Quick Response Information System (QRIS)

Website: https://nces.ed.gov/surveys/frss/ and https://nces.ed.gov/surveys/peqis/
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NCES has established two survey systems to collect time-sensitive, issue-oriented data quickly and with minimal response burden. The Fast Response Survey System (FRSS) focuses on collecting data at the elementary and secondary school levels and from public libraries. The Postsecondary Education Quick Information System (PEQIS) collects data at the postsecondary level. These systems, subsumed under the general title, Quick Response Information System (QRIS), are used to meet the data needs of U.S. Department of Education analysts, planners, and decision makers when information cannot be obtained quickly through traditional National Center for Education Statistics (NCES) surveys.

Fast Response Survey System (FRSS)

1. OVERVIEW

The Fast Response Survey System (FRSS) was established in 1975 to collect issue-oriented data quickly and with minimum response burden. The FRSS, whose surveys collect and report data on key education issues, was designed to meet the data needs of U.S. Department of Education analysts, planners, and decision makers, as well as other government officials with education data needs, when information could not be collected quickly through NCES's large recurring surveys. Findings from FRSS surveys have been included in congressional reports, testimony to congressional subcommittees, NCES reports, and other Department of Education reports. The findings are also often used by state and local education officials. Surveys are generally limited to three pages of questions, with a response burden of about 30 to 45 minutes per respondent. To date, more than 100 surveys have been conducted under the FRSS. Recent topics have included career and technical education programs, programs and services for high school English learners, school safety and discipline, condition of school facilities, dual credit and exam-based courses, arts education, dropout prevention, distance education, alternative schools and programs, educational technology, and after-school programs. Some surveys, such as surveys on school facilities, Internet access, dual credit and exam-based courses, distance education, and arts education have been conducted more than once. Before the Postsecondary Education Quick Information System was established in 1991, the FRSS was sometimes used to examine postsecondary issues.

Purpose
FRSS is a survey system designed to collect small amounts of issue-oriented data from a nationally representative sample of districts, schools, or teachers with minimal burden on respondents and within a relatively short period of time.

Components
To ensure minimal burden on respondents, the FRSS surveys are generally limited to three pages of questions, with a response burden of about 30 minutes per respondent. Sample sizes are relatively small (usually about 1,200 to 1,800 respondents per survey) so that data collection can be completed quickly.

TWO QUICK RESPONSE SURVEY PROGRAMS:

➢ Fast Response Survey System (FRSS): Over 100 surveys since 1975

➢ Postsecondary Education Quick Information System (PEQIS): 19 surveys since 1991

Periodicity
Most FRSS-PEQIS surveys are only administered once. Some surveys, like surveys on distance education, remedial education, Internet access, and teacher preparation and qualifications, have been conducted more than once in the past, but may or may not be conducted again in the future.

Data Availability
Data for selected FRSS collections are available at https://nces.ed.gov/pubsearch/getpubcats.asp?sid=005, through FRSS 108. Data for FRSS 109 are expected to be released in Spring 2020.

2. USES OF DATA

Data collected through FRSS surveys are representative at the national level, drawing from a universe that is appropriate for each study. The 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 libraries and school libraries. Findings from FRSS surveys have been included in congressional reports, testimony to congressional subcommittees, NCES reports, and other Department of Education reports. The findings are also often used by state and local education officials.

3. KEY CONCEPTS

The FRSS surveys collect and report data on key education issues at the elementary and secondary levels. Recent topics have included: career and technical education programs; programs and services for high school English learners; school safety and discipline; condition of public school facilities; dual-credit and exam-based courses; arts education in elementary and secondary schools; dropout prevention services and programs; distance education courses for public elementary and secondary school students; alternative schools and programs for public school student at risk of educational failure; teachers' use of educational technology; after-school programs; internet access; and foods and physical activity.

4. SURVEY DESIGN

Target Population
Data collected through FRSS surveys are representative at the national level, drawing from a universe that is appropriate for each study. The FRSS collects data from state education agencies, local education agencies, public and private elementary and secondary schools (e.g., principals, teachers, guidance counselors, library media center specialists), and public libraries.

Sample Design
Sample sizes are relatively small (usually about 1,200 to 1,800 respondents per survey, but occasionally larger) so that data collection can be completed quickly.

Efficient probability sampling designs are an integral part of the FRSS. For sectors that are surveyed frequently in FRSS (e.g., school districts and public schools), a general approach to sampling is designed and modified as necessary to meet the specific goals of the study. For example, stratified probability-proportionate-to-size (PPS) sampling designs are generally used to ensure that (a) estimates with specified levels of sampling precision can be obtained for key subgroups of interest, and (b) both categorical and quantitative variables can be estimated reliably. The size measure is generally the aggregate square root of enrollment in the substratum. The use of the square root of enrollment to determine the sample allocation is considered reasonably efficient for estimating unit-level (e.g., district or school) characteristics and quantitative measures correlated with enrollment.

For some of the less frequently surveyed sectors, it is desirable to select a sample that is tailored to the specific needs of the individual survey. This specialization is most efficient when pertinent data are available for sample selection purposes. Examples of situations that necessitate designing and drawing special-purpose samples include surveys that are restricted to a particular subgroup (e.g., districts with summer migrant education programs or adult literacy programs), surveys that require concurrent fielding of different questionnaires in the same sector (e.g., library services for children and young adults), and related surveys involving different sets of respondents that must be linked through an overlapping sample design (e.g., the three surveys on educational technology conducted in 2008–09 that linked districts, schools, and teachers).

FRSS surveys of state education agencies do not involve sampling since all state education agencies are included. Sampling procedures for the other FRSS populations are discussed below.

Local education agencies (public school districts). The sampling frame is typically the NCES Common Core of Data (CCD) Public Elementary and Secondary Agency Universe File. (For information on CCD, see the CCD chapter.) The following variables are often used for stratification or sorting within primary strata: categories of enrollment size, geographic region, metropolitan status (community type), and poverty status. Other variables, such as charter school agency status, may be used to improve the precision of overall estimates, and to ensure minimum sample sizes for the analytic domains of interest.

As an example, the sample for the FRSS survey Career and Technical Education Programs in Public School Districts:

2016–17 consisted of approximately 1,800 eligible public school districts with high school grades in the 50 states and the District of Columbia. The nationally representative sample was selected from the 2013–14 NCES Common Core of Data (CCD) Local Education Agency (LEA) Universe file, which was the most current file available at the time of selection. The sampling frame for this survey included 11,394 eligible public school districts that were coded with a highest grade of instruction of 11 or 12 in the CCD LEA Universe file. For purposes of this study, an eligible public district was either (1) a regular school district, or (2) a nonregular district that was not federally operated and had at least one operating vocational education school that did not have shared instruction. Of the 11,394 eligible districts in the sampling frame, 11,340 were regular districts.

The district sampling frame was stratified by district enrollment size (less than 1,000; 1,000 to 2,499; 2,500 to 9,999; 10,000 to 24,999; 25,000 to 99,999; and 100,000 or more) and community type (city, suburban, town, and rural) to create 21 primary strata. Within stratum, districts were sorted by region (Northeast, Southeast, Central, and West) and poverty status (poverty equal to less than 10 percent; 10 to 19.99 percent; 20 to 29.99 percent; and 30 percent or more) prior to selection to induce additional implicit stratification. Within each primary stratum, districts were selected systematically using sampling rates that depended on the size classification of the district.

Public elementary and secondary schools. The sampling frame is typically the NCES CCD Public School Universe file. The following variables are often used for stratification or sorting within primary strata: instructional level, categories of enrollment size, community type, geographic region, and either categories of poverty status (based on eligibility for free or reduced-price lunch) or categories of percent minority enrollment.

As an example, the sample of schools for the FRSS survey of School Safety and Discipline: 2013–14 consisted of approximately 1,600 regular public elementary, middle, and high school/combined schools in the 50 states and the District of Columbia. The nationally representative sample was selected from the 2011–12 NCES Common Core of Data (CCD) Public School Universe file, which was the most current file available at the time of selection. The sampling frame included 50,807 regular elementary schools, 16,536 regular middle schools, and 19,247 regular high school/combined schools. For purposes of this study, "regular" schools included charter schools. Excluded from the sampling frame were schools with a high grade of prekindergarten, kindergarten, or ungraded, schools with zero, missing, or "not applicable" enrollment, along with special education, vocational, and alternative/other schools,

and schools outside the 50 states and the District of Columbia.

For this survey, the public school sampling frame was stratified by instructional level (elementary, middle, and high school/ combined), community type (city, suburban, town, and rural), and enrollment size (less than 300, 300 to 499, 500 to 999, and 1,000 or more) to create 45 primary strata. Within each stratum, schools were sorted by region (Northeast, Midwest, South, and West) and percent White, non-Hispanic enrollment in the school (missing, 96 percent or more, 81 to 95 percent, 51 to 80 percent, and 50 percent or less) prior to selection to induce additional implicit stratification. Within each primary stratum, schools were selected systematically using sampling rates that depended on the size classification of the school.

Private elementary and secondary schools. For this population, FRSS survey samples are constructed from the NCES Private School Universe Survey (PSS). (For information on PSS, see the PSS chapter.) The sample usually consists of regular private elementary, secondary, and combined schools, with a private school being defined as a school not in the public system that provides instruction for any of grades K–12 (or comparable ungraded levels) where the instruction is not provided in a private home. The following variables may be used for stratification or sorting within primary strata: instructional level (elementary, secondary, and combined), affiliation (Catholic, other religious, and nonsectarian), school size, geographic region, community type, and categories of percent minority enrollment. Schools are generally selected from each primary stratum with probabilities proportional to the weight reflecting the school's probability of inclusion in the area sample.

Elementary and secondary school teachers. Teacher surveys generally use a two-stage sampling process. This involves selecting a sample of schools during the first stage (according to procedures described above) and obtaining lists of teachers from the selected schools. During the second stage of sampling, teachers are selected from the lists provided by the schools. The sampling criteria for teachers are dependent on the needs of the specific study.

As an example, for the sample of teachers for the upcoming FRSS survey of Teachers' Use of Technology for School and Homework Assignments, a total of 2,000 schools will be selected for the study. Roughly equal sample sizes will be allocated to the major instructional levels (primary, middle, and high) and a minimum of 150 schools will be allocated to the remaining "other" category. Within each category of instructional level, the specified number of sample schools will be distributed to the five enrollment size classes in proportion to the number of full-time equivalent (FTE) teachers in the size class.

After sorting the schools in the sampling frame by type of locale and poverty status category within each primary sampling stratum, the sample of schools will be selected with probabilities proportionate to the number of FTE teachers in the school. Participating schools will be requested to provide lists of their classroom teachers for subsequent sampling purposes. Eligible teachers are those with self-contained classrooms in grades 3 or higher (generally teaching in primary schools) and those with departmentalized classes in one or more of the core academic subjects (generally teaching in middle and high schools). On average, 2.4 teachers will be randomly selected from each participating school for a total teacher sample size of 4,000.

Public libraries. Public libraries have been surveyed by the FRSS in the past (e.g., survey on programs for adults in public library outlets). For any future survey of public libraries, a sample will be drawn from the most recent Public Library Survey (PLS) universe file, currently conducted by the Institute of Museum and Library Services. The specific sampling procedures will depend on the needs of the survey.

Special populations. Other sources may serve as sampling frames, depending on the needs of the survey. For example, for Participation of Migrant Students in Title I Migrant Education Program (MEP) Summer-Term Projects, the districts and other entities serving migrant students were selected from the U.S. Department of Education's 1995–96 Migrant Education Program Universe data file.

Data Collection and Processing
Most FRSS surveys are self-administered questionnaires where respondents are offered the option of completing the survey on paper (submitted by mail, fax, or email) or via the Web, with telephone follow-up for survey nonresponse and data clarification. On rare occasions, a few have been telephone surveys, including one that used random digit dialing techniques. FRSS questionnaires are pretested, and efforts are made to check for consistency in the interpretation of questions and to eliminate ambiguous items before fielding the survey.

For example, for the Career and Technical Education Programs in Public School Districts: 2016–17 survey, questionnaires and cover letters were mailed to the superintendent of each sampled district in January 2017. The letter stated the purpose of the study and requested that the questionnaire be completed by the person in the district most knowledgeable about career and technical education (CTE) programs for high school students. Respondents were asked to respond for the current 2016–17 school year and the summer of 2016. Respondents were offered options of completing the survey on paper or online. Telephone

follow-up for survey nonresponse and data clarification was initiated in February 2017 and completed in June 2017.

The unweighted survey response rate was 87 percent and the weighted response rate using the initial base weights was 86 percent. The survey weights were adjusted for questionnaire nonresponse and the data were then weighted to yield national estimates that represent all eligible public school districts in the United States.

Estimation Methods
Weighting. The response data are weighted to produce national estimates. The weights are designed to adjust for the variable probabilities of selection and differential nonresponse. Ineligible units are deleted from the initial sample before weighting and analysis. In the case of two-stage sampling—for example, for teacher-level surveys—the weights used to produce national estimates are designed to reflect the variable probabilities of selection of the sampled schools and teachers and are adjusted for differential unit (teacher sampling list and questionnaire) nonresponse.

Imputation. Because item nonresponse in FRSS surveys is typically very low, only limited use of imputation is required. Missing data are imputed for the items with a response rate of less than 100 percent using a "hot-deck" approach to obtain a "donor" from which the imputed values are derived. Donors are identified by matching selected characteristics to the case with missing data (the recipient). For categorical items, the imputed value is simply the corresponding value from the donor. For continuous numerical items (e.g., number of instructional rooms with wireless Internet connections), an appropriate ratio (e.g., the proportion of instructional rooms with wireless Internet connections) may be calculated for the donor, and this ratio applied to available data (e.g., reported number of instructional rooms) for the recipient to obtain the corresponding imputed value.

For example, in the Career and Technical Education Programs in Public School Districts: 2016–17 survey, missing data were imputed for the 73 items with a response rate of less than 100 percent. The missing items were all categorical data, such as whether the district offered CTE programs to high school students at various locations. The missing data were imputed using a "hot-deck" approach to obtain a "donor" district from which the imputed values were derived. The matching characteristics included district enrollment size, community type, region, and poverty status. In addition, relevant questionnaire items were used to form appropriate imputation groupings. Once a donor was found, the imputed value was simply the corresponding value from the donor district.

Future Plans

The next planned FRSS survey is Teachers' Use of Technology for School and Homework Assignments for the 2018–19 school year.

5. DATA QUALITY AND COMPARABILITY

Sampling Error

FRSS estimates are based on the selected samples and, consequently, are subject to sampling variability. The standard error is a measure of the variability of estimates due to sampling. Jackknife replication is the method used to compute estimates of the standard errors.

Nonsampling Error

Nonsampling error describes variations in the estimates that may be caused by population coverage limitations and data collection, processing, and reporting procedures. The sources of nonsampling errors are typically problems like unit and item nonresponse, differences in respondents' interpretations of the meaning of questions, response differences related to the particular time the survey was conducted, and mistakes made during data preparation. It is difficult to identify and estimate either the amount of nonsampling error or the bias caused by this error.

To minimize the potential for nonsampling error, FRSS surveys use a variety of procedures, including a pretest of the questionnaire with members of the population to be surveyed. The pretest provides the opportunity to check for consistency of interpretation of questions and definitions and to eliminate ambiguous items. The questionnaire and instructions are also extensively reviewed by NCES and the data requestor. In addition, extensive editing of the questionnaire responses is conducted to check the data for accuracy and consistency. Cases with missing, inconsistent, or out-of-range items are recontacted by telephone to resolve problems. Data entered for all surveys received by mail, fax, e-mail, or telephone are verified to ensure accuracy.

Coverage error. FRSS surveys are subject to any coverage error present in the major NCES data files that serve as their sampling frames. Many FRSS surveys use CCD surveys as the sampling frame.

There is a potential for undercoverage bias associated with the absence of population units (e.g., schools) built between the time when the sampling frame is constructed and the time of the FRSS survey administration. Since teacher coverage depends on teacher lists sent by the schools, teacher coverage is assumed to be good.

Nonresponse error. Unit response for most FRSS surveys is 85 percent or higher. (See table FRSS-1.) Item nonresponse for most items is less than 1 percent. The weights are adjusted for unit nonresponse. Imputation is performed for items with an item response rate of less than 100 percent.

Measurement error. Errors may result from problems such as misrecording of responses; incorrect editing, coding, and data entry; different interpretations of definitions and the meaning of questions; memory effects; the timing of the survey; and the respondent's inability to report certain data due to their recordkeeping system. Nonsampling errors are not easy to measure and, for measurement purposes, usually require that an experiment be conducted as part of the data collection procedures or that data external to the study be used. These types of experiments are not generally conducted by the FRSS.

Comparability

Some FRSS surveys have been repeated so that results can be compared over time. Examples of these surveys are listed below.

- The FRSS survey on condition of public school facilities was conducted in 1999 and 2013 and many of the same data items were collected in both administrations.

- The FRSS conducted surveys of telecommunications and Internet access in public schools during each year 1994 through 2003 and again in 2005. In addition, the telecommunications survey was conducted in private schools during 1995 and 1998–99.

- The survey on dual credit and exam-based courses in public high schools was conducted during the 2002–03 school year and repeated in the 2010–11 school year.

- Sets of surveys on arts education were conducted at the public elementary and secondary school levels during 1994, 1999, and 2009–10. The FRSS also conducted sets of surveys on arts education at the public school teacher level in 2000 and 2010.

- A district-level survey on technology-based distance education courses for public school students was administered in 2002–03 and 2004–05. Two types of comparisons are possible with these FRSS data. The first type involves comparisons of the cross-sectional estimates for the two or more time periods. The second type of comparison provides longitudinal analysis of change between 2002–03 and 2004–05.

Occasionally, an FRSS survey is fielded to provide data that can be compared with data from another NCES survey. For example, the FRSS survey School Safety and Discipline: 2013–14 was designed to provide comparable data for a subset of items in the 2009–10 School Survey on Crime and Safety (SSOCS). In another example, the 1996 Survey on Family and School Partnerships in Public Schools, K–8 was

designed to provide data that could be compared with parent data from the 1996 National Household Education Survey as well as with data from the Prospects Study, a congressionally mandated study of educational growth and opportunity from 1991 to 1994. A third example is the 2001 Survey on High School Guidance Counseling, which was designed to provide data that could be compared to data from the 1984 Administrator and Teacher Survey supplement to the High School and Beyond Longitudinal Study.

Table FRSS-1. Sample sizes and weighted response rates for recent FRSS surveys: Selected years, 2010–2017

Survey	Sample size	Weighted response rate
FRSS 108: Career and Technical Education Programs in Public School Districts, 2016–17	1800	86
FRSS 107: Programs and Services for High School English Learners, 2015–16	1700	89
FRSS 106: School Safety and Discipline, 2013–14	1600	85
FRSS 105: Condition of Public School Facilities, 2012–13	1800	90
FRSS 104: Dual Credit and Exam-Based Courses, 2010–11	1500	91

SOURCE: U.S. Department of Education, ED Data Inventory. Available at https://datainventory.ed.gov.

6. CONTACT INFORMATION

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7. METHODOLOGY AND EVALUATION REPORTS

Methodology is discussed in the technical notes to survey reports. Recent reports are listed below.

Alexander, D., and Lewis, L. (2014). *Condition of America's Public School Facilities: 2012–13* (NCES 2014-022). National Center for Education Statistics, Institute of Education Sciences, U.S. Department of Education. Washington, DC. https://nces.ed.gov/pubs2014/2014022.pdf.

Carver, P.R., and Lewis, L. (2010). *Alternative Schools and Programs for Students At Risk of Educational Failure, 2007–08* (NCES 2010-026). National Center for Education Statistics, Institute of Education Sciences, U.S. Department of Education. Washington, DC. https://nces.ed.gov/pubs2010/2010026.pdf.

Chaney, B., and Lewis, L. (2007). *Public School Principals' Report on Their School Facilities: Fall 2005* (NCES 2007-007). National Center for Education Statistics, Institute of Education Sciences, U.S. Department of Education. Washington, DC. http://nces.ed.gov/pubs2007/2007007.pdf.

Gray, L., and Lewis, L. (2009). *Educational Technology in Public School Districts, Fall 2008* (NCES 2010-003). National Center for Education Statistics, Institute of Education Sciences, U.S. Department of Education. Washington, DC. https://nces.ed.gov/pubs2007/2007007.pdf.

Gray, L., and Lewis, L. (2015). *Public School Safety and Discipline: 2013–14* (NCES 2015-051). National Center for Education Statistics, Institute of Education Sciences, U.S. Department of Education. Washington, DC. https://nces.ed.gov/pubs2015/2015051.pdf.

Gray, L., Thomas, N., and Lewis, L. (2010). *Educational Technology in U.S. Public Schools, Fall 2008* (NCES 2010-034). National Center for Education Statistics, Institute of Education Sciences, U.S. Department of Education. Washington, DC. https://nces.ed.gov/pubs2010/2010034.pdf.

Gray, L., Thomas, N., and Lewis, L. (2010). *Teachers' Use of Educational Technology in U.S. Public Schools, 2009* (NCES 2010-040). National Center for Education Statistics, Institute of Education Sciences, U.S. Department of Education. Washington, DC. https://nces.ed.gov/pubs2010/2010040.pdf.

Gray, L., and Lewis, L. (2018). *Career and Technical Education Programs in Public School Districts: 2016–17: First Look* (NCES 2018-028). National Center for Education Statistics, Institute of Education Sciences, U.S. Department of Education. Washington, DC. https://nces.ed.gov/pubs2018/2018028.pdf.

Gray, L., and Lewis, L. (2018). *Public-Use Data Files and Documentation (FRSS 108): Career and Technical Education Programs in Public School Districts* (NCES 2018-029). National Center for Education Statistics, Institute of Education Sciences, U.S. Department of Education. Washington, DC. https://nces.ed.gov/pubsearch/pubsinfo.asp?pubid=2018029.

Lewis, L. and Gray, L. (2016). *Programs and Services for High School English Learners in Public School Districts: 2015–16* (NCES 2016-150). National Center for Education Statistics, Institute of Education Sciences, U.S. Department of Education. Washington, DC. https://nces.ed.gov/pubs2016/2016150.pdf.

Parsad, B., and Jones, J. (2005). *Internet Access in U.S. Public Schools and Classrooms: 1994–2005* (NCES 2005-015). National Center for Education Statistics, Institute of Education Sciences, U.S. Department of Education. Washington, DC. https://nces.ed.gov/pubs2007/2007020.pdf.

Parsad, B., and Lewis, L. (2006). *Calories In, Calories Out: Food and Exercise in Public Elementary Schools, 2005* (NCES 2006-057). National Center for Education Statistics, Institute of Education Sciences, U.S. Department of Education. Washington, DC. https://nces.ed.gov/pubs2006/2006057.pdf.

Parsad, B., and Lewis, L. (2009). *After-School Programs in Public Elementary Schools* (NCES 2009-043). National Center for Education Statistics, Institute of Education Sciences, U.S. Department of Education. Washington, DC. https://nces.ed.gov/pubs2009/2009043.pdf.

Parsad, B., and Spiegelman, M. (2012). *Arts Education in Public Elementary and Secondary Schools: 1999–2000 and 2009–10* (NCES 2012–014rev). National Center for Education Statistics, Institute of Education Sciences, U.S. Department of Education. Washington, DC. https://nces.ed.gov/pubs2012/2012014rev.pdf.

Parsad, B., and Spiegelman, M. (2011). *A Snapshot of Arts Education in Public Elementary and Secondary Schools: 2009–10* (NCES 2011–078). National Center for Education Statistics, Institute of Education Sciences, U.S. Department of Education. Washington, DC. https://nces.ed.gov/pubs2011/2011078.pdf.

Setzer, J.C., and Lewis, L. (2005). *Distance Education Courses for Public Elementary and Secondary School Students: 2002–03* (NCES 2005-010). National Center for Education Statistics, Institute of Education Sciences, U.S. Department of Education. Washington, DC. https://nces.ed.gov/pubs2005/2005010.pdf.

Thomas, N., Marken, S., Gray, L., and Lewis, L. (2013). *Dual Credit and Exam-Based Courses in U.S. Public High Schools: 2010–11* (NCES 2013-001). National Center for Education Statistics, Institute of Education Sciences, U.S. Department of Education. Washington, DC. https://nces.ed.gov/pubs2013/2013001.pdf.

Waits, T., Setzer, J.C., and Lewis, L. (2005). *Dual Credit and Exam-Based Courses in U.S. Public High Schools: 2002–03* (NCES 2005-009). National Center for Education Statistics, Institute of Education Sciences, U.S. Department of Education. Washington, DC. https://nces.ed.gov/pubs2005/2005009.pdf.

Wells, J., and Lewis, L. (2006). *Internet Access in U.S. Public Schools and Classrooms: 1994–2005* (NCES 2007-020). National Center for Education Statistics, Institute of Education Sciences, U.S. Department of Education. Washington, DC. https://nces.ed.gov/pubs2007/2007020.pdf.

Zandberg, I., and Lewis L. (2008). *Technology-Based Distance Education Courses for Public Elementary and Secondary School Students: 2002–03 and 2004–05* (NCES 2008-008). National Center for Education Statistics, Institute of Education Sciences, U.S. Department of Education. Washington, DC. https://nces.ed.gov/pubs2008/2008008.pdf.

Postsecondary Education Quick Information System (PEQIS)

1. OVERVIEW

The Postsecondary Education Quick Information System (PEQIS) was established in 1991 to quickly collect limited amounts of policy-relevant information from a nationally representative sample of postsecondary institutions or a census of state higher education agencies. 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. 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. Surveys are generally limited to three pages of questions, with a response burden of about 30 to 45 minutes per respondent. To date, 19 PEQIS surveys have been completed, covering such diverse issues as services and support programs for military service members and veterans, dual enrollment programs for high school students, educational technology in teacher education programs, occupational programs, distance learning, precollegiate programs for disadvantaged students, remedial education, campus crime and security, services for deaf and hard-of-hearing students, and students with disabilities.

Purpose
Policy analysts, program planners, and decision makers 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 has established PEQIS to collect timely data on focused issues needed for program planning and policy development with a minimum burden on respondents.

Components
Surveys are generally limited to three pages of questions, with a response burden of 30 to 45 minutes per respondent. Most PEQIS institutional surveys use a previously recruited, nationally representative panel of institutions.

Periodicity
Most PEQIS surveys are only administered once. Some surveys, like surveys on distance education, have been conducted more than once in the past, but may or may not be conducted again in the future.

Data Availability
Data are available for selected PEQIS collections at https://nces.ed.gov/surveys/peqis/downloads.asp.

2. USES OF DATA

In addition to obtaining information on emerging issues quickly, PEQIS surveys are also used to assess the feasibility of developing large-scale data collection efforts on a given topic or to supplement other NCES postsecondary surveys.

3. KEY CONCEPTS

The PEQIS surveys collect and report data on key education issues at the postsecondary level. Recent topics include: services and support programs for military service members and veterans; dual enrollment programs and courses for high school students; students with disabilities; distance education; and educational technology in teacher education programs for initial licensure.

4. SURVEY DESIGN

Target Population
PEQIS employs a standing sample (panel) of approximately 1,600 postsecondary education institutions at the 2-year and 4-year level. The nationally representative panel includes public and private colleges and universities that award associate, bachelor's, master's, and doctoral degrees. PEQIS can also conduct surveys of state higher education agencies.

Sample Design
Most PEQIS institutional surveys use a previously recruited, nationally representative panel of institutions. The PEQIS panel was originally selected and recruited in 1991–92. In 1996, 2002, 2006, and 2011, the PEQIS panel was reselected to reflect changes in the postsecondary education universe that had occurred since the original panel was selected. A modified Keyfitz approach was used to maximize overlap between the panels for each reselection. This approach resulted in about 80 percent of the institutions overlapping for each reselection of the panel.

The 2011 PEQIS panel was constructed from the 2009–10 Integrated Postsecondary Education Data System (IPEDS) Institutional Characteristics file. Both the 2011 PEQIS survey on dual enrollment programs and courses for high school students and the 2013 PEQIS survey on services and support programs for military service members and veterans at postsecondary institutions used the 2011 PEQIS panel.

Institutions eligible for the 2011 PEQIS frame included 2-year and 4-year (including graduate-level) institutions that are both Title IV eligible and degree-granting, and are located in the 50 states and the District of Columbia: a total of 4,485 institutions. The 2011 PEQIS sampling frame was stratified by instructional level (4-year, 2-year), control (public, private nonprofit, private for-profit), highest level of offering (doctor's/first-professional, master's, bachelor's, less than bachelor's), and total enrollment to create 43 primary strata. Within each of the strata, institutions were sorted by region (Northeast, Southeast, Central, West) and by whether the institution had a relatively high combined enrollment of American Indian/Alaska Native, Asian/Pacific Islander, Black, or Hispanic students. The sample of approximately 1,650 institutions was allocated to the strata in proportion to the aggregate square root of total enrollment. Institutions within a primary stratum were sampled with equal probabilities of selection.

Data Collection and Processing

Typically, PEQIS surveys are self-administered questionnaires with respondents offered the option of completing the survey on paper (submitted by mail, fax, or email) or via the Web, with telephone follow-up for survey nonresponse and data clarification. Surveys are limited to three pages of questions, with a response burden of about 30 to 45 minutes per respondent. The questionnaires are pretested, and efforts are made to check for consistency in the interpretation of questions and to eliminate ambiguous items before fielding the survey to all institutions in the sample.

The questionnaires are mailed to PEQIS institutions along with a description of the intended respondent (e.g., the person at the institution most knowledgeable about services and support programs for military service members and veterans at the institution). Nonrespondents who have not returned the survey within a set period of time are followed up by telephone. For questionnaires completed on paper, data are keyed with 100 percent verification. To check the data for accuracy and consistency, questionnaire responses from all modes undergo range and logic editing. Cases with missing or inconsistent items are contacted by telephone.

As an example, in the 2012–13 survey on services and support programs for military service members and veterans, questionnaires and cover letters were mailed to the PEQIS institutions. Institutions were told that the survey was designed to be completed by the person(s) most knowledgeable about services and support programs for military service members and veterans at the institution. Respondents had the option of completing the survey on paper or via the web. Telephone follow-up of nonrespondents was conducted for survey nonresponse and data clarification.

Estimation Methods

Weighting. The response data are weighted to produce national estimates. The weights are designed to adjust for the variable probabilities of selection and differential nonresponse. For recent PEQIS surveys, the weighted number of eligible institutions represents the estimated universe of approximately 4,380 Title IV-eligible degree-granting institutions in the 50 states and the District of Columbia.

Imputation. Item nonresponse rates for PEQIS surveys are typically very low (less than 1 percent for most items). Data are imputed for all items with a response rate of less than 100 percent.

As an example of the imputation process, in the 2012–13 survey on services and support programs for military service members and veterans, missing data were imputed using a "hot-deck" approach to obtain a "donor" institution from which the imputed values were derived. Under the hot-deck approach, a donor institution that matched selected characteristics of the institution with missing data (the recipient institution) was identified. Once a donor was found, it was used to derive the imputed values for the institution with missing data. For categorical items, the imputed value was simply the corresponding value from the donor institution. For numerical items, the imputed value was calculated by taking the donor's response for that item and dividing that number by the total number of students enrolled in the donor institution. This ratio was then multiplied by the total number of students enrolled in the recipient institution to provide an imputed value.

Future Plans

At this time, there are not any future data collections planned for PEQIS.

5. DATA QUALITY AND COMPARABILITY

Sampling Error

Estimates are based on the selected samples and, consequently, are subject to sampling variability. The standard error is a measure of the variability of estimates due to sampling. Because the data from PEQIS surveys are collected using a complex sampling design, the variances of the estimates from the surveys (e.g., estimates of proportions) are

typically different from what would be expected from data collected with a simple random sample. To generate accurate standard errors for the estimates, standard errors are computed using a technique known as jackknife replication.

Nonsampling Error

Nonsampling error describes variations in the estimates that may be caused by population coverage limitations and data collection, processing, and reporting procedures. The sources of nonsampling errors are typically problems like unit and item nonresponse, differences in respondents' interpretations of the meaning of questions, response differences related to the particular time the survey was conducted, and mistakes made during data preparation. It is difficult to identify and estimate either the amount of nonsampling error or the bias caused by this error.

To minimize the potential for nonsampling error, PEQIS surveys use a variety of procedures, including a pretest of the questionnaire with the individual at each postsecondary institution deemed to be the most knowledgeable about the survey topic. The pretest provides the opportunity to check for consistency in the interpretation of questions and definitions and to eliminate ambiguous items. The questionnaire and instructions are also extensively reviewed by NCES and the data requestor. In addition, both range and logic editing of the questionnaire responses is conducted to check the data for accuracy and consistency. Cases with missing or inconsistent items are contacted by telephone to resolve problems. Data are keyed with 100 percent verification for surveys received by mail, fax, e-mail, or telephone.

Coverage error. Because the sampling frames for PEQIS surveys are constructed from IPEDS data files, coverage error is believed to be minimal.

Nonresponse error. Both unit nonresponse and item nonresponse are quite low in PEQIS surveys. Among recent PEQIS surveys, weighted response has ranged from 87 to 95 percent (see table PEQIS-1). Item nonresponse for most items in PEQIS surveys has been less than 1 percent. The weights are adjusted for unit nonresponse. Imputation is performed for item nonresponse.

Measurement error. This type of nonsampling error may result from different interpretations of survey definitions by respondents or from the institution's inability to report certain data due to its recordkeeping system. Nonsampling errors are not easy to measure and, for measurement purposes, usually require that an experiment be conducted as part of the data collection procedures or that data external to the study be used. These types of experiments are not generally conducted by PEQIS.

Comparability

While most PEQIS surveys are not designed specifically for comparison with other surveys, the data from some PEQIS surveys can be compared with data from other postsecondary surveys. For example, the 1998 *Survey on Students With Disabilities at Postsecondary Education Institutions* complements another NCES study on the self-reported preparation, participation, and outcomes of students with disabilities. In another example, the 1995 *Survey on Remedial Education in Higher Education Institutions* can be compared to data from remedial education surveys conducted by the American Council on Education and the Southern Regional Education Board. A third example is the survey on *Services and Support Programs for Military Service Members and Veterans: 2012–13,* which can be compared to the 2012 American Council on Education survey on campus programs for veterans and service members.

In addition, some PEQIS surveys have been repeated so that results can be compared over time. Examples of these surveys are listed below.

- The PEQIS survey on dual enrollment programs and courses for high school students was conducted for the 2002–03 and 2010–11 academic years.

- The PEQIS survey on students with disabilities at postsecondary institutions was conducted for 1998 and the 2008–09 academic years.

- PEQIS collected data on distance education at postsecondary institutions in 1995, 1998–99, and 2000–01.[1]

- PEQIS conducted surveys on remedial education in 1995 and 2000.[2]

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[1]A fourth PEQIS survey on distance education, conducted in 2006–07, included many of the same topics covered in the previous surveys, but the data are not comparable because of the revised definition of distance education.

[2]Two earlier surveys on remedial education in postsecondary institutions, for academic years 1983–84 and 1989–90, were conducted using the FRSS because PEQIS was not yet in existence.

Table PEQIS-1. Sample sizes and weighted response rates for recent PEQIS surveys: Selected years, 2002–2013

Survey	Sample size	Weighted response rate
PEQIS 19: Services and Support Programs for Military Service Members and Veterans, 2012–13	1650	90
PEQIS 18: Dual Enrollment Programs and Courses of High School Students, 2010–11	1650	94
PEQIS 17: Students with Disabilities at Postsecondary Education Institutions, 2008–09	1558	89
PEQIS 16: Online and Distance Education at Postsecondary Institutions, 2006–07	1628	87
PEQIS 15: Educational Technology and Teacher Education Programs for Initial Licensure, 2006	2512	95
PEQIS 14: Dual Enrollment Programs and Courses for High School Students, 2002–03	1610	92

SOURCE: U.S. Department of Education, ED Data Inventory. Available at https://datainventory.ed.gov.

6. CONTACT INFORMATION

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7. METHODOLOGY AND EVALUATION REPORTS

Methodology is discussed in the technical notes to survey reports. Recent reports are listed below.

Gray, L., and Lewis, L. (2015). *Public School Safety and Discipline: 2013–14* (NCES 2015-051). National Center for Education Statistics, Institute of Education Sciences, U.S. Department of Education. Washington, DC. https://nces.ed.gov/pubs2015/2015051.pdf.

Kleiner, B., and Lewis, L. (2005). *Dual Enrollment of High School Students at Postsecondary Institutions: 2002–03* (NCES 2005-008). National Center for Education Statistics, Institute of Education Sciences, U.S. Department of Education. Washington, DC. https://nces.ed.gov/pubs2005/2005008.pdf.

Kleiner, B., Thomas, N., and Lewis, L. (2007). *Educational Technology in Teacher Education Programs for Initial Licensure* (NCES 2008-040). National Center for Education Statistics, Institute of Education Sciences, U.S. Department of Education. Washington, DC. https://nces.ed.gov/pubs2008/2008040.pdf.

Lewis, L., Alexander, D., and Farris, E. (1998). *Distance Education in Higher Education Institutions* (NCES 98-062). National Center for Education Statistics, Institute of Education Sciences, U.S. Department of Education. Washington, DC. https://nces.ed.gov/pubs9898062.pdf.

Lewis, L., and Farris, E. (1996). *Remedial Education at Higher Education Institutions in Fall 1995* (NCES 97-584). National Center for Education Statistics, Institute of Education Sciences, U.S. Department of Education. Washington, DC. https://nces.ed.gov/pubs/97584.pdf.

Lewis, L., and Farris, E. (1997). *Campus Crime and Security at Postsecondary Education Institutions* (NCES 97-402). National Center for Education Statistics, Institute of Education Sciences, U.S. Department of Education. Washington, DC. https://nces.ed.gov/pubs/97402.pdf.

Lewis, L., and Farris, E. (1999). *An Institutional Perspective on Students With Disabilities in Postsecondary Education* (NCES 1999-046). National Center for Education Statistics, Institute of Education Sciences, U.S. Department of Education. Washington, DC. https://nces.ed.gov/pubs99/1999046.pdf.

Lewis, L., Snow, K., Farris, E., and Levin, D. (2000). *Distance Education at Postsecondary Education Institutions: 1997–98* (NCES 2000-013). National Center for Education Statistics, Institute of Education Sciences, U.S. Department of Education. Washington, DC. https://nces.ed.gov/pubs2000/2000013.pdf.

Marken, S., Gray, L., and Lewis, L. (2013). *Dual Enrollment Programs and Courses for High School Students at Postsecondary Institutions: 2010–11* (NCES 2013-002). National Center for Education Statistics, Institute of Education Sciences, U.S. Department of Education. Washington, DC. https://nces.ed.gov/pubs2013/2013002/index.asp.

Parsad, B., and Lewis, L. (2003). *Remedial Education at Degree-Granting Postsecondary Institutions in Fall 2000* (NCES 2004-010). National Center for Education Statistics, Institute of Education Sciences, U.S. Department of Education. Washington, DC. https://nces.ed.gov/pubs2004/2004010.pdf.

Parsad, B., and Lewis, L. (2008). *Distance Education at Degree-Granting Postsecondary Institutions: 2006–07* (NCES 2009-044). National Center for Education Statistics, Institute of Education Sciences, U.S. Department of Education. Washington, DC. https://nces.ed.gov/pubs2009/2009044.pdf.

Phelps, R., Parsad, B., Farris, E., and Hudson, L. (2001). *Features of Occupational Programs at the Secondary and Postsecondary Education Levels* (NCES 2001-018). National Center for Education Statistics, Institute of Education Sciences, U.S. Department of Education. Washington, DC. https://nces.ed.gov/pubs2001/2001018.pdf.

Queen, B., and Lewis, L. (2014). *Services and Support Programs for Military Service Members and Veterans at Postsecondary Institutions, 2012–13* (NCES 2014-017). National Center for Education Statistics, Institute of Education Sciences, U.S. Department of Education. Washington, DC. https://nces.ed.gov/pubs2014/2014017.pdf.

Raue, K., and Lewis, L. (2011). *Students with Disabilities at Degree-Granting Postsecondary Institutions* (NCES 2011-018). National Center for Education Statistics, Institute of Education Sciences, U.S. Department of Education. Washington, DC. https://nces.ed.gov/pubs2011/2011018.pdf.

Waits, T., and Lewis, L. (2003). Distance Education at Degree-Granting *Postsecondary Education Institutions: 2000–2001* (NCES 2003-017. National Center for Education Statistics, Institute of Education Sciences, U.S. Department of Education. Washington, DC. https://nces.ed.gov/pubs2003/2003017.pdf.