



Postsecondary Education Quick Information System (PEQIS)

Module Objectives

- Introduce the Postsecondary Education Quick Information System (PEQIS)
- Highlight past survey topics
- Describe the PEQIS
 - Sample design and sampling frame
 - Data collection and processing
 - Weighting and imputation
- Explain survey estimation and limitations
- Describe downloadable public-use data files and documentation, and explain how to interpret the record layout
- Provide answers to frequently asked questions
- Explain available publications

Postsecondary Education Quick Information System (PEQIS) – Overview

- PEQIS was established in 1991
- Designed to conduct brief surveys of postsecondary institutions or state higher education agencies on postsecondary education topics of national importance
- Questionnaires are pretested
- Generally limited to three pages of questions; about 30 to 45 minutes per respondent
- 18 PEQIS surveys have been completed

PEQIS Surveys by Year Administered

Surveys	Year
• “Services and Support Programs for Military Service Members and Veterans, 2012-13”	2012-13
• “Dual Enrollment Programs and Courses for High School Students, 2010-11”	2010-11
• “Students with Disabilities at Postsecondary Institutions, 2008-09”	2008-09
• “Distance Education at Postsecondary Institutions, 2006-07”	2006-07
• “Educational Technology in Teacher Education Programs for Initial Licensure”	2006
• “Dual Enrollment Programs and Courses for High School Students”	2002-03
• “Distance Education at Postsecondary Education Institutions, 2000-01”	2000-01
• “Occupational Programs and the Use of Skill Competencies at the Secondary and Postsecondary Levels, 1999”	1999
• “Distance Education at Postsecondary Education Institutions, 1997-98”	1997-98

Sample Design

- Previously recruited, nationally representative panel of institutions
 - Four panels have been recruited since 1991-92
 - Panels reselected in 1996, 2002, 2006, and 2011
- Approximately 1,650 postsecondary education institutions
- Eligible institutions include 2-year and 4-year (including graduate-level) institutions that are both Title IV eligible and degree-granting, and located in the 50 states and the District of Columbia

Sampling Frame

Constructed from the 2009–10 Integrated Postsecondary Education Data System (IPEDS) Institutional Characteristics file

- To choose institutions for the panel, eligible institutions were stratified into 43 primary strata, based on
 - Instructional level (4-year or 2-year)
 - Control (public, private nonprofit, or private for-profit)
 - Highest level of offering (doctor's/first-professional, master's, bachelor's, or less than bachelor's)
 - Total enrollment
- Within each stratum, institutions were sorted by
 - Region (Northeast, Southeast, Central, or West)
 - Combined enrollment of minority students
 - Sample of 1,650 institutions was allocated to the strata in proportion to the aggregate square root of the total enrollment; institutions with a primary stratum were sampled with equal probabilities of selection

Sampling Frame - Example

[Services and Support Programs for Military Service Members and Veterans at Postsecondary Institutions, 2012-13](#)

- For the 2011 PEQIS panel, eligible institutions included those that are
 - 2-year and 4-year (including graduate-level) institutions
 - Both Title IV eligible and degree-granting
 - Located in the 50 states and the District of Columbia

Sampling Frame – Example (Continued)

Services and Support Programs for Military Service Members and Veterans at Postsecondary Institutions, 2012-13

- 2011 PEQIS sampling frame (based on 2009-10 IPEDS) was stratified by
 - Instructional level (4-year or 2-year)
 - Control (public, private nonprofit, or private for-profit)
 - Highest level of offering (doctor's/first professional, master's, bachelor's, or less than bachelor's)
 - Total enrollment
- 43 primary strata were created

Sampling Frame – Example (Continued)

Services and Support Programs for Military Service Members and Veterans at Postsecondary Institutions, 2012-13

- Within each strata, institutions were sorted by
 - Region (Northeast, Southeast, Central, or West)
 - Whether or not the institution had a relatively high combined enrollment of Black, Hispanic, Asian/Pacific Islander, or American Indian/Alaskan Native students
- Institutions were allocated to the strata in proportion to the aggregate square root of the total enrollment
- Institutions with a primary stratum were sampled with equal probabilities of selection to be included on 2011 PEQIS panel
- 1,650 institutions were include on 2011 PEQIS panel

Data Collection

- Self-administered questionnaires
- Available on paper (submitted by mail, fax, or email) or online
- Telephone follow-up for survey nonresponse and data clarification
- Questionnaires are pretested and checked
 - For consistency in interpretation of questions
 - To eliminate ambiguous items before fielding to all institutions in the sample
- Although the surveys are designed to account for sampling error and to minimize nonsampling error, estimates produced from the data collected are subject to both types of error

Weights

- Data are weighted to produce national estimates
- 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
- Data are imputed for all items with a response rate of less than 100%
- A “hot-deck” approach is used to obtain a “donor”
 - A “donor” is used to derive imputed values for the missing data
 - For categorical items, the imputed value is the corresponding value from the donor
 - For numerical items, an appropriate ratio is calculated for the donor
 - All missing items for a recipient are imputed from the same donor

Imputation - Example

Services and Support Programs for Military Service Members and Veterans at Postsecondary Institutions, 2012-13

- Low item nonresponse
- Missing data were imputed for 28 items
- Types of missing items
 - Numerical data (e.g., number of military service members and veterans and dependents of military service members and veterans enrolled in the institution)
 - Categorical data (e.g., how institutions provide information to students about programs and services available to military service members and veterans)

Imputation – Example (Continued)

Services and Support Programs for Military Service Members and Veterans at Postsecondary Institutions, 2012-13 (Continued)

- “Hot-deck” imputation method used
 - A “donor” institution identified for imputation values
 - “Donor” institution matched on selected characteristics
 - Institution type
 - Control
 - Highest level of offering
 - Region
 - Enrollment size
 - Imputed value is 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 it by the total number of students enrolled in the donor institution
 - For categorical items the imputed value was the corresponding value from the donor institution

Estimation and Limitations

- The sample size permits limited breakouts by analysis variables
- As the number of categories within any single analysis variable increases, the sample size within categories decreases, which results in larger sampling errors
- PEQIS survey data are based on complex sample designs that require the use of weights to compensate for variable probabilities of selection, differential response rates, and possible deficiencies in the sampling frame
- For information on properly analyzing NCES complex sample data, review the two common modules "[Analyzing NCES Complex Survey Data](#)" and "[Statistical Analysis of NCES Datasets Employing a Complex Sample Design](#)"

Comparability

- Although most questions on repeated surveys ask for similar information, the wording or organization of some questions differs to the extent that direct comparisons are not possible
- These changes in question wording can be necessary to allow for more detailed information or to capture changes from years past
- Some questionnaire items may contain limitations or wording problems that require modifications
- New topics result in some of the older items being dropped because of space limitations

Public-use Data Files and Documentation

- [Public-use data files and documentation](#) are available on the NCES website
- Files available include
 - ASCII Flat File
 - SAS File
 - Documentation
- Note that NCES does all it can to assure that the identity of data subjects cannot be disclosed
 - All identifiers are omitted or modified
 - All characteristics that might lead to identification are omitted or modified
 - To access raw data from some surveys, an NCES [restricted-use data license](#) is needed

Interpreting the record layout

Record layout includes

- Variable name (e.g., SIZE)
- Type of variable (e.g., Char or Num)
- Column(s)
- Description

PEQIS - Frequently Asked Questions (FAQs)

- How can I access survey data?
 - Publicly available data are available on the [Downloads](#) page
 - Beyond the public-use datasets currently listed, public-use datasets from additional surveys may be forthcoming. Please contact the helpdesk at PEQIS@ed.gov for information on when new datasets are expected to be available.
 - [Restricted-use License](#)
- Will a survey on a certain topic be administered again in future years?
 - 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
 - You may contact the helpdesk at PEQIS@ed.gov to find out if a survey on a particular topic is planned

PEQIS - FAQs (Continued)

- Can I have analyses run for me?
 - No. However, if the data are available on the [Downloads](#) page, you may obtain the data you wish to analyze.
- Is it possible to have data tables computed online for PEQIS surveys?
 - Not at this time
- Who is represented in the survey samples?
 - All PEQIS survey results are based on nationally representative samples, as opposed to samples that are drawn to be representative of individual states. Therefore, state-level estimates with PEQIS data are not available.

PEQIS - FAQs (Continued)

- Can I get a list of institutions that gave a particular answer to a survey item, or find out how a particular institution responded?
 - No. When the data were collected, institutions were assured that their survey responses would remain confidential.
- Can I download and use PEQIS survey questionnaires?
 - Yes. Survey questionnaires are public domain and may be found, when applicable, in the appendix section of the publication.
- Who may request a survey?
 - Surveys may only be requested by principal operating components of the U.S. Department of Education or agencies working on issues relevant to Department policymakers

Publications

- First Look Reports
 - Introduce new NCES data to the public
 - Are a collection of tables
 - Contain descriptive information
 - Include selected findings
- Many of the variables examined in First Look Reports are related to one another, and complex interactions and relationships are not explored
- Survey questionnaires are public domain and may be found in the appendix section of the report
- Initial reports are released less than one year from the end of data collection

Questions

- For questions about the PEQIS Programs, please first reference the PEQIS [FAQ page](#)
- If your questions are not addressed by the information on the website, please send an email to PEQIS@ed.gov

Module Summary

- Introduced the Postsecondary Education Quick Information System (PEQIS)
- Highlighted past survey topics
- Described the PEQIS
 - Sample design and sampling frame
 - Data collection and processing
 - Weighting and imputation
- Explained survey estimation and limitations
- Described comparability
- Described downloadable public-use data files and documentation, and explained how to interpret the record layout
- Provided answers to frequently asked questions
- Described available Publications

Module Resources

- [Postsecondary Education Quick Information System \(PEQIS\)](#)
- [PEQIS Survey Download page](#)
- [Services and Support Programs for Military Service Members and Veterans at Postsecondary Institutions, 2012-13](#)
- [Analyzing NCES Complex Survey Data](#)
- [Statistical Analysis of NCES Datasets Employing a Complex Sample Design](#)
- [PEQIS Public-use Data Files and Documentation](#)
- [Restricted-use Data License](#)
- [PEQIS Publications](#)
- [PEQIS FAQ page](#)