Appendix A: Glossary of Statistical Terms

Balanced Incomplete Block (BIB) spiraling: In a BIB design, as in standard matrix sampling, no sample unit is administered all of the tasks in the assessment pool. However, unlike standard matrix sampling (in which items or tasks are assembled into discrete booklets), BIB design requires that sample units receive different interlocking sections of the assessment forms that allow for the estimation of relationships among all the tasks in the pool through the unique linking of blocks.

“Spiraling” refers to the method by which test booklets are assigned to sample units. Each version of the assessment booklet must appear in the sample approximately the same number of times and must be administered to equivalent subgroups within the full sample. To ensure proper distribution at assessment time, the booklets are packed in spiral order (e.g., one each of booklets 1 through 7, then 1 through 7 again, and so on). The test coordinator randomly assigns these booklets to the sample units in each test administration session. Spiraled distribution of the booklets promotes comparable sample sizes for each version of the booklet, ensures that these samples are randomly equivalent, and reduces the likelihood that sample units will be seated within viewing distance of an identical booklet.

Balanced Repeated Replication (BRR): See Replication technique.

Base weight: The product of the reciprocals of the probabilities of inclusion for all stages of sampling.

Bias (due to nonresponse): The difference that occurs when respondents differ as a group from nonrespondents on a characteristic being studied.

Bias (of an estimate): The difference between the expected value of a sample estimate and the corresponding true value for the population.

Blanking edit: See Edit.

Bootstrap: See Replication techniques.

CAPI: Computer Assisted Personal Interviewing enables data collection staff to use portable microcomputers to administer a data collection form while viewing the form on the computer screen. As responses are entered directly into the computer, they are used to guide the interview and are automatically checked for specified range, format, and consistency.

Chi-squared Automatic Interaction Detector (CHAID) Analysis: This technique divides the respondent data into segments which differ with respect to the item being imputed. This segmentation process first divides the data into groups based on categories of the most significant predictors. It then splits each of these groups into smaller groups based on other predictor variables and merges categories of a variable found insignificant (by x² test). This splitting and merging progress continues until no more statistically significant predictors are found. The imputation classes form the final CHAID segments.

Cohort: A group of individuals who have a statistical factor in common (e.g., year of birth, grade in school, year of high school graduation).

“Cold-deck” imputation: See Imputation.
Component weight: For each stage of sampling, the component weight is equal to the reciprocal of the probability of selecting the unit at that stage.

Composite variable: Variable constructed through the combination of two or more variables (e.g., socioeconomic status) or through calculation by applying a mathematical function to a variable. Composite variable is also referred to as derived, constructed, or classification variable.

Computer Assisted Personal Interviewing: See CAPI.

Consistency edit: See Edit.

Coverage error: Coverage error in an estimate results from the omission of part of the target population (undercoverage) or the inclusion of units from outside the target population (overcoverage).

Critical items or key items: Items deemed crucial to the methodological or analytical objectives of the study.

Design effect: The cumulative effect of the various design factors affecting the precision of statistics is often modeled as the sample design effect. The design effect, DEFF, is defined as the ratio of the sampling variance of the statistic (e.g., a mean or a proportion) under the actual sampling design divided by the variance that would be expected for a simple random sample of the same size. Hence, the design effect is equal to one, by definition, for simple random samples. For clustered multistage sampling designs, the design effect is greater than unity, reflecting that the precision is less than could be achieved with a simple random sample of the same size (if that were the sampling design). The size of the design effect depends largely on the intracluster correlation of the survey observations within the primary sampling units. Hence, statistics that are based on observations that are highly correlated within units will have higher design effects.

Durbin’s Method: This method selects two first-stage units per stratum without replacement, with probability proportional to size so that the joint inclusion probabilities are greater than zero for every pair.

Edits: Procedures for checking and modifying response in a survey.

  - Blanking edit: Deletes extraneous entries and assigns the “not answered” code to items that should have been answered but were not.
  - Consistency edit: Identifies inconsistent entries within each record and, whenever possible, corrects them. If they cannot be corrected, the entries are deleted. Inconsistencies can be (1) within items or (2) between items. The consistency edit also fills some items where data are missing or incomplete by using other information on the data record.
  - Logic edit: Checks made of the data to ensure logical consistency among the responses from a data provider.
  - Range check: Determines whether responses fall within a predetermined set of acceptable values.
  - Relational edit check: Compares data entries from one section of the questionnaire for consistency with data entries from another section of the questionnaire.
  - Skip pattern check: Checks if responses correctly followed skip pattern instructions.
  - Summation check: Compares reported totals with the sums of the constituent data items.

Estimate: A numerical value obtained from a statistical sample and assigned to a population parameter. The particular value yielded by an estimator in a given set of circumstances or the rule by which such particular values are calculated.
**Estimation:** Estimation is concerned with inference about the numerical value of unknown population values from incomplete data, such as a sample. If a single figure is calculated for each unknown parameter, the process is called point estimation. If an interval is calculated within which the parameter is likely, in some sense, to lie, the process is called interval estimation.

**Field test:** The study of a data collection activity in the setting where it is to be conducted.

**“Hot-deck” imputation:** See Imputation.

**Imputation:** Imputation (for item or survey nonresponse) involves supplying a value if an item response is missing. The items may be missing because the respondent was careless, refused to provide an answer, or could not obtain the requested information. Since extensive amounts of missing data can seriously bias sample-based estimates, procedures for imputing missing values are often developed. Imputation is used to reduce nonresponse bias in survey estimates, simplify analyses, and improve the consistency of results across analyses.

Depending on the type of data to be imputed and the extent of missing values, a number of alternative techniques can be employed. These techniques include: logical imputation, the use of poststratum averages, “hot deck” imputation, and regression and other “modeling” techniques.

**“Cold-deck” imputation:** A process that imputes missing data with values observed from a past survey.

**“Hot-deck” imputation:** Hot deck refers to a general class of procedures for which cases with missing items are assigned the corresponding value of a “similar” respondent in the sample.

- **Random within class:** This method divides the total sample into imputation classes according to the values of the auxiliary variables. Each nonrespondent is assigned a value randomly selected from the same imputation class.

- **Sequential (also known as traditional):** The records of the survey are treated sequentially in the same imputation class and for each class a single value is stored to provide a starting point for a single pass through the data file. If a record has a response, that value replaces the previous value. If the record is missing, the currently stored value is assigned to that unit.

**Logical imputation:** Logical imputation can be applied in situations where a missing response can be inferred with certainty (or high degree of probability) from other information in the data record.

**Poststratum average:** In the use of poststratum average, a record with missing data is assigned the mean value of those cases in the same “poststratum” for which information on the item is available.

**Proc Impute:** This is an advanced software package that performs three steps for each target variable to be imputed:

1) Uses stepwise regression analysis to find the best combination of predictors among all variables included in the imputation model;

2) Creates homogeneous cells of records which have close predicted regression values; and

3) Imputes each missing record in a given cell with a weighted average of two donors, one from its own cell and the other from an adjacent cell.

**Regression and other modeling techniques:** These techniques operate by modeling the variable to be imputed, $Y$ as a function of related independent variables, $X_1, X_2, \ldots, X_p$. To preserve the variability of the $Y$’s at specific values of $X_1, X_2, \ldots, X_p$, a residual, $\hat{e}$, is sometimes added to the predicted value determined from the model.

**Independent variable:** In regression analysis, when a random variable, $Y$, is expressed as a function of variables $X_1, X_2, \ldots, X_p$, plus a stochastic term, the $X$’s are known as “independent variables.”
Item nonresponse: An item on a data collection form that is missing when a response was expected.

Jackknife method: See Replication techniques.

Key item or critical item: Item deemed crucial to the methodological or analytical objectives of the study.

Keyfitz approach: A method of probability selection that maximizes the selected units from a past sample.

Logic edit: See Edit.

Logical imputation: See Imputation.

Measurement error: Measurement error refers to errors in estimates resulting from incorrect responses gathered during the data collection phase of a survey. Measurement errors result, for instance, when the respondent gives (intentionally or unintentionally) incorrect answers, the interviewer misunderstands or records answers incorrectly, the interviewer influences the responses, the questionnaire is misinterpreted, etc.

Mitofsky-Waksberg method: A method of sample selection for household telephone interviewing via random digit dialing where the sampling is carried out through a two-stage design. As Waksberg explained in his 1978 *Journal of the American Statistical Association* article: “Obtain from AT&T a recent list of all telephone area codes and existing prefix numbers within the areas. To these add all possible choices for the next two digits, and thus prepare a list of all possible first eight digits of the ten digits in telephone numbers. These eight-digit numbers are treated as Primary Sampling Units (PSU). A random selection is then made of an eight-digit number, and also of the next two digits. The number is then dialed. If the dialed number is at a residential address, the PSU is retained in the sample. Additional last two digits are selected at random and dialed within the same eight-digit group, until a set number, \( k \), of residential telephones is reached. Interviews are attempted both at the initial number and the additional \( k \) numbers. If the original number called was not residential, the PSU is rejected. This process is repeated until a predesignated number of PSU’s, \( m \), is chosen. The total sample size is, therefore, \( m(k + 1) \). The values of \( m \) and \( k \) are chosen to satisfy criteria for an optimum sample design.” Note that although all units have the same probabilities of selection, it is not necessary to know the probabilities of selection of the first-stage or the second-stage units.

Nonresponse: Cases in data collection activities in which potential data providers are contacted but refuse to reply or are unable to do so for reasons such as deafness or illness.

Nonresponse bias: This occurs when respondents as a group differ from nonrespondents in their answers to questions on a data collection form.

Nonsampling error: This term is used to describe variations in the estimates that may be caused by population coverage limitations, as well as data collection, processing, and reporting procedures. The sources of nonsampling errors are typically problems like unit and item nonresponse, the differences in respondents’ interpretations of the meaning of the questions, response differences related to the particular time the survey was conducted, and mistakes in data preparation.

Open-ended: A type of interview question that does not limit the potential response to predetermined alternatives.

Out-of-range response: A response that is outside of the predetermined range of values considered acceptable for a particular item.

Oversampling: Deliberately sampling a portion of the population at a higher rate than the remainder of the population.

Plausible value: Proficiency value drawn at random from a conditional distribution of a survey respondent, given his or her response to cognitive exercises and a specified subset of background variables.

Plausible values methodology: Plausible values methodology represents what the true performance of an individual might have been, had it been observed, using a small number of random draws from an empirically derived distribution of score values based on the student’s observed responses to assessment items and on background
variables. Each random draw from the distribution is considered a representative value from the distribution of potential scale scores for all students in the sample who have similar characteristics and identical patterns of item responses. The draws from the distribution are different from one another to quantify the degree of precision (the width of the spread) in the underlying distribution of possible scale scores that could have caused the observed performances.

**Population:** All individuals in the group to which conclusions from a data collection activity are to be applied.

**Poststratification:** An estimation method that adjusts the sampling weights so that they sum to specified population totals corresponding to the levels of a particular response variable.

**Poststratification adjustment:** A weight adjustment that forces survey estimates to match independent population totals within selected poststrata (adjustment cells).

**Precision:** The difference between a sample-based estimate and its expected value. Precision is measured by the sampling error (or standard error) of an estimate.

**Pretest:** A test to determine performance prior to the administration of a data collection activity.

**Probability sample:** A sample selected by a method such that each unit has a fixed and determined probability of selection.

**Proc Impute:** See Imputation.

**Processing:** The manipulation of data.

**Range check:** See Edit.

**Regression analysis:** A statistical technique for investigating and modeling the relationship between variables.

**Relational edit check:** See Edit.

**Replicate estimate:** An estimate of the population quantity based on the replicate subsample using the same estimation methods used to compute the full sample estimate.

**Replicate sample:** One of a set of subsamples, each obtained by deleting a number of observations in the original sample for the purpose of computing the appropriate variance based on the complex design of the survey.

**Replicate weight:** The weight assigned to an observation for a particular replicate subsample.

**Replicate:** A term often used to refer to either the replicate sample or the replicate estimate, depending on context.

**Replication technique:** Method of estimating sampling errors that involve repeated estimation of the same statistic using various subsets of data providers. The major methods are balanced repeated replication (BRR), bootstrap, and the jackknife technique.

- **Balanced Repeated Replication (BRR):** A method of replication that divides the sample into half-samples.

- **Bootstrap:** A resampling technique of creating replicates by drawing random samples with replacement that mirror the original sampling plan for a pseudo-population constructed from the original sample.

- **Jackknife method:** A method of replication that creates replicates (subsets) by excluding one unit at a time from the sample.

**Sample:** A subgroup selected from the entire population.
Sampling error: When a sample rather than the entire population is surveyed, estimates can differ from the true population values that they represent. This difference, or sampling error, occurs by chance, and its variability is measured by the standard error of the estimate. Sample estimates from a given survey design are unbiased when an average of the estimates from all possible samples would yield, hypothetically, the true population value. In this case, the sample estimate and its standard error can be used to construct approximate confidence intervals, or ranges of values, that include the true population value with known probabilities.

Sampling variance: A measure of dispersion of values of a statistic that would occur if the survey were repeated a large number of times using the same sample design, instrument, and data collection methodology. The square root of the sampling variance is the standard error.

Sampling weight: See Weighted estimate.

Scaling (item response theory): Item response theory (IRT) scaling assumes some uniformity in response patterns when items require similar skills. Such uniformity can be used to characterize both examinees and items in terms of a common scale attached to the skills, even when all examinees do not take identical sets of items. Comparisons of items and examinees can then be made in reference to a scale, rather than to the percent correct. IRT scaling also allows the distributions of examinee groups to be compared.

This is accomplished by modeling the probability of answering a question in a certain way as a mathematical function of proficiency or skill. The underlying principle of IRT is that, when a number of items require similar skills, the regularities observed across patterns of response can often be used to characterize both respondents and tasks in terms of a relatively small number of variables. When aggregated through appropriate mathematical formulas, these variables capture the dominant features of the data. IRT enables the assessment of a sample of students in a subject area or subarea on a common scale even if different students have been administered different exercises.

Skip pattern check: See Edit.

Special population: A subset of the total population distinguishable by unique needs, characteristics, or interests (e.g., disadvantaged students, gifted students, physically or mentally handicapped students, vocational education students).

Spiraling: See Balanced Incomplete Block (BIB) spiraling.

Standard deviation: The most widely used measure of dispersion of a set of values. It is equal to the positive square root of the population variance.

Standard error: The positive square root of the sampling variance. It is a measure of the dispersion of the sampling distribution of a statistic. Standard errors are used to establish confidence intervals for the statistics being analyzed.

Statistically significant: There is a low probability that the result is attributable to chance alone.

Summation check: See Edit.

Taylor Series: The Taylor Series variance estimation procedure is a technique to estimate the variances of nonlinear statistics. The procedure takes the first-order Taylor Series approximation of the nonlinear statistic and then substitutes the linear representation into the appropriate variance formula based on the sample design. For stratified multistage surveys such as the National Postsecondary Student Aid Study (NPSAS), the Taylor Series procedure requires analysis strata and analysis replicates defined from the sampling strata and primary sampling units (PSUs) used in the first stage of sampling.

Target population: See Population.

Time series: A set of ordered observations on a quantitative characteristic of an individual or collective phenomenon taken at different points in time. Usually the observations are successive and equally spaced in time.
Unit nonresponse: The failure of a survey respondent to provide any information.

Variable: A quantity that may assume any one of a set of values.

Variance: See Population variance and Sampling variance.

Weighted estimate: Estimate from a sample survey in which the sample data are weighted (multiplied) by factors reflecting the sample design. The weights (referred to as sampling weights) are typically equal to the reciprocals of the overall selection probabilities, multiplied by a nonresponse or poststratification adjustment.
Appendix B: Ordering NCES Publications and Data Files

Much NCES data and many NCES publications are available through the NCES web site. The NCES Electronic Catalog ([http://nces.ed.gov/pubsearch/](http://nces.ed.gov/pubsearch/)) allows searching for NCES products by NCES number or, for products released within the last 5 years, by keyword, survey/program area, type of product, and release date. The Electronic Catalog also has lists of publications published in the last 90 days, data products released in the last 6 months, and all publications and data products by survey and program area.

In addition to downloading from the NCES web site, there are four other ways to obtain NCES publications, CD-ROMs, and other products:

1. Education Publications Center (ED Pubs),
2. Government Printing Office (GPO),
3. Federal Depository Libraries, and
4. Education Resources Information Center (ERIC).

**Education Publications Center (ED Pubs)**

Until supplies are exhausted, a single copy of a publication or CD-ROM may be obtained at no cost from ED Pubs. Before requesting a copy, it is necessary to have the complete title and NCES number for the publication (e.g., The Condition of Education, 2010, NCES 2010–028).

Toll-free number: (877) 4ED–PUBS, (877) 433–7827
TTY/TDD toll-free number: (877) 576–7734
Para español, llame al: (877) 433–7827 (toll-free)
Fax: (703) 605–6794
E-mail: edpubs@edpubs.ed.gov
Internet: [www.edpubs.org/](http://www.edpubs.org/)

**Mailing Address:**
ED Pubs
P.O. Box 1398
Jessup, MD 20794–1398

**Government Printing Office (GPO)**
If more than one copy of a publication is needed, or if ED Pubs’ supplies have been exhausted, many—not all—NCES products may be purchased from the Government Printing Office (GPO). To order a copy from GPO, it is necessary to have the product’s GPO stock number (e.g., 065-000-00871-8). The product’s stock number and price can be found out by going to the U.S. Government Online Bookstore and entering the product’s title or keyword.

Phone orders: 1–866–512–1800 (toll-free); (202) 512–1800 (DC area)
Fax: Credit card orders may be faxed to (202) 512–2104
Email: contactcenter@gpo.gov
Mailing Address:
U.S. Government Printing Office
Mail Stop: IDCC
732 N. Capitol Street, NW
Washington, DC 20401

Federal Depository Library
For older publications, the only source for an NCES publication may be a Federal depository library. There are nearly 1,250 of these libraries around the country. However, only the “Regional” libraries receive all materials distributed through the Federal Depository Library Program. Other Federal depository libraries select materials according to the needs of their communities. These libraries can be located through the following web site:

http://www.gpoaccess.gov/libraries.html

Education Resources Information Center (ERIC)
ERIC is an online digital library of education research and information. ERIC is sponsored by the Institute of Education Sciences (IES) of the U.S. Department of Education. ERIC provides access to education literature to support the use of educational research and information to improve practices in learning, teaching, educational decision-making, and research.

Toll-free number: (800) LET-ERIC, (800) 538-3742
Internet: http://www.eric.ed.gov/

Mailing Address:
ERIC Project
c/o Computer Science Corporation
655 15th Street, NW
Washington, DC 20005

Public-use versus Restricted-use Data Files
NCES uses the term “public-use data” for survey data when the individually identifiable information has been coded or deleted to protect the confidentiality of survey respondents. All NCES public-use data files can be accessed (at no cost) from the NCES web site. Only public-use data files that are on CD-ROM are available through ED Pubs or GPO.

Restricted-use data files contain individually identifiable information, which is confidential and protected by law. To use these data, researchers must obtain a restricted-use data license. A brief summary of the steps that need to be followed to obtain (or amend) a restricted-use data license is provided below. The procedures are fully discussed in the NCES Restricted-Use Data Procedures Manual, which can be found at the following web site:

http://nces.ed.gov/statprog/rudman/

As of July 1, 2007, NCES requires restricted-use data license applications and amendments to be submitted through its new Electronic Application System, accessible at the following web site:

http://nces.ed.gov/statprog/instruct.asp

The following information will be required to obtain or amend a restricted data license. For more detailed information, applicants should see the Restricted-Use Data Procedures Manual.

1. The license number to be amended (if the researcher already has a license);
2. The name of the dataset(s) the researcher wishes to use;
3. The purpose for the loan of the data;
4. The length of time the researcher will need the data (loan period not to exceed five years);

5. The computer security plan the researcher will follow;

6. The list of authorized users; and

7. An affidavit of nondisclosure for each authorized user, promising to keep the data completely confidential.

A researcher who is amending an existing license and whose purpose is a continuation of the project that was approved originally may be able to condense the abstract of the research design, but the description must be specific enough to justify using the raw data. Similarly, researchers who plan to use the same computer(s) and person(s) who are already licensed users may be able to simply update the computer security plan previously approved. Computer security plans need to be followed carefully as spot site inspections do occur. In the case of postsecondary institutions, only faculty can serve as the primary project officer overseeing the daily operations. Graduate students may be listed as authorized users only.

**Mailing Address:**
IES Data Security Office
Department of Education/IES/NCES
1990 K Street NW Room 9060

Washington, DC 20006-5574

**Contact Person:**
Cynthia L. Barton
Data Security Assistant
Phone: (202) 502–7307
E-mail: cynthia.barton@ed.gov

**Note on Working Papers:** Working papers are available on the NCES web site through the Electronic Catalog.
Appendix C: Web-based and Standalone Tools for Use with NCES Survey Data

NCES has developed a number of web-based and standalone tools for use with its data. There are four user tools that have been developed for use across multiple surveys: the Data Analysis System (DAS), which produces tabular data for the user; Electronic Codebooks (ECBs), which allow users to develop datafiles in SAS, SPSS, or ASCII format; the Education Data Analysis Tool (EDAT), which allows the user to download NCES survey datasets; and the International Data Explorer (IDE), which is an interactive tool used to explore international assessment results. These are described in more detail below, along with a list of the surveys available with each. Following this, descriptions of the tools developed for more specialized uses—for example, the Private School Locator and the NAEP Test Questions Tool—are provided in a survey-by-survey list.

The Data Analysis System (DAS) (http://nces.ed.gov/das/) is a software application that provides access to Department of Education survey data. DAS allows users to create programming instruction files (DAS files) that specify the information they want displayed in a table. The output table will contain the estimates (usually percentages of students) and corresponding standard errors which are calculated taking into account the complex sampling designs used in NCES surveys. In addition, the DAS software can create correlation matrices which can be used as input for most popular statistical programs to conduct multivariate analysis. There is a separate DAS for each survey data set, and all have a consistent interface and command structure. DAS applications are available in Windows- and web-based formats. The available NCES surveys are:

- Baccalaureate and Beyond (B&B) Longitudinal Study
- Beginning Postsecondary Students (BPS) Longitudinal Study
- Early Childhood Longitudinal Study (ECLS)
- High School and Beyond (HS&B) Longitudinal Study
- Integrated Postsecondary Education Data System (IPEDS)
- National Education Longitudinal Study of 1988 (NELS:88)
- National Household Education Surveys (NHES) Program
- National Longitudinal Study of the High School Class of 1972 (NLS:72)
- National Postsecondary Student Aid Study (NPSAS)
- National Study of Postsecondary Faculty (NSOPF)

Electronic Codebook (ECB) programs have been created for many NCES surveys. These programs, after being installed on a user’s personal computer, allow the user to examine the variables in each of a survey’s data files, as

*As explained in appendix B, all NCES public-use data files can be accessed (at no cost) from the NCES web site. To use restricted-use data, researchers must first obtain a restricted-use data license.
well as create SAS and SPSS programs that will generate an extract data file from any of the survey data files on the CD-ROM.

ECB programs are usually included on a CD-ROM with the survey data, but NCES has issued a CD-ROM that contains only electronic codebooks. This CD-ROM was created to provide updated ECB software for data sets that were, in some cases, released several years ago.

ECBs may be available for use with public-use data, restricted-use data, or both, depending on the survey. ECBs are available for the following surveys:

- Baccalaureate and Beyond (B&B) Longitudinal Study—Restricted-use
- Beginning Postsecondary Students (BPS) Longitudinal Survey—Restricted-use
- Early Childhood Longitudinal Study (ECLS)—Public-use and Restricted-use
- Education Longitudinal Study of 2002 (ELS:2002) — Public-use and Restricted-use
- High School and Beyond (HS&B) Longitudinal Study—Restricted-use
- High School Transcript (HST) Study—Restricted-use
- Integrated Postsecondary Education Data System (IPEDS)—Public-use
- National Assessment of Adult Literacy (NAAL)—Public-use and Restricted-use
- National Education Longitudinal Study of 1988 (NELS:88)—Public-use and Restricted-use
- National Household Education Surveys (NHES) Program—Public-use and Restricted-use
- National Longitudinal Study of the High School Class of 1972 (NLS:72)—Public-use
- National Postsecondary Student Aid Study (NPSAS)—Restricted-use
- National Study of Postsecondary Faculty (NSOPF)—Public-use and Restricted-use
- Private School Universe Survey (PSS)—Public-use
- Progress in International Reading Literacy Study (PIRLS)—Public-use and Restricted-use
- Schools and Staffing Survey (SASS)—Public-use and Restricted-use
- Trends in International Mathematics and Science Study (TIMSS)—Public-use

The Education Data Analysis Tool (EDAT) ([http://nces.ed.gov/edat/](http://nces.ed.gov/edat/)) is a web tool that allows the user to download NCES survey datasets. EDAT guides the user through 1) selecting a survey, 2) selecting variables relevant to the user’s analysis, 3) downloading a data set to the user’s computer, and 4) downloading syntax files. Statistical software package (SAS, SPSS, Stata, R, S-Plus, or SUDAAN) or a generic file format (ASCII or CSV) can be selected for download format. If a statistical software package is selected, EDAT will use generate a custom syntax file for use with the selected software. If a generic file format is chosen, EDAT will generate a layout file to help the user to with the data. In either case, EDAT will generate a codebook file with codes, labels, descriptions, and frequencies for the user’s reference. There is a tutorial for this tool. The following surveys are currently accessible in EDAT (additional datasets will be added in the near future):

Web-based and Standalone Tools for Use with NCES Survey Data
NCES HANDBOOK OF SURVEY METHODS

The International Data Explorer (IDE) ([http://nces.ed.gov/surveys/international/ide/](http://nces.ed.gov/surveys/international/ide/)) is a dynamic, interactive tool used to explore international assessment results for various subjects, grades, and jurisdictions. It allows users to create custom statistical tables, graphics, and maps using data from international assessments. There is a tutorial for this tool. Student performance in the context of gender, race/ethnicity, and many other factors can be examined using data gathered from participants in the following international assessments:

- Program for International Student Assessment (PISA)
- Progress in International Reading Literacy Study (PIRLS)
- Trends in International Mathematics and Science Study (TIMSS)

**EARLY CHILDHOOD EDUCATION SURVEY**

Early Childhood Longitudinal Study (ECLS)

- DAS for ECLS—See DAS, above.
- ECB for ECLS—Public-use and Restricted-use

**ELEMENTARY AND SECONDARY EDUCATION SURVEYS**

Common Core of Data (CCD)

- **CCD CD-ROM Interface**: After selecting one of the three databases—School, Agency, or State—the user enters search criteria in specific fields, in order to limit the number of records for review to a select group. These records (matching the search criteria) can be displayed in summary or detail format, and can be printed. Specific fields for the selected records may be chosen and data exported to be used with other software packages. There are a number of export formats available that can be used with spreadsheets, databases, word processing packages, and statistical software packages.

- **Build a Table** ([http://nces.ed.gov/ccd/bat/](http://nces.ed.gov/ccd/bat/)): This application enables users to create customized tables of CCD public school data for states, counties, MSA’s, districts and schools using data from multiple years.


- **National Public School and School District Locator** ([http://nces.ed.gov/ccd/search.asp](http://nces.ed.gov/ccd/search.asp)): The School/District Locator enables users to find the correct name, address, telephone number, NCES ID number, locale (rural, large city, etc.), and other student and teacher information for public schools or school districts for the latest school year as reported to NCES by state education officials in each state. The Locator includes a Locator Glossary, which includes variable codes and definition descriptions, and a list of newly reported schools and school districts (this information is from unedited state data submissions and is updated as new information is received).

*Search For Public Schools* ([http://nces.ed.gov/ccd/schoolsearch/](http://nces.ed.gov/ccd/schoolsearch/)): Use the Search For Public Schools locator to retrieve information on public schools from CCD’s databases.


- **Public School District Finance Peer Search** ([http://nces.ed.gov/edfin/search/search_intro.asp](http://nces.ed.gov/edfin/search/search_intro.asp)): This search allows users to compare the finances of a school district with its peers (those districts which share similar characteristics to the one chosen). Users may enter the entire name or only a portion of it. If more than one district with that name is found, users are prompted to select the appropriate one. Once the user has narrowed the search to one district, peer districts will be selected based on: enrollment, student/teacher ratio, median household income, district type, and metro status location. Users can base
their search for peers on a different set of criteria using the “Advanced” feature. Users wishing to perform a search other than a peer search may use the “Expert” feature.

- **State Education Data Profiles** ([http://nces.ed.gov/programs/stateprofiles/](http://nces.ed.gov/programs/stateprofiles/)): Use the state profiles tool to search for statewide information on elementary/secondary education characteristics and finance, postsecondary education, public libraries, assessments, and selected demographics for all states.

- ECB for ELS:2002—Public-use and Restricted-use
- EDAT for ELS:2002—See EDAT, above.

**High School and Beyond (HS&B) Longitudinal Study**
- DAS for HS&B—See DAS, above.
- ECB for HS&B—Restricte-d use

**National Education Longitudinal Study of 1988 (NELS:88)**
- DAS for NELS:88—See DAS, above.
- ECB for NELS:88—Public-use and Restricted-use

**National Longitudinal Study of the High School Class of 1972 (NLS-72)**
- DAS for NLS-72—See DAS, above.
- ECB for NLS-72—Public-use

**Private School Universe Survey (PSS)**
- ECB for PSS—Public-use
- Private School Locator ([http://nces.ed.gov/surveys/pss/privateschoolsearch/](http://nces.ed.gov/surveys/pss/privateschoolsearch/)): The Private School Locator enables users to find school names, addresses, and other school information for private schools. Information for a particular private school, or a group of private schools, can be retrieved based on selection criteria the user specifies. Users can also download an ASCII text data file of the schools selected once the selection process is completed. The information in this locator comes from the approximately 30,000 schools that participated in the latest NCES Private School Survey (PSS). Users can request that schools not found in the Locator be included in future PSS. The Locator is also available on CD-ROM.

**Schools and Staffing Survey (SASS)**
- ECB for SASS—Public-use and Restricted-use
- Table library ([http://nces.ed.gov/surveys/sass/tables.asp](http://nces.ed.gov/surveys/sass/tables.asp)): The table library allows users to locate cross-tabulated data (and associated standard errors) produced from the Schools and Staffing Survey (SASS). These data tables came from the state and affiliation tables corresponding to the tables in NCES 2006-313, or the most frequently requested unpublished data, as well as other tables that had been produced but were not part of published reports. Additional tables and years of data will be included as they become available.

**LIBRARY SURVEYS**

**Academic Library Survey (ALS)**
- Academic Library Peer Comparison Tool ([http://nces.ed.gov/surveys/libraries/compare/index.asp?LibraryType=Academic](http://nces.ed.gov/surveys/libraries/compare/index.asp?LibraryType=Academic)): This tool allows the user to get information on a particular library, or to customize a peer group by selecting the key variables that are used to define it. The user can then view customized reports of the comparison between the library of interest and its peers, on a variety of variables as selected by the user.
Public Libraries Survey (PLS)
- Public Library Locator (http://nces.ed.gov/surveys/libraries/librarysearch/): This tool helps users locate information about a public library or a public library service outlet when users know some, but not all of the information about it. The information in this locator has been drawn from the NCES Public Libraries Survey.

POSTSECONDARY AND ADULT EDUCATION SURVEYS

Baccalaureate and Beyond (B&B) Longitudinal Study
- DAS for B&B—See DAS, above.
- ECB for B&B—Restricted-use

Beginning Postsecondary Students (BPS) Longitudinal Study
- DAS for BPS—See DAS, above.
- ECB for BPS—Restricted-use

Integrated Postsecondary Education Data System (IPEDS)
- ECB for IPEDS—Public-use
  - IPEDS College Navigator (http://nces.ed.gov/collegenavigator/): This is a direct link to over 9,000 colleges and universities in the United States. It was developed after NCES was authorized by Congress in 1998 to help college students, future students, and their parents understand the differences between colleges and how much it costs to attend college. Users can name a specific college or set of colleges and obtain information about them or use the search feature to find a college based on its location, program, or degree offerings either alone or in combination. The more criteria the user specifies, the smaller the number of colleges that will fit the criteria. Once the user has identified some colleges of interest, he or she can obtain important and understandable information on all of them.
  - IPEDS Peer Analysis System (Postsecondary Institutions) (http://nces.ed.gov/ipedspas/): This tool is designed to enable a user to easily compare a postsecondary institution of the user’s choice to a group of peer institutions, also selected by the user. This is done by generating reports using selected IPEDS variables of interest. There are tutorials for this tool.

National Postsecondary Student Aid Study (NPSAS)
- DAS for NPSAS—See DAS, above.
- ECB for NPSAS—Restricted-use

National Study of Postsecondary Faculty (NSOPF)
- DAS for NSOPF—See DAS, above.

EDUCATIONAL ASSESSMENT SURVEYS

National Assessment of Adult Literacy (NAAL)
- ECB for NAAL—Public-use and Restricted-use

National Assessment of Educational Progress (NAEP)
- NAEP Data Tool Kit, including NAEPex: This is a data extraction program for choosing variables, extracting data, and generating SAS and SPSS control statements, and analysis modules for cross-tabulation and regression that work with SPSS and Excel (available on CD-ROM).
Web-based and Standalone Tools for Use with NCES Survey Data

NCES HANDBOOK OF SURVEY METHODS

- **NAEP Test Questions Tool** ([http://nces.ed.gov/nationsreportcard/itmrls/](http://nces.ed.gov/nationsreportcard/itmrls/)): The purpose of this tool is to provide easy access to NAEP questions, actual student responses, and scoring guides used in released portions of the NAEP assessments. National and, where appropriate, state data are also presented. Note that entire NAEP assessments are not presented here, since some questions must be kept secure for use in future NAEP assessments. Science is currently available only as a PDF document. There is a tutorial for this tool.

- **NAEP State Profiles** ([http://nces.ed.gov/nationsreportcard/states/](http://nces.ed.gov/nationsreportcard/states/)): The State Profiles present key data about each state’s student and school population and its NAEP testing history and results. The profiles also contain links to other sources of information on the NAEP web site, including the most recent state report cards for all available subjects.

- **NAEP Data Explorer (NDE)** ([http://nces.ed.gov/nationsreportcard/naepdata/](http://nces.ed.gov/nationsreportcard/naepdata/)): With the NDE tool users can create statistical tables, charts, and maps to help find answers. They can explore the results of decades of assessment of students’ academic performance, as well as information about factors that may be related to their learning.

**Program for International Student Assessment (PISA)**
- **IDE for PISA**—See IDE, above.

**Progress in International Reading Literacy Study (PIRLS)**
- **ECB for PIRLS**—Public-use and Restricted-use
- **IDE for PIRLS**—See IDE, above.

**Trends in International Mathematics and Science Study (TIMSS)**
- **ECB for TIMSS**—Public-use and Restricted-use
- **IDE for TIMSS**—See IDE, above.
- **TIMSS Videotape Classroom Study CD-ROM**: Actual footage of 8th-grade mathematics classes lets viewers see firsthand an abbreviated geometry and algebra lesson in each of three countries: Germany, Japan, and the United States.

**HOUSEHOLD SURVEYS**

**National Household Education Surveys (NHES) Program**
- **DAS for NHES**—See DAS, above.
- **ECB for NHES**—Public-use and Restricted-use

**SMALL SPECIAL-PURPOSE NCES SURVEYS**

**High School Transcript Study**
- **ECB for 1998 High School Transcript (HST) Study**—Restricted-use
## Appendix D: NCES Survey Web Site Addresses

Every effort has been made to verify the accuracy of all URLs listed in this Handbook at the time of publication. If a URL is no longer working, try using the root directory to search for a page that may have moved. For example, if the link to [http://nces.ed.gov/surveys/libraries/academic.asp](http://nces.ed.gov/surveys/libraries/academic.asp) is not working, try [http://nces.ed.gov/](http://nces.ed.gov/) and search the NCES Site Index for Academic Libraries.

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The Index entries include survey component names and the words defined in the Key Concepts sections. Survey component names are italicized, and the page number where the component description appears in the Overview section is also italicized. Words defined in the Key Concepts sections are identified by an asterisk, and an asterisk follows the page number where the definition appears.

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