

Appendix 2

Supplemental Notes





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Note 1: Commonly Used Variables

Certain common variables, such as parents' education, race/ethnicity, urbanicity, poverty, and geographic region are used by different surveys cited in *The Condition of Education 2003*. The definitions for these variables can vary from survey to survey and sometimes vary between different time periods for a single survey. This supplemental note describes how several common variables, used in some indicators in this volume, are defined in each of the surveys that collected that information. In addition, this note describes in further detail certain terms used in some indicators.

PARENTS' EDUCATION

For indicators 2, 11, 13, 14, 19, and 21, parents' education is the highest level attained by either parent. The latter three indicators report parents' highest level of education based on a question in the National Assessment of Educational Progress (NAEP) that asked students in 8th- and 12th-grade to indicate the highest level of education completed by each parent. Students could choose from "did not finish high school," "graduated from high school," "some education after high school," "graduated from college," and "I don't know." As of the 2001 assessment, data were not collected at grade 4 because 4th-graders' responses in previous assessments were highly variable and contained a large percentage of "I don't know" responses.

RACE/ETHNICITY

Classifications indicating racial/ethnic heritage are based primarily on the respondent's self-identification, as in data collected by the Bureau of the Census, or, in rare instances, on observer identification. These categories are in accordance with the Office of Management and Budget's standard classification scheme.

Ethnicity is based on the following categorization:

- *Hispanic or Latino*: A person of Cuban, Mexican, Puerto Rican, South or Central American, or other Spanish culture or origin, regardless of race.

Race is based on the following categorization:

- *American Indian or Alaska Native, not Hispanic or Latino*: A person having origins in any of the original peoples of North and South America (including Central America) who maintains tribal affiliation or community attachment.
- *Asian, not Hispanic or Latino*: A person having origins in any of the original peoples of the Far East, Southeast Asia, the Indian subcontinent, including, for example, Cambodia, China, India, Japan, Korea, Malaysia, Pakistan, the Philippines, Thailand, and Vietnam.
- *Black, not Hispanic or Latino*: A person having origins in any of the Black racial groups of Africa.
- *Native Hawaiian or Other Pacific Islander, not Hispanic or Latino*: A person having origins in any of the original peoples of Hawaii, Guam, Samoa, or other Pacific Islands.
- *White, not Hispanic or Latino*: A person having origins in any of the original peoples of Europe, North Africa, or the Middle East. In *The Condition of Education*, this category excludes persons of Hispanic origin.

Not all categories are shown in all indicators either because of insufficient data in some of the smaller categories or because sampling plans did not distinguish between groups, such as Asians and Pacific Islanders. In *The Con-*

Note 1: Commonly Used Variables

Continued

dition of Education 2003, the previous definitions apply to *indicators 2, 7, 8, 11, 12, 13, 14, 15, 17, 18, 22, 25, 29, 31, 32, and 36.*

Indicators based on the National Household Education Surveys Program (37, 38, and 44) use up to five categories of race/ethnicity: White, non-Hispanic; Black, non-Hispanic; Hispanic; Asian or Pacific Islander; and all other races, non-Hispanic. The latter category includes American Indian, Alaska Native, and all other races. Not all categories are shown in all indicators because of insufficient data in some of the smaller categories.

COMMUNITY TYPE

In the Bureau of the Census's Current Population Survey, community type is a collective term based on the concept of a metropolitan area (MA), "a large population nucleus together with adjacent communities that have a high degree of economic and social integration with that core."

MAs are designated and defined by the Office of Management and Budget, following standards established by the interagency Federal Executive Committee on Metropolitan Areas, with the aim of producing definitions that are as consistent as possible for all MAs nationwide. (See <http://www.census.gov/population/www/estimates/aboutmetro.html> for more details.) Metropolitan Areas can include Consolidated Metropolitan Statistical Areas (CMSA), Primary Metropolitan Statistical Areas (PMSA), or Metropolitan Statistical Areas (MSA). As of June 1999, the Bureau of the Census had identified 258 MSAs and 18 CSMA, which included a total of 72 PMSAs.

In order to be designated as an MA, an area must meet one or both of the following criteria: (1) include a city with a population of at least 50,000, or (2) include a Census Bureau-defined urbanized area and a total MA popu-

lation of at least 100,000 (75,000 in New England). An MA contains one or more central counties and can also include additional outlying counties that have direct economic and social interrelationships with the central county. An outlying county must have a specified level of commuting to the central counties and also must meet certain standards regarding metropolitan character, such as population density, urban population, and population growth. In New England, MAs are composed of cities and towns rather than entire counties.

All territory, population, and housing units inside of MAs are characterized as *metropolitan*. Any territory, population, or housing units located outside of an MA is defined as *nonmetropolitan*. Metropolitan statistical areas (MSAs) are metropolitan areas: (1) not closely associated with other MAs, and (2) typically surrounded by nonmetropolitan counties. In each MSA, one or more areas meeting certain criteria of high population density and patterns of commuting to work are designated as "central cities." These central cities may lie entirely within the geographical boundaries of a named municipality or other jurisdiction, or cut across jurisdictions, including counties.

A few primary MSAs do not have a central city, such as Orange County, California. The largest central city and, in some cases, up to two additional central cities, are included in the title of the MA. All areas within MAs that do not qualify as central cities are classified as outside a central city.

In the Fast Response Survey System and School Crime Supplement to the National Crime Victimization Survey (U.S. Department of Justice, Bureau of Justice Statistics), community type is based on the classification used by the Bureau of the Census and is designated by the following terms:

Note 1: Commonly Used Variables

Continued

- *Urban*: a central city of an MSA or PMSA.
- *Suburban*: outside of a central city of an MSA.
- *Rural*: nonmetropolitan area.

The National Household Education Surveys Program relies on Census classifications for community type. It designates each respondent's community type in more microanalytic terms similar to demographic classifications based upon Census Bureau tracts. The respondent's community type is assigned to be the community type of the majority of households in the respondent's residential ZIP Code. Community type is categorized as follows:

- *Urbanized area*: a place and the adjacent densely settled surrounding territory that combined have a minimum population of 50,000.
- *Urban, outside of urbanized areas*: incorporated or unincorporated places outside of urbanized areas that have a minimum population of 25,000, with the exception of rural portions of extended cities.
- *Rural*: all areas that are not classified as urban, either inside or outside of urbanized areas.

In the Common Core of Data (CCD), the community type of schools is based on school locale codes. The CCD Locale Code is an eight-level classification of the urbanicity of the location address of a school relative to an MSA. The locale code methodology matches the school to the Census block level, and when that match cannot be done, the locale code is assigned using the ZIP code of the school location. The CCD Locale Code is a variable that NCES created for general description, sampling, and other statistical purposes. It is based upon the location of

school buildings and in some cases may not reflect the entire attendance area or residences of enrolled students. For example, not all students enrolled in the school may live in the ZIP code of the school.

The codes are assigned to schools by NCES using data provided by the Bureau of the Census matching to the location addresses provided on the CCD. Every school is assigned one of the following locale codes:

- *Central city of large MSA*: Central city of an MSA with population of 400,000 or more or a population greater than or equal to 250,000.
- *Central city of midsize MSA*: Central city of an MSA but not designated as a large central city, with the city having a population less than 250,000.
- *Urban fringe of large MSA*: Any incorporated place, Census-designated place, or nonplace territory within a CMSA or MSA of a Large City and defined as urban by the Census Bureau.
- *Urban fringe of midsize MSA*: Any incorporated place, Census-designated place, or nonplace territory within a CMSA or MSA of a Midsize City and defined as urban by the Census Bureau.
- *Large town*: An incorporated place or Census-designated place with a population greater than or equal to 25,000 and located outside a CMSA or MSA.
- *Small town*: An incorporated place or Census-designated place with population less than 25,000 and greater than or equal to 2,500 and located outside a CMSA or MSA.
- *Rural, outside an MSA*: Any incorporated place, Census-designated place, or non-

Note 1: Commonly Used Variables

Continued

place territory not within a CMSA or MSA of a Large or Midsize City and defined as rural by the Census Bureau.

- *Rural, within an MSA:* Any incorporated place, Census-designated place, or non-place territory within a CMSA or MSA of a Large or Midsize City and defined as rural by the Census Bureau.

The district locale codes were assigned primarily through the use of school locale codes using the following methods. If 50 percent or more of students attend schools in a single locale code, that code is assigned to the district. If not, schools are placed into one of three groups: Central City locale codes; Urban fringe and rural, within an MSA; and large and small town and rural, outside an MSA. The group with the largest number of students is determined, and then the locale code within the group having the largest number of students is assigned to the district. If the number of students between two or more groups is the same, then the largest (i.e., most rural) locale code is assigned. Districts with no schools or students were given a locale code of “N.”

Most school district boundaries do not correspond to major or minor civic divisions such as cities or towns. Often, as cities annex additional unincorporated land, districts retain preexisting boundaries resulting in several urban and suburban districts being within a large civic division, such as San Antonio and Dallas. In some states, the more frequent mode of school organization is countywide districts.

The surveys below use variations of the eight-level CCD Locale Code to categorize community type.

In the Baccalaureate and Beyond Longitudinal Study, the community type of a college is

determined using a similar procedure as follows:

- *Large central city*
- *Midsized central city*
- *Urban fringe of large city*
- *Urban fringe of midsized city*
- *Large town*
- *Small town*
- *Rural*

In the National Assessment of Educational Progress and the Schools and Staffing Survey, the community type of a school is categorized as follows:

- *Central city:* a large or midsize central city of an MSA.
- *Urban fringe/large town:* an urban fringe of a large or small central city; a large town; or a rural area within an MSA.
- *Rural/small town:* a small town or rural area outside of an MSA.

In *The Condition of Education 2003*, the definitions explained above apply to *indicators 3, 11, 12, 13, 14, 27, 29, 30, 31, 38, 39, and 41*.

POVERTY

Indicators 3 and 41 use the poverty level of a school district, which is computed using a model taking into account information from the decennial census, federal tax returns, the Current Population Surveys, and counts of recipients of Temporary Assistance for Needy Families by county. In *indicator 3*, the percentage in poverty by urbanicity is a weighted average of all school-age children in the district and the type of location in which a plurality of students live. Both indicators use poverty as defined by the Bureau of the Cen-

Note 1: Commonly Used Variables

Continued

sus, which uses a set of money income thresholds that vary by family size and composition to determine who is poor. If a family's income is less than the family's threshold, then that family, and every individual in it, is considered poor. The poverty thresholds are updated annually for inflation using the Consumer Price Index. For further information about estimating poverty in small areas, such as school districts, see National Academy of Sciences 1999.

Data on household income and the number of people living in the household from the National Household Education Surveys Program (for *indicators 37 and 38*) or the Early Childhood Longitudinal Study (for *indicator 36*), combined with information from the Bureau of the Census on income and household size, are used to classify children as poor or nonpoor. Children in families whose incomes are at or below the poverty threshold are classified as poor; children in families with incomes above the poverty threshold are classified as nonpoor. The thresholds used to determine whether a child is poor or nonpoor differ for each survey year. The weighted average poverty thresholds for various household sizes for 1991, 1993, 1995, 1996, 1999, and 2001 are shown in the table on the next page. Poverty thresholds from the Bureau of the Census for 1993 and 1999 are revised and may differ from previously published data.

Indicator 2 modifies the categories of poverty, to include the poor, the near-poor, and the nonpoor. Poor is defined to include those families below the poverty threshold, near-poor is defined as 100–199 percent of the poverty threshold, and nonpoor is defined as 200 percent or more than the poverty threshold.

Eligibility for the National School Lunch Program also serves as a measurement of poverty status. The National School Lunch Program is a federally assisted meal program operated in public and private nonprofit schools and residential child care centers. Unlike the poverty thresholds discussed above, which rely on dollar amounts determined by the Bureau of the Census, eligibility for the National School Lunch Program relies on the Department of Health and Human Services' federal income poverty guidelines. To be eligible for free lunch, a student must be from a household with an income at or below 130 percent of the federal poverty guideline; to be eligible for reduced-price lunch, a student must be from a household with an income at or below 185 percent of the federal poverty guideline. Title I basic program funding relies on free-lunch eligibility numbers as one (of four) possible poverty measures for levels of Title I federal funding. In *The Condition of Education 2003*, eligibility for the National School Lunch Program applies to *indicators 11, 12, 13, 14, 29, and 30*.

GEOGRAPHIC REGION

The following regional classification system represents the four geographical regions as defined by the Bureau of the Census. In *The Condition of Education 2003*, *indicators 1, 3, 15, 17, 29, and 30* use this system. *Indicator 27* uses a system of regional classification developed by the Bureau of Economic Analysis (BEA) of the U.S. Department of Commerce. The Bureau of the Census's Midwest region includes the same states as the BEA's Central region.

Note 1: Commonly Used Variables

Continued

Bureau of the Census, Regional Classification

Northeast	South	Midwest	West
Connecticut	Alabama	Illinois	Alaska
Maine	Arkansas	Indiana	Arizona
Massachusetts	Delaware	Iowa	California
New Hampshire	District of Columbia	Kansas	Colorado
New Jersey	Florida	Michigan	Hawaii
New York	Georgia	Minnesota	Idaho
Pennsylvania	Kentucky	Missouri	Montana
Rhode Island	Louisiana	Nebraska	Nevada
Vermont	Maryland	North Dakota	New Mexico
	Mississippi	Ohio	Oregon
	North Carolina	South Dakota	Utah
	Oklahoma	Wisconsin	Washington
	South Carolina		Wyoming
	Tennessee		
	Texas		
	Virginia		
	West Virginia		

BEA, Regional Classification

Northeast	Southeast	Central	West
Connecticut	Alabama	Illinois	Alaska
Delaware	Arkansas	Indiana	Arizona
District of Columbia	Florida	Iowa	California
Maine	Georgia	Kansas	Colorado
Maryland	Kentucky	Michigan	Hawaii
Massachusetts	Louisiana	Minnesota	Idaho
New Hampshire	Mississippi	Missouri	Montana
New Jersey	North Carolina	Nebraska	Nevada
New York	South Carolina	North Dakota	New Mexico
Pennsylvania	Tennessee	Ohio	Oklahoma
Rhode Island	Virginia	South Dakota	Oregon
Vermont	West Virginia	Wisconsin	Utah
			Texas
			Washington
			Wyoming

Note 1: Commonly Used Variables

Continued

Weighted average poverty thresholds, by household size: 1991, 1993, 1995, 1996, 1999, and 2001			
Household size	Poverty threshold	Household size	Poverty threshold
NHES:1991		NHES:1996	
2	\$8,865	2	\$10,233
3	10,860	3	12,516
4	13,924	4	16,036
5	16,456	5	18,952
6	18,587	6	21,389
7	21,058	7	24,268
8	23,582	8	27,091
9 or more	27,942	9 or more	31,971
NHES:1993		NHES:1999	
2	9,414	2	10,636
3	11,522	3	13,001
4	14,763	4	16,655
5	17,449	5	19,682
6	19,718	6	22,227
7	22,383	7	25,188
8	24,838	8	28,023
9 or more	29,529	9 or more	33,073
NHES:1995		NHES:2001	
2	9,933	2	11,239
3	12,158	3	13,738
4	15,569	4	17,603
5	18,408	5	20,189
6	20,804	6	23,528
7	23,552	7	26,754
8	26,267	8	29,701
9 or more	31,280	9 or more	35,060

SOURCE: U.S. Department of Education, NCES. National Household Education Surveys Program (NHES), 1991, 1993, 1995, 1996, 1999, and 2001.

Note 2: The Current Population Survey (CPS)

The Current Population Survey (CPS) is a monthly survey of approximately 50,000 households that are selected scientifically in the 50 states and the District of Columbia. The CPS has been conducted for more than 50 years. The Bureau of the Census conducts the survey for the Bureau of Labor Statistics. The CPS collects data on the social and economic characteristics of the civilian, noninstitutional population, including information on income, education, and participation in the labor force.

Each month a “basic” CPS questionnaire is used to collect data on participation in the labor force about each member 15 years old and over in every sample household. In addition, supplemental questionnaires are administered to collect information on other topics. In each household, the Bureau seeks information from a knowledgeable adult household member (known as the “household respondent”). That respondent answers all the questions on all of the questionnaires for all members of the household.

In March and October of each year, the supplementary questions are about education. The Annual Demographic Survey or March CPS supplement is the primary source of detailed information on income and work experience in the United States. The March CPS is used to generate the annual Population Profile of the United States, reports on geographical mobility and educational attainment, and detailed analyses of money income and poverty status. Each October, in addition to the basic questions about education, interviewers ask supplementary questions about school enrollment for all household members 3 years old and over.

Additional sections are occasionally added to the October or November CPS on language ability and political participation. Sections

on language were added in the November CPS in 1979 and 1989 and in the October CPS in 1992, 1995, and 1999. *Indicator 4* is based on the results of these language-related surveys.

Data from CPS questionnaires (in November 1994, 1996, 1998, and 2000) on registration and voting patterns are used for *indicator 15*. Beginning in 1994, CPS included questions on citizenship, allowing for an analysis of the voting-age citizen population. Data are self-reported and may differ from administrative data or data from exit polls. The Federal Election Commission (FEC) reports the total ballots cast in each election and reports on the registration and voting rate based upon the total voting-age population (all persons 18 and over, whether or not they are eligible to vote). The CPS data typically report a higher voting rate than the FEC. In 2000, the FEC reported a total voting rate of 51.3 percent, compared with the CPS-reported voting rate of 54.7 percent of the same population. In 1998, the FEC reported a voting rate of 36.4 percent, compared with 41.9 percent in CPS. In 1996, the FEC voting rate was 49.1 percent, compared with the CPS voting rate of 54.2 percent. In 1994, the FEC voting rate was 38.8 percent, compared with the CPS voting rate of 45.0 percent. For more information on the CPS voting and registration data, see U.S. Department of Commerce 2002.

CPS interviewers initially used printed questionnaires. Since 1994, the Census Bureau has used Computer-Assisted Personal (and Telephone) Interviewing (CAPI and CATI) to collect data. CAPI allows interviewers to use a complex questionnaire and increases consistency by reducing interviewer error. Further information on the CPS can be found at <http://www.bls.census.gov/cps>

Note 2: The Current Population Survey (CPS)

Continued

DEFINITION OF SELECTED VARIABLES

Family income

The October CPS collects data on family income, which are used in *indicator 18* to measure a student's economic standing. Families in the bottom 20 percent of all family incomes are classified as low income, families in the top 20 percent of all family incomes are classified as high income, and families in the 60 percent between these two categories are classified as middle income. The table at the end of this note shows the current dollar amount (rounded to the nearest \$100) of the breakpoints between low and middle income and between middle and high income. For example, low income in 2000 is defined as the range between \$0 and \$15,300; middle income is defined as the range between \$15,301 and \$72,000; and high income is defined as \$72,001 and over. Therefore, the breakpoints between low and middle income and between middle and high income are \$15,300 and \$72,000, respectively.

Parental education

For *indicators 2* and *18*, information on parents' education was obtained by merging data from parents' records with their children's. Estimates of a mother's and father's education were calculated only for children who lived with their parents at the time of the survey. For example, estimates of a mother's education are based on children who lived with "both parents" or with "mother only." For children who lived with "father only," the mother's education was unknown; therefore, the "unknown" group was excluded in the calculation of this variable.

Educational attainment

Data from CPS questions on educational attainment are used for *indicators 2, 15, 17, and 18*.

From 1972 to 1991, two CPS questions provided data on the number of years of school completed: (1) "What is the highest grade... ever attended?" and (2) "Did...complete it?" An individual's educational attainment was considered to be his or her last fully completed year of school. Individuals who completed 12 years were deemed to be high school graduates as were those who began but did not complete the first year of college. Respondents who completed 16 or more years were counted as college graduates.

Beginning in 1992, the CPS combined the two questions into the following question: "What is the highest level of school...completed or the highest degree...received?" In the revised response categories, several of the lower levels are combined in a single summary category such as "1st, 2nd, 3rd, or 4th grades." Several new categories are used, including "12th grade, no diploma"; "High school graduate, high school diploma, or the equivalent"; and "Some college but no degree." College degrees are now listed by type, allowing for a more accurate description of educational attainment. The new question emphasizes credentials received rather than the last grade level attended or completed if attendance did not lead to a credential. The new categories include:

- High school graduate, high school diploma, or the equivalent (e.g., GED)
- Some college but no degree
- Associate's degree in college, occupational/vocational program
- Associate's degree in college, academic program
- Bachelor's degree (e.g., B.A., A.B., B.S.)
- Master's degree (e.g., M.A., M.S., M.Eng., M.Ed., M.S.W., M.B.A.)

Note 2: The Current Population Survey (CPS)

Continued

- Professional school degree (e.g., M.D., D.D.S., D.V.M., LL.B., J.D.)
- Doctorate degree (e.g., Ph.D., Ed.D.)

The change in questions in 1992 affects comparisons of educational attainment over time.

High school completion

The pre-1992 questions about educational attainment did not specifically consider high school equivalency certificates (GEDs). Consequently, an individual who attended 10th grade, dropped out without completing that grade, and who subsequently received a high school equivalency credential would not have been counted as completing high school. The new question counts these individuals as if they are high school graduates. Since 1988, an additional question has also asked respondents if they have a high school degree or the equivalent, such as a GED. People who respond “yes” are classified as high school completers. Prior to 1988, the number of individuals who earned a high school equivalency certificate was small relative to the number of high school graduates, so that the subsequent increase from including equivalency certificate recipients in the total number of people counted as “high school completers” was small in the years immediately after the change was made.

Prior to 1992, the CPS considered individuals who completed 12th grade to be high school graduates. The revised question added a response category: “12th grade, no diploma.” Individuals who select this response are not counted as graduates. Historically, the number of individuals in this category has been small.

College completion

Some students require more than 4 years to earn an undergraduate degree, so some re-

searchers are concerned that the completion rate, based on the pre-1992 category “4th year or higher of college completed,” overstated the number of respondents with a bachelor’s degree (or higher). In fact, however, the completion rates among those ages 25–29 in 1992 and 1993 were similar to the completion rates for those in 1990 and 1991, before the change in the question’s wording. Thus, there appears to be good reason to conclude that the change has not affected the completion rates reported in *The Condition of Education 2003*.

Some college

Based on the question used in 1992 and in subsequent surveys, an individual who attended college for less than a full academic year would respond “some college but no degree.” Prior to 1992, the appropriate response would have been “attended first year of college and did not complete it”; the calculation of the percentage of the population with 1–3 years of college excluded these individuals. With the new question, such respondents are placed in the “some college but no degree” category. Thus, the percentage of individuals with some college might be larger than the percentage with 1–3 years of college because “some college” includes those who have not completed an entire year of college, whereas “1–3 years of college” does not include these people. Therefore, it is not appropriate to make comparisons between the percentage of those with “some college but no degree” using the post-1991 question and the percentage of those who completed “1–3 years of college” using the two pre-1992 questions.

Note 2: The Current Population Survey (CPS)

Continued

Dollar value (in current dollars) at the breakpoint between low- and middle- and between middle- and high-income categories of family income: October 1970–2001

October	Breakpoints between:	
	Low- and middle-income	Middle- and high-income
1970	\$3,300	\$11,900
1971	—	—
1972	3,500	13,600
1973	3,900	14,800
1974	—	—
1975	4,300	17,000
1976	4,600	18,300
1977	4,900	20,000
1978	5,300	21,600
1979	5,800	23,700
1980	6,000	25,300
1981	6,500	27,100
1982	7,100	31,300
1983	7,300	32,400
1984	7,400	34,200
1985	7,800	36,400
1986	8,400	38,200
1987	8,800	39,700
1988	9,300	42,100
1989	9,500	44,000
1990	9,600	46,300
1991	10,500	48,400
1992	10,700	49,700
1993	10,800	50,700
1994	11,800	55,500
1995	11,700	56,200
1996	12,300	58,200
1997	12,800	60,800
1998	13,900	65,000
1999	14,700	68,000
2000	15,300	72,000
2001	16,200	75,100

— Not available.

NOTE: Amounts are rounded to the nearest \$100.

Note 3: Other Surveys

BACCALAUREATE AND BEYOND LONGITUDINAL STUDY, 2001 (B&B 2000/01)

The estimates and statistics reported in the tables and figures of this report are based on data from the 2001 Baccalaureate and Beyond Longitudinal Study (B&B:2000/01), a spring 2001 followup of bachelor's degree recipients from the 1999–2000 National Postsecondary Student Aid Study (NPSAS:2000), conducted by the U.S. Department of Education's National Center for Education Statistics. NPSAS:2000 is based on a nationally representative sample of all students in postsecondary education institutions, including undergraduate, graduate, and first-professional students. For NPSAS:2000, information was obtained from more than 900 postsecondary institutions on approximately 50,000 undergraduate, 9,000 graduate, and 3,000 first-professional students. They represented nearly 17 million undergraduates, 2.4 million graduate students, and 300,000 first-professional students who were enrolled at some time between July 1, 1999 and June 30, 2000. For B&B:2000/01, those members of the NPSAS:2000 sample who completed a bachelor's degree between July 1, 1999 and June 30, 2000 were identified and contacted for a follow-up interview.¹ The weighted overall response rate for the B&B:2000/01 interview was 74 percent, reflecting an institution response rate of 90 percent and a student response rate of 82 percent. (Because the B&B:2000/01 study includes a subsample of NPSAS:2000 nonrespondents, the overall study response rate is the product of the NPSAS:2000 institution-level response rate and the B&B:2000/01 student-level response rate.)

The B&B:2000/01 data provide a profile of the 1999–2000 cohort of college graduates, including degree recipients who have enrolled sporadically over time as well as those who

went to college right after completing high school. The data set contains comprehensive data on enrollment, attendance, and student demographic characteristics and provides a unique opportunity to understand the immediate transitions of college students into work, graduate school, or other endeavors.

BEGINNING POSTSECONDARY STUDENTS (BPS) LONGITUDINAL STUDY

BPS collects data related to persistence in and completion of postsecondary education programs; relationships between work and education efforts; and the effect of postsecondary education on the lives of individuals. The first BPS followed NPSAS:90 beginning students starting in 1992. About 8,000 students who began postsecondary education in the 1989–90 academic year responded to NPSAS:90 and were included in the first BPS (BPS:90/92) in the spring of 1992 and the second BPS (BPS: 90/94) in the spring of 1994. NPSAS:90 collected data for over 6,000 parents of those students. In addition, BPS collected postsecondary financial aid records covering the entire undergraduate period to provide complete information on progress and persistence. A second BPS cohort was based on NPSAS:96, with the first BPS followup conducted in 1998 and the second in 2001.

Indicators 19, 20, and 23 use data from the BPS. Further information about BPS is available at <http://nces.ed.gov/surveys/bps/>

COMMON CORE OF DATA (CCD)

CCD is the Department of Education's primary database on public elementary and secondary education in the United States. CCD is a comprehensive, annual, national statistical database of information concerning all public elementary and secondary schools (approximately 91,000) and school districts (approximately 16,000). The CCD consists of

Note 3: Other Surveys

Continued

five surveys completed annually by state education departments from their administrative records. The database includes a general description of schools and school districts; data on students and staff, including demographics; and fiscal data, including revenues and current expenditures.

Indicators 1, 3, 39, and 41 use data from the CCD. Further information about the CCD is available at <http://nces.ed.gov/ccd/>

EARLY CHILDHOOD LONGITUDINAL STUDY, KINDERGARTEN CLASS OF 1998–99 (ECLS-K)

Indicators 9, 36, and the special analysis on kindergarten and first-grade students are based on the Early Childhood Longitudinal Study, Kindergarten Class of 1998–99 (ECLS-K), an ongoing effort by the NCES. Launched in fall 1998, the study follows a nationally representative sample of children from kindergarten through 5th grade. The purpose of the ECLS-K is twofold: to be both descriptive and analytic. First, the ECLS-K provides descriptive data on a national basis of (1) children's status at entry into school; (2) children's transition into school; and (3) their progression through 5th grade. Second, the ECLS-K provides a rich data set that enables researchers to study how a wide range of family, school, community, and individual variables affect early success in school.

A nationally representative sample of 21,260 children enrolled in 1,277 kindergarten programs participated in the initial survey during the 1998–99 school year. These children were selected from both public and private kindergartens, offering full- and half-day programs. The sample consists of children from different racial/ethnic and socioeconomic backgrounds and includes an oversample of Asian/Pacific Islander children. All kindergarten children within the sampled schools were eligible for the sampling process, including

language minority and special education students. The sample design for the ECLS-K is a dual-frame, multistage sample. First, 100 Primary Sampling Units (PSUs), which are counties or groups of counties, were selected. Schools within the PSUs were then selected—public schools from a public school frame and private schools from a private school frame, which oversampled private kindergartens. In fall 1998, approximately 23 kindergartners were selected within each of the sampled schools.

Data on the kindergarten cohort were collected in the fall and spring of the kindergarten year from the children, their parents, and their teachers. In addition, information was collected from their schools and school districts in the spring of the kindergarten year. During the 1999–2000 school year, when most of the cohort moved to the 1st grade, data were again collected from a 30 percent subsample of the cohort in the fall and from the full sample in the spring.

Trained evaluators assessed children in their schools and collected information from parents over the telephone. Teachers and school administrators were contacted in their school and asked to complete questionnaires. The children, their families, their teachers, and their schools provided information on children's cognitive, social, emotional, and physical development. Information was also collected on the children's home environment, home educational practices, school and classroom environments, curricula, and teacher qualifications. Additional surveys of the sampled children occurred in spring 2002 (3rd grade) and are planned for spring 2004 (5th grade).

Indicator 9 discusses the relative importance of the gain in reading and mathematics average scale scores across grades in terms of standard deviations. A standard deviation shows

Note 3: Other Surveys

Continued

the dispersion of scores from the mean. In a normal distribution, approximately 68 percent of the scores are within plus or minus one standard deviation from the mean. Ninety-five percent of the scores are within plus or minus two standard deviations from the mean. In simpler terms, the standard deviation informs the reader about the “normal” range of variation in student scores, or a high and low score between which two-thirds of the scores of all students fall. A difference in the average scores between two sub-populations, such as Asians and Hispanics, or any other population characteristic being measured, can be then expressed as a ratio of this difference to the standard deviation of the population values. If this ratio is large, say .5 or more, readers are alerted that there is an appreciable difference between the two means, rather than simply a statistically significant difference. If the ratio is small, say less than .1, then readers are alerted that the difference between the two sub-populations is not very appreciable. The ECLS-K scale scores ranged from 0–64 for mathematics and from 0–72 for reading.

Further information about the ECLS-K is available at <http://nces.ed.gov/ecls/>

FAST RESPONSE SURVEY SYSTEM (FRSS)

FRSS was established in 1975 to collect and report data on key education issues at the elementary and secondary level quickly and with minimum response burden. FRSS was designed to meet the data needs of the Department of Education’s analysts, planners, and decisionmakers when information cannot be collected quickly through traditional NCES surveys. Data collected through FRSS surveys are representative at the national level, drawing from a universe that is appropriate for each study. FRSS collects data from state education agencies and national samples

of other educational organizations and participants, including local education agencies; public and private elementary and secondary schools; elementary and secondary school teachers and principals; and public and school libraries.

Indicator 27 uses data from the FRSS “District Survey of Alternative Schools and Programs” in 2001. Further information about FRSS is available at <http://nces.ed.gov/surveys/frss/>

INTEGRATED POSTSECONDARY EDUCATION DATA SYSTEM (IPEDS)

IPEDS is NCES’s core program for the collection of data on postsecondary education (prior to IPEDS some of the same information was collected by the Higher Education General Information Survey). IPEDS is a single, comprehensive system that encompasses all identified institutions whose primary purpose is to provide postsecondary education.

IPEDS consists of institution-level data that can be used to describe trends in postsecondary education at the institution, state, and/or national levels. For example, researchers can use IPEDS to analyze information on 1) enrollments of undergraduates, first-time freshmen, and graduate and first-professional students by race/ethnicity and gender; 2) institutional revenue and expenditure patterns by source of income and type of expense; 3) salaries of full-time instructional faculty by academic rank and tenure status; 4) completions (awards) by type of program, level of award, race/ethnicity, and gender; 5) characteristics of postsecondary institutions, including tuition, room and board charges, calendar systems, and so on; 6) status of postsecondary vocational education programs; and 7) other issues of interest.

Note 3: Other Surveys

Continued

Data are collected from approximately 9,900 postsecondary institutions, including the following: baccalaureate or higher degree-granting institutions, 2-year award institutions, and less-than-2-year institutions (i.e., institutions whose awards usually result in terminal occupational awards or are creditable toward a formal 2-year or higher award). Each of these three categories is further disaggregated by control (public, private not-for-profit, private for-profit) resulting in nine institutional categories or sectors.

The completion of all IPEDS surveys is mandatory for all institutions that participate or are applicants for participation in any federal financial assistance program authorized by Title IV of the Higher Education Act of 1965.

Indicators 5, 7, and 33 use data from the IPEDS. Further information about IPEDS is available at <http://nces.ed.gov/ipeds/> (the institutional categories used in IPEDS are described in *supplemental note 8*).

NATIONAL EDUCATION LONGITUDINAL STUDY OF 1988 (NELS)

NELS:88 is the third major secondary school student longitudinal study sponsored by NCES. The two studies that preceded NELS:88, the National Longitudinal Study of the High School Class of 1972 (NLS-72) and High School and Beyond (HS&B) in 1980, surveyed high school seniors (and sophomores in HS&B) through high school, postsecondary education, and work and family formation experiences. Unlike its predecessors, NELS:88 begins with a cohort of 8th-grade students. In 1988, some 25,000 8th-graders, their parents, their teachers, and their school principals were surveyed. Followups were conducted in 1990, 1992, and 1994, when a majority of these students were in

10th and 12th grades, and then 2 years after their scheduled high school graduation. A fourth followup was conducted in 2000.

NELS:88 is designed to provide trend data about critical transitions experienced by young people as they develop, attend school, and embark on their careers. It complements and strengthens state and local efforts by furnishing new information on how school policies, teacher practices, and family involvement affect student educational outcomes (i.e., academic achievement, persistence in school, and participation in postsecondary education). For the base year, NELS:88 includes a multifaceted student questionnaire, four cognitive tests, a parent questionnaire, a teacher questionnaire, and a school questionnaire.

In 1990, when the students were in 10th grade, the students, school dropouts, their teachers, and their school principals were surveyed. The 1988 survey of parents was not a part of the 1990 followup. In 1992, when most of the students were in 12th grade, the second followup conducted surveys of students, dropouts, parents, teachers, and school principals. Also, information from the students' transcripts were collected.

Further information about NELS is available at <http://nces.ed.gov/surveys/nels88/>

NATIONAL HOUSEHOLD EDUCATION SURVEYS PROGRAM (NHES)

NHES, conducted in 1991, 1993, 1995, 1996, 1999, and 2001, collects data on education issues that cannot be addressed by collecting data on a school level. Each survey collects data from households on at least two topics, such as adult education, civic involvement, parental involvement in education, and before- and after-school activities.

Note 3: Other Surveys

Continued

NHES surveys the civilian, non-institutionalized U.S. population in the 50 states and the District of Columbia. Interviews are conducted using computer-assisted telephone interviewing. NHES collects data from adults as well as children. Data on young children are collected primarily by interviewing parents or guardians of children, and only infrequently by interviewing the children themselves. When such children are sampled to participate in NHES, the parent or guardian most knowledgeable about the child's care and education is interviewed.

Although NHES is conducted primarily in English, provisions are made to interview persons who speak only Spanish. Questionnaires are translated into Spanish, and bilingual interviewers, who are trained to complete the interview in either English or Spanish, are employed.

Indicators 8, 37, 38, and 44 use data from NHES. Further information about NHES is available at <http://nces.ed.gov/nhes/>

NATIONAL POSTSECONDARY STUDENT AID STUDY (NPSAS)

NPSAS is a comprehensive nationwide study designed to determine how students and their families pay for postsecondary education and to describe some demographic and other characteristics of those enrolled. The study is based on a nationally representative sample of students in postsecondary educational institutions, including undergraduate, graduate, and first-professional students. Students attending all types and levels of institutions are represented, including public and private not-for-profit and for-profit institutions, and less-than-2-year institutions, community colleges, and 4-year colleges and universities.

To be eligible for inclusion in the institutional sample, an institution must have satisfied the

following conditions: 1) offers an education program designed for persons who have completed secondary education; 2) offers an academic, occupational, or vocational program of study lasting 3 months or longer; 3) offers access to the general public; 4) offers more than just correspondence courses; and 5) is located in the 50 states, the District of Columbia, or Puerto Rico.

Part-time and full-time students enrolled in academic or vocational courses or programs at these institutions, and not concurrently enrolled in a high school completion program, are eligible for inclusion in NPSAS. The first NPSAS, in 1986–87, sampled students enrolled in the fall of 1986. Since the NPSAS in 1989–90, students enrolled at any time during the year are eligible for inclusion in the survey. This design change provides the data necessary to estimate full-year financial aid awards.

Each NPSAS survey provides information on the cost of postsecondary education, the distribution of financial aid, and the characteristics of both aided and nonaided students and their families. Following each survey, NCES publishes three major reports, *Undergraduate Financing of Postsecondary Education*, *Student Financing of Graduate and Professional Education*, and *Profile of Undergraduates in U.S. Postsecondary Education Institutions*.

Indicators 6, 32, 34, 42, and 43 use data from NPSAS. Further information about NPSAS is available at <http://nces.ed.gov/surveys/npsas/>

NATIONAL STUDY OF POSTSECONDARY FACULTY (NSOPF)

Indicator 35 uses data collected for the NSOPF, which NCES sponsors. With support from the National Endowment for the Hu-

Note 3: Other Surveys

Continued

manities and the National Science Foundation, NSOPF:93 included a sample of 974 public and private, not-for-profit degree-granting postsecondary institutions and 31,354 faculty and instructional staff. NSOPF:99 was designed to provide a national profile of faculty, including data on their professional backgrounds, responsibilities, workloads, salaries, benefits, and attitudes. NSOPF:99, which collected data in 1998–99, included 960 degree-granting postsecondary institutions and an initial sample of 28,704 faculty and instructional staff from these institutions.

Further information about NSOPF is available at <http://nces.ed.gov/surveys/nsopf/>

SCHOOLS AND STAFFING SURVEY (SASS)

SASS is the nation's largest sample survey of America's elementary and secondary schools. First conducted in 1987–88, SASS periodically surveys:

- public schools and collects data on school districts, schools, principals, teachers, and library media centers;
- private schools and collects data on schools, principals, teachers, and library media centers;
- schools operated by the Bureau of Indian Affairs and collects data on schools, principals, teachers, and library media centers; and

- public charter schools and collects data on schools, principals, teachers, and library media centers.

To ensure that the samples contain sufficient numbers for estimates, SASS uses a stratified probability sample design. Public and private schools are oversampled into groups based on certain characteristics. After schools are stratified and sampled, teachers within the schools are also stratified and sampled based on their characteristics. Due to the relatively few numbers of these schools, all charter schools under state supervision that were in existence during the 1998–99 school year and all schools run by the Bureau of Indian Affairs or American Indian/Alaska Native tribes were included in the 1999–2000 SASS.

Indicators 28, 29, and 30 use data from SASS. Further information about SASS is available at <http://nces.ed.gov/surveys/SASS/OVERVIEW.ASP>

NOTES

¹For more information on the B&B study, consult U.S. Department of Education, National Center for Education Statistics, *Methodology Report for the 2001 Baccalaureate and Beyond Longitudinal Study* (NCES 2003–156) (Washington, DC: 2002).

Note 4: National Assessment of Educational Progress (NAEP)

The National Assessment of Educational Progress (NAEP), administered regularly in a number of subjects since 1969, has two major goals: to assess student performance reflecting current educational and assessment practices; and to measure change in student performance reliably over time. To address these goals, the NAEP includes a main assessment and a long-term trend assessment. The assessments are administered to separate samples of students at separate times, use separate instrumentation, and measure different educational content. Consequently, results from the assessments should not be compared. Both assessments excluded certain subgroups of students identified as “special needs students,” including students with disabilities and students with limited English proficiency. In 1998, 2000, and 2001, the main NAEP assessment provided a separate assessment with provisions made for accommodations for these students.

MAIN NAEP

Indicators 11, 12, 13, and 14 are based on the main NAEP. The main NAEP periodically assesses students’ performance in several subjects, following the curriculum frameworks developed by the National Assessment Governing Board (NAGB) and using the latest advances in assessment methodology. NAGB develops the frameworks using standards developed within the field, using a consensus process involving educators, subject-matter experts, and other interested citizens.

The content and nature of the main NAEP evolves to match instructional practices, so the ability to measure change reliably over time is limited. As standards for instruction and curriculum change, so does the main NAEP. As a result, data from different assessments are not always comparable. Recent NAEP main assessment instruments have

typically been kept stable for short periods of time, allowing for a comparison across time in mathematics, science, and reading. Assessment instruments from 1990 to 2001 were developed using the same framework; they share a common set of tasks; and the populations of students were sampled and assessed using comparable procedures. For some subjects that are not assessed frequently, such as civics and the arts, no trend data are available.

Main NAEP results are reported in terms of predetermined achievement levels. Each assessment reflects current standards of performance in each subject. The achievement levels define what students who are performing at *Basic*, *Proficient*, and *Advanced* levels of achievement should know and be able to do. NAGB establishes achievement levels whenever a new main NAEP framework is adopted. These achievement levels have undergone several evaluations but remain developmental in nature and continue to be used on a trial basis. Until the Commissioner of NCES determines that the levels are reasonable, valid, and informative to the public, they should be interpreted and used with caution. The policy definitions of the achievement levels that apply across all grades and subject areas are as follows:

- *Basic*: This level denotes partial mastery of prerequisite knowledge and skills that are fundamental for proficient work at each grade.
- *Proficient*: This level represents solid academic performance for each grade assessed. Students reaching this level have demonstrated competency over challenging subject matter, including subject-matter knowledge, application of such knowledge to real-world situations, and analytical skills appropriate to the subject matter.

Note 4: National Assessment of Educational Progress (NAEP)

Continued

- *Advanced*: This level signifies superior performance.

MAIN NAEP MATHEMATICS COURSETAKING

The main NAEP assessments included questions asking students in grades 8 and 12 about their course-taking patterns. In 8th grade, students reported on the mathematics course they were currently taking. For reporting purposes, courses were grouped into lower level (group 1) courses and higher level (group 2) courses. Group 1 courses include 8th-grade mathematics and prealgebra. Group 2 courses include algebra I, algebra II, geometry, and integrated or sequential mathematics.

In grade 12, students reported on the courses they had taken in grades 9 through 12 and the year they had taken each course. For reporting purposes, course-taking patterns were grouped into three levels: low level, middle level, and high level. Low-level coursetaking

included students who had taken no mathematics courses or had taken only courses among the following: general mathematics, business mathematics, applied mathematics, and introduction to algebra. Middle-level coursetaking included students who took algebra I in grade 9 and geometry in grade 10 but had not taken the most advanced courses, including trigonometry, precalculus, statistics, or calculus. High-level coursetaking included students who took one or more among the following: trigonometry, precalculus, statistics, discrete or finite mathematics, and calculus. The three levels equate roughly with the mathematics pipeline detailed in *supplemental note 6*. Low-level courses are roughly equivalent to the nonacademic or low academic levels. Middle-level courses are roughly equivalent to the middle academic levels, and high-level courses are roughly equivalent to the advanced academic levels.

Note 5: International Assessments

VIDEOTAPE CLASSROOM STUDY

Under the auspices of the International Association for the Evaluation of Educational Achievement (IEA), the Third International Mathematics and Science Study (TIMSS) assessed and collected data and reported results for more than half a million students at five grade levels, providing information on student achievement, student background characteristics, and school resources in 42 countries in 1995. In 1999, TIMSS was repeated at the 8th-grade level for science and mathematics in 38 countries, resulting in the Third International Mathematics and Science Study–Repeat (TIMSS-R).

TIMSS-R included a Videotape Classroom Study, on which *indicator 26* is based, that examined (1) teachers' beliefs about reform and how these beliefs relate to instructional practices, (2) the organization and process of instruction in science and mathematics, and (3) the scientific and mathematical content of lessons. The 1999 Video Study expanded on the TIMSS 1995 Video Study (described in NCES 2001–072, *supplemental note 5*) by including six countries (Australia, the Czech Republic, Japan, the Netherlands, Switzerland, and the United States) and one region (the Special Administrative Region [SAR] of Hong Kong) in the mathematics portion of the 1999 Video Study.¹ The TIMSS 1995 Video Study included three countries.

As part of expanding the number of participants in the mathematics portion of the Video Study, more countries with a high score in 8th-grade mathematics were included in the 1999 study. In the 1995 study, only one country, Japan, had high mathematics scores, which tended to bias readers toward Japanese teaching practices and away from the practices of other countries. To eliminate the potential for such bias, the 1999 study se-

lected participants from among those countries and regions whose 8th-graders performed on average above U.S. 8th-grade students on the TIMSS 1995 mathematics assessment (NCES 2003–013, table 1.1).

The 1999 Video Study selected a set of 8th-grade classrooms to be representative of the classrooms in the TIMSS-R main study. All of the countries and the one region participating in the 1999 Video Study, except Japan, were required to include at least 100 schools in their initial selection of schools for the study. No new Japanese mathematics lessons were collected for the 1999 Video Study; those collected as part of the 1995 Video Study were re-analyzed as part of the 1999 Video Study. The Video Study final sample included 87 schools from Australia, 100 from the Czech Republic, 100 from Hong Kong SAR, 85 from the Netherlands, 140 from Switzerland, and 83 from the United States, plus the 50 schools from Japan's 1995 sample. Within the specified guidelines, each participating country and region developed their own strategy for obtaining a random sample of 8th-grade lessons to videotape.² Research coordinators were responsible for selecting or reviewing the selection of schools and lessons in their country or region.

Except for Japan, most videotaping for this study was done in 1999, though in some countries it began in 1998 and ended in 1999. Only one mathematics class was randomly selected within each school for videotaping. No substitutions of teachers or class periods were allowed. The designated class was videotaped once, in its entirety, without regard to the particular mathematics topic being taught or type of activity taking place. After their classroom was videotaped, teachers were asked to complete a questionnaire. English, German, Swiss, and Dutch versions of the questionnaire were created and judged to

Note 5: International Assessments

Continued

be equivalent by a group of researchers, each of whom was fluent in at least two of the languages. Questionnaire data were obtained from teachers in 100 percent of the 8th-grade mathematics lessons videotaped in Australia, the Czech Republic, Hong Kong SAR, and the United States, from teachers in 96 percent of Dutch lessons, and in 99 percent of Swiss lessons. (For Japanese teachers' responses, Japan's 1995 questionnaire results were used.)

Each of the videotaped lessons was examined to assess various elements of the lesson—such as the lesson's coherence, the type of reasoning required of students, the level of complexity of the lesson's content, the connections between parts of the lesson, the kinds of tasks students were asked to engage in as part of the lesson, and the methods students used to solve mathematical problems. For this in-depth analysis of the videotaped lessons, an international team of bilingual representatives from each country assembled to develop and apply codes to the video data. They applied 45 codes in seven coding passes to each of the videotaped lessons and, in addition, created a lesson table for each videotaped lesson, which combined information from a number of codes. After the team finished coding half of the assigned set of lessons, it established a minimum acceptable reliability score for each code of 85 percent. Because not all members of the international coding team were experts in mathematics or teaching, several special coding teams with different areas of expertise were employed to create special codes regarding the mathematical nature of the content, the pedagogy, and the discourse. These groups included a mathematics problem analysis group, a mathematics quality analysis group, a problem implementation analysis group, and a text analysis group.

Indicator 26 presents findings based on the study's coding of the lesson content and of the problem-solving phase of each lesson. For the latter analysis, four mutually exclusive categories were created to classify the type of mathematical processes that were explicitly explained or discussed during the lesson. In order from the simplest to the most complex, these categories are as follows:

- *giving results only* in which no processes were explained. Public work consisted solely of stating an answer to the problem without any discussion of how or why it was attained.
- *using procedures* in which the steps and rules or the algorithmic procedures for solving the problem were explained but underlying mathematical concepts were not.
- *stating concepts* in which mathematical concepts, such as mathematical properties or definitions, were explained but mathematical relationships or reasoning were not.
- *making connections* in which the mathematical relationships and/or mathematical reasoning involved in solving the problem were explained.

CIVIC EDUCATION STUDY

Indicator 16 is based on data from the IEA's two-part study of civic education in 28 countries in 1994 (NCES 2001–096). The first phase summarized what experts in each participating country believed 14-year-olds should know about a number of topics related to democratic institutions, including elections, individual rights, national identity, political participation, and respect for ethnic and political diversity. Phase two of the study assessed a nationally representative sample of 14-year-olds in 28 countries in 1999.

Note 5: International Assessments

Continued

Fourteen-year-olds were chosen as the target population because testing an older group would have meant a substantial loss of students who had ended their secondary education. For sampling purposes, countries were instructed to select the grade in which most 14-year-olds were enrolled at the time of the study. In the United States, as in most countries, this was 9th grade. In the United States, the assessment was administered to almost 3,000 students in 124 public and private schools. The overall sample design was intended to approximate a self-weighting sample of students as much as possible, with each 9th-grade student in the United States having an approximately equal probability of being selected within the major school strata.

The assessment produced a “total civic knowledge” scale that consists of two subscales: civic content and civic skills. Civic content items assessed knowledge of key civic principles and pivotal ideas (e.g., key features of democracies). Civic skills items assessed skills in using civic-related knowledge (e.g., understanding a brief political article or a political cartoon). In addition, the assessment measured students’ concepts of democracy, citizenship, and government; attitudes toward civic issues; and expected political participation. The assessment also included school, teacher, and student background questionnaires. These provided characteristics of the individual student, the school context, and a picture of how civic education was delivered through the school curriculum.

PROGRESS IN INTERNATIONAL READING LITERACY STUDY

Indicator 10 is based on data collected in 2001 as part of the Progress in International Reading Literacy Study (PIRLS). The study, conducted by the IEA, assessed reading comprehension of children in 35 countries. In each country, students from the upper of the two

grades with the most 9-year-olds (4th grade in the United States and most countries) were assessed. Designed to be the first in a planned 5-year cycle of international trend studies in reading literacy by IEA, PIRLS 2001 provides comparative information on the reading literacy of 4th-graders and also examines factors that may be associated with the acquisition of reading literacy in young children. PIRLS 2001 scores are reported on a scale of 0–1000, with an international average of 500 and a standard deviation (the statistical measure of the extent to which values are spread around the average) of 100.

PIRLS 2001 defines reading literacy as “the ability to understand and use those written language forms required by society and/or valued by the individual. Young readers can construct meaning from a variety of texts. They read to learn, to participate in communities of readers, and for enjoyment.” Three aspects of reading literacy are assessed in PIRLS 2001: purposes of reading, processes of comprehension, and reading behavior and attitudes. The first two aspects were the basis for the written test of reading comprehension, and a student background questionnaire addressed the third aspect.

The purposes of reading were divided into two subscales that account for most of the reading done by young students: reading for literary experience and reading to acquire and use information. In the assessment, narrative fiction was used to assess students’ ability to read for literary experience, while a range of informational texts assessed students’ ability to acquire and use information while reading.

PIRLS Benchmarks

PIRLS 2001 selected four cut-points on the combined reading literacy scale to correspond to the score points at or above which the lower quarter, the median, the upper quarter,

Note 5: International Assessments

Continued

and the top 10 percent of 4th-graders for the international PIRLS 2001 sample performed.

PIRLS Sampling Guidelines

Some countries participating in PIRLS did not meet the international sampling or other guidelines established for the survey. The table at the bottom lists the countries and the reason the international sampling or other guidelines were not met.

NOTES

¹The 1999 Video Study also expanded on the 1995 Video Study by investigating science teaching in the Czech Republic, Japan, the Netherlands, and the United States.

²The school sample was required to be a Probability Proportionate to Size (PPS) sample. A PPS sample assigns probabilities of selection to each school proportional to the number of eligible students in the 8th grade in schools countrywide.

Benchmarks for the PIRLS International Reading Literacy

Benchmark	Reading skills and strategies
Top 10 percent	<ul style="list-style-type: none"> ■ Demonstrate ability to integrate ideas and information. ■ Provide interpretations about characters' feelings and behaviors with text-based support. ■ Integrate ideas across the text to explain the broader significance or theme of the story. ■ Demonstrate understanding of informational materials by integrating information across various types of materials and successfully applying it to real-world situations.
Upper quarter	<ul style="list-style-type: none"> ■ Demonstrate ability to make inferences and recognize some text features in literary texts. ■ Make inferences to describe and contrast characters' actions.
Median	<ul style="list-style-type: none"> ■ Make elementary interpretations. ■ Locate specific parts of text or retrieve information. ■ Make observations about whole texts.
Lower quarter	<ul style="list-style-type: none"> ■ Retrieve explicitly stated details from various literary and informational texts.

Countries not meeting the international sampling and/or other guidelines

Country	Reason for not meeting guidelines
England	<ul style="list-style-type: none"> ■ Met guidelines for sample participation rates after replacement schools were included. National Defined Population covers less than 95 percent of National Desired Population.
Greece	<ul style="list-style-type: none"> ■ National Defined Population covers less than 95 percent of National Desired Population.
Israel	<ul style="list-style-type: none"> ■ National Defined Population covers less than 80 percent of National Desired Population.
Lithuania	<ul style="list-style-type: none"> ■ National Desired Population does not cover all of International Desired Population because coverage falls below 65 percent.
Morocco	<ul style="list-style-type: none"> ■ Nearly satisfying guidelines for sample participation rates after replacement schools were included.
Netherlands	<ul style="list-style-type: none"> ■ Met guidelines for sample participation rates after replacement schools were included.
Russian Federation	<ul style="list-style-type: none"> ■ National Defined Population covers less than 95 percent of National Desired Population.
Scotland	<ul style="list-style-type: none"> ■ Met guidelines for sample participation rates after replacement schools were included.
United States	<ul style="list-style-type: none"> ■ Met guidelines for sample participation rates after replacement schools were included.

Note 6: NAEP, NELS, and HS&B Transcript Studies

At least two methods exist to classify the academic challenge or difficulty of the coursework that high school graduates complete. One method is to measure the highest level of coursework completed in different subjects (e.g., whether a graduate's most academically challenging mathematics course was algebra I, trigonometry, or calculus). The other method is to measure the number of courses completed in different subjects (e.g., whether a graduate completed two, three, or four courses in mathematics). Based on these two methods, analysts have created different taxonomies to categorize the academic challenge or difficulty of the completed coursework in graduates' high school transcripts. This supplemental note describes two of these taxonomies, which are used in the analyses of individual indicators in *The Condition of Education*.

Indicators 24 and 25 use an “academic pipeline” to classify course-taking data according to the highest level of coursework completed. These data come from transcripts of graduates of public high schools, which were collected as part of the U.S. Department of Education's National Assessment of Educational Progress (NAEP), National Education Longitudinal Study of 1988 (NELS), and the High School & Beyond (HS&B) study. (It is important to note that although steps were taken to replicate the data collection and coding methodology in each study, some minor differences did occur. These differences may affect the comparability of data from different data sets.) *Indicator 23* uses a taxonomy of “academic rigor” to classify course-taking data, partly according to the number of courses completed. The same data sources are used for these indicators along with information about students' participation in Advanced Placement (AP) courses and tests.

ACADEMIC PIPELINES

Academic “pipelines” organize transcript data in English, science, mathematics, and foreign language into levels based on the normal progression and difficulty of courses within these subject areas. Each level includes courses either of similar academic challenge and difficulty or at the same stage in the progression of learning in that subject area. In the mathematics pipeline, for example, algebra I is placed at a level lower in the pipeline hierarchy than is algebra II because algebra I is traditionally completed before (and is generally less academically difficult or complex) than algebra II.

Classifying transcript data into these levels allows one to infer that high school graduates who have completed courses at the higher levels of a pipeline have completed more advanced coursework than graduates whose courses fall at the lower levels of the pipeline. Tallying the percentage of graduates who completed courses at each level permits comparisons of the percentage of high school graduates in a given year who reach each of the levels, as well as among different graduating classes.

The high school courses taken by students are coded according to the academic levels of the pipeline by matching course titles on the student's transcripts with course catalogs from the student's high school describing the contents of those courses. The courses are then coded according to the Classification of Secondary School Courses (CSSC) and the coded courses are assigned to broader course groupings, forming the academic levels of the pipeline in each subject area, using the Secondary School Taxonomy (SST). Steps are taken to replicate the data collection and coding methodology across the transcript studies to assure comparability. Some minor differences

Note 6: NAEP, NELS, and HS&B Transcript Studies

Continued

may affect the comparability of data from different transcript collections to some extent.

Transcript studies are a reliable source of information but they do have limitations. One limitation is that transcript studies can describe the intended—but not the actual—curriculum. The content and instructional methods of one course taught in one school by a certain teacher may be different from the content and instructional methods of another course that is classified as having the same CSSC code but is taught by a different teacher. Nevertheless, validation studies and academic research have shown significant differences between the highest level of academic courses completed by students and their scores on tests of academic achievement (Chaney, Burgdorf, and Atash 1997; Berends, Lucas, and Briggs, forthcoming).

In classifying students' courses from their transcripts according to a pipeline, only the courses *completed* in a subject area are included and not courses *attempted*. The pipeline also does not provide information on how many courses graduates completed in a particular subject area. Graduates are placed at a particular level in the pipeline based on the level of their highest completed course, regardless of whether they completed courses that would fall lower in the pipeline. Thus, graduates who completed year 3 of (or 11th-grade) French did not *necessarily* complete the first 2 years.

English Pipeline

English language and literature courses do not fit neatly into an ordered hierarchical framework. Instead of building on previously studied content, the English curriculum is stratified by the level of academic challenge and intensity of work required within a specific content area rather than among different courses. For example, within the general

English curriculum, most schools have three tracks that vary by level of academic challenge: below-grade level or low academic level courses, at-grade or regular courses, and above-grade or honors courses. Thus, unlike the mathematics and science pipelines that are based on progress within a content continuum (e.g., algebra I, geometry, algebra II, trigonometry, and calculus), the English pipeline is constructed to reflect the proportion of coursework completed by graduates in each track. It reflects the quality of a graduate's English coursetaking rather than the progression from low-level to more challenging coursework.

The English pipeline has seven categories: no English coursework; 50 percent or more low academic level courses; some, but less than 50 percent low academic level courses; regular, no low or honors courses; some, but less than 50 percent honors courses; 50 percent or more, but less than 75 percent honors courses; and 75 percent or more honors courses.

No English

No courses classified as English ever completed by graduate. It is possible for a graduate to have taken one or more unclassified English courses and be placed in the “no English” level. For the most part, these unclassified courses were English coursework for blind and deaf students or English as a Second Language courses.

Low Academic Level

The low academic level is divided into two sublevels, the second of which is considered to be more academically challenging than the first.

- *50 percent or more low academic level English:* The number of completed courses classified as low academic level, when

Note 6: NAEP, NELS, and HS&B Transcript Studies

Continued

divided by the total number of completed low academic, regular-, and honors-level courses, yields a percentage between 50 and 100.

- *Some, but less than 50 percent low academic level courses:* The number of completed courses classified as low academic level, when divided by the total number of completed low academic, regular-, and honors-level courses, yields a percentage less than 50. It is possible for a graduate to have also completed less than 50 percent honors-level courses and be classified under this category if the percentage of low-academic level courses completed was equal to or greater than the percentage of honors-level courses completed.

Regular

All completed English courses classified at grade level; no low academic level or honors courses.

Advanced Academic Level

The advanced academic level is divided into three sublevels.

- *Some, but less than 50 percent honors courses:* The number of completed courses classified as honors level, when divided by the total number of completed low academic-, regular-, and honors-level courses, yields a percentage less than 50. It is possible for a graduate to have also completed less than 50 percent low-academic level courses and be classified under this category if the percentage of low-academic level courses completed was less than the percentage of honors-level courses completed.
- *50 percent or more, but less than 75 percent honors courses:* The number of completed courses classified as honors level, when divided by the total number of completed low academic-, regular-, and hon-

ors-level courses, yields a percentage 50 or greater and less than 75.

- *75 percent or more honors courses:* The number of completed courses classified as honors level, when divided by the total number of completed low academic-, regular-, and honors-level courses, yields a percentage between 75 and 100.

Foreign Language Pipeline

Coursework in a foreign language follows an ordered, sequential path. Most high school students who study a foreign language progress along such a path, which is typically a sequence of four year-long courses in the language. Not all students do this, however. Some students begin their studies in the middle of a sequence because they have prior knowledge of the language. Some repeat the same year of study, and a few (about 7 percent of 1988 graduates) study more than one language (NCES 2003–343). The highest level of completed coursework in the foreign language pipeline thus may not indicate the total number of years a graduate has studied a foreign language or languages.

The foreign language pipeline also does not classify all foreign language study: only courses in French, German, Latin, and Spanish are counted because these are the most commonly offered foreign languages. The next four most commonly offered foreign languages (Italian, Japanese, Hebrew, and Russian) each accounted for less than 1 percent of 1988 graduates who studied foreign languages in the unweighted NELS:88 sample that was used to create the pipeline (NCES 2003–343). Adding these four languages to the four most common languages in the pipeline made less than 0.1 percent difference in the percentage of graduates who studied a single language, though it made more difference (yet less than 1 percent difference) in

Note 6: NAEP, NELS, and HS&B Transcript Studies

Continued

the percentage of graduates who never studied a language and who studied more than one language. In 1998, the total percentage of students who studied one of these next four most commonly offered languages was 4.5 percent.

The foreign language pipeline has six categories: none; year 1 (1 year of 9th-grade instruction) or less; year 2 (1 year of 10th-grade instruction); year 3 (1 year of 11th-grade instruction); year 4 (1 year of 12th-grade instruction); AP instruction.

None

No courses classified as foreign language study ever completed by graduate. Only courses in the four most common languages (French, German, Latin, and Spanish) are counted as foreign language study, so it is possible for a graduate to have taken one or more courses of some other foreign language and be placed in this category.

Low Academic Level

Year 1 (1 year of 9th-grade instruction) or less

Graduate completed no more than either a full Carnegie unit (1 academic year of coursework) of 9th-grade (year 1) foreign language instruction or half a Carnegie unit of 10th-grade (year 2) foreign language instruction.

Year 2 (1 year of 10th-grade instruction)

Graduate completed either a full Carnegie unit (1 academic year of coursework) of 10th-grade (year 2) foreign language instruction or completed half a Carnegie unit of 11th-grade (year 3) foreign language instruction.

Advanced Academic Level

Year 3 (1 year of 11th-grade instruction)

Graduate completed either a full Carnegie unit (1 academic year of coursework) of 11th-

grade (year 3) foreign language instruction or completed half a Carnegie unit of 12th-grade (year 4) foreign language instruction.

Year 4 (1 year of 12th-grade instruction)

Graduate completed either a full Carnegie unit (1 academic year of coursework) of 12th-grade (year 1) foreign language instruction or completed half a Carnegie unit of 13th-grade (year 5) foreign language instruction.

AP instruction

Graduate completed an AP foreign language course.

ACADEMIC RIGOR

To measure the “academic rigor” of coursework, a taxonomy of four levels of academic rigor has been constructed, using the following criteria:

- the number of courses that students had completed in academic subjects in science, mathematics, English, social studies, and foreign language;
- the level or intensity of courses that students had taken in mathematics and science; and
- whether students had taken any honors or AP courses.

When information on honors/AP coursetaking is missing, AP test-taking is used as supplementary data. It is assumed that, if AP records indicated that students had taken an AP test, students had taken a honors/AP course.

Classifying transcript data into these four levels allows one to conclude that high school graduates who meet the criteria of more “rigorous” levels have completed more academically challenging and difficult coursework than graduates who meet only the criteria of less “rigorous” levels. The primary differ-

Note 6: NAEP, NELS, and HS&B Transcript Studies

Continued

ences between a taxonomy based on academic pipelines and one based on academic rigor is that the latter classifies students who have completed a set number of “rigorous” courses, whereas the former indicates only the highest level of coursework completed, not the number of courses completed.

For *indicator 23*, the following three levels are used.

- *Core or lower*: Student completed no more than 4 years of English and 3 years each of science, mathematics, and social studies.
- *Mid-level*: Student completed at least 4 years of English; 3 years of science (including 2 years of biology, chemistry, *or* physics); 3 years of mathematics (including algebra I and geometry); and 3 years of social studies.
- *Rigorous*: Student completed at least 4 years of English; 4 years of mathematics (including precalculus); 3 years of science (including biology, chemistry, *and* physics); 3 years of social studies; 3 years of foreign language; and 1 honors/AP course or AP test score.

Note 7: International Standard Classification of Education

Indicator 40 uses the International Standard Classification of Education (ISCED), which is designed to facilitate comparisons among educational systems in different countries. Many countries report education statistics to UNESCO and the Organization for Economic Cooperation and Development (OECD) using the ISCED. In this classification system, education is divided into levels.

Education preceding the first level (early childhood education) where it is provided usually begins at age 3, 4, or 5 (sometimes earlier) and lasts from 1 to 3 years. In the United States, this level includes nursery school and kindergarten.

Education at the first level (primary or elementary education) usually begins at age 5, 6, or 7 and continues for about 4 to 6 years. For the United States, the first level starts with 1st grade and ends with 6th grade.

Education at the secondary level (lower secondary education) begins at about age 11 or 12 and continues for about 2 to 6 years. For the United States, the second level starts with 7th grade and typically ends with 9th grade. Education at the lower secondary level continues the basic programs of the first level, although teaching is typically more subject focused, often employing more specialized teachers who conduct classes in their field of specialization. The main criteria for distinguishing lower secondary education from primary education depend on whether programs begin to be organized in a more subject-oriented pattern, using more specialized teachers conducting classes in their field of specialization. If there is no clear breakpoint for this organizational change, the lower secondary education begins at the end of 6 years of primary education. In countries with no clear division between lower secondary and upper secondary education, and where lower secondary education lasts for more than 3

years, only the first 3 years following primary education are counted as lower secondary education.

Education at the third level (upper secondary education) typically begins at age 15 or 16 and lasts for approximately 3 years. For the United States, the third level starts with 10th grade and ends with 12th grade. Upper secondary education is the final stage of secondary education in most OECD countries. Instruction is often organized along subject-matter lines, in contrast to the lower secondary level, and teachers typically must have a higher level, or more subject-specific, qualification. There are substantial differences in the typical duration of programs both across and between countries, ranging from 2 to 5 years of schooling. The main criteria for classifications are (1) national boundaries between lower and upper secondary education; and (2) admission into educational programs, which usually requires the completion of lower secondary education or a combination of basic education and life experience that demonstrates the ability to handle the subject matter in upper secondary schools.

Education at the fifth level (nonuniversity higher education) is provided at community colleges, vocational/technical colleges, and other degree-granting institutions in which programs typically take 2 years or more, but less than 4 years, to complete.

Education at the sixth level (university higher education) is provided in undergraduate programs at 4-year colleges and universities in the United States and, generally, at universities in other countries. Education at this level is largely theoretical and is intended to provide sufficient qualifications for gaining entry into advanced research programs and professions with high-skill requirements. Entry into sixth-level programs normally requires the successful completion of an upper second-

Note 7: International Standard Classification of Education

Continued

ary education; admission is competitive in most cases. The minimum cumulative theoretical duration at this level is 3 years of full-time enrollment. Completion of research projects or theses may be involved. The faculty must have advanced research credentials.

Education at the seventh level (graduate and professional higher education) is provided in graduate and professional schools that generally require a university degree or diploma as a minimum condition for admission. Programs at the seventh level lead to the award of an advanced research qualification, such as a Ph.D. The theoretical duration of these programs is 3 years of full-time enrollment in most countries (for a cumulative total of at least 7 years at levels six and seven), although the length of actual enrollment is often longer. The programs at the seventh level are devoted to advanced study and original research.

Education at the ninth level (undistributed) is a classification reserved for enrollments, expenditures, or programs that cannot be unambiguously assigned to one of the aforementioned levels. Some countries, for example, assign nongraded special education or recreational nondegree adult education programs to this level. Other countries assign nothing to this level, preferring instead to allocate enrollments, expenditures, and programs to levels as best they can.

Public expenditure data used in *indicator 40* correspond to the nonrepayable current and capital expenditure of all levels of govern-

ment. Current expenditure includes final consumption expenditure (e.g., compensation of employees, consumption of intermediate goods and services, consumption of fixed capital, and military expenditure); property income paid; subsidies; and other current transfers paid (e.g., social security, social assistance, pensions, and other welfare benefits). Capital expenditure is spending to acquire and/or improve fixed capital assets, land, intangible assets, government stocks, and nonmilitary, nonfinancial assets, and spending to finance net capital transfers.

Private expenditure data used in *indicator 40* refer to expenditures funded by private sources (i.e., households and other private entities). "Households" means students and their families. "Other private entities" include private business firms and nonprofit organizations, including religious and charitable organizations, and business and labor associations. Private expenditure comprises school fees; materials such as textbooks and teaching equipment; transport to school (if organized by the school); meals (if provided by the school); boarding fees; and expenditure by employers on initial vocational training. Note that private educational institutions are considered to be service providers, not funding sources.

SOURCE: Organization for Economic Cooperation and Development (OECD), Center for Educational Research and Innovation. (2002). *Education at a Glance: OECD Indicators, 2002*.

Note 8: Classification of Postsecondary Education Institutions

The U.S. Department of Education's Integrated Postsecondary Education Data System (IPEDS) employs various categories to classify postsecondary institutions. This note outlines the different categories used in varying combinations in *indicators 5, 7, 19, 20, 21, 23, 32, 33, 34, 35, 42, and 43.*

BASIC IPEDS CLASSIFICATIONS

The term “postsecondary institutions” is the category used to refer to institutions with formal instructional programs and a curriculum designed primarily for students who have completed the requirements for a high school diploma or its equivalent. For many analyses, however, comparing all institutions from across this broad universe of postsecondary institutions would not be appropriate. Thus, postsecondary institutions are placed in one of three levels, based on the highest award offered at the institution:

- *4-year-and-above institutions:* Institutions or branches that award at least a 4-year degree or higher award in one or more programs, or a postbaccalaureate, postmaster's, or post-first-professional certificate.
- *2-year but less-than-4-year institutions:* Institutions or branches that confer at least a 2-year formal award (certificate, diploma, or associate's degree), or that have a 2-year program creditable toward a baccalaureate degree.
- *Less-than-2-year institutions:* Institutions or branches that have programs lasting less than 2 years that result in a terminal occupational award or are creditable toward a degree at the 2-year level or higher.

Postsecondary institutions are further divided according to these criteria: degree-granting versus nondegree-granting; type of financial

control; and Title IV-participating versus not Title IV-participating.

Degree-granting institutions offer associate's, bachelor's, master's, doctor's, and/or first-professional degrees that a state agency recognizes or authorizes. *Nondegree-granting* institutions offer other kinds of credentials and exist at all three levels. The number of 4-year nondegree-granting institutions is small compared with the number at both the 2-year but less-than-4-year and less-than-2-year levels.

IPEDS classifies institutions at each of the three levels of institutions by type of financial control: *public; private not-for-profit; or private for-profit* (e.g., proprietary schools). Thus, IPEDS divides the universe of postsecondary institutions into nine different “sectors.” In some sectors (for example, 4-year private for-profit institutions), the number of institutions is small relative to other sectors. Institutions in any of these sectors can be degree- or nondegree-granting.

Institutions in any of these sectors can also be Title IV-participating or not. For an institution to participate in federal Title IV, Part C, financial aid programs, it must offer a program of study at least 300-clock hours in length; have accreditation recognized by the U.S. Department of Education; have been in business for at least 2 years; and have a Title IV participation agreement with the U.S. Department of Education.

- *Indicators 5 and 19* include 4-year and 2-year degree-granting institutions in their analyses.
- *Indicator 7* includes degree-granting institutions in its analysis.
- *Indicator 20* includes 4-year and less-than-4-year degree-granting institutions in its analysis.

Note 8: Classification of Postsecondary Education Institutions

Continued

- *Indicators 21, 23, 34, and 42* include 2-year and 4-year, public and private, degree-granting institutions in their analyses.
- *Indicator 33* includes Title IV-participating degree-granting institutions in its analysis.

CARNEGIE CLASSIFICATION

The Carnegie Classification groups American colleges and universities by their purpose and size. First developed in 1970 by the Carnegie Commission on Higher Education, the classification system does not establish a hierarchy among 2- and 4-year degree-granting institutions; instead it groups colleges and universities with similar programs and purposes to facilitate meaningful comparisons and analysis. The Carnegie Classification system has been revised four times—in 1976, 1987, 1994, and 2000—since it was created. The 1994 classification, used for indicators in this volume, divides institutions of higher education into 10 categories, with the 10th category—Professional Schools and Specialized Institutions—subdivided into 10 subcategories (see table of definitions on next page).

The information used to classify institutions into the Carnegie categories comes from survey data. The 1994 version of Carnegie Classifications relied on data from IPEDS, the National Science Foundation, The College Board, and the 1994 Higher Education Directory published by Higher Education Publications, Inc.

For the purposes of analysis, *indicators 20, 32, 35, and 43* use the Carnegie Classifications (reprinted below) to subdivide the IPEDS groupings (e.g., 4-year institutions—an IPEDS grouping—may be subdivided into research, doctoral, master's, and/or other institutions,

which are Carnegie Classifications). The following key provides a guide to each indicator's category labels and what Carnegie Classification categories they include.

Indicator 20

- *4-year doctoral institutions* include Research Universities I and II and Doctoral Universities I and II.
- *4-year nondoctoral institutions* include Master's (Comprehensive) Universities and Colleges I and II, Baccalaureate Colleges I and II, and Professional Schools and Specialized Institutions that offer 4-year degrees.

Indicator 32 includes the same four categories as *indicator 20* plus

- *4-year total* includes all institutions that offer 4-year degrees.
- *2-year institutions* include 2-year or Associate of Arts Colleges.

Indicator 35

- *Research institutions* include Research Universities I and II.
- *Doctoral institutions* include Doctoral Universities I and II.
- *Comprehensive institutions* include Master's (Comprehensive) Universities and Colleges I and II.
- *Liberal arts institutions* include Baccalaureate Colleges I and II.
- *2-year institutions* include 2-year or Associate of Arts Colleges.
- *Other institutions* include public liberal arts colleges, private not-for-profit 2-year institutions, and other specialized institutions.

Note 8: Classification of Postsecondary Education Institutions

Continued

Indicator 43

- *2-year institutions* include 2-year or Associate of Arts Colleges.
- *Comprehensive and baccalaureate institutions* include Master's (Comprehensive) Universities and Colleges I and II as well as Baccalaureate Colleges I and II.
- *Research and doctoral institutions* include Research Universities I and II and Doctoral Universities I and II.

Carnegie Classification Categories (1994 Definitions¹)

Research Universities I

"These institutions offer a full range of baccalaureate programs, are committed to graduate education through the doctorate, and give high priority to research. They award 50 or more doctoral degrees² each year. In addition, they receive annually \$40 million or more in federal support."³

Research Universities II

"These institutions offer a full range of baccalaureate programs, are committed to graduate education through the doctorate, and give high priority to research. They award 50 or more doctoral degrees² each year. In addition, they receive annually between \$15.5 million and \$40 million in federal support."³

Doctoral Universities I

"In addition to offering a full range of baccalaureate programs, the mission of these institutions includes a commitment to graduate education through the doctorate. They award at least 40 doctoral degrees annually in five or more disciplines."⁴

Doctoral Universities II

"In addition to offering a full range of baccalaureate programs, the mission of these institutions includes a commitment to graduate education through the doctorate. They award annually at least 10 doctoral degrees—in three or more disciplines—or 20 or more doctoral degrees in one or more disciplines."⁴

Master's (Comprehensive) Universities and Colleges I

"These institutions offer a full range of baccalaureate programs and are committed to graduate education through the master's degree. They award 40 or more master's degrees annually in three or more disciplines."

Master's (Comprehensive) Universities and Colleges II

"These institutions offer a full range of baccalaureate programs and are committed to graduate education through the master's degree. They award 20 or more master's degrees annually in one or more disciplines."

Baccalaureate Colleges I

"These institutions are primarily undergraduate colleges with major emphasis on baccalaureate degree programs. They award 40 percent or more of their baccalaureate degrees in liberal arts fields and are restrictive in admissions."

Baccalaureate Colleges II

"These institutions are primarily undergraduate colleges with major emphasis on baccalaureate degree programs. They award less than 40 percent of their baccalaureate degrees in liberal arts fields or are less restrictive in admissions."

Note 8: Classification of Postsecondary Education Institutions

Continued

Carnegie Classification Categories (1994 Definitions¹)—Continued

Two-Year or Associate of Arts Colleges

"These institutions offer associate of arts certificate or degree programs and, with few exceptions, offer no baccalaureate degrees."

Professional Schools and Specialized Institutions

"These institutions offer degrees ranging from the bachelor's to the doctorate. At least 50 percent of the degrees awarded by these institutions are in a single discipline." They are divided into the following subcategories:

- Theological seminaries, bible colleges, and other institutions offering degrees in religion;
- Medical schools and medical centers;
- Other separate health professional schools;
- Schools of engineering and technology;
- Schools of business and management;
- Teachers' colleges;
- Other specialized institutions; and
- Tribal colleges.

¹Carnegie Foundation for the Advancement of Teaching (1994). In December 2000, the Carnegie Foundation released an updated version of its classification system of institutions of higher education. The new scheme is available at the Carnegie foundation web site (<http://www.carnegiefoundation.org/Classification/index.htm>).

²Doctoral degrees include Doctor of Education, Doctor of Juridical Science, Doctor of Public Health, and the Ph.D. in any field.

³Total federal obligation figures are available from the National Science Foundation's annual report, *Federal Support to Universities, Colleges, and Nonprofit Institutions*. The years used in averaging total federal obligations are 1989, 1990, and 1991.

⁴The academic year for determining the number of degrees awarded by institutions was 1983–84.

Note 9: Price of College Attendance

The sample used for *indicator 43* consists of full-time, full-year students who attended one postsecondary institution during the 1999–2000 academic year. Specific terms used in the indicator are as follows:

- **Total price:** The total price for a student is the institutionally determined budget. The budget includes tuition and fees and nontuition expense allowances to cover books and supplies, living expenses, transportation, and personal expenses. The allowance for living expenses considers where the student lives (on campus, independently off campus, or with parents) and the cost of living in the geographic area in which the institution is located.
- **Tuition and fees:** Indicates the tuition the student was charged for the academic year, as reported by the institution in the National Postsecondary Student Aid Study (NPSAS). If the tuition was not reported, it was estimated based on the average per credit or per term charges for other students at the institution according to their class level, degree program, and attendance status.
- **Grants:** Total amount of all grants and scholarships received during 1999–2000 from federal, state, institutional, and private sources, including tuition reimbursements from employers.
- **Net price:** Total price minus total grants.
- **Family income quartiles:** Indicators 42 and 43 use quartiles, which are aggregated from income percentiles for all undergraduates enrolled in U.S. postsecondary institutions. Percentiles are calculated separately for dependent and independent students and then combined into one variable. Thus, each ranking

compares the student only to other students of the same dependency status. Parents' income is used if a student is dependent and a student's own income (including the spouse's income if the student is married) is used if the student is independent. Total income in 1991 was used for NPSAS:93 and income in 1998 was used for NPSAS:2000. The income from these years is the income reported on the financial aid applications and used for federal need analysis. The amounts shown for NPSAS:93 are in real 1999 dollars. Income quartiles for NPSAS:93 and NPSAS:2000 are as follows:

NPSAS:93

- Dependent students
 - Low quartile (Less than \$24,000)
 - Middle quartiles (\$24,000 to \$69,999)
 - High quartile (\$70,000 or more)
- Independent students
 - Low quartile (Less than \$8,000)
 - Middle quartiles (\$8,000 to \$34,999)
 - High quartile (\$35,000 or more)

NPSAS:2000

- Dependent students
 - Low quartile (Less than \$30,000)
 - Middle quartiles (\$30,000 to \$81,999)
 - High quartile (\$82,000 or more)
- Independent students
 - Low quartile (Less than \$12,000)
 - Middle quartiles (\$12,000 to \$48,999)
 - High quartile (\$49,000 or more)

Financial dependency is defined in the glossary.

Note 10: Finance

USING THE CONSUMER PRICE INDEX (CPI) TO ADJUST FOR INFLATION

The Consumer Price Indexes (CPIs) represent changes in the prices of all goods and services purchased for consumption by urban households. Indexes vary for specific areas or regions, periods of time, major groups of consumer expenditures, and population groups. Finance indicators in *The Condition of Education* use the “U.S. All Items CPI for All Urban Consumers, CPI-U.”

The CPI-U is the basis for both the calendar year CPI and the school year CPI. The calendar year CPI is the same as the annual CPI-U. The school year CPI is calculated by adding the monthly CPI-U figures, beginning with July of the first year and ending with June of the following year, and then dividing that figure by 12. The school year CPI is rounded to three decimal places. Data for the CPI-U are available on the Bureau of Labor Statistics web site (given below). Also, figures for both the calendar year CPI and the school year CPI can be obtained from the *Digest of Education Statistics 2001* (NCES 2002–130), an annual publication of NCES.

Although the CPI has many uses, its principal function in *The Condition of Education* is to convert monetary figures (salaries, expenditures, income, and so on) into inflation-free dollars to allow comparisons over time. For example, due to inflation, the buying power of a teacher’s salary in 1998 is not comparable to that of a teacher in 2002. In order to make such a comparison, the 1998 salary must be converted into 2002 constant dollars using the following formula: the 1998 salary is multiplied by a ratio of the 2002 CPI over the 1998 CPI.

$$1998 \text{ salary} * \frac{(2002 \text{ CPI})}{(1998 \text{ CPI})} = 1998 \text{ salary in } 2002 \text{ constant dollars}$$

For more detailed information on how the CPI is calculated or the other types of CPI indexes, go to the Bureau of Labor Statistics web site (<http://www.bls.gov/cpihome.htm>).

In *The Condition of Education 2003*, this description of the CPI applies to indicators 39, 42, and 43.

CLASSIFICATIONS OF REVENUE FOR ELEMENTARY AND SECONDARY EDUCATION

In indicator 41, revenues for elementary and secondary education are classified by source (local, state, or federal). Revenues from federal sources include direct grants-in-aid from the federal government; federal grants-in-aid through a state or an intermediate agency; and other revenue, in lieu of taxes, that would have accrued had the tax base been subject to taxation. Revenues from state sources include those that can be used without restriction; those for categorical purposes; and revenues in lieu of taxation. Revenues from local sources include revenues from a local education agency (LEA), including taxes levied or assessed by an LEA; revenues from a local government to an LEA; tuition received; transportation fees; earnings on investments from LEA holdings; net revenues from food services (gross receipts less gross expenditures); net revenues from student activities (gross receipts less gross expenditures); and other revenues (e.g., textbook sales, donations, property rentals).

Revenues are also classified by type, as either general revenues (which include general formula assistance) or categorical revenues (which include both compensatory revenues and other categorical revenues). General revenues refer to state and local revenues that an LEA can use for any unspecified purpose. Categorical revenues include all state revenues except general formula assistance and all federal revenues that are intended to

Note 10: Finance

Continued

address specific educational needs. Categorical revenues are divided into compensatory and other categorical revenues.

Other categorical revenue is all categorical revenue not including compensatory revenue and consists of state other categorical programs and federal other categorical programs. State other categorical programs include revenues for staff improvement, special education, bilingual education, gifted and talented, vocational education, school lunch, capital outlay and debt service, transportation, and unspecified state revenues as well as all other revenues from state sources. Federal other categorical programs include revenues from the Children with Disabilities Act, Eisenhower Professional Development State Grants, the Safe and Drug Free Schools and Communities program, Chapter 2 block grants, the Child Nutrition Act, Impact Aid, the Indian Education program, as well as vocational education, bilingual education, all other federal aid distributed through state programs, and all other direct federal aid.

Compensatory revenue is a type of categorical revenue that targets resources to school districts for instruction and other supplemental services for educationally disadvantaged students. Total compensatory revenue is the sum of federal compensatory programs (Title I) and state compensatory programs. Title I funding supplements state and local funds for educational services to provide for the additional needs of economically and educationally disadvantaged children.

GEOGRAPHICAL COST OF EDUCATION INDEX (GCEI)

In *indicator 39*, a GCEI is used to compensate for geographical differences in the costs of educating students. GCEI is a comprehensive geographic cost-of-education index for school services and resources that focuses on the prices of the inputs (personnel and nonpersonnel items used in the provision of school services) purchased by schools. GCEIs are available from Education Finance Statistics Center (<http://nces.ed.gov/edfin/>).

Note 11: Student Disabilities

In the 1999–2000 National Postsecondary Student Aid Study (NPSAS:2000), respondents were asked if they had any of the following long-lasting conditions: blindness, deafness, or a severe vision or hearing impairment. They were also asked if they had any condition that substantially limited one or more basic physical activities such as walking, climbing stairs, reaching, lifting, or carrying. Next, they were asked if they had any other physical, mental, or emotional condition that had lasted 6 months or more. If they had any of these other long-lasting conditions, they were asked if they had difficulty learning, remembering, or concentrating; dressing, bathing, or getting around inside their home or dormitory; getting to school to attend class; or working at a job. Finally, students who reported any type of disability were asked if they considered themselves disabled.

Overall, 11 percent of undergraduates reported having a sensory, mobility, or other disability (as described above); 9 percent reported having a disability that caused them difficulty as a student (i.e., they had a sensory or mobility disability or they had another condition that caused them difficulty with any of the activities listed in the previous paragraph); and 4 percent considered themselves disabled (NPSAS 2000: Previously unpublished tabulations [March 2002]). *Indicator 34* limits its discussion to the 9 percent of students who had a disability that caused them difficulty as a student.

The disability section of NPSAS:2000 was more detailed and very different from that of previous NPSAS surveys. Consequently, direct comparisons between students surveyed in 2000 and in previous years may be misleading. The percentage of students indicating some sort of disability was substantially higher in NPSAS:2000 than in previous administrations of the survey.