCES' postsecondary education handbook program, contact:

Roslyn Korb Postsecondary Studies Division Postsecondary Co-Operative System, Analysis, and Dissemination Program National Center for Education Statistics 555 New Jersey Avenue NW Washington, DC 20208–5652 Telephone number: (202) 219–1587 E-mail address: roslyn\_korb@ed.gov

## **Plans for Postsecondary and Adult Education**

NCES is redesigning the Integrated Postsecondary Education Data System (IPEDS) to convert data collection from paper forms into a Web-based system. Changes in collection procedures, data elements, timing, and processing will be phased in through 2001. Plans for the redesign of IPEDS may be found on the Internet (http://nces.ed.gov/IPEDS/whastnew.html).

IPEDS will continue to provide a sampling frame for other postsecondary surveys, such as the National Postsecondary Student Aid Study and the National Study of Postsecondary Faculty. The Postsecondary Education Quick Information System (PEQIS) will be used to collect data for addressing emerging and focused issues that the ongoing data collection systems are unable to provide. PEQIS surveys being planned or implemented include Distance Education, Students with Disabilities in Postsecondary Education, Faculty Workload, and Non-Credit Course Offerings.

Some postsecondary institutions use an automated data system for a nationwide electronic records transfer system. The Standardization of Postsecondary Education Electronic Data Exchange developed a set of data elements and definitions in American National Standards Institute format to be used in the pilot electronic transfer of student records between postsecondary institutions. Data elements are included in five different areas: demographics, academic history, special programs and services, health, and test information. NCES is examining other applications for the electronic exchange of data among postsecondary institutions.

In response to legislation and based on the findings from a feasibility study, NCES collected, compiled, and reported graduation-completion rates of a sample of postsecondary institutions in conjunction with the implementation of the Student-Right-to-Know legislation in 1996. With the planning and design phases completed in the 1996–97 school year, institutional graduation-completion rate data were collected through the IPEDS beginning in the 1997–98 school year from the universe of all postsecondary institutions in the United States eligible for Title IV financial aid.

The National Household Education Survey (NHES) has become a source of many key indicators of the educational status of children and adults. For the most part, the NHES:99 is envisioned to be a composite collection of previously administered education indicators. For these indicators, it will provide the second, third, fourth, or fifth points on a trend line. In the NHES:99, breadth of coverage in topics and in populations to be sampled will necessitate less depth of coverage. However, the questionnaire will cover indicators from previous NHES components, such as Adult Education and Adult Civic Involvement. The NHES:99 is being conducted in the spring of 1999. The NHES:01 and 03 are currently being planned. Topics for NHES:01 are likely to include adult education, while topics for NHES:03 are likely to include work-related adult education.

The next cycle of the National Study of Postsecondary Faculty (NSOPF) is occurring in the 1998–99 academic year. NSOPF–99 is limited to surveys of institutions, faculty, and instructional staff. It will allow for comparisons to be made over time and expands existing topics surrounding faculty and instructional staff that have developed as critical issues since the first two studies. Examples of possible expansion topics are: the increasing use of part-time instructional faculty and staff at higher education institutions and their credentials for teaching; the decline of full-time tenure-track appointments as institutions explore possible alternatives to tenure; faculty's allocation of time to teaching versus research; measures of faculty workload and productivity; the presence of women and minority faculty in higher education institutions; and the effects, if any, of the removal of mandatory retirement for faculty and instructional staff. NSOPF–99 will also allow for Internet collection of survey responses for the first time.

Meeting the challenges of maintaining current data and possibly establishing new data collection activities will take a cooperative effort among institutions, states, and NCES. In order to support this effort, NCES' reauthorization of 1994, included the extension of the National Cooperative Education Statistics System to postsecondary education. The National Postsecondary Education Cooperative will continue to strive to identify new trends in postsecondary education and emerging issues that have implications for data collection, reporting, and dissemination in order to facilitate the production of better data for better decisions.

### Data Collection Calendar for Postsecondary and Adult Education

## Surveys

## Year of Data Collection

	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
Integrated Postsecondary Data System												
Institutional Characteristics	x	x	x	x	x	x	x	x	x	x	x	x
Fall Enrollment by Age	x x	x	x x	x	X X	X	x x	x	x x	х	x x	
Residence of First-Time Freshmen		x		x		x		x		x		x
Fall Enrollment in Occupationally Specific Programs	x		x		x		x		x		x	
Completions	х	х	x	х	x	x	x	x	x	x	x	х
Graduation Rates								х	x	х	x	x
Fall Staff	x		x		x		х		х		x	
Salaries, Tenure, and Fringe Benefits of Full-time												
Instructional Faculty	х	х	x	x	х	x	X	Х	X	х	x	х
Finance	х	х	x	x	x	x	x	x	x	х	x	х
Academic Libraries	x		x		x		x		x		x	

# Data Collection Calendar for Postsecondary and Adult Education (Continued)

Surveys	Year of Date Collection										
	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
National Study of Postsecondary Faculty			x							x	
National Household Education Survey											
Adult Education	x		x						x		x
Adult Civic Involvement						x			x		
Household Library Use						x					
Survey of Earned Doctorates	x	x	x	x	x	x	x	x	x	x	x
Current Population Survey (October Supplement)	x	x	x	x	x	x	x	x	X	x	x
Computer Use			x				x			x	
Selected Education Characteristics: Grade Repetition/ Language/English Proficiency/ Disability		x			x				X		

# **Educational Assessment**

The National Center for Education Statistics (NCES) collects and reports information on the academic performance of the nation's students. NCES also assesses the literacy level of the adult population. NCES also participates in international assessments (see chapter 7, "International Statistics").

The congressionally mandated National Assessment of Educational Progress (NAEP) is NCES' primary assessment of what American elementary and secondary students know and can do in academic subjects. For more than two decades, NAEP has collected and reported information on the knowledge and skills of national and, since 1990, state samples of both age- and grade-representative populations in a variety of school subjects.

NCES also collects data from students' high school transcripts. These data include courses students have taken as well as the grades they attained. These studies generally build on NAEP and other major survey studies to increase their analytical usefulness. Additionally, data are collected from postsecondary student transcripts as part of longitudinal or cross-sectional studies, such as the Recent College Graduates Study.

Besides assessing student achievements, the educational assessment program at NCES also assesses the proficiency of adults in performing basic literacy and mathematical tasks through the National Assessment of Adult Literacy Survey. In 1992, NCES conducted a household-based literacy survey of adults aged 16 and over. This survey included the general adult population as well as adults in institutional settings such as prisons.

High school transcript data have been used for a variety of assessment purposes. Most notably, such data have been used to monitor trends or patterns in curricular changes. The 1994 High School Transcript Study compared the course-taking patterns of students in 1994 with similar patterns in 1990, 1987, and 1982. Extensive analyses of high school vocational education enrollments and of course-taking patterns of high school students with disabilities have been conducted through the National Assessment of Vocational Education and in NCES reports.

Together with performance results in subject areas, the basic descriptive information about students, teachers, administrators, and communities collected systematically by NAEP from its surveys has been used to address the following four educational policy issues that are of concern to educators, policymakers, and researchers:

- Instructional practices: 'What instructional methods are being used and how do these relate to achievement?'
- Students at risk: 'How many students appear to be at risk, in terms of achievement, and what are their characteristics?'
- Distribution of teacher qualities among different student populations: 'What are the characteristics of teachers of various subjects that students are exposed to?'
- Education reform: 'What, if any, policy changes are being made by our nation's schools?'

Over the past 27 years, NAEP has generated more than 200 reports spanning 11 instructional areas. It is the nation's only ongoing, comprehensive, and representative assessment of what American students know and can do.

## **Data Uses**

NAEP data have been used frequently in numerous ways by researchers, educators, policymakers, and the general public. Researchers have used NAEP data to describe performance trends in many subject areas, such as learning reading and mathematics skills, achievement in the arts, teachers' instructional practices, and school contextual characteristics. Policymakers often cite NAEP data to illustrate the state of the American education system. Educators have used the results to develop standards for improving mathematics and science curricula. Elected officials have used NAEP data to identify the need for education reform.

# Studies

### **National Assessment of Educational Progress**

The National Assessment of Educational Progress (NAEP) is mandated by Congress (ESEA, Section 411) to continuously monitor the knowledge, skills, and performance of the nation's children and youth. Under this legislation, NAEP is required to provide objective data about student performance at national, regional, and state levels.

#### DESIGN

Three separate assessments are conducted: trend NAEP, main national NAEP, and main state NAEP. In the trend NAEP, students are periodically assessed in science, mathematics, reading, and writing. Nationally representative samples of students have been assessed in science, mathematics, and reading at ages 9, 13, and 17 since the early 1970s. Students have been assessed in writing at grades 4, 8, and 11 since 1984. To measure trends accurately, assessment items (mostly multiple choice) and procedures have remained unchanged since the first assessment in each subject. Recent trend assessments were conducted in 1994 and 1996, and the next will take place in 1999. About 30,000 students took part in the 1996 trend assessment. Results are reported as average scores for the nation, regions, and for various subgroups of the population such as race and ethnic groups. Data from the trend assessments are available in the most recent report, *NAEP 1996 Trends in Academic Progress*, or in a brief summary report, *Report in Brief: NAEP 1996 Trends in Academic Progress*. Both reports are available on the World Wide Web at the NAEP Web site (http://nces.ed.gov/NAEP).

In the main national NAEP, a nationally representative sample of students is assessed at grades 4, 8, and 12 in various academic subjects. The assessments change periodically and are based on frameworks developed by the National Assessment Governing Board (NAGB). Items include both multiple-choice and "constructed-response" (requiring written answers). Results are reported in two ways. Average scores are reported for the nation, participating states and jurisdictions, and for subgroups of the population. In addition, the percent of students at or above the basic, proficient, and advanced achievement levels are reported for these same groups. The achievement levels are developed by NAGB.

Since 1990, main NAEP has also been conducted for states and other jurisdictions that choose to participate (47 participated in 1996). State data are usually available at grades 4 and/or 8, and may not include all subjects assessed in the national-level assessment. In 1994, for example, NAEP assessed reading, geography, and history at the national level at grades 4, 8, and 12 (only reading at grade 4 was assessed at the state level, however). In 1996, mathematics and science were assessed nationally at grades 4, 8, and 12. In the states, mathematics was assessed at grades 4 and 8, and science was assessed at grade 8 only. In 1997, the arts were assessed at the national level at grade

8. Reading and writing were assessed in 1998 at the national level for grades 4, 8, and 12, and state levels for grades 4 and 8. Civics was assessed at the national level, as well. These assessments generally involve about 130,000 students at the national and state levels.

In the trend, main national, and main state assessments, background information was collected from students, teachers, and school administrators. This information provides context within which academic performance of major student groups can be evaluated. Data are available on such student characteristics as gender, race and ethnicity, level of parents' education, eligibility for the free or reduced price lunch program, participation in the "Title I" to assist at-risk students, attendance at public or nonpublic schools, limited English proficiency, and presence of a disability. Characteristics of teachers include academic preparation and classroom practices. NAEP also reports on school characteristics such as courses offered, availability of computers, participation of parents, and the existence of problems such as tardiness or violence.

To maintain its reputation as "The Nation's Report Card" and to enhance its serviceability to the nation, NAEP is undergoing a deliberately incremental redesign of its program. Beginning in 2000, main NAEP will reflect the results of extensive redesign. For example, assessments will take place annually. Assessment of academic subjects will be on a more regular basis than in the past. Core academic subjects—reading, writing, mathematics, and science—will be assessed every 4 years (reading may be assessed every 2 years). Frameworks for these subjects will be developed to last through three assessments (i.e., 12 years). Other subjects, such as geography, history, the arts, and foreign languages, will be assessed in the intervening years. Streamlining NAEP's sampling scheme, data collections, and reporting schedule while increasing the information value of the various subject matter tests will enable NCES to provide the nation an enriched, technically rigorous, and authoritative basis for making decisions about education.

#### COMPONENTS

**Elementary and Secondary School Students Survey**—The primary data collected by NAEP are of student performance and educational experience. Major current assessment areas include reading, writing, mathematics, science, civics, U.S. history, geography, and the arts. Data include overall performance, performance on specific content dimensions, demographic and family characteristics, classroom experiences, attitudes toward school, and aspirations for the future.

School Characteristics and Policy Survey—In conjunction with student performance surveys, NCES routinely collects important supplemental data about school characteristics and school policies, which could be used analytically as contextual variables to enhance understanding of student performance issues. Specifically included in school data are: enrollment, curriculum testing and objective setting practices; school administrative practices; school conditions and facilities; special services; and programs. School level data also include some information about the characteristics of the school administrator such as: race-ethnicity, sex, undergraduate field of study, years as principal, administrative experience, and teaching experience.

**Teacher Survey**—Similar to school contextual data, NAEP also collects important supplemental data from teachers whose students are respondents of the assessment surveys. Teacher data include: classroom instructional practices, race-ethnicity, sex, age, undergraduate field of study, teaching certification, full-time teaching experience, and subject matter specialization.

#### MAJOR PUBLICATIONS

National and State Reports:

NAEP 1996 Mathematics: Report Card for the Nation and the States (February 1997) NAEP 1996 Science: Report Card for the Nation and the States (June 1997) NAEP 1996 Mathematics State Report [one for each participating jurisdiction] (June 1997) NAEP 1996 Mathematics State Report [one for each participating jurisdiction] (June 1997) NAEP 1996 Trends in Academic Progress (August 1997) [Similar reports were published for the 1992 and 1994 trend assessments.] NAEP 1996 Science Report for Grade 4: DoDEA/DoDDS (November 1997) NAEP 1996 Science State Report [one for each participating jurisdiction] (Revised December 1997) NAEP's Constituents: What Do They Want Technical Report of the NAEP 1996 State Assessment Program in Science (January 1998) NAEP 1996 Mathematics Cross-State Data Compendium for the Grade 4 and Grade 8 Assessment (February 1998) 1996 Science Cross-State Data Compendium (May 1998) Linking the National Assessment of Educational Progress (NAEP) and the Third International Math and Science Study (TIMSS): Eighth Grade Results (July 1998) NAEP 1996 Trends in Academic Progress—Addendum (August 1998) Report in Brief: NAEP 1996 Trends in Academic Progress—Revised (August 1998) Linking the National Assessment of Educational Progress (NAEP) and the Third International Mathematics and Science Study (TIMSS): A Technical Report (August 1998) School Policies and Practices Affecting Instruction in Mathematics: Findings from NAEP (September 1998) **Brief Publications:** 

Focus on NAEP: 1994 NAEP Assessment in Reading (March 1994) Focus on NAEP: 1994 NAEP Assessment in U.S. History (October 1995) Focus on NAEP:1994 NAEP Assessment in Geography (December 1995) NAEP 1994 Reading: Report for the Nation and the States (January 1996) NAEPFacts: Can Students Benefit from Process Writing? (April 1996) NAEP 1994 Geography Report Card (May 1996) NAEP 1994 U.S. History Report Card (May 1996) Results from the NAEP 1994 U.S. Reading Assessment—At A Glance (May 1996) Results from the NAEP Geography Assessment—At A Glance (May 1996) Results from the NAEP U.S. History Assessment—At A Glance (May 1996) NAEP 1994 Reading State Report [one for each participating jurisdiction] (July 1996) Focus on NAEP: Increasing the Inclusion of Students with Disabilities and Limited English Proficient Students in NAEP (July 1996) NAEPFacts: History: What Do Students Know, and What Can They Do? (October 1996) NAEPFacts: Reading Proficiency and Home Support for Literacy (October 1996) NAEPFacts: Geography: What Do Students Know and What Can They Do? (December 1996) Focus on NAEP: NAEP on the Net (December 1996) Focus on NAEP: New Software Makes NAEP Data User-Friendly (May 1997) NAEPFacts: Good Study Habits and Academic Performance: Findings from the NAEP 1994 U.S. History and Geography Assessments (August 1997) NAEPFacts: Long-Term Trends in Student Reading Performance (January 1998) NAEPFacts: Long-Term Trends in Reading (February 1998)

Focus on NAEP: NAEP and Dance: Framework and Field Tests (August 1998)
Focus on NAEP: NAEP and Music: Framework, Field Test, and Assessment (August 1998)
Focus on NAEP: NAEP and the Visual Arts: Framework, Field Test, and Assessment (August 1998)
Focus on NAEP: NAEP and Theatre: Framework, Field Test, and Assessment (August 1998)
Focus on NAEP: The NAEP 1997 Arts Education Assessment: An Overview (August 1998)
The NAEP 1997 Arts Education Assessment: An Overview (August 1998)
Arts Supplement to Journal (August 1998)
Focus on NAEP: NAEP Assesses Dance (August 1998)
NAEPFacts: Long-Term Trends in Writing (September 1998)
NAEPFacts: Long-Term Trends in Mathematics (September 1998)

USER GUIDES:

Interpreting NAEP Scales (April 1993)

Overview of the NAEP Assessment Frameworks (March 1994)

Technical Issues in Large-Scale Assessment (May 1996)

The NAEP Guide: A Description of the Contents and Methods of the 1997 and 1998 Assessments (October 1997)

The NAEP Guide: A Description of the Contents and Methods of the 1997 and 1998 Assessments, Revised Edition (Forthcoming 1998)

OTHER REPORTS OF INTEREST:

Can Students Do Mathematical Problem Solving? (August 1993)

Essential Skills in Mathematics: A Comparative Analysis of American and Japanese Assessments of Eighth-Graders (April 1997)

Inclusion of Students with Disabilities and Limited English Proficient Students in Large-Scale Assessments: A Summary of Recent Progress (July 1997)

Learning About Our World and Our Past: Using the Tools and Resources of Geography and History (January 1998)

School Policies and Practices Affecting Instruction in Mathematics (August 1998)

Students Learning Science: A Report on Policies and Practices in U.S. Schools (September 1998)

Student Work and Classroom Practices in Mathematics (April 1999)

Student Work and Classroom Practices in Science (April 1999)

### DATA FILES

1992 Almanac Viewer (Reading, Writing, and Mathematics) (May 1994)

1994 Almanac Viewer (Reading, Geography, and History) (February 1996)

1994 National Assessment (September 1996)

1994 State Reading Assessment (September 1996)

1996 National Assessment (June 1998)

1996 State Assessment (June 1998)

1996 National and State Summary Data Tables (June, 1998)

1996 Almanac Viewer (Mathematics and Science) (June 1998)

Public use data files are available for each assessment in NAEP prior to 1990. Only restricted-use data files are available beginning with 1990.

Reports are available from the U.S. Government Printing Office or on the Internet (http://nces.ed.gov/naep).

For further information on the National Assessment of Educational Progress, contact:

Peggy Carr Assessment Division Office of the Associate Commissioner National Center for Education Statistics 555 New Jersey Avenue NW Washington, DC 20208–5653 Telephone number: (202) 219–1576 E-mail address: peggy\_carr@ed.gov

# **High School Transcript Studies**

Five high school transcript studies have been conducted since 1980. The first was part of the High School and Beyond's (HS&B) first followup survey in 1982 (see chapter 6 for more information on HS&B). About 12,000 transcripts were collected from school records for HS&B sophomore cohort students who were seniors in 1982. Another transcript survey was conducted in conjunction with the 1992 second followup survey from the National Educational Longitudinal Study NELS:88 (see chapter 6 for more information).

Three or four other transcript studies were done in conjunction with the National Assessment of Educational Progress (NAEP). Results from the 1981 High School Transcript Study were reported in *American Education: Making It Work*, in which course-taking patterns of 12th-grade students in 1982 and in 1987 were compared. The 1992 High School Transcript Study, done in conjunction with NAEP, can be used to track further changes in the curricular patterns of high school students. A 1993 High School Transcript Study was conducted in association with the 1994 NAEP. Another was conducted in 1998.

High school transcript data inform researchers and policymakers about the course-taking patterns of students. Since the National Commission on Excellence in Education (NCEE) report, *A Nation at Risk*, there have been a number of critics advocating the strengthening of the high school core curriculum. Students have been encouraged to increase their academic load courses in English, mathematics, science, social studies, computer science, and foreign languages. As NCES has conducted more transcript studies, overall trends in course-taking patterns can be traced. Transcript data are measures of exposure rather than measures of learning, since they do not include information on course contents. More research is needed to determine what effect this exposure has on student achievement. The data collected by the transcript studies described in this section allow investigation of the relationship between course-taking patterns and academic performance.

### DESIGN

In the 1994 High School Transcript Study, about 25,000 transcript records were systematically transcribed to determine the course-taking patterns of 12th-grade high school students selected from the 1994 NAEP assessment sample. These records make it possible to link assessment results to course-taking patterns.

The following three summary tables were included in the 1994 study:

- The percentage of high school graduates earning minimum credits in a core curriculum of courses recommended in 1983 by the NCEE in its report, *A Nation at Risk*. The 1994 percentages were compared with those from 1982, 1987, and 1990.
- The mean number of credits (Carnegie units) that graduates earned in each major subject field in 1994.
- The number of students who received credit in 1994 in secondary courses in NCES' Classification of Secondary School Courses.

The 1994 coded data were compatible with the data produced in the 1982 HS&B Transcript Study and the 1987 High School Transcript Study. This standardization and comparability will be useful in later analyses for comparing the results of the three studies.

### COMPONENTS

**The 1994 High School Transcript Study**—Student characteristics: dates when attended and left school; sex, racial-ethnic composition; high school programs in which enrolled; completion status of curricular programs (particularly vocational programs); days absent; honors awarded; grade point average; standardized test scores; and student rank in relation to class size.

Course level characteristics: subject matter of the course; period of time the course was taken; grade earned; credits earned; whether the course was taken at an Area Vocational Technical Center; and whether the course was designed for honors, exceptional, or special education students.

### MAJOR PUBLICATIONS

- Vocational Course Taking and Achievement: An Analysis of High School Transcripts and 1990 NAEP Assessment Scores (May 1995)
- The 1994 High School Transcript Study Tabulations: Comparative Data on Credits Earned and Demographics for 1994, 1990, 1987, and 1982 High School Graduates (August 1997)

For more information on the high school transcript studies, contact the people listed below.

#### 1982 and 1992 Studies:

Jeff Owings Elementary/Secondary Libraries Studies Division Secondary Longitudinal and Transcript Studies Program National Center for Education Statistics 555 New Jersey Avenue NW Washington, DC 20208–5653 Telephone number: (202) 219–1777 E-mail address: jeff\_owings@ed.gov

### 1987, 1990, 1994, and 1998 Studies:

Janis Brown Assessment Division NAEP Analysis and Reporting Program National Center for Education Statistics 555 New Jersey Avenue NW Washington, DC 20208–5653 Telephone number: (202) 219–1937 E-mail address: janis\_brown@ed.gov

### **Transcript Studies:**

Robert Atanda Elementary/Secondary Libraries Studies Division Secondary Longitudinal and Transcript Studies Program National Center for Education Statistics 555 New Jersey Avenue NW Washington, DC 20208–5653 Telephone number: (202) 219–1428 E-mail address: robert\_atanda@ed.gov

### National Assessment of Adult Literacy Survey

Literacy assessments inform policymakers about the extent of skills in using printed information that the adult population needs to function in society, to achieve their goals, and to develop their knowledge and potential. Recently, concern has mounted that inadequacies in the literacy of American workers are reducing the competitiveness of the American economy and preventing some Americans from exercising the rights and responsibilities of citizenship. The National Assessment of Adult Literacy Survey (NAALS) provides an accurate benchmark for measuring the literacy capabilities of adults.

There has been serious concern about the literacy level of the American workforce, as described in a number of national reports published since 1980, including A Nation At Risk, Toward a More Perfect Union, The Subtle Danger, Workforce 2000, The Bottom Line, and Literacy: Profiles of America's Young Adults. These reports have emphasized the need to increase our nation's standard

of literacy in order to maintain our standard of living and to compete in the global market. This concern about literacy culminated in 1990, when the President and governors adopted six national education goals, including: "By the year 2000, every adult American will be literate and will possess the knowledge and skills necessary to compete in a global economy and exercise the rights and responsibilities of citizenship." National programs to improve adult skills need to be based on knowledge about the nature and severity of the deficits in literacy. The role of the NAALS is to provide the information needed to begin understanding our nation's literacy capabilities.

### DESIGN

The 1992 National Assessment of Adult Literacy Survey (NAALS) defines literacy as "using printed and written information to function in society, to achieve one's goals, and to develop one's knowledge and potential." Literacy was measured along three dimensions:

- Prose literacy—the ability to understand and use information from connected texts that include editorials, news stories, and poems;
- Document literacy—the ability to locate and use information contained in documents, such as job applications or payroll forms, bus schedules, maps, tables, and indexes; and
- Quantitative literacy—the ability to apply arithmetic operations to numbers embedded in printed materials, such as balancing a checkbook, figuring a tip, completing an order form, or determining the amount of interest from a loan advertisement.

Because policymakers needed to assess a broad range of abilities in the population, but did not need to diagnose literacy problems of individuals, the 1992 assessment was designed to cover a broad range of skills. All questions underwent extensive review by subject area and measurement specialists, as well as scrutiny to eliminate any bias or lack of sensitivity to particular groups. It would take any one individual about 4 hours to complete the entire assessment. To keep the burden on any one individual to less than 1 hour, the assessment was cut into 13 blocks, with only 6 blocks given to each respondent. The responses to the items were pooled and reported by proficiency scales on the three dimensions of literacy. NALS was administered in the summer of 1992 in person by trained interviewers to a nationally representative probability sample of about 15,000 individuals aged 16 and older, and to 1,000 adults incarcerated in federal and state prisons. In addition, 12 states funded sample supplements of 1,000 adults in order to obtain literacy estimates for their state populations. The results were published and the data are available to the public. Further information is available at the Web site (http://nces.ed.gov/nadlits).

This is the first national study of literacy for all adults since the Adult Performance Level surveys, which were conducted in the early 1970s. The next national study of adult literacy is planned for the year 2002.

### **COMPONENTS**

**National Assessment of Adult Literacy Survey**—Assessed areas include, prose literacy, document literacy, and quantitative literacy. Other information includes race-ethnicity, age, sex, educational and occupational background, and reading habits.

#### MAJOR PUBLICATIONS

Adult Literacy in America: A First Look at the Results of the National Adult Literacy Survey (September 1993)

Literacy Behind Prison Walls: Profiles of the Prison Population from the National Adult Literacy Survey (October 1994)

*Literacy of Older Adults in America: Results from the National Adult Literacy Survey* (November 1996)

Information about NAALS can be found on the Internet (http://nces.ed.gov/nadlits). For further information on the 1992 NAALS, contact:

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### **Plans for Educational Assessment**

For the 21st century, NAEP is undergoing a full-scale redesign. In the 1980s and 1990s, NAEP was administered every 2 years. Beginning in 2000, NAEP returns to annual assessments, which means that considerably more subjects will be tested. In year 2000, NAEP mathematics and science assessments will be assessed in both grades 4 and 8 in the state assessment. Previously, state assessments never included both grades in two subjects. An innovative "market basket" assessment will be developed in the 2000 assessment which might produce better reporting and also possibly permit linking to other tests. In addition, a number of typical "standard assessments" in a variety of subjects will be complimented by in-depth "comprehensive assessments" in mathematics, reading, the arts, science, U.S. history, and geography. Also, new comprehensive assessments will be administered in foreign languages, world history, and economics. These major changes are documented in a new 10-year calendar that identifies subjects to be tested from 2000 to 2010.

These and other possible changes are being monitored constantly by outside panels of experts and citizens through such institutions as the National Academy of Sciences. Through this process, NAEP will endeavor to remain the nation's foremost instrument in measuring the academic skills of the nation's elementary and secondary school students.

In addition to NAEP, NCES is working on the development of the National Assessment of Adult Literacy Survey, a national assessment that will expand on the 1992 National Adult Literacy Survey. Request for Proposals will be awarded in August 1999. Data will be collected in 2002 (with a field test in 2001).

### Data Collection Calendar for Educational Assessment

Surveys

## Year of Data Collection

1988 1990 1992 1994 1996 1997 1998 1999 2000 2001 2002

#### NAEP National Assessment

Reading	х		X	x			x				x
Mathematics		х	x		x				x		
Science		х			х				x		
Writing	x		х				X				
U.S. History	x			x						x	
World Geography	x			x						x	
Civics	x						x				
The Arts						x					
NAEP State Assessment											
Mathematics		x	x		x				x		
Reading			x	x			x				х
Science					x				x		
Writing							x				х
NAEP Long-Term Trend Assessment											
Reading	х	x	x	x	x			x			
Writing	х	x	x	x	x			x			
Mathematics	x	х	x	X	x			x			
Science	X	х	х	х	х			х			

## Data Collection Calendar for Educational Assessment (Continued)

Surveys	Year of Data Collection									
	1982	1987	1990	1992	1994	1998	2000	2002		
National Adult Literacy Survey				x				x		
High School Transcript Studies	x	x	x	x	x	x	x	x		

# 6

# **National Longitudinal Studies**

The longitudinal studies program at the National Center for Education Statistics (NCES) was established to provide ongoing, descriptive information about what is occurring at the various levels of education and the major transition phases of students' lives. In this way, intervening processes can be studied. These analyses require the periodic examination of educational and occupational attainment, aspirations, attitudes, and motivations during the pivotal years before, during, and after elementary school, middle-junior high school, high school, and college. With extensive questioning over succeeding years, longitudinal studies make it possible to make long-range comparisons between what individuals expect and what actually occurs. Consequently, such studies are critical to understanding the processes by which education leads individuals to develop their abilities and their roles in society.

The National Longitudinal Study of 1972 (NLS–72) began with that year's high school senior class and followed them through 1986. The High School and Beyond (HS&B) study began with both the sophomore and senior classes of 1980. Four other longitudinal studies are being conducted currently: the National Education Longitudinal Study of 1988 (NELS:88) began with the eighth-grade class of 1988; the Beginning Postsecondary Students Longitudinal Study of 1996 started with postsecondary students who began their postsecondary education in 1995–96, and began in 1989–90 with followup in 1992 and 1994; the Baccalaureate and Beyond Study began with seniors in 1992–93; and the Early Childhood Longitudinal Study-Kindergarten, which followed a cohort of 1998–99 kindergarten children. A new longitudinal study, the Early Childhood Longitudinal Study-Birth (ECLS–B), will follow a cohort of children born in the year 2000.

### **Data Uses**

The National Longitudinal Study of the High School Class of 1972 (NLS–72) data have been widely used for investigating educational policy issues. For example, in the early 1980s a congressional committee turned to these data to develop a model for estimating the costs of tuition tax credits. More recently, capsule descriptions of this cohort have been produced and attrition rates from college have been studied, as have transitions from high school and college into the workplace. Postsecondary attainment, access, and financial aid studies have all used NLS–72.

The enlarged scope of HS&B provided even more data than NLS-72 for examining a wide variety of education policy issues. Like NLS-72, HS&B produced a number of capsule descriptions of high school students. Additionally, HS&B data have been used to study the achievement of Hispanic students, discipline and order in high schools, economic issues such as students working while in school, comparisons of public and private schools, the continuity of early employment of high school sophomores, and course-taking patterns of American high school students. Because similar items were used in HS&B, NELS:88, and NLS-72 it is possible to compare the high school seniors of 1980, 1982, and 1992 with those of 1972. The National Assessment of Vocational Education (NAVE) used the data from the HS&B study in several of their reports. For example, NAVE used HS&B data for studies which attempted to measure high school curricular experiences as they relate to vocational education, course enrollment patterns, and student financial aid as it relates to postsecondary vocational education.

The NELS:88 completed the third followup data collection in 1994. The fourth followup is planned for the year 2000. Data from this survey are being used to study transition patterns of eighthgrade students as they move through school (e.g., moving from public to private school, dropping out of school, and moving into high school and college). Other research issues being addressed include:

- Students' academic growth over time and the family, community, and classroom factors that promote or inhibit such growth;
- The tracking of course-taking patterns during high school;
- The educational outcomes and generational status among Asian and Hispanic eighth-graders;
- At-risk students' successful navigation of the pipeline to college enrollment and the process of dropping out of school;
- The role of the school in helping the disadvantaged;
- The school experiences and academic performance of language minority students;
- The process of attracting students to the study of mathematics and science; and
- The transition to postsecondary education and the workforce.

# **Studies**

## Early Childhood Longitudinal Studies

The National Center for Education Statistics (NCES) is initiating an ambitious program to provide a comprehensive and reliable data set that can be used to inform policy regarding children, their families, early care, and education. The data collected by the Early Childhood Longitudinal Studies (ECLS) program, and the information that is disseminated through reports prepared by NCES and others will inform decisionmakers, educational practitioners, researchers, and parents about the ways in which children are prepared for school and how schools and early childhood programs affect the lives of the children who attend them.

The ECLS program is planned to consist of two cohorts—a birth cohort and a kindergarten cohort. Together, these cohorts would provide the range and breadth of data required to more fully describing children's early learning and education experiences. Still in the planning stages, the birth cohort study (ECLS–B) is being designed to study children's early learning and development from birth through first grade. It will focus on those characteristics of children, their families, and out-of-home experiences that influence children's first experiences with the demands of formal school (i.e., kindergarten and first grade, and will provide important information about the way America raises, nurtures, and prepares its children for school). The kindergarten cohort (ECLS–K) measures aspects of children's development and their environments (home and school) as they enter school for the first time, and examine how these factors influence their academic achievement and experiences through fifth grade.

## Early Childhood Longitudinal Study-Kindergarten Cohort

In recent years, parents, educators, and policymakers have been reconsidering the ways young children are taught in schools and have been looking for more effective approaches to education. Several factors which have contributed to this research and policy focus on children's early school experiences include:

• An increased public awareness of the importance of children's early experiences, reinforced by the National Education Goal on school readiness;

- The changing nature of children's preschool and early school experiences;
- The increasingly diverse population of children entering school and the demands this places on schools; and
- The expanded role that schools are expected to play in supporting and nurturing development and learning.

Vital to efforts to improve schools and the education of all the nation's children is a research and data collection program that increases understanding of the dynamics of school achievement, particularly of those factors that lead to the differential success of important groups of children during the early school years. NCES has embarked on an ambitious study to provide a comprehensive and reliable data set that can be used to inform policies related to early and middle childhood education, defined as kindergarten through fifth grade. The Early Childhood Longitudinal Study–Kindergarten Cohort (ECLS–K), in which a cohort of entering kindergarten children will be sampled and studied intensively over time, responds directly to the concerns decisionmakers, educational practitioners, researchers, and parents have about our nation's schools and American education.

The three key issues to be addressed by the ECLS–K are: children's status at kindergarten entry, critical transitions, and student growth and progress. First, the ECLS–K will examine the status of children's characteristics and experiences as they enter school and will seek to describe ways in which these are related to different aspects of children, their families, and the kindergarten programs they attend. Besides being interested in the role that parents and families play in preparing for and supporting their children's education, the study is also interested in how the educational system prepares for and responds to children. It will pay particular attention to how schools and teachers respond to the diverse backgrounds and experiences that children bring with them as they enter school for the first time.

Second, children experience a variety of transitions—from home to school, from school to school, and from grade to grade. These transitions are an ongoing process of mutual adaptation by children, their families, schools, teachers, and communities. The record of children's transitional experiences assembled through this study will enable researchers to expand the knowledge base for understanding these critical events in children's lives.

Third, a major goal of the ECLS–K is to describe student learning and academic progress during the early school years. By closely chronicling the relationship between children's kindergarten experience and their school performance in grades one through five, the study will provide useful information on achievement differences between boys and girls, among minority groups, and among members of different social-economic status groups as children pass through school. The study will also provide useful information on ways children's families, teachers, and schools enhance children's chances of having positive school experiences.

#### DESIGN

The design of the ECLS–K is guided by a framework of children's development and schooling that emphasizes the interaction between the child and family, the child and school, the family and school; and the family, school, and community. Thus, the ECLS–K recognizes the importance of factors that represent the child's health status and socio-emotional and intellectual development, and incorporates factors from the child's family, community, and school and classroom environments. The study is particularly interested in the role that parents and families play in helping children adjust to formal school and in supporting their education through the primary and middle

elementary grades. It is also interested in understanding how schools prepare for and respond to the diverse backgrounds and experiences of the children and families they serve.

A nationally representative sample of approximately 23,000 children enrolled in about 1,000 kindergarten programs during the 1998–99 school year will be selected for participation in the ECLS–K. These children will be selected from full-day and part-day programs in public and private schools. The sample will consist of children from different racial-ethnic and socioeconomic backgrounds. Presently, NCES plans to oversample private kindergartens and kindergartners. NCES also plans to oversample children who are Asian or Pacific Islander, and is exploring the feasibility of oversampling children with disabilities. The ECLS–K sample will support separate analyses of public and private kindergartens, as well as white, black, Hispanic, and Asian and Pacific Islander children's school experiences and outcomes.

Because numerous factors in schools, homes, and communities influence children's academic and social outcomes, data for the ECLS–K will be collected not only from children, but from their parents-guardians, teachers, and school administrators. NCES intends to collect data on the sampled children and their environments in the fall and spring of the kindergarten year and in the spring of the first, third, and fifth grades.

### COMPONENTS

**Student Assessments**—Sampled children will be asked to participate in various activities in order to measure important cognitive and noncognitive outcomes. At least through the end of first grade, all direct measures of a child's skills will be obtained through a one-on-one assessment. In the kindergarten and first grade waves, there will be direct measures of children's cognitive skills, social cognition, and psychomotor development. The cognitive test battery will measure children's receptive, expressive, and nonverbal reasoning abilities in language-literacy, mathematics, and general knowledge (i.e., science and social studies). Measures of children's social cognition will help ascertain children's understanding of social problems and how they can be solved. Measures of physical development will include both height and weight measurements. Also, in the fall of kindergarten, a psychomotor assessment will be administered which will include measures of children's motor ability, coordination, and visual motor skills.

**Parent-Guardian Interviews**—Parents-guardians are an important source of information about the families of the children selected for the study and about themselves. In telephone interviews (or in personal interviews for households without telephones), they will be asked to provide key information about children's development at school entry and their experiences both with family members and others. The family background, demographics, and home environment content to be covered in the parent-guardian interviews in the kindergarten and first grade waves of the ECLS–K includes: family structure; immigration status; primary language(s) spoken; parent's involvement with the child's education; child care; child's health and well-being; parental values, beliefs, and expectations; home environment, activities, and cognitive stimulation; parental monitoring; neighborhood; parent education and human capital; parent employment; parent income and assets; welfare and other public transfers; discipline, warmth, and emotional supportiveness; parent's psychological well-being and health; and critical family processes. The kindergarten and first grade parent-guardian interviews will also include items asking parents-guardians to provide a rating of their child's social skills, problem behaviors, and approaches toward learning.

**Teacher Questionnaires**—Like parents, teachers represent a valuable source of information on themselves and the children's learning environment (i.e., the classroom). In self-administered questionnaires, teachers will be asked to provide information about their own backgrounds, teaching practices, and experience along with information on the classroom setting for the sampled children

they teach. The content to be covered in the teacher questionnaires in the kindergarten and first grade waves of the ECLS–K includes: class type and composition, class organization, class activities, topics covered and evaluation methods, parent involvement, views on readiness, professional development, and teacher's background.

**Teacher Rating**—In addition to filling out a questionnaire, teachers will be asked to evaluate each sampled child on a number of critical cognitive and noncognitive dimensions. Teacher cognitive ratings will measure teachers' perceptions of students' academic achievement and dispositions for learning in the three domains of language-literacy, mathematics, and general knowledge. Ratings of children's socio-emotional performance will provide measures of children's pro-social behaviors, social competence skills, and problem behaviors. Teachers will also be asked to complete a checklist on each sampled child reporting on such things as the children's language skills, special needs, program placements, attendance, and physical activity.

**School Questionnaires**—In a self-administered questionnaire, school administrators, principals, and headmasters will be asked to provide information on the physical and organizational characteristics of their schools, and on their schools' learning environment and programs. Special attention will be paid to the instructional philosophy of the school and its expectations for students. The content to be covered in the school questionnaires in the kindergarten and first grade waves of the ECLS–K includes: school characteristics, student characteristics, teaching staff characteristics, school policies and programs, principal characteristics, and school governance and climate.

ECLS can be found on the Internet (http://nces.ed.gov/ecls/index.html).

MAJOR PUBLICATION

Brochure: Early Childhood Longitudinal Study (February 1998)

For more information on the ECLS–K, contact:

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# **Secondary Longitudinal Studies**

### National Longitudinal Study of 1972

Young people's success in making the transition from high school or college to the workforce varies enormously for reasons only partially understood. Some cling to dependency; others move into self-determination smoothly. The National Longitudinal Study of the High School Class of 1972 (NLS–72) base year study and its five followup surveys provide data to allow researchers to study how these transitions evolve.

NLS-72 can provide information about quality, equity, and diversity of educational opportunity and the effect of those factors on cognitive growth, individual development, and educational outcomes. It can also provide information about changes in educational and career outcomes and other transitions over time. The NLS-72 data cover the sampled cohort from 1972 to 1986.

### DESIGN

NLS-72 was designed to produce representative data at the national level on the cohort of students who were in the 12th grade in 1972. The sample for the base year of NLS-72 was a stratified, two-stage probability sample of 12th grade students from all schools (public and private), in the 50 states and the District of Columbia during the 1971–72 school year. A sample of schools was selected in the first stage. In the second stage, a random sample of 18 high school seniors was selected within each participating school.

Data were collected by mail, telephone, and personal interviews. In addition, the survey obtained high school transcript data on high school curriculum, credit hours in major courses, grade point average, standardized test scores, and related information for each senior. To conduct intensive studies of disadvantaged students, NCES oversampled schools in low-income areas and schools with significant minority enrollments.

The size of the student sample was increased during the first followup survey because base year nonrespondents were recontacted at that time. Those who provided base year information during the first followup were retained and included in later followup efforts. Consequently, in 1972 there were 16,683 respondents, but in the first followup in 1973 the number increased to 21,350. The numbers of respondents in subsequent followups in 1974, 1976, 1979, and 1986 were 20,872; 20,092; 18,630; and 12,841; respectively (only a subsample of 14,489 of the original sample was contacted in 1986).

In addition to the followups, a number of supplemental data collection efforts were undertaken. For example, a Postsecondary Education Transcript Study was undertaken in 1984, and the fifth followup survey in 1986 included a supplement for those who became teachers.

### COMPONENTS

**Base Year Survey**—Age; **s**ex; racial-ethnic background; physical handicap; socioeconomic status of family and community; school characteristics; future education and work plans; test scores; school experience; school performance; work status; and work performance and satisfaction.

Followup Surveys (1973, 1974, 1976, 1979, and 1986)—Marital status; community characteristics; education and work plans; educational attainment; work history; attitudes and opinions; postsecondary school characteristics; grade point average; credits earned; and financial assistance for postsecondary education.

### MAJOR PUBLICATIONS

Patterns and Consequences of Delay in Postsecondary Education (February 1990)
Trends in Postsecondary Credit Production 1972 and 1980 High School Graduates (June 1990)
Careers in Teaching: Following Members of the High School Class of 1972—In and Out of Teaching (July 1991)
Statistics in Brief: High School Seniors Look to the Future, 1972 and 1992 (December 1993)

Trends Among High School Seniors, 1972–1992 (July 1995)

#### DATA FILE

#### CD-ROM: National Longitudinal Study of the High School Class of 1972 (April 1994)

NLS-72 can be found on the Internet (http://nces.ed.gov.surveys/nls72.html). For further information on the NLS-72, contact:

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### **High School and Beyond**

New education issues arose after NCES began its longitudinal study of the 1972 senior class. For example, declining test scores and minimum competency testing caused concern among parents and educators alike. The rate at which many students dropped out of high school before graduation was also a concern. Increased opportunities in secondary school vocational education opened new vistas for youths attentive to their futures. Anxiety over access to postsecondary and vocational education sharpened the focus on the education experiences of Hispanic and other minority youths.

To examine these and other issues, NCES initiated a second longitudinal study, High School and Beyond (HS&B), to complement the first. HS&B studied the high school students of 1980. It attempted to collect the same types of data gathered in the National Longitudinal Study of the High School Class of 1972. However, the second study differed from the first in two significant ways. First, it addressed many newer issues of the educational process. Second, it included a sophomore cohort as well as a senior cohort. Adding the sophomore cohort made it possible to study high school dropouts and to analyze changes and processes during high school.

The base-year survey of HS&B and the followup surveys have addressed the issues of educational attainment, employment, family formation, personal values, and community activities since 1980. For example, a major study on high school dropouts used HS&B data to demonstrate that a large number of dropouts return to school and earn a high school diploma or an equivalency certificate. Other examples of issues and questions that can be addressed with HS&B data are:

- How, when, and why do students enroll in postsecondary education institutions?
- Did those who (while in high school) expected to complete the baccalaureate (BA) degree actually do so?
- How has the percentage of recent graduates from a given cohort who enter the workforce in their field changed over the past years?
- What are the medium-term effects of not completing high school in the traditional way?
- How do employment and earnings event histories of traditional high school graduates differ from those who did not finish high school in the traditional manner?
- Do individuals who attend college earn more than those who do not attend college?

- What is the effect of student financial aid?
- What percent of college graduates are eligible or qualified to enter a public service profession such as teaching?
- How many enter the workforce full time in the area for which they are qualified?
- And how, and in what ways do public and private schools differ?

#### DESIGN

The survey design provided for a highly stratified national probability sample of over 1,100 secondary schools as the first stage units of selection. To make the study more useful for policy analyses, certain types of schools were oversampled: public schools with a high percentage of Hispanic students, Catholic schools with a high percentage of minority students, alternative public schools, and private schools with high achieving students. The initial national sample for HS&B was considerably larger than that drawn in NLS–72. In this survey, 36 seniors and 36 sophomores were selected in each school. Parents of these students were also sampled. In schools with fewer than 36 students in either of these groups, all eligible students were selected. The base year of this survey, which was conducted early in 1980, collected data from over 28,000 sophomores and 30,000 seniors.

The longitudinal design of the study called for followup surveys of substantial subsets of the two cohorts at 2-year intervals. Data collection for the first followup was in spring 1982. Subsequent followups were also undertaken in 1984 and 1986, and another followup of the sophomores was conducted in 1992. The first followup survey conducted in 1982, sampled almost 40,000 students (12,000 seniors and 27,000 sophomores), the second in 1984, sampled approximately 27,000 students (12,000 seniors and 15,000 sophomores), and the third in 1986, sampled almost 27,000 students (also 12,000 seniors and 15,000 sophomores). The 1992 followup collected data from almost 15,000 sophomores. In 1993, a Postsecondary Education Transcript Study was conducted for the sophomore cohort.

Data collection instruments in the base-year survey included:

- Sophomore and senior student questionnaires with a series of cognitive tests;
- School questionnaires filled out by an official in each participating school;
- Teacher comment checklists filled out by a teacher of the sampled student;
- Second language questionnaires; and
- Parent questionnaires filled out by a sample of parents from both cohorts.

The student questionnaires focused on individual and family background, high school experiences, work experiences, and future plans. Cognitive tests administered to students measured both verbal and quantitative abilities. Sophomore tests included brief achievement measures in science, writing, and civics, while seniors were asked to respond to tests measuring abstract and nonverbal abilities. The parent questionnaire elicited information about family attitudes, financial planning, and educational goals. The school questionnaire gathered information about enrollment, staff, educational programs, facilities and services, dropout rates, and special programs for handicapped and disadvantaged students. The teacher comment checklist provided teacher observations on students participating in the survey.

The first followup of sophomores provided insights into the school dropout problem and into the influence of the last 2 years of high school on student attitudes and aspirations. The second followup in 1984 included a Postsecondary Education Transcript Study of the senior cohort. The later followups of the sophomore cohort made it possible to trace the consequences of dropping out, and the extent to which dropouts later return and complete high school. In brief, HS&B provides information on the educational, vocational, and personal development of young people as they move from high school into postsecondary education or into the workforce and then into adult life. The initial study (NLS–72) laid the groundwork for comparison with HS&B. It recorded the economic and social conditions surrounding high school seniors in that year and, within that context, their hopes and plans. It has since measured the outcomes while also observing the intervening processes. HS&B allows researchers to monitor changes by retaining the same goals, measuring the economic returns of postsecondary education for minorities, and delineating the need for financial aid. By comparing the results of the two studies, researchers can determine how plans and outcomes differ in response to changing conditions or remain the same despite such changes.

Additional concerns of HS&B encompass issues that surfaced since NLS-72 began: 'How did the availability (or lack thereof) of student financial aid alter student plans for further education?' and 'Did middle-income families alter their attitude toward postsecondary education?' These questions, as well as concerns about declining test scores, youth employment, and bilingual education are addressed, along with a host of others.

COMPONENTS

Base Year (1980)

**Student Questionnaire**—Age; sex; racial-ethnic background; religion; socioeconomic status of family and community; school experiences; test scores; school performance; future educational plans; family status and orientations; work experience and satisfaction; future occupational goals; plans for and ability to finance postsecondary education; and cognitive tests.

**School Questionnaire**—Enrollment; staff; educational programs; facilities and services; dropout rates; and special programs for handicapped and disadvantaged students.

Teacher Comment Checklist—Teacher observations about the student.

**Parent Questionnaire**—Family attitudes; family income; employment; occupation; salary; financial planning; and postsecondary education goals.

**Followup Surveys (1982, 1984, 1986, and 1992)**—Sophomores: similar student information as collected in the base year survey; school information in the first followup; high school and postsecondary transcripts; and data on dropping out. Seniors (not surveyed in 1992 followup): marital status; community characteristics; work plans; educational attainment; work history; attitudes and opinions; postsecondary school and program characteristics; postsecondary transcripts and credits earned; and type of financial aid for postsecondary education.

MAJOR PUBLICATIONS

America's High School Sophomores: A Ten Year Comparison, 1980–1990 (June 1993)

High School and Beyond: Educational Attainment of 1980 High School Sophomores by 1992 (March 1995)

Understanding Racial/Ethnic Differences in Secondary School Science and Mathematics Education (March 1995)

Trends Among High School Seniors, 1972–1992 (July 1995)

Urban Schools: The Challenge of Location and Poverty (August 1996)

Continuity of Early Employment Among 1980 High School Sophomores (September 1997)

Gender Differences in Earnings Among Young Adults Entering the Labor Market (March 1998)

### DATA FILES

CD-ROM: High School and Beyond Fourth Followup (Sophomore Cohort) HS&B: 1992 DAS (March 1995)

CD-ROM: High School & Beyond: 1992 (Restricted) Data File (June 1995)

HS&B can be found on the Internet (http://nces.ed.gov.surveys.data.surv.html).

For more information on HS&B, contact:

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## National Education Longitudinal Study of 1988

The National Education Longitudinal Study of 1988 (NELS:88) was the third major longitudinal study sponsored by NCES. The two studies that preceded NELS:88, the National Longitudinal Study of 1972 and High School and Beyond (HS&B) surveyed high school seniors (and sophomores in HS&B) through high school, postsecondary education, and work and family formation experiences. Taken together, the longitudinal studies provide not only measures of educational attainment but also rich resources in determining the reasons for and consequences of academic success and failure. NELS:88 sought to expand on this base of knowledge by following young adolescents starting at an earlier age (eighth grade) and by updating information throughout the 1990s.

The longitudinal design of this study permits the examination of change in young people's lives and the role of schools in promoting growth and positive life outcomes. For example, NELS:88 data can be used to investigate:

- The transition from elementary to secondary school—The survey will permit the investigation of ways students are assigned to curricular programs and courses and how such assignments affect their academic performance as well as future career and postsecondary education choices.
- The students' academic growth over time—Family, community, school, and classroom factors that promote such growth can be studied. The goal is to identify school and classroom characteristics and practices that promote student learning. The effects of changing composition of the family, which is evidenced by increasing numbers of working mothers and families headed by single parents, can also be studied.
- The features of effective schools—By surveying students, teachers, and school administrators, NELS:88 enables an assessment of student educational outcomes. It is possible to identify school attributes that are associated with student

academic achievement and other selected student behavior. For those researchers interested in school effects analyses, NCES also sponsored a School Effects Supplement. In 250 of the

NELS:88 schools, additional students and teachers were added in the first followup.

- The process of dropping out of school, as it occurs from eighth grade on— NELS:88 provides the unprecedented opportunity to study young dropouts on a national scale, to examine the contextual factors associated with dropping out (especially those related to the school) and to profile the movement of students in and out of school, including alternative high school programs.
- The role of the school in helping the disadvantaged—Given the factors of increasing teenage pregnancy rates, increasing poverty among children, and the growing proportion of language minority students, there is a need for research on the school experiences of the disadvantaged and the approaches that hold the greatest potential for assisting them. By design, the NELS:88 sample contains an ample number of disadvantaged students to study this issue.
- The school experiences and academic performance of language minority students—NELS:88 oversampled Hispanics and Asians-Pacific Islanders to allow meaningful analyses of these subpopulations. Specifically, the data provide information on variation in achievement levels and bilingual education needs and experiences.
- Attracting students to the study of mathematics and science—The data show the math and science preparation students receive nationwide and the degree to which their interest in these subjects is captured. Information is also available on whether they were encouraged by their teachers and school to study advanced mathematics and science.
- The transition from high school to college (postsecondary access and choice)—NELS:88 included the planning and application behaviors of the high school class of 1992, as well as their subsequent enrollments in postsecondary institutions.

### DESIGN

The base year sample of 1988 eighth-graders was constructed to be representative at the national level. Two-stage probability sampling was used to select schools and students. The first stage involved stratified sampling of some 1,000 public and private schools from a universe of approximately 40,000 schools containing eighth-grade students. The second stage included random samples of approximately 24 to 26 students per school. Some 25,000 eighth-graders and their parents, their teachers, and their school principals were surveyed. When the student sample was selected, one parent, one school principal, and two teachers of each student were also selected as subsamples. Hispanic and Asian students were oversampled to permit analysis of the performance of language minority students.

NELS:88 is designed to provide trend data about critical transitions experienced by young people as they develop, attend school, and embark on their careers. It can complement and strengthen state and local efforts by furnishing new information on how school policies, teacher practices, and

family involvement affect student educational outcomes (i.e., academic achievement, persistence in school, and participation in postsecondary education). In the base year, four cognitive tests (reading, science, history-government, and math) were administered in addition to the student questionnaire, a parent questionnaire, a teacher questionnaire, and a school administrator questionnaire.

The design for the NELS:88 First Followup Survey included student, school administrator, teacher, and dropout questionnaires. Students took cognitive tests in reading, science, history-government, and math. The tests were designed to reflect 10th grade course work, but also had enough overlapping items with the 8th and 12th grade tests to permit measurement of academic growth. Selected teachers of each sampled student provided information about the student's study habits and performance, and about instructional practices in the student's classes. The NELS:88 First Followup was conducted between February and May of 1990.

During the spring of 1992, NCES surveyed this eighth-grade cohort again. This second followup survey included student, school administrator, parent, teacher, and dropout questionnaires. Students and dropouts also took cognitive tests in reading, science, social science, and math. High school transcripts were also collected from second followup participants.

For those researchers interested in school effects analyses, NCES also sponsored a School Effects Supplement. In 250 of the NELS:88 schools, additional students and teachers were added in first and second followup.

During the spring of 1994, NCES followed this cohort again. The focus of the computerassisted telephone interviews (CATI) was employment, education, and family formation experiences. The sampled population was interviewed in order to determine whether they completed high school, and if so by what means (e.g., regular completion, GED, or some other method). The interview also collected information about other activities since the last interview in 1992 (e.g., working, number of jobs, what periods worked, description of work and education, postsecondary activities, field of study, and periods of time). This followup also asked questions about sexual activities (e.g., age at first sexual activity, frequency, whether birth control was used, and method of birth control used).

The next followup is scheduled for 2000 by which time many in this cohort will have finished their postsecondary education and completed a transition into the labor force. Others will have been in the labor force for about 8 years.

### COMPONENTS

### Base Year (1988)

**Student Questionnaire**—Family background items; interaction with parents regarding in- and outof-school activities; educational and occupational goals; perceptions about self and school; participation in classes and activities; and self-reported grades. Four cognitive tests: reading, math, science, and history-government.

**Parent Questionnaire**—Social-demographic characteristics; participation in student course selection; long-range educational planning; in- and out-of-school activities; establishing home discipline and interaction with the school; family educational expenses; and sources of income for children's education.

**School Administrator Questionnaire**—School characteristics: grade span; school type; enrollment and major program orientation; policies and practices; admission procedures and tuition; grading; testing and minimum course credits; gifted and talented programs; activities; and school climate. Student characteristics: average daily attendance; migration; race-ethnicity; single parent households; limited-English-proficiency classes; and special student services such as remedial classes and job-training. Teaching staff characteristics: size, race-ethnicity, salary, and degree.

**Teacher Questionnaire**—Student information: personal characteristics; behavior; academic performance; attitudes; problems; and handicaps. Class information: homework assigned; use of instructional materials; choice of textbook-workbook; curriculum; and topical coverage. Teacher information: sex; race-ethnicity; age; experience; certification; degree; foreign language proficiency; in-service education; classroom preparation; parent contact; perception of school climate; and experience teaching gifted and talented children.

### First Followup (1990)

**Student Questionnaire**—School experiences and activities; plans for the future; language use; opinions about self; attitudes; religion; finances; and family composition. Four cognitive tests: reading; math; science; and history-government.

**Dropout Questionnaire**—Same as Student Questionnaire except school experiences and activities section asks reasons for leaving school, grade at the time, and if the student returned to school.

**Teacher Questionnaire**—Student information: academic performance; behavior; homework; absenteeism; parental involvement; and language minority status. Class information: enrollment; composition; homework assigned; class schedule; teaching materials; methods; and objectives. Teacher information: sex; race-ethnicity; subjects taught; and degrees held. School climate information: cooperation among staff, shared beliefs, and problems.

**School Questionnaire**—School characteristics: grade span; enrollment; control of school; community location; calendar system; programs; facilities and services; and absenteeism. Student characteristics: race-ethnicity; single-parent homes; limited English proficiency; free lunch programs; busing; and 10th grade dropouts. Teaching staff characteristics: meetings; departmentalization; chairpersons; full-time teachers; salaries; race-ethnicity; and degrees. School admission policies and practices: grading structure, testing structure, or both; school programs; and school climate.

### Second Followup (1992)

**Student Questionnaire**—School experiences and activities; age; social development; opinions about self; attitudes; occupational expectations and aspirations; money and work; language use; early graduate supplement; and school structure.

**Parent Questionnaire**—Family background; child's school life; parental behavior concerning student course selection; student educational outcomes; long-range educational planning; contact with child's school; family life; friends; activity in the community; child's future plans; postsecondary aspirations; parent involvement; in- and out-of-school activities; family educational expenses; and sources of income for child's education.

**School Administrator Questionnaire**—School characteristics: school environment and policies; total enrollment; grade span; school type; school activities; school programs and services; grading and testing structure; and school climate. Student characteristics: average daily attendance; raceethnicity; single-parent households; and limited-English-proficiency classes and special student services, such as remedial classes and job training. Teacher staff characteristics: size, full and part time, salary, and degree. **Teacher Questionnaire**—Student information: academic performance; behavior; homework; absenteeism; parent involvement; and language minority status. Class information: enrollment; composition; homework assigned; class schedule; teaching materials; methods; and objectives. Teacher information: sex; race-ethnicity; experience; certification; degree; and in-service education. School climate information: cooperation among staff, shared beliefs, and problems.

**Dropout Questionnaire**—How time is spent; past educational activities; reasons for dropping out; family reactions; peer group support; and plans and aspirations for returning to school.

### Third Followup (1994)

**Student CATI Interview**—High school completion and mode of completion, education and work plans; educational attainment; work history; marital status; family formation; personal values; community activities; postsecondary school and program characteristics; and type of financial aid for postsecondary education.

MAJOR PUBLICATIONS

America's High School Sophomores: A Ten Year Comparison, 1980–1990 (June 1993) School Engagement and Students At Risk (August 1993) A Profile of the American High School Sophomore in 1990 (March 1995) NELS:88 Students' School Transition Patterns Between 8th and 10th Grades (April 1995) A Profile of the American High School Senior in 1992 (July 1995) Two Years Later: Cognitive Gains and School Transitions of NELS:88 Eighth Graders (September 1995) NELS:88 High School Senior's Instructional Experiences in Science and Math (March 1996) NELS:88/94 Descriptive Summary Report With an Essay on "Access and Choice in Postsecondary Education'' (May 10, 1996) Urban Schools: The Challenge of Location and Poverty (August 1996) A Comparison of High School Dropout Rates in 1982 and 1992 (October 1996) Science Proficiency and Course Taking in High School: The Relationship of Science Course-Taking Patterns to Increases in Science Proficiency Between 8th and 12th Grades (April 1997) Profiles of Students with Disabilities as Identified in NELS:88 (June 1997) Access to Postsecondary Education for the 1992 High School Graduates (October 1997) Dropout Rates in the United States: 1996 (December 1997) Confronting the Odds: Students At Risk and the Pipeline to Higher Education (January 1998) Subsequent Educational Attainment of High School Dropouts (June 1998)

### DATA FILES

CD-ROM: NELS:88 Restricted Use (February 1995)

- Data File: NELS:88 Second Followup Transcript Component Data Tape and Users Manual (Restricted Only) (March 1995)
- CD-ROM: NELS:88/94 Data Analysis System (May 1996)
- CD-ROM: NELS:88/94 Public Use Data Files and Electronic Codebook—Base Year through Third Followup (May 1996)

NELS:88 can be found on the Internet (http://nces.ed.gov/surveys/nels88.html).

Further information on the NELS:88 may be obtained from:

Jeff Owings Elementary/Secondary and Libraries Studies Division Secondary Longitudinal and Transcript Studies Program National Center for Education Statistics 555 New Jersey, Avenue NW Washington, DC 20208–5652 Telephone number: (202) 219–1777 E-mail address: jeffrey\_owings@ed.gov

# **Postsecondary Longitudinal Studies**

### **Beginning Postsecondary Students Longitudinal Study**

To complement the high school cohort longitudinal studies and to improve data on participants in postsecondary education, the Beginning Postsecondary Students Longitudinal Study (BPS) was started. Because older students, in addition to recent high school graduates, are increasingly included in postsecondary education, high school cohort studies are not representative of all postsecondary participants at a given point in time. BPS includes these "nontraditional" as well as "traditional" students and is representative of all beginning students in postsecondary education.

The BPS survey includes information regarding persistence, progress, and attainment from initial time of entry into postsecondary education, through leaving and entering the workforce. By following a postsecondary education cohort (rather than a single-age elementary or secondary school cohort), BPS describes to what extent, if any, students who start postsecondary education later differ in their progress, persistence, and attainment. Because students who delay entry into postsecondary education have different experiences prior to entry than students who enter immediately after high school, their transitions between levels of education and work may also be different. New BPS cohorts will alternate with the Baccalaureate and Beyond Study in using the National Postsecondary Student Aid Study (NPSAS) as their base.

BPS addresses persistence, progress, and attainment after entry into Postsecondary Education. It also directly addresses issues concerning entry into the workforce. Its unique contribution is the inclusion of nontraditional (or older) students. This provides the ability to analyze the differences, if any, between traditional (recent high school graduates) and nontraditional (older) students in aspirations, progress, persistence, and attainment.

Among the questions BPS can address related to persistence are: Do students who are parttime or discontinuous attenders have the same educational goals as full-time, consistent attenders? Are they as likely to attain similar educational goals? Are students who change majors more or less likely to persist? The publication, *Descriptive Summary of 1989–90 Beginning Postsecondary Students: 5 Years Later*, presented rates of persistence and degree attainment. In addition, *Nontraditional Undergraduates* presented differences in persistence found for traditional and nontraditional students.

### DESIGN

The BPS is based on the NPSAS. NPSAS is a large, nationally representative sample of institutions, students, and parents (see NPSAS description in chapter 4 for more information). As such, it provides a highly efficient and cost-effective way of identifying a nationally representative sample of beginning students in Postsecondary. In addition, data from all components of NPSAS (the Student Record Abstract, the Student Interview, and the Parent Survey) are available as base-year data for the BPS sample. BPS followed NPSAS:90 beginning students starting in 1992. About 8,000 students who began their Postsecondary Education career in the 1989–90 academic year responded to NPSAS:90 and were included in the first BPS (BPS:90/92) in the spring of 1992 and the second BPS (BPS: 90/94) in 1994. NPSAS:90 collected data for over 6,000 parents of those students. Public-use data from this BPS:90/92/94 cohort are available through both the Internet and on CD-ROM. BPS began a new cohort based on NPSAS:96 beginning students starting in the 1995–96 academic year. The first followup for this new cohort was in the spring of 1998.

#### COMPONENTS

**NPSAS (Base Year 1990 and 1996)**—Major field of study; type and control of institution; financial aid; cost of attendance; age; sex; race-ethnicity; family income; reasons for school selection; current marital status; employment and income; community service; background and preparation for college; college experience; future expectations; parents' level of education; income; and occupation.

**BPS Followup Surveys (1992, 1994, and 1998)**—Year in school; persistence in enrollment; academic progress; degree attainment; change in field of study; institution transfer; education-related experiences; current family status; expenses and financial aid; employment and income; employment-related training; community service; political participation; and future expectations.

### MAJOR PUBLICATIONS

- Descriptive Summary of 1989–90 Beginning Postsecondary Students: Two Years Later: 90–92 (July 1994)
- *Profile of Older Undergraduates: 1989–90* (May 1995)
- *Minority Undergraduate Participation in Postsecondary Education* (June 1995)
- Profile of Part-Time Undergraduates in Postsecondary Education: 1989–90 (July 1995)
- How Low Income Undergraduates Finance Postsecondary Education: 1992–93 (April 1996)
- Descriptive Summary of 1989–90 Beginning Postsecondary Students: 5 Years
- Later With an Essay on "Postsecondary Persistence and Attainment" (May 1996)
- Nontraditional Undergraduates: Trends in Enrollment from 1986 to 1992 and Persistence and Attainment Among 1989–90 Beginning Postsecondary Students (December 1996)
- Transfer Behavior Among Beginning Postsecondary Students: 1989–94 (June 1997)

Early Labor Force Experiences and Debt Burden (September 1997)

- Postsecondary Financing Strategies: How Undergraduates Combine Work, Borrowing, and Attendance (March 1998)
- First-Generation Students: Undergraduates Whose Parents Never Enrolled in Postsecondary Education (June 1998)

### DATA FILES

CD-ROM: Beginning Postsecondary Students Longitudinal Study Second Followup (BPS:90/94) Public Use Data Analysis System (July 1996)

BPS can be found on the Internet (http://nces.ed.gov/surveys/bps.html).

Further information on BPS may be obtained from:

Paula Knepper Postsecondary Studies Division Longitudinal and Sample Survey Studies Program National Center for Education Statistics 555 New Jersey Avenue NW Washington, DC 20208–5652 Telephone number: (202) 219–1914 E-mail address: paula\_knepper@.ed.gov

### **Baccalaureate and Beyond Longitudinal Study**

The Baccalaureate and Beyond Longitudinal Study (B&B) provides information concerning education and work experiences after completion of the bachelor's degree. It provides both cross-sectional information 1 year after bachelor's degree completion (comparable to the Recent College Graduate survey), and longitudinal data concerning entry into and progress through graduation-level education and the workforce. A special emphasis of B&B is on those entering public service areas, particularly teaching.

B&B provides information on entry into, persistence and progress through, and completion of graduation-level education. This information has not been available through followups involving high school cohorts or even college entry cohorts, both of which are restricted in the number who actually complete the bachelor's degree and continue their education. This provides a unique opportunity to gather information concerning delayed entry into graduate education, time to completion of graduate education, and the interaction between work and education beyond the bachelor's degree.

B&B is an expansion of the former Recent College Graduates (RCG) Survey. The RCG focused on the immediate post-degree employment and education experiences of people who completed a bachelor's or master's degree, and also estimated the potential supply of newly qualified teachers at the elementary and secondary levels. B&B expands that effort to provide unique information on education and employment experiences over a longer period of time, and addresses issues concerning delayed entry into graduate school, progress and completion of graduation-level education, and undergraduate and graduate debt and its impact on choices related to career and family. In addition, it provides new information on the career paths of new teachers, and movement into and outside of the education system.

B&B covers a number of topics of interest to policymakers, educators, and researchers. For example, B&B allows analysis of the participation and progress of recent bachelor's degree completers in the workforce, relationship of employment to degree, income and ability to repay debt, and willingness to enter public service-related fields. B&B also allows analysis of issues related to access and choice into graduate education programs. Here emphasis is on ability, ease, and timing of entrance into graduate school, and attendance-employment patterns, progress, and completion timing once entered.

The unique features of B&B allow it to be used to address issues related to undergraduate education as well as post-baccalaureate experiences. For instance, B&B allows the investigation of issues related to undergraduate course-taking patterns, progress, and time to degree. This can involve such things as course taking in the major area of study, as well as in areas other than the academic

major; stopout and transfer behavior; credits and grades earned; or financial aid and work experiences as an undergraduate and their relationship to post-baccalaureate education; and financial experiences. This information has been used to investigate the relationship between undergraduate debt burden and early labor force experiences, and between undergraduate academic experiences and entry into teaching. These and other relationships can be investigated both in the short term and over longer periods.

Because B&B has a special emphasis on new teachers at the elementary and secondary levels, it can be used to address many issues related to teacher preparation, entry into the profession (e.g., timing and ease of entry), persistence in or defection from teaching, and career movement within the education system.

Employment and enrollment patterns can also be examined for special baccalaureate degree populations. These populations include, but are not limited to, students with disabilities, racial and ethnic minorities, students from families with low incomes, and older students. B&B also allows investigation of the experiences of students by major field of study at both the undergraduate and graduate levels. Major fields of particular interest include mathematics, science, engineering, teacher preparation, and health studies.

### DESIGN

The B&B is based on the National Postsecondary Student Aid Study (NPSAS) described separately (see chapter 4). NPSAS is a large, nationally representative sample of institutions, students, and parents. As such, it provides a highly efficient and cost-effective way of identifying a nationally representative sample of baccalaureate degree completers. For each NPSAS which serves as the base year for a B&B cohort, the sample is structured to provide an optimum sample of graduating seniors in all majors. This allows the accurate identification of baccalaureate degree completers, and provides additional information concerning both past education experiences and future education employment expectations. Data from all components of NPSAS are available as base-year data for the B&B sample.

B&B will follow baccalaureate degree completers identified in alternating NPSAS surveys, beginning with NPSAS:93. About 11,000 students who completed their degree in the 1992–93 academic year were included in the first B&B followup (B&B:93/94). NPSAS:93 also provided data for over 8,000 of their parents. In addition to the student interview data, B&B:93/94 collected postsecondary transcripts covering the undergraduate period. These transcripts provide information on progress and persistence at the undergraduate level. The second B&B followup took place in spring 1997 (B&B:93/97). New Baccalaureate and Beyond cohorts will alternate with BPS in using NPSAS surveys as their base. The next scheduled B&B cohort will be associated with the NPSAS:2000.

### **COMPONENTS**

### Base Year (1992–93):

**NPSAS Data**—Year in school; major field of study; type and control of institution; attendance status; tuition and fees; admission test scores; financial aid awards; cost of attendance; student budget information and expected family contribution for aided students; grade point average; age; date first enrolled; level; major field of study; financial aid at other schools attended during year; other sources of financial support; monthly expenses; reasons for selecting the school they attended; current marital status; age; race-ethnicity; sex; highest degree expected; employment and income; community service; expectations for employment after graduation; expectations for graduate school; plans to enter the teaching profession; parents' level of education; income; and occupation.

#### **B&B First Followup (1994)**

**B&B:93/94**—Employment after degree completion; job search activities; expectations for and entry into teaching; teacher certification status; job training and responsibilities; expectations/entry into graduate school; enrollment after degree; financial aid; loan repayment/status; income; family formation and responsibilities; community service; undergraduate coursework; institutions attended; grades; credits attempted and earned; and academic honors earned.

#### **B&B Second Followup (1997)**

**B&B:93/97**—Employment history; enrollment history; job search strategies at degree completion (each new degree completed); career progress; current status in graduate school; nonfederal aid received; additional job training; entry into, persistence in, and resignation from teaching career; teacher certification status; teacher career paths; income; family formation and responsibilities; community service; types and amounts of federal financial aid received; total federal debt accrued; and loan repayment status.

#### MAJOR PUBLICATIONS

A Descriptive Summary of 1992–93 Bachelor's Degree Recipients: One Year Later (August 1996) B&B Teacher Report: Out of the Lecture Hall and Into the Classroom: 1992–93 (September 1996) College Graduates and Elementary/Secondary School Teaching (September 1996) America's Teachers: Profile of a Profession, 1993–94 (July 1997) Early Labor Force Experiences and Debt Burden (September 1997)

#### DATA PRODUCTS

CD-ROM: Baccalaureate and Beyond Longitudinal Study First Followup DAS (September 96)

B&B can be found on the Internet (http://nces.ed.gov/surveys/b&b/html).

Further information on B&B may be obtained from:

Paula R. Knepper Postsecondary Studies Division Longitudinal and Sample Survey Studies Program National Center for Education Statistics 555 New Jersey Avenue NW Washington, DC 20208–5652 Telephone number: (202) 219–1914 E-mail address: paula\_knepper@ed.gov

## **Plans for Longitudinal Studies**

The fourth followup for National Education Longitudinal Study of 1988 is scheduled for 2000. Data for 1997 from the second followup of Baccalaureate and Beyond Survey (B&B:93/97), based on the 1993 National Postsecondary Student Aid Study, will be available in the spring of 1999. If funds are available, further followups for B&B:96 and Beginning Postsecondary Students Longitudinal Study of 1996–98 may be undertaken.

### **Early Childhood**

An Early Childhood Longitudinal Study–Birth (ECLS–B) Cohort Study is being developed. The ECLS–B has two purposes: descriptive and analytic. ECLS–B will provide descriptive data on a national basis of children's status at birth and at various points thereafter; children's transitions to nonparental child care, early education programs and to school; and their progress during the first 2 years of school, kindergarten, and first grade. ECLS–B will also provide a rich data set that will enable researchers to study how a wide range of family, school, community, and individual variables influence children's development, early learning, and their early performance in school.

The design of the ECLS–B is based on the assumption that children's preparation for school begins at (or before) birth and continues until they enter school for the first time. It is guided by a framework of children's development, care, and schooling that emphasizes the interaction between the child, family, care and education programs, and community. The ECLS–B recognizes the importance and interrelatedness of factors that represent the child's health status, social-emotional, and intellectual development.

While many decisions about the design of the ECLS–B have yet to be made, certain key features of the design have been identified. A nationally representative sample of approximately 10,000 children born during 2000 will be selected for participation in the study. The sample will consist of children from different racial-ethnic and socioeconomic backgrounds. Children will be selected at birth and followed through the end of the first grade. NCES has planned for annual data collections. The first data collection will occur shortly after the birth of the child (i.e., within 6 months of birth). The interval between subsequent data collections has not been set. The exact timing of these additional waves of data collection may be affected by other design decisions, the analytic goals of the study, and a variety of operational and cost considerations.

The emphasis that is being placed on the whole child and the different environments in which learning occurs is critically important for the design of the ECLS–B. While children's parents will be the primary reporters throughout the life of the study, at varying points it will be necessary to gather data from children's hospital birth records, their care and early education providers, their schools and teachers, and directly from the children themselves.

Children will be asked to participate in the study when appropriate for their age in order to limit any negative impacts associated with their participation. Beginning at age two-and-a-half, children will be asked to participate in activities designed to measure important cognitive (e.g., general knowledge, language, and quantitative skills) and noncognitive (e.g., social skills) domains.

For more information on the ECLS-B, contact:

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## Data Collection Calendar for Longitudinal Studies

Surveys	Base Year and Years of Followup Studies										
	1972	1973	1974	1975	1976	1986					
National Longitudinal Study of 1972	В	F		F	F	F					
	Base Year and Years of Followup Studies										
	1980	1982	1984	1986	1992						
High School and Beyond											
Seniors Sophomores	B B	F F	F F	F F	F						
	Base Year and Years of Followup Studies										
	1988 1990 1992 1994 2000										
National Education Longitudinal	в		F		F		F	F			
Study of 1988	Б						-	F			
		Base Y	ear and	Years o	of Follov	vup Stu	dies				
	1990	1991	1992	1993	1994	1995	1996	1997	1998		
	В		F		F						
Beginning Post- Secondary Students 1995–96						В			F		

B=Base year. F=Followup survey.

## Data Collection Calendar for Longitudinal Studies (Continued)

Surveys	Base Year and Years of Followup Studies											
	1990	1991	1992	1993	1994	1995	1996	1997	1998			
Baccalaureate and Beyond												
1992–93 1999–2000	В	F		F			в	F				
	Base Year and Years of Followup Studies											
		1998	1999	2000	2001	2002	2003	2004				
Early Childhood Longitudinal Survey– Kindergarten		в	B, F	F		F		F				

## **International Statistics**

Insights into the educational practices and outcomes of the United States are obtained by comparing them with those of other countries. This is achieved through the International Education Statistics program at the National Center for Education Statistics (NCES), which provides statistical information comparing the educational experiences and trends in other countries to those of the United States.

NCES carries out a variety of activities to provide statistical data for cross-national comparisons of education. Through comparisons with other countries, it is possible to learn more about the status of education in the United States and to generate new ideas for improving American education.

NCES plays a central role among organizations involved in collecting and interpreting international data and has created an International Studies Program within the Early Childhood, International, and Crosscutting Studies Division to coordinate NCES efforts in international education studies. NCES is actively involved with the Organization for Economic Cooperation and Development (OECD), based in Paris, France, and with the International Association for Evaluation of Educational Achievement, based in Amsterdam, Netherlands. NCES, along with the National Science Foundation, also supports the Board on International Comparative Studies in Education at the National Academy of Sciences. The board discusses U.S. participation in international education studies and provides advice on ways to improve these studies. In addition, NCES works with the Office of the Under Secretary, U.S. Department of Education, on the statistics project for the Asian Pacific Economic Cooperation Education Forum.

There is a great deal of interest in the findings of international student assessment studies and in the development of education indicators that facilitate comparisons among national systems of education. This interest has been spurred by increased concern about global economic competition and the role education plays in the economy.

International assessment studies provide answers to the question of how other countries educate their children and with what success. Such comparisons lead to reexamination of our own teaching practices and challenge the conventional wisdom underlying them. The impetus for much of the educational reform movement of the 1980s came from the international comparisons reported in the publication, *A Nation at Risk*. The assessments not only compare the performance of American students with those of their peers in other nations but also provide insights into the factors that influence performance.

OECD educational indicator data provide more comparable information about the activities and outcomes of educational systems and institutions in member countries. Such data can lead to improvements in accountability and policymaking. These data are increasingly relevant to policy formulation as the political, economic, and cultural ties grow among countries.

## **Data Uses**

NCES receives many requests for information about education in other countries, such as school achievement levels, school completion rates, school expenditure levels, and higher education enrollment rates. Policymakers, such as chief state school officers, governors, and local school officials, also want to know the average level of achievement in other countries. Most requests are for data concerning highly developed countries (e.g., Australia, Canada, England, France, Germany, and Japan). This particular concern relates to maintaining a leading position in the world economy. However, interest is not just limited to how well the education systems do in preparing youth for participation in the labor force.

NCES also provides international data on instructional practices. These data are gathered through two vehicles: survey data gathered at the same time assessment data are collected, and videotape data. Both vehicles allow researchers to examine and exemplify instructional practices around the world.

Data from these international activities appear prominently in numerous publications produced not only in the United States but also by international organizations. The OECD publication, *Education at a Glance*, relies heavily on data gathered through NCES. United Nations Educational, Scientific, and Cultural Organization reports on literacy have begun to follow the conventions developed by the International Adult Literacy Study, which NCES helped to underwrite.

## Studies

### **IEA Reading Literacy Study**

The International Association for Evaluation of Educational Achievement (IEA) periodically conducts international comparative studies that include assessments of student achievement. During the 1990–91 school year, IEA conducted a Reading Literacy Study in 34 countries, including the United States. NCES helped support the development and implementation of this study.

While this study is very similar to the National Assessment of Educational Progress program, it offers the possibility of making comparisons of student performance across countries and providing international benchmarks. The data from this study will be used in the publication, *Education in States and Nations*, in this manner. Numerous international and national reports from this study were released between 1992 and 1995.

#### DESIGN

A nationally representative sample of students in intact classes at the grade levels where the modal age was 9- and 14-year-olds were asked to demonstrate how well they read and how well they understood what they read. The populations and sample sizes varied from country to country. In the United States, the sample included approximately 10,000 fourth-graders and 5,000 ninth-graders from 400 schools.

#### COMPONENTS

**Reading Assessment**—Two reading assessments were developed, one for 9-year-olds and another for 14-year-olds. Each included items in three domains of reading literacy: narrative, expository, and document.

**Student Questionnaire**—Two student questionnaires were administered, one for 9-year-olds and another for 14-year-olds. Each included items related to age, gender, size and composition of family, family wealth (as indicated by possessions in the home), parents' education, first language, and reading habits.

**Teacher Questionnaire**—Two teacher questionnaires were developed: one for the teachers of the intact classes of 9-year-olds that were surveyed, and one for the teachers of the intact classes of 14-year-olds. Both teacher questionnaires included items related to gender, education, work experience, composition of the class, supervision, and general school ethos. The survey of the teachers of the intact classes of 9-year-olds also included extensive questions on instructional practices.

**School–Principal Questionnaire**—This questionnaire was designed to gather basic demographic information about the school population as a whole. It also included questions related to resources, teacher qualifications, school-based policies, supervision of teaching staff, and the principal's education, training, credentials, and work experience.

MAJOR PUBLICATIONS

*How in the World Do Students Read?* (September 1992)

- Reading Literacy in the United States, Technical Report of the U.S. Component of the IEA Reading Literacy Study (August 1994)
- Methodological Issues in Comparative Educational Studies: The Case of the IEA Reading Literacy Study (February 1995)

Reading Literacy in the United States: Findings from the IEA Reading Literacy Study (June 1996)

Reading Literacy in an International Perspective: Collected Papers from the IEA Reading Literacy Study (January 1997)

DATA FILE

IEA Reading Literacy Public Use Data Tape (September 1992)

For further information on the IEA Reading Literacy Study, contact:

Marilyn R. Binkley Early Childhood, International, and Crosscutting Studies Division International Studies Program National Center for Education Statistics 555 New Jersey Avenue NW Washington, DC 20208–5650 Telephone number: (202) 219–2195 E-mail address: marilyn\_binkley@ed.gov

### **International Adult Literacy Survey**

The International Adult Literacy Survey (IALS) was a collaborative project designed to inform both education and labor market policy and program development activities in participating countries. Originally conducted in 7 countries (Canada, Germany, the Netherlands, Poland, Sweden, French- and German-speaking Switzerland, and the United States), it was subsequently conducted in 5 additional countries (Australia, Flemish-speaking Belgium, Ireland, New Zealand, and the United Kingdom), and in its final phase in an additional 10 countries. The international portion of the study was carried out under the auspices of an International Steering Committee chaired by Canada, with each participating country holding a seat on the committee along with representatives from the Organization for Economic Cooperation and Development (OECD), European communities, and United Nations Educational, Scientific and Cultural Organization.

An international report, *Literacy, Economy, and Society*, from the first round of IALS was released in December of 1995. Comparisons among the seven participating countries, Canada, Germany, the Netherlands, Poland, Sweden, Switzerland, and the United States were included. The comparative data assessed literacy in OECD countries by providing information about literacy performance on three scales. This was accomplished by providing descriptions of the distribution of literacy skills within each of the participating countries. Literacy practices and their relation to literacy proficiency were also presented.

Australia, Belgium, Britain, Ireland, New Zealand, and Scotland have also collected data and released a report in late 1997. This report, *Literacy Skills for the Knowledge Society*, expanded the discussion of the distribution of adult literacy skills to include data from 12 countries. These distributions were related to education, age, parents' education, and socioeconomic status. The report considered the benefits of literacy in terms of associated economic and wider social benefits, as well as the relationship between lifelong learning and literacy.

#### DESIGN

The IALS combined the techniques of household-based survey research with those of educational testing. Data collectors went to people's homes to assess their literacy abilities and to administer a background questionnaire requesting detailed information on demographic and other characteristics. Each country was obliged to draw a probability sample from which results representative of the civilian, noninstitutionalized population aged 16 to 65 could be derived.

#### COMPONENTS

**Literacy Assessment**—The study includes a proficiency test based on United States definitions of literacy along three dimensions: prose literacy, document literacy, and quantitative literacy. The test framework explicitly follows the precedent set by the U.S. National Assessment of Adult Literacy Survey and extends the instruments into an international context. One hundred and fourteen tasks were constructed and administered to adults in each participating country. These items were grouped into three scales and divided into blocks of items. Any given adult responded to three blocks of items that, on average, would take about 45 minutes to complete.

**Background Questionnaire**—The background questionnaire provides for standard information across countries on occupation, labor force participation, and educational attainment, and was to be administered in about 20 minutes. Additional demographic information on gender, age, parent's occupation, native language, and reading habits was also gathered.

#### MAJOR PUBLICATIONS

Literacy, Economy, and Society (December 1995) Literacy Skills for the Knowledge Society (1997) Adult Literacy in OECD Countries: Achievement Percent on the First International Adult Literacy Survey (January 1998) For further information on the International Adult Literacy Survey, contact:

Marilyn R. Binkley Early Childhood, International, and Crosscutting Studies Division International Studies Program National Center for Education Statistics 555 New Jersey Avenue NW Washington, DC 20208–5650 Telephone number: (202) 219–2195 E-mail address: marilyn\_binkley@ed.gov

### Third International Mathematics and Science Study

The Third International Mathematics and Science Study (TIMSS), sponsored by the International Association for the Evaluation of Education Achievement, is a study of classrooms across the country and around the world. A half million students from 41 countries were tested in 30 different languages at 5 different grade levels to compare their mathematics and science achievement. Intensive studies of students, teachers, schools, curriculum, instruction, and policy issues were also carried out to understand the educational context in which learning takes place.

TIMSS helps measure progress toward the national goal of improving U.S. students' academic performance in mathematics and science. TIMSS helps answer the following questions about mathematics and science learning:

- Are U.S. curricula and expectations for student learning as demanding as those of other nations?
- Is the level of classroom instruction in the U.S. as advanced as that in other countries?
- Do U.S. teachers receive as much support in their efforts to teach students as their colleagues in other nations?
- Are U.S. students as focused on their studies as their international counterparts?
- How does the performance of U.S. students compare to that of students in other countries?

#### DESIGN

TIMSS was designed to focus on students at three different stages of schooling: midway through elementary school, midway through lower secondary school, and at the end of upper secondary school. In the United States, these are defined as 3rd and 4th graders, 7th and 8th graders, and 12th graders.

TIMSS includes five different parts: assessments, questionnaires, curriculum analyses, videotapes of classroom instruction, and case studies for policy topics. The study was designed to bring a variety of different and complementary research methods to examine important policy questions. Each of the five parts on its own represents an important advance in its field. Taken together, they provide an unprecedented opportunity to understand U.S. mathematics and science education from a new and richer perspective.

#### COMPONENTS

**Mathematics and science assessments**—The assessments were 1.5 hours in length and included both multiple-choice and free-response items. A smaller number of students completed hands-on performance assessments.

**School, teacher, and student questionnaires**—Students answered questions about their mathematics and science study beliefs. The mathematics and science teachers of the students participating in the assessment answered questions on their beliefs about math and science and on teaching practices. School administrators answered questions about school policies and practices. (Teacher questionnaires were not a component in the final year of secondary school part of TIMSS because many students do not take math, science, or both in their last year of secondary school.)

**Curriculum analysis**—This exploratory study compared mathematics and science curriculum guides and textbooks, and studied subject-matter content, sequencing of topics, and expectations of student performance. In conjunction with these three activities, the United States sponsored two additional parts of TIMSS which were carried out in Germany, Japan, and the U.S. in collaboration with researchers in those countries.

**Videotapes of eighth-grade mathematics instruction**—Teachers were filmed teaching a typical lesson. These tapes were analyzed to compare teaching techniques and the content of instruction.

**Ethnographic case studies of key policy topics**—Teams of bilingual researchers spent 3 months in Germany, Japan, and the U.S. observing classrooms and interviewing education authorities, principals, teachers, students, and parents.

#### MAJOR PUBLICATIONS

Pursuing Excellence: A Study of U.S. Eighth-Grade Mathematics and Science Teaching, Learning, and Curriculum, and Achievement in International Context (November 1996)

- Pursuing Excellence: A Study of U.S. Fourth-Grade Mathematics and Science Achievement in International Context (June 1997)
- Pursuing Excellence: A Study of U.S. Twelfth Mathematics and Science Achievement in International Context (February 1998)

TIMSS Video Tape "Public Use Database" (April 1998)

#### DATA FILE

Population 1 and 2 available from Boston College

TIMSS can be found on the Internet (http://nces.ed.gov/timss).

For further information about TIMSS, contact:

Eugene Owen Early Childhood, International, and Crosscutting Studies Division International Studies Program National Center for Education Statistics 555 New Jersey Avenue NW Washington, DC 20208–5650 Telephone number: (202) 219–1746 E-mail address: eugene\_owen@ed.gov

## **Other Activities**

### **OECD International Education Indicators Project**

NCES has been working cooperatively with the member countries of the Organization for Economic Cooperation and Development (OECD) since 1988 to develop an education indicator reporting system. The goal of the Indicators of Education Systems Project (INES) is to improve the comparability of education data across the 28 OECD countries and to develop, collect, and report on a key set of indicators of the condition of education in these countries. NCES chairs Network A, which develops indicators for student outcomes, and participates in other networks and a technical group, which develop indicators in other areas.

The set of indicators includes measures of student enrollment and achievement, labor force participation, school and school system features, attitudes and expectations, and costs and resources. The first report containing data for some of these topics, *Education at a Glance* (EAG), was released in September 1992. A second report, *Education at a Glance II*, with updated data and new indicators, was released in December 1993. Subsequent editions, EAG III and IV, were released in December of 1995 and 1996, respectively. An analytical volume was added to the series in 1996, and the two volumes were continued into 1997. These indicators will be refined and other indicators will be developed for future editions.

#### MAJOR PUBLICATIONS

Education in States and Nations: Indicators Comparing U.S. States with the OECD Countries in 1988 (October 1993)

Education in States and Nations: Indicators Comparing U.S. States with Other Industrialized Countries in 1991 (July 1996)

Education Indicators: An International Perspective (December 1996)

International Education Indicators: A Time Series Perspective (December 1996)

For further information about INES, contact:

Eugene Owen Early Childhood, International, and Crosscutting Studies Division International Studies Program National Center for Education Statistics 555 New Jersey Avenue NW Washington, DC 20208–5650 Telephone number: (202) 219–1746 E-mail address: eugene\_owen@ed.gov

### **Plans for International Education Statistics**

In 1995 and 1996, NCES participated in Phase I of the International Association for the Evaluation of Education Achievement (IEA) Civics Study which examined the goals and curriculum of civics education in approximately 20 countries. The product of Phase I will be a volume of case studies which describes civics education in participating countries, to be released in 1998. These case studies are designed to provide the information needed to develop a framework to guide the construction of an assessment instrument about civic knowledge and behavior. An assessment is planned for 1999 as part of Phase II of the subject.

Beginning with development work in 1998, the Organiztion for Economic Cooperation and Development Program for Indicators of Student Achievement will collect achievement data in three subject areas: reading, mathematics, and science. Focusing on 15-year-olds, this program will collect data every 3 years beginning in 2000. In each cycle, one of the subject areas will be featured, while sufficient data to maintain trend data will be collected in the other two areas. In the first cycle reading will be featured.

In collaboration with Statistics Canada, NCES will participate in developing and implementing an adult household study of life skills. This project will follow from the success in the International Adult Literacy Study. Nationally representative samples of adults between the ages of 16 and 65 will be asked to respond to a background survey and to participate in an assessment of prose literacy, document literacy, numeracy, problem solving, teamwork, technology utilization, and practical cognition. A feasibility study will be carried out in 1999, a field study in spring of 2001, and full-scale data collection in spring of 2001.

During the 1998–99 school year, the Third International Mathematics and Science Study (TIMSS) is once again being administered internationally at the eighth-grade level. Known as the TIMSS–Repeat (TIMSS–R), this new assessment of mathematics and science will involve about 40 countries, the majority of which participated in the original 1994–95 assessment. As in the original TIMSS, detailed context questionnaires and classroom videotaping will accompany the testing in mathematics and science.

### Data Collection Calendar for International Statistics

Surveys		Year of Data Collection										
	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
IEA Reading Literacy Study		x										
International Adult Literacy Survey					x	x			x			
TIMSS						x						
IEA Civics Study												
OECD Program For Indicators of St Achievement	udent								x	x		
International Life SI Study	kills											x
TIMSS-R												

х

## **Vocational Education**

The National Center for Education Statistics' (NCES) Data on Vocational Education (DOVE) system derives data about vocational education from existing NCES secondary and postsecondary surveys (see the "Components" section in this chapter for a list). A beneficial aspect of the system is that it allows researchers to compare students who are concentrating in vocational education.

One of the greatest changes that NCES made in its data collection system for vocational education at the secondary level concerns data collection on enrollment. Instead of relying on reports from states that categorize students as being either vocational or nonvocational, NCES collects high school transcripts that indicate how many vocational education credits students earned. This method of obtaining the data provides a more accurate picture of participation in vocational education, particularly since transcript studies showed that 97 percent of all graduating high school students had completed at least one course in vocational education in 1992.

## **Data Uses**

The primary use of the DOVE system is to report on the status of vocational education. NCES has published several reports on a range of vocational topics, including students, teachers, and institutions. (These publications are listed in the "Major Publications" section in this chapter.) These publications include *Vocational Education in the United States: The Early 1990s*, the most recent NCES publication that synthesizes NCES vocational education data at both the secondary and postsecondary levels. In addition, the DOVE system was a primary data source for the National Assessment of Vocational Education (NAVE), a congressionally mandated evaluation of federal vocational education programs. For example, NAVE used the High School and Beyond data for studies that attempted to measure high school curricular experiences related to vocational education, vocational education.

Listed below are the primary databases and components that are used by NCES for the analysis of vocational education issues. Only brief summaries of the surveys of interest are presented in this chapter. If a more complete description of a survey or component is needed, please refer to the appropriate chapter within this publication. The surveys are grouped by category: secondary, postsecondary, and longitudinal studies.

#### **COMPONENTS**

#### **Secondary Studies:**

**High School Transcript Studies**—Complete high school transcripts including courses taken, grades, and credits earned in addition to student characteristics. The 1987, 1990, and 1994 studies are linked to the National Assessment of Educational Progress. The 1982 study is linked to High School and Beyond. The 1992 study is linked to the National Education Longitudinal Study of 1988.

**Schools and Staffing Survey (SASS)**—Data from the Teacher Questionnaire, School Administrator Questionnaire, School Questionnaire, and School District Questionnaire.

#### **Postsecondary Studies:**

**Integrated Postsecondary Education Data System (IPEDS)**—Data from the Completion, Institutional Characteristics, Fall Enrollment, and Fall Enrollments in Occupationally Specific Programs components.

National Postsecondary Student Aid Study (NPSAS)—Data from the Student Record and Student Telephone Interview.

#### Longitudinal Studies:

National Longitudinal Survey of 1972 (NLS–72)—Data from the base-year survey and followup surveys in 1973, 1974, 1976, 1979, and 1986.

**High School and Beyond (HS&B)**—Data from the 1980 base-year Student, School, and Parent Questionnaires, and from followup surveys in 1982, 1984, 1986, and 1992.

**National Education Longitudinal Study of 1988 (NELS:88)**—Data from the base-year questionnaires and followup surveys in 1990, 1992, and 1994, including transcript data in 1992.

#### MAJOR PUBLICATIONS

Vocational Education in G–7 Countries: Profiles and Data (August 1994)
Vocational Education in the United States: The Early 1990s (November 1995)
Trends in Participation in Secondary Vocational Education (April 1996)
Third Biennial Report to Congress on Vocational Education Data in the Department of Education (August 1996)
Vocational Education Electronic Table Library 2.0 (October 1996)
Findings from Vocational Education in the United States: The Early 1990s (November 1996)

Further information on vocational education may be obtained from:

Lisa Hudson Early Childhood, International, and Crosscutting Studies Division Data Development Program National Center for Education Statistics 555 New Jersey Avenue NW Washington, DC 20208–5651 Telephone number: (202) 219–1419 E-mail address:lisa\_hudson@ed.gov

#### **Plans for Vocational Education**

The transcript studies, the longitudinal studies, and the Schools and Staffing Survey are the primary sources of vocational data in secondary education. High school transcript data studies are being conducted every 4 years in association with the National Assessment of Education Progress. The National Education Longitudinal Study of 1988 will conduct another followup scheduled for 2000. SASS will be conducted every 5 years with the next collection scheduled for 1999–2000.

At the postsecondary level, Integrated Postsecondary Education Data System (IPEDS), National Postsecondary Student Aid Study (NPSAS), and the longitudinal studies are the primary sources for vocational education data. Most of the IPEDS surveys will be conducted annually, while the next NPSAS survey will be conducted in 2000. NCES has contracted for analyses of these data sets to provide new comparisons of vocational and nonvocational activities. Vocational education information available as of early 1998 will be published in *Vocational Education in the United States: Toward the Year 2000*, due to be released in 1999.

## Libraries

Libraries represent an educational resource that is available to individuals regardless of age, social status, or educational background. In an effort to provide more complete information on this aspect of the education spectrum, the National Center for Education Statistics (NCES) initiated a formal library statistics program in 1989. The first library survey was begun, however, in 1966 with the fielding of the Academic Library Survey as part of the Higher Education General Information Survey. This survey was fielded because academic libraries were considered an essential component of a higher education institution, and the resource that an institution's library represented helped in some ways to define the quality of that institution. The Academic Libraries Survey has evolved into a component of the Integrated Postsecondary Education Data System, NCES' core postsecondary data collection activity.

The first survey under the auspices of the library statistics program (1989) focused on public libraries. The initiation of the survey responded to a congressional mandate for NCES to establish a cooperative system for public library data. In fact, the Public Libraries Survey is the product of a cooperative effort between state library agencies, NCES, and the National Commission on Libraries and Information Science. In addition to the Academic Libraries Survey and the Public Libraries Survey, the library statistics program has developed and implemented four additional library surveys: the School Library Media Centers Survey, State Library Agencies Survey, Federal Libraries and Information Centers Survey, and the Survey of Library Cooperatives.

## **Data Uses**

Except for the survey of school library media centers, each of the library surveys is a universe survey, and the data files resulting from these surveys can be used as a frame to develop samples of libraries for additional surveys by NCES, other agencies, or researchers. The data resulting from these surveys provide important information on monetary, human, and educational resources and services. Library data also provides policymakers at the national, state, and local levels with information on populations being served by libraries, particularly public libraries and, perhaps more importantly, populations that are not served or that are inadequately served by libraries.

Some of the analytical questions concerning libraries in the United States that can be addressed by the library survey data include: adequacy of staffing levels and size and content of the collections in libraries, populations served by the libraries, the number of items per year that libraries circulate, how library expenditures relate to total institutional expenditures, and the extent of public library services to children and adults.

The six library surveys provide the only current, national, descriptive data on the status of libraries. They are used by professional associations; local practitioners; and federal, state, and local officials for planning, evaluation, and making policy. These data are also available to researchers and educators to analyze the state of the art of librarianship and to improve its practice.

In addition to the periodic surveys of libraries, NCES has carried out some sample surveys related to public libraries—both to assess the feasibility of incorporating certain items into its universe surveys, and to obtain information that addresses specific issues of the moment that are too temporal to be incorporated into a routine universe survey. For example, in 1993, NCES conducted a survey of public library services to children and young adults using the Fast Response Survey System (FRSS). Several items on the extent of children's services were added the Public Libraries Survey in 1995, based on the results of this FRSS survey. NCES also collected information from households

about frequency of use and the purposes for which households use public libraries through the National Household Education Survey in 1996. This usage information can be extremely helpful for policymakers setting priorities for libraries in relation to demands for other public services. Having additional information on how individuals actually use libraries provides to practioners important insights to on ways to serve their customers better.

## Studies

### **Public Libraries Survey**

Nationwide public library statistics are collected and disseminated annually through the Federal-State Cooperative System (FSCS) for public library data. Descriptive statistics are collected on nearly 9,000 public libraries.

Preparing for its 12th year of electronic data collection, FSCS is an example of the synergy that can result from combining federal-state cooperation with state-of-the-art technology. FSCS was the first national NCES data collection in which the respondents supplied the information electronically and in which data were also edited and tabulated completely in machine-readable form. This software has been cost-effective and has improved data quality.

#### DESIGN

Data are collected for nearly 9,000 public libraries identified by state library agencies in the 50 states and the District of Columbia. Beginning in 1993, the following outlying areas joined FSCS: Guam, Northern Marianas, Palau, Puerto Rico, and the Virgin Islands. At the state level and in the outlying areas, FSCS is administered by State Data Coordinators, appointed by each state or outlying areas' Chief Officer of the State Library Agency. The State Data Coordinator collects the requested data from local public libraries and submits these data to NCES. Data are available for individual public libraries and are also aggregated to state and national levels. NCES also developed the first comprehensive public library universe file. This automated file is updated annually. It includes identifying information on all known public libraries (including their service outlets). This resource is now available for use in drawing samples for special surveys on such topics as literacy, access for the disabled, library construction, and the like.

An annual training conference sponsored by NCES is provided for the State Data Coordinators. A steering committee representing State Data Coordinators and other public library constituents is active in the development of new data elements software for the Public Library Survey. Technical assistance to states and outlying areas is provided by phone and in person by the FSCS Steering Committee and by NCES staff and contractors.

#### COMPONENTS

**FSCS Public Library Statistics**—Identifying information for public libraries and their service outlets including name, address, county, city, ZIP code, and telephone number, staffing; number of service outlets; operating income and expenditures; size of collection; service measures, such as library visits; reference transactions; interlibrary loans; circulation; public service hours per year; circulation of children's materials; children's program attendance; electronic measures, such as Internet access; Internet use by staff, patrons, or both; number of Internet terminals; access to electronic services; number of and expenditures for electronic library materials; operating expenditures for electronic access; interlibrary relationship code; legal basis code; administrative

structure code; population of legal service area; library outlets; outlet type; metropolitan status code; outlet Web site address; and type of geographic boundary.

In 1998, NCES and the National Institute on Postsecondary Education, Libraries, and Lifelong Learning published *How Does Your Library Compare* by Keri Bassman of the U.S. Department of Education. This Statistics in Brief categorized the nearly 9,000 public libraries in the fiscal year 1995 data set into peer groups (based on population in the legal service area and total operating expenditures) to control for variability in library size. Once libraries were assigned to peer groups based on these two variables, comparisons of service performance were made. Service performance was defined in terms of five input variables (public library service hours per year, total librarians, total ALA–MLS librarians, total number of subscriptions, and total number of books and serials) and seven output variables (library visits per capita, children's program attendance, circulation of children's materials, interlibrary loans received per 1,000 population, interlibrary loans provided, total per capita reference transactions, and total per capita circulation).

The American Institutes for Research has completed a project to develop two indices of inflation for public libraries—a cost index and a price index. NCES will publish a report of the project in 1999.

MAJOR PUBLICATIONS

Public Libraries in the United States: 1991 (April 1993)
Report on Coverage Evaluation of the Public Library Statistics Program (June 1994)
Public Libraries in the United States: 1992 (August 1994)
Public Libraries in the United States: 1993 (September 1995)
Report on Evaluation of Definitions Used in the Public Library Statistics Program (January 1995)
Finance Data in the Public Library Statistics Program: Definitions, Internal Consistency, and Comparisons to Secondary Sources (April 1995)
Staffing Data in the Public Library Statistics Program: Definitions, Internal Consistency, and Comparisons to Secondary Sources (August 1995)
Public Library Structure and Organization in the United States (March 1996)
Public Libraries in the United States: FY 1994 (May 1997)
Public Libraries in the United States: FY 1995 (August 1998)
How Does Your Public Library Compare? Service Performance of Peer Groups (September 1998)

DATA FILES

Public Library Data File, 1991 (November 1993) Public Library Data File, 1992 (September 1994) Public Library Data File, 1993 (July 1995) Public Library Data File, 1994 (June 1997) Public Library Data File, 1995 (June 1998)

Further information on the Public Libraries Survey may be found on the Internet (http://nces.ed.gov/surveys/public.html).

For further information on the Public Libraries Survey, contact:

Adrienne Chute Elementary/Secondary and Libraries Studies Division Library Co-Operative System and Institutional Studies Program National Center for Education Statistics 555 New Jersey Avenue NW Washington, DC 20208–5652 Telephone numbers: (202) 219–1772 E-mail address: adrienne\_chute@ed.gov

### **Academic Library Survey**

NCES surveyed academic libraries on a 3-year cycle between 1966 and 1988. Since 1988, the Academic Libraries Survey (ALS) has been a component of the Integrated Postsecondary Education Data System (IPEDS) (see chapter 4) and is on a 2-year cycle. ALS provides data on about 3,500 academic libraries. In aggregate, these data provide an overview of the status of academic libraries nationally and by state.

ALS data provide information for policymakers and researchers on trends in total operating expenditures on academic libraries, services available to students, and adoption of new technologies, such as giving students and researchers electronic access to bibliographic information. The survey also provides information on the staffing of academic libraries.

#### DESIGN

The survey collects data on the libraries in the entire universe of accredited higher education institutions and on the libraries in nonaccredited institutions with a program of 4 years or more. ALS produces descriptive statistics on academic libraries in postsecondary institutions in the 50 states, the District of Columbia, and the outlying areas.

NCES has developed a software package for states to use in submitting ALS data to NCES, 46 states used it in 1996. Like the Federal-State Cooperative System (FSCS) for public library data, ALS has an advisory committee. A librarian in each state helps state IPEDS coordinators collect, edit, and submit ALS data to NCES.

#### **COMPONENTS**

Academic Library Survey—Total operating expenditures; full-time-equivalent library staff; service outlets; total volumes held at the end of the fiscal year; circulation; interlibrary loans; public service hours; patron count; and reference transactions per typical week.

#### MAJOR PUBLICATIONS

The Status of Academic Libraries in the United States: Results from the 1990 and 1992 Academic Library Surveys (June 1997)

Academic Libraries: 1994 (March 1998)

The Status of Academic Libraries in the U.S.: Results from the 1994 Academic Library Survey with Historical Comparison (September 1998) DATA FILES

Academic Libraries, 1990 Data Diskette (February 1993) Academic Libraries, 1992 Data Diskette (November 1994) Preliminary Academic Libraries 1994 Data File, on Web site (April 1996) Preliminary Academic Libraries 1996 Data File, on Web site (November 1997)

Further information on the ALS may be found on the Internet (http://nces.ed.gov/surveys/academic.html)

For more information on ALS, contact:

Jeffrey Williams Elementary/Secondary and Libraries Studies Division Library Co-Operative System and Institutional Studies Program National Center for Education Statistics 555 New Jersey Avenue NW Washington, DC 20208–5652 Telephone number: (202) 219–1362 E-mail address: jeffrey\_williams@ed.gov

#### **School Library Statistics**

The last national survey exclusively of school library media centers was conducted in school year 1985–86. NCES now asks questions on libraries in public and private elementary and secondary schools as part of the Schools and Staffing Survey (SASS) (see chapter 3). These data provide a national picture of school library collections, expenditures, technology, and services. This information can be used by federal, state, and local policymakers and practitioners in assessing the status of school library-media centers in the United States. For the first time, the information will contribute to the assessment of the federal role in supporting school libraries. The library-media specialist questionnaire provided a national profile of the school library-media specialist workforce.

#### DESIGN

Information on school libraries has been collected from a sample of public and private elementary and secondary schools in SASS. A few questions on school libraries were included in the 1990–91 SASS questionnaires. In addition, new questionnaires for school library-media centers and on the school library-media specialists were field-tested in the 1990–91 SASS for implementation in the 1993–94 SASS.

These questions were used in school year 1993–94, for a sample of about 7,600 public and private elementary and secondary schools. The school library-media center questionnaire was designed to provide a national picture of school library-media center facilities, collections, equipment, technology, staffing, income, expenditures, and services. The school library-media specialist-librarian questionnaire was designed to profile the school library-media specialist workforce, including demographic characteristics, academic background, work load, career histories and plans, compensation, and perceptions of the school media specialist profession and workplace. The next survey of school library-media centers is planned for the 1999–2000 school year.

#### COMPONENTS

#### 1990-91 SASS: Items on School Libraries

School Questionnaire—Number of students served, and number of professional staff and aides.

**Teacher Demand and Shortage Questionnaire**—At the school district level, number of full-time-equivalent librarians-media specialists; vacant positions; positions abolished; and approved positions.

School Administrator Questionnaire—Amount of librarian input in establishing curriculum.

#### 1993–94 SASS

**School Library-Media Center Questionnaire**—Library media center facilities; collections; equipment; technology; staffing; income; expenditures; and services.

**School Media Specialist-Librarian Questionnaire**—Academic background; work load; career histories and plans; compensation; and perceptions of the school library-media specialist profession and workplace.

#### MAJOR PUBLICATIONS

School Library Media Centers (February 1998) School Library Media Centers in the U.S.: 1993–94 (August 1998) Evaluation of Definitions and Analysis of Comparative Data for the School Library Statistics Program (September 1998)

Further information on the School Library-Media Center Survey may be found on the Internet (http://nces.ed.gov/surveys/school.html), or by contacting:

Jeffrey Williams Elementary/Secondary and Libraries Studies Division Library Co-Operative System and Institutional Studies Program National Center for Education Statistics 555 New Jersey Avenue NW Washington, DC 20208–5652 Telephone number: (202) 219–1362 E-mail address: jeffrey\_williams@ed.gov

### **Library Cooperatives Survey**

This survey is a new collection that was implemented for the first time in 1998. Data from this survey will fill a significant gap in library information that will help explain some of the differences in available resources that are observed among public libraries. The Library Cooperatives Survey (LCS) collects descriptive information about library cooperatives, (i.e., entities that provide services and resources primarily to other libraries). Some of the data items contained in the survey include member service measures such as, number of reference transactions and interlibrary loans, training and instruction hours provided to member library staff, and consulting and planning hours. In addition, cooperatives will report information about membership, size of collection, operating income and expenditures, and staffing.

LCS data provide information about library cooperative organizations. The data will describe the role library cooperatives play in providing additional resources to public, academic, school, and special libraries. Data collected will allow comparisons of input elements with output elements, such as expenditures with services. These data will be extremely useful to federal, state, and local officials in assessing the utility of library cooperatives in sharing resources among various types of libraries. Additionally, as the Library Services and Technology Act of 1997 (LSTA) is implemented (an act which urges cooperative relationships and resource sharing among various types of libraries), the 1997 data will serve as a critical baseline for gauging the influence of the LSTA on library cooperatives.

#### DESIGN

The LCS will be collected by a combination of paper and electronic forms accessed by respondents through the World Wide Web. From a sample of approximately 150 respondents in the anticipated universe, a pretest collection of fiscal year 1996 data through paper forms only was conducted in the summer of 1997. At the same time, a quick response postcard mailing was sent to all other organizations in the universe (approximately 768), was to collect address corrections and qualifying information. Based on the results obtained from the pretest survey of library cooperatives, the questionnaire was revised based on recommendations from respondents to the survey and the Library Cooperative Advisory Committee to include those data items that can be reasonably collected from library cooperative organizations. The full survey collection of the LCS was conducted in the spring of 1998, collecting fiscal year 1997 data. NCES will release an E.D. Tabs Publication and data file on library cooperative organizations containing descriptive statistics from the survey in the fall of 1999. It is expected that this survey will be conducted every 5 years.

Further information on the LCS, contact:

Rosa Fernandez Postsecondary Studies Division Postsecondary Institutional Studies Program National Center for Education Statistics 555 New Jersey Avenue NW Washington, DC 20208–5652 Telephone number: (202) 219–1358 E-mail address: rosa\_fernandez@ed.gov

#### **State Library Agencies Survey**

NCES surveys state library agencies annually. The first year of data collection was for fiscal year 1994. The State Library Agencies (STLA) Survey is the product of a cooperative effort between the Chief Officers of State Library Agencies, the U.S. National Commission on Libraries and Information Science, and NCES.

STLAs are the official agencies designated in federal and state law with the administration of funds authorized by the Library Services and Construction Act (P.L. 101–253, as amended). STLAs are receiving increasingly broader legislative mandates affecting libraries of all types in the state (i.e., public, academic, school, special, and library systems). The STLA Survey provides policymakers and researchers with basic descriptive data on STLA services to all types of libraries in the states. In

particular, the public library data collected by the STLA Survey, when added to the data collected by the NCES Public Libraries Survey, will help complete the national picture of public library service.

#### DESIGN

The survey collects data on state library agencies in the 50 states and the District of Columbia. The data collected electronically is designed to reduce respondent burden and improve data quality. NCES releases the data file and an annual E.D. TABS Publication on state library agencies containing descriptive statistics from the survey.

#### COMPONENTS

**State Library Survey**—Governance; number and types of service outlets; type and size of collections; public service hours; library service and development transactions; services to libraries and systems; support of electronic information networks; allied operations; staff; and income and expenditures.

#### MAJOR PUBLICATIONS

State Library Agencies, Fiscal Year 1994 (June 1996) State Library Agencies, Fiscal Year 1995 (August 1997) State Library Agencies, Fiscal Year 1996 (June 1998)

Further information on the STLA Survey may be found on the Internet (http://nces.ed.gov/surveys/state.html).

For more information on the STLA Survey, contact:

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### **Federal Libraries and Information Centers Survey**

The Federal Library Survey has been a cooperative effort between NCES, the Bureau of the Census, the survey collecting agent, and the staff of the Federal Library and Information Committee of the Library of Congress. The survey has established a nationwide profile of federal libraries and information centers and made available the first national data on federal libraries since 1978.

The Federal Library Survey is designed to obtain data on the mission, function, administrative and managerial components (e.g., staff size and expenditures), information resources (e.g., collection size), and services of federal libraries and information centers. NCES has published a report that looks at this issue both in terms of the resources that are available to federal libraries and the services that federal libraries provide to their agencies, the general public, or both.

#### DESIGN

Conducted in 1995, the survey was a census of the near 1,234 federal libraries and information centers in the 50 states and the District of Columbia. Elementary and secondary school libraries under federal agency operation are excluded, as well as 700 overseas units.

#### COMPONENTS

**Federal Library Survey**—Organization and structure; mission and subject areas; type of users; size of facility; classification system; staffing; collections; operational expenditures; automation; technology; and preservation; government depository; service hours; visits; reference questions; online searcher; Internet searcher, interlibrary loan; circulation, cooperative arrangements; and trends.

#### MAJOR PUBLICATIONS:

E.D. TABS: Federal Libraries and Information Centers in the United States: 1994 (July 1996) Directory of Federal Libraries and Information Centers, 1994 (August 1997) The Status of Federal Libraries and Information Centers in the United States: Results From the 1994 Federal Libraries and Information Centers Survey (February 1998)

Coverage Evaluation of the 1994 Federal Libraries and Information Center Survey (August 1998)

For further information on the Federal Libraries and Information Centers Survey, contact:

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## **Plans for Library Statistics Surveys**

NCES plans to continue collecting public library data through the Federal-State Cooperative System (FSCS) for public library data, and to update the public library universe file annually. For example, continuing efforts are made to improve data quality, to develop clearer definitions, and improve state and local training.

NCES also fosters the use and analysis of Public Libraries Survey data. A Data Use Subcommittee of the FSCS Steering Committee has been addressing the analysis, dissemination, and use of FSCS data. Several analytical projects, recommended by this committee, are underway.

In 1999, Westat, Inc., will complete a trend analysis report for fiscal years 1992 through 1996 on 15 key variables from the Public Libraries Survey. As part of this project, FY 1992–94 Public Libraries Survey data are being imputed for nonresponse and will be released in 1999 (FY 1995–FY 1996 have already been imputed).

NCES has been exploring the potential of geographic mapping for public libraries. The goal is to develop the capability to link census demographic data with Public Libraries Survey data through geographic mapping software. Westat, Inc., has nearly completed geocoding public library

service outlets nationwide and digitizing the boundaries of the almost 9,000 public library legal service area jurisdictions. These will be matched to Census Topologically Integrated Geographic Encoding and Referencing (TIGER) files and to Public Libraries Survey data files. NCES is considering dissemination options for this resource. One option would be to make it available on the NCES Web site. Another option would be to produce a public use data file linking Public Libraries Survey data with key Census demographic variables and provide a user's guide. A technical report will describe the methods of geocoding, public library mapping, and options for keeping the project up to date.

A fast response survey on the topic of public library programming for adults, including adults at risk is under way. The questionnaire is in development and an advisory group will soon be formed to make recommendations concerning the project. Westat, Inc., is conducting the survey. NCES, the National Institute on Postsecondary Education, Libraries, and Lifelong Learning, and the National Library of Education are supporting and/or working on this project.

### **Plans for Crosscutting Activities**

The Library Statistics Program also sponsors activities that cut across all types of libraries. For example, NCES sponsors the attendance of librarians from all sectors at NCES training opportunities, such as the semiannual Cooperative System Fellows Program. In 1999 NCES, with the assistance of Sierra, Inc., is enhancing its library Web site for the six surveys. Information about the surveys has been updated and the Web site is being reorganized. Additional publications are being made available for downloading from the site. There will be links to other Web sites, as well.

In addition, library locators will be developed for both the Public Libraries and Academic Libraries Surveys. Customers will be able to locate data about a library in instances where they know some, but not all the identifying information about the library. The NCES World Wide Web site is http://nces.ed.gov.

NCES is also developing Web-based peer analysis tools for the Academic Libraries Survey, the Public Libraries Survey, and the State Library Agencies Survey. A basic search will allow the user to search for peers for a particular library using three to five predetermined variables, such as total operating expenditures and population of legal service area. An advanced search will use the same approach, but will allow the user to use additional variables in specifying peers. The expert search can be used when the customer wants to select peers using any combination of user-specified variables from the survey data file. The customer does not have to know the name of a particular library to generate a search. Customer feedback mechanisms will be essential to improving the quality of these products over time and will be built into the Web site.

NCES is also working with constituent groups from all the surveys in planning an expanded library statistics cooperative. The goal is to facilitate work on crosscutting issues, without interfering with the ability of existing constituent groups to continue their work in individual surveys. Ideas include expanding participation to add local practitioners, experts from allied professions (such as publishing and technology), more data users, and possibly the media. One advantage of an expanded cooperative will be the opportunity to address crosscutting policy issues, identify and address data gaps, and encourage participation by diverse groups and all levels of government.

In 1998, in support of an expanded library statistics cooperative, the American Institutes for Research initiated a review of the content and comparability of NCES' six library surveys. It is hoped that this project will lead to a Web-based matrix covering all six surveys. By topic, the customer would be able to compare definitions across surveys, with possible links to nationwide data across surveys. This activity will be a first step in assessing the potential for a more integrated approach to the library surveys. There will be opportunities to eliminate unnecessary duplication and increase consistency of definitions, which will address key policy issues.

## Data Collection Calendar for Library Statistics Program

Surveys		Year of Data Collection									
	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
Public Libraries	x	x	x	x	x	x	x	x	x	x	x
Academic Libraries (IPEDS)	x		x		x		x		x		x
School Libraries- Media Centers (SASS)						x					x
State Library Agencies					x	x	x	х	x	x	х
Federal Libraries Library Cooperatives	x								x		

## **General Publications of NCES**

The National Center for Education Statistics (NCES) annually produces three major publications designed for general audiences: *The Condition of Education, Digest of Education Statistics*, and *Projections of Education Statistics*. These publications present statistics on a wide array of education topics. They are used in many diverse ways by policymakers, researchers, and the general public. In addition, NCES produces other topical publications that draw upon a variety of data sources, such as *America's Teachers: A Profile of a Profession, 1993–94*.

## **The Condition of Education**

NCES gathers and publishes information on the status and progress of education in the United States. The congressional authorization for these activities (with antecedents to 1867) states that the purpose of NCES is to collect collate, 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" Section 402 (b) of the National Education Statistics Act of 1994 (20 U.S.C. 9001). In 1975, *The Condition of Education* was created in response to this mandate. The publication was to present in a single volume an overview of the condition of education in the United States. The format of *The Condition of Education* was designed to present statistical information in an accessible manner for a general audience. This publication, by analyzing statistical studies and data, investigates the context, resources, and performance of education in this country.

In the late 1980s, *The Condition of Education* became an indicators publication which includes data on a select number of topics of interest and concern in education today. Although not all possible indicators are published in a given edition, 60 indicators are presented in each year's report. They are divided into six sections:

- Access, Participation, and Progress;
- Achievement, Attainment, and Curriculum;
- Economic and Other Outcomes of Education;
- Size, Growth, and Output of Educational Institutions;
- Climate, Classrooms, and Diversity in Educational Institutions; and
- Human and Financial Resources of Educational Institutions.

Supplemental tables and notes are also included. The indicators include a basic core that can be repeated with updated information every year, supplemented by a more limited set of indicators based on periodic or one-time studies. The indicators, therefore, represent a consensus of professional judgment on the most significant national measures of the condition and progress of education at the time, but tempered by the availability of current and valid information.

The concept of education indicators has gained the attention of the U.S. Congress, national organizations, states, and localities. To assist NCES in conceptualizing and developing a set of education indicators useful to policymakers and researchers, Congress mandated that NCES convene a special study panel of experts to "make recommendations concerning the determination of education indicators for study." The report of this panel, titled *Education Counts: An Indicator System to Monitor the Nation's Educational Health*, was submitted to Congress in September 1991.

The utility of *The Condition of Education* should continue to increase as more high quality data become available, especially as new time series can be constructed. Elementary and secondary education data will be enhanced by revisions in the basic data collected about public schools in the Common Core of Data and about private schools from the Private School Survey. The Schools and Staffing Survey and the National Education Longitudinal Study of 1988 contribute substantially to elementary and secondary education indicators. Assessment data has been enhanced by the National Adult Literacy Survey, the Third International Mathematics and Science Study, and expansion of the Trial State Assessment Program to include science and reading in addition to mathematics, and grade four in addition to grade eight (see chapter 5).

An electronic version of *The Condition of Education* is available on NCES' World Wide Web site (http://nces.ed.gov/pubs/ce/index.html). Short excerpts of *The Condition of Education* are also published as separate topical reports, addressing such issues as the Social Context of Education and Women in Mathematics and Science.

#### MAJOR PUBLICATIONS

*The Condition of Education 1997* (September 1997) *The Condition of Education 1998* (September 1998) *The Pocket Condition of Education 1998* (September 1998)

*The Condition of Educaiton* can be found on the Internet (http://nces.ed.gov/pubs/ce/index.html).

For more information on *The Condition of Education*, contact:

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## **Digest of Education Statistics**

The *Digest of Education Statistics* is the primary resource publication on education statistics. It contains a wealth of information on all levels of education, from preprimary through graduate education. This reference volume is intended for use by researchers, policy analysts, businesses, media, students, educators, and the general public. The *Digest of Education Statistics* has expanded through its long history as NCES has pursued a policy of continuous development without sacrificing important trend information.

The development of the *Digest of Education Statistics* occurred over an extended period of time. For 40 years, from 1916–18 to 1956–58, the statistical component of the Office of Education prepared and published the *Biennial Survey of Education in the United States*. Most of the important data collected by the Office of Education was placed in this survey, which was a resource used by researchers, planners, and others interested in the field of education statistics. After 1958, publication of the survey ceased, but the need for a document summarizing the various types of data collected by

the Office of Education continued. Thus, in 1962, the first edition of the *Digest of Education Statistics* was issued.

The 1997 *Digest of Education Statstics* is the 33rd in this series of publications. (The *Digest of Education Statitics* has been issued annually except for combined editions for the years 1977–78, 1983–84, and 1985–86.) Its primary purpose is to provide a compilation of statistical information covering the broad field of American education from preprimary through graduate school. The *Digest of Education Statistics* includes a selection of data from many sources, both government and private, and draws especially on the results of surveys and activities carried out by NCES. It contains a considerable amount of material tabulated exclusively for the publication, such as summaries of federal funds for education and detailed tabulations on degrees conferred by colleges and universities. The publication contains information on schools, teachers, enrollments, graduates, educational attainment, finances, federal funds for education. Supplemental information on population trends, attitudes on education, education characteristics of the labor force, government finances, and economic trends provide background for evaluating education data.

The *Digest of Education Statistics* is divided into seven chapters:

- All Levels of Education;
- Elementary and Secondary Education;
- Postsecondary Education;
- Federal Programs for Education and Related Activities;
- Outcomes of Education;
- International Comparisons of Education; and
- Library Resources and Technology.

To qualify for inclusion in this publication, material must be nationwide in scope, of high quality, and of current interest and value. The introductory sections supplement the tabular materials in chapters 1 through 7 by providing brief overviews of current trends in American education. Each chapter contains an introduction to the statistical materials describing that sector of education, as well as a brief discussion of the most significant data in the chapter. Charts are provided to further illuminate important data.

Recently, NCES has begun a program to make the *Digest of Education Statistics* even more comprehensive. To make data analysis more convenient, a machine-readable version has been developed. This version of the publication has been expanded to include other NCES publications such as *The Condition of Education, Youth Indicators, Projections of Education Statistics, 120 Years of American Education, Education in States and Nations,* and *State Comparisons of Education Statistics.* The data are packaged with software that enables users to search for and retrieve specific data. NCES has also created the *Mini-Digest* to make basic education statistics available in a pocket-size booklet. The *Mini-Digest*, which has been published in Spanish, includes statistics on enrollments, expenditures, faculty, degrees, and population characteristics in an abbreviated form.

The *Digest of Education Statistics* strives for clarity, consistency, and comparability. It places high value on the major recurring surveys with the objective of providing national- and state-level data that researchers and policymakers can use to measure changes over time. It seeks to preserve the major series of education statistics originating with NCES and elsewhere and to make them readily available to a wide audience of users.

#### MAJOR PUBLICATIONS

120 Years of American Education: A Statistical Portrait (January 1993) Historical Trends: State Education Facts 1969 to 1989 (July 1995) Historically Black Colleges and Universities, 1976–94 (July 1996) Youth Indicators, 1996 (September 1997) Mini-Digest of Education Statistics, 1997 (March 1998) Federal Support for Education, Fiscal Years 1980–1993 (September 1998) Digest of Education Statistics, 1998 (May 1999)

The *Digest of Education Statistics* can be found on the Internet (http://nces.ed.gov/pubs/digest97).

For more information on the *Digest of Education Statistics*, contact:

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## **Projections of Education Statistics**

NCES is the official federal source of education projections in the areas of enrollments, graduates and earned degrees conferred, instructional staff, and expenditures in elementary and secondary schools and institutions of higher education. The principal publication dealing with projections, *Projections of Education Statistics*, provides national statistics about elementary and secondary schools and institutions of higher education. Included are data on enrollments, graduates, degrees, classroom teachers, and expenditures for the past 15 years, and projections for the next 12 years. The report also features state-level projections of public school enrollment and high school graduates. In addition, the report also contains a methodology section that describes models and assumptions used to develop these projections. Most of the projections are based on three alternative sets of assumptions. Although the middle alternative is the preferred set of projections, the other (high and low) alternatives provide a range of possible outcomes.

A summary of these projections is available in a pocket-sized folder called *Pocket Projections*. This brochure is a quick reference for projections of key education statistics. The information provided in the report is used by researchers and policy planners in education and related areas. Projections are targeted for individuals in business, industry, government, the media, and educators whose work requires information on future developments and trends affecting American education.

MAJOR PUBLICATIONS

*Pocket Projections of Education Statistics to 2008* (June 1998) *Projections of Education Statistics to 2008* (June 1998) For more information on the *Projections of Education Statistics* and projection methodology, contact:

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## **Appendix: The Reorganization of NCES**

In order to maintain NCES' quality while also taking on additional data gathering and analyses, the Commissioner proposed a reorganization plan that was approved in 1998. It builds on lessons learned from previous plans to keep pace with demands for information, while maintaining a modest staff. It reflects the input of staff and the Advisory Council on Education Statistics, and is intended to guide NCES activity well into the next century.

## **Management Changes**

The management changes at NCES focus on the appointment of a new Deputy Commissioner of Education Statistics who will be in charge of daily management of NCES, as well as support of the statistical standards and technology functions across the agency.

This reorganization reflects the importance of technology to NCES' work. NCES has a reputation for using technology to make statistics and analyses accessible to a variety of users, from parents to researchers. By delegating clear authority for the technology role to the Deputy Commissioner and the new Chief Technology Officer, the reorganization will further NCES' leadership among statistical agencies by staying abreast of advances in technology.

The reorganization will allow the Commissioner to focus on critical external contacts, such as working with the U.S. Department of Education, Congress, the National Assessment Governing Board, other policymakers, and education groups to better understand and incorporate their data needs into the NCES' mission.

## **Programmatic Changes**

The programmatic changes at NCES focus on maintaining four major groups, called divisions, while rearranging programs so that responsibilities are more evenly divided among the staff. A Postsecondary Studies Division, diffused among other groups 3 years ago, will be reinstituted.

These changes more evenly balance the 14 programs maintained by NCES, such as longitudinal studies and the institutional studies, under appropriate divisions. The new divisions are:

- The Assessment Division—Designs, develops, implements, and reports on the National Assessment of Educational Progress at the national and state levels, and conducts a variety of related education assessment studies, such as adult literacy. This division provides normative, descriptive, trend, and comparative policy-relevant data concerning achievement, education context, process, and other outcomes.
- The Early Childhood, International, and Crosscutting Studies Division— Responsible for all surveys, analyses, and reports related to early childhood education, vocational education, school crime and safety, and international education. The division also identifies data needs across NCES, conducts analyses and produces reports that cut across all levels of education, manages an on-going program to assess American education, and publishes the annual congressionally mandated *The Condition of Education* and other indicator reports.

- The Elementary/Secondary and Libraries Studies Division—The primary federal data source for elementary and secondary education and for libraries in the United States. This division collects and reports statistics on public and private elementary and secondary schools, students, teacher, administrators, school finances and school districts, and on public libraries in the United States. The division also is responsible for the development and implementation of the congressionally mandated National Cooperative Education Statistics System in the areas of elementary, secondary, and library education.
- **Postsecondary Studies Division**—The primary federal data source for postsecondary education in the United States. It collects and reports statistics on enrollments, faculty and staff, student completion and attainment, and finances of postsecondary institutions. In addition, this division collects statistics and reports on financial aid, persistence, progress, and degree attainment for postsecondary students, and on labor market outcomes for postsecondary students and graduates. This division also is responsible for the development and implementation of the congressionally mandated National Cooperative Education Statistics System in the area of postsecondary education.

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