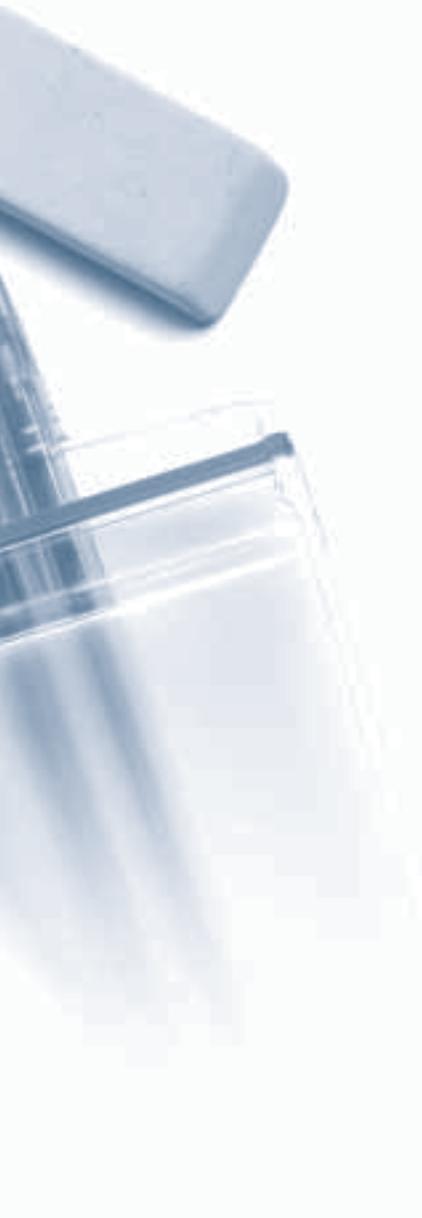


Appendix 2

Supplemental Notes





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Note 1: Commonly Used Variables

Certain common variables, such as parents' education, race/ethnicity, community type, poverty, and geographic region are used by different surveys cited in *The Condition of Education 2006*. 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 various indicators in this volume, are defined in each of the surveys. In addition, this note describes in further detail certain terms used in several indicators.

PARENTS' EDUCATION

Parents' level of education is generally measured by either the mother's highest level of educational attainment or the highest level of education attained by either parent. *Indicators 32, 33, 34, and 36*, based on the National Household Education Surveys Program (NHES), use the highest level of education attained by either parent. For these indicators, both mother's and father's education was constructed using three questions: (1) on the highest grade completed, (2) whether he or she obtained a vocational or technical degree after high school, and (3) whether he or she obtained a high school equivalency degree if he or she had not completed high school. *Indicators 12 and 13* 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 grades 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 is the case with data collected by the U.S. Census Bureau, 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.

Note 1: Commonly Used Variables

Continued

- *More than one race*: A person who selected two or more of the racial categories—White, Black, Asian, Native Hawaiian, or American Indian—when offered the option of selecting one or more racial designations.

Not all categories are shown in all indicators. In some cases, this is because there are insufficient data in some of the smaller categories or because survey sampling plans did not distinguish between groups, such as Asians and Pacific Islanders. In other cases, this occurs because only comparable data categories are shown. For example, the category “More than one race,” which was introduced in the 2000 Census and became a regular category for data collection in the Current Population Survey (CPS) in 2003, is sometimes excluded in indicators that present a historical series of data with constant categories, or else it is included within the category “Other.”

The introduction of the category “More than one race” follows a change in the Office of Management and Budget’s standard classification scheme for race/ethnicity. This change has required changes in the questions asked by the CPS, and it will require further changes in the questions asked of future federal survey participants. As a result of the new classification scheme, distributions by race/ethnicity for 2003 CPS data and for later years may differ somewhat from earlier years. In the Census population estimates for July 1, 2003, about 1.5 percent of the national population were classified as “More than one race.” (For further details, see <http://www.census.gov/popest/national/asrh/NC-EST2003-srh.html>.)

In *The Condition of Education 2006*, these definitions of race/ethnicity apply to *indicators* 5, 6, 7, 8, 10, 12, 13, 14, 15, 18, 19, 21, 22, 23, 24, 25, 26, 27, 28, 29, 31, 32, 37, and 39. Indicators based on the National Household Education Surveys Program (*indicators* 2, 11, 33, 34, 36, and 38) use up to five categories of race/ethnicity: White, non-Hispanic; Black, non-Hispanic; His-

panic; Asian or Pacific Islander, non-Hispanic; 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

There are various classification systems that federal departments and agencies use to define community types. Indicators in *The Condition of Education* rely on one or a combination of the following three classification systems: the Office of Management and Budget’s system of *metropolitan areas*, which is used by the Census Bureau; the Census Bureau’s system of *urbanized/urban/rural areas*; and the National Center for Education Statistics’ system of *locale codes*. All three of these classification systems were revised in 2000 and were fully in effect by 2002.

Metropolitan Areas

The Census Bureau’s Current Population Survey (CPS) classifies community type based on the concept of a metropolitan area, which has changed in its application over time. Between 1990 and 2000, the Census and the CPS used the term “metropolitan area” (MA) to refer collectively to Metropolitan Statistical Areas (MSAs), Primary Metropolitan Statistical Areas (PMSAs), and Consolidated Metropolitan Statistical Areas (CMSAs) (defined below). In 2000, the Census adopted the term “Core Based Statistical Area” (CBSA), which refers collectively to metropolitan statistical areas and (the newly introduced concept of) micropolitan statistical areas.

Metropolitan Areas—1990 Standards

The Office of Management and Budget (OMB) defines and designates metropolitan areas, following standards established by the interagency Federal Executive Committee on Metropolitan Areas, with the aim of producing definitions

Note 1: Commonly Used Variables

Continued

that are as consistent as possible for all MAs nationwide. Under its 1990 standards, the OMB defined an MA as “a large population nucleus together with adjacent communities that have a high degree of economic and social integration with that core.” The Census Bureau used this definition for an MA from 1990 to 2000. (See <http://www.census.gov/prod/cen1990/cph-s/cph-s-1-1.pdf> for more details.)

In order to be designated as an MA under the 1990 standards, an area had to 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 of at least 50,000 and have a total MA population of at least 100,000 (75,000 in New England). Under the 1990 standards, the “central county” (or counties) contained either the central city (defined below) or at least 50 percent of the population of the central city, or had at least 50 percent of its population in an urbanized area. Additional “outlying counties” were included in the MA if they met specified requirements of commuting to the central counties and selected requirements of metropolitan character (such as population density and percent urban). In New England, MAs were defined in terms of cities and towns, following rules analogous to those used with counties elsewhere.

The individual counties (or other geographic entities) comprising each MA were either designated as a Metropolitan Statistical Area (MSA) or, if the MA was large enough (1 million in population or more), as a Consolidated Metropolitan Statistical Area (CMSA) composed of two or more Primary Metropolitan Statistical Areas (PMSAs). For example, the PMSA “Milwaukee-Waukesha, WI” combined with the PMSA “Racine, WI” to form the CMSA of “Milwaukee-Racine, WI.” CMSAs could span states, as was the case with the CMSA “Philadelphia-Wilmington-Atlantic City, PA-NJ-DE-MD.” (In June 1999, there were 258 MSAs and 18 CMSAs in the United States, which included a total of 73 PMSAs.)

All territory, population, and housing units inside of MAs were characterized as *metropolitan*. Any territory, population, or housing units located outside of an MA was defined as *nonmetropolitan*.

The largest city in each MA was designated a *central city*, and additional cities could qualify as such if specified requirements were met concerning population size and commuting patterns. (In June 1999, there were 542 central cities in the United States plus 12 in Puerto Rico.)

Together these classifications were used to define a location’s MA Status as

1. Central city,
2. Balance of an MA (meaning any territory that is metropolitan but not in a central city), or
3. Nonmetropolitan.

This classification scheme for community type is used by the School Crime Supplement to the National Crime Victimization Survey (NCVS) (U.S. Department of Justice, Bureau of Justice Statistics); however, the community type labels differ. NCVS uses the following labels to identify the community type of its respondents’ home residence:

- *Urban*: a central city of an MA.
- *Suburban*: balance of an MA (outside of a central city but in the MA).
- *Rural*: nonmetropolitan area.

In *The Condition of Education 2006*, no indicators use these labels and definitions.

Metropolitan and Micropolitan Statistical Areas—2000 Standards

In 2000, the OMB defined metropolitan and micropolitan statistical areas as “a core area containing a substantial population nucleus,

Note 1: Commonly Used Variables

Continued

together with adjacent communities having a high degree of economic and social integration with that core.” Together metropolitan and micropolitan statistical areas are considered to constitute the “Core Based Statistical Area” (CBSA). Currently defined metropolitan and micropolitan statistical areas are based on the application of OMB’s 2000 standards to 2000 decennial census data. (Current metropolitan and micropolitan statistical area definitions were announced by OMB effective June 6, 2003.)

In order to be designated as a CBSA under the 2000 standards, an area must contain at least one “urban” area (that is, an urbanized area or urban cluster—see definitions of urbanized area and urban cluster below) with a population of 10,000 or more. Each metropolitan statistical area—now referred to as a “metro area” to distinguish it from the metropolitan statistical areas referred to as “MSAs” under the 1990 standards—must have at least one urbanized area of 50,000 or more inhabitants. Each micropolitan statistical area must have at least one urban cluster of at least 10,000 but less than 50,000 population. Under the standards, the county (or counties) in which at least 50 percent of the population resides within urban areas of 10,000 or more population, or that contains at least 5,000 people residing within a single urban area of 10,000 or more population, is identified as a “central county” (counties). Additional “outlying counties” are included in the CBSA if they meet specified requirements of commuting to or from the central counties. Counties or equivalent entities form the geographic “building blocks” for metropolitan and micropolitan statistical areas throughout the United States and Puerto Rico. (As of June 6, 2000, there were 362 metropolitan statistical areas and 560 micropolitan statistical areas in the United States. In addition, there were eight metro areas and five micropolitan statistical areas in Puerto Rico.) (See <http://www.census.gov/population/www/estimates/aboutmetro.html> for more details.)

Together these classifications are used to define a location’s CBSA status (or, if no micropolitan statistical areas are included, metro area status) as

1. Principal city of a CBSA (or metro area).
2. Located in a CBSA (or metro area), but not in the principal city.
3. Not located in a CBSA (or metro area).

As with the previous MA status classifications under the 1990 standards, the CBSA status under the 2000 standards do not equate to an urban-rural classification; all counties included in metropolitan and micropolitan statistical areas (and many other counties) contain both.

In *The Condition of Education 2006*, no indicators use these labels and definitions. However, some indicators use the NCES 2002-revised locale codes that are based on the metro area labels and definitions.

Urbanized, Urban, and Rural Areas

The Census Bureau divides the entire geographic area of the United States, Puerto Rico, and the Island Areas according to a concept of urban and rural areas. As with metropolitan statistical areas, the Census Bureau revised the urban/rural concept and criteria for the 2000 Census. The criteria in place between 1990 and 2000, however, were used to create NCES locale codes (described below). Thus, this supplemental note explains the 1990–2000 criteria in detail for readers to understand fully the locale code definitions.

From the adoption of the urban/rural concept for the 1950 Census until the 2000 Census, an *urbanized area* consisted of one or more “central places” and the adjacent densely settled surrounding “urban fringe” that together had a minimum population of 50,000 people. A “place” was either an incorporated governmental unit, such as a city, village, borough, or town, or a Census Designated Place (CDP),

Note 1: Commonly Used Variables

Continued

which was an unincorporated population cluster for which the Census Bureau delineates boundaries in cooperation with state and local agencies. All of the territory within the urbanized area that was outside the central place or places comprised the “urban fringe.” Territory included in the urban fringe generally had a population density of at least 1,000 people per square mile but could include lower density territory that contained nonresidential urban land uses (e.g., areas zoned for commercial or industrial use or reserved for recreational purposes) or served to link outlying densely settled territory with the main body of the urbanized area. The Census Bureau defined as *urban* any incorporated places (cities, towns, villages, etc.) or CDPs outside urbanized areas that contained a population of 2,500 or more.

The Census Bureau also expanded the definition of places to include *extended cities*. Extended cities were incorporated places whose boundaries encompassed substantial amounts of low-density territory (less than 100 people per square mile), relative to the overall land area of the place. The Census Bureau then identified both urban and rural territory in such places, thus providing exceptions to the general rule that places were classified as entirely urban or entirely rural. There were 182 extended cities in 1990. The decision to ignore place boundaries when defining urban areas for the 2000 Census (see below) made the extended city concept obsolete; under the 2000 criteria, any place potentially can be divided into urban and rural components. No survey employed in this volume of *The Condition of Education* includes extended cities in its community type definition.

The Census Bureau then classified all territory, population, and housing units not classified as urbanized or urban as *rural*. (For further details, see <http://www.census.gov/population/censusdata/urdef.txt>.)

Beginning with the 2000 Census, the Census Bureau has employed new definitions of urban

areas based on the concepts of an *urbanized area* and an *urban cluster*, the former being similar to the urbanized area under the 1990 definitions and the latter replacing the concept of urban fringe and urban areas. Urbanized areas and urban clusters consist of densely settled census block groups and census blocks that meet specified minimum population density requirements. Urbanized areas continue to have minimum populations of 50,000; urban clusters have populations of at least 2,500 and less than 50,000. Place boundaries are no longer taken into consideration when defining these two types of urban areas. (Under the previous classification system, place boundaries were used to determine the urban/rural classifications of territory: all incorporated places that had at least 2,500 people were classified as urban if they were outside an urbanized area.) Thus, the Census Bureau’s current urban area classification provides a seamless, nationally consistent method of defining urban areas that is not affected by varying state laws governing incorporation and annexation. For further details on the revised definitions, see http://www.census.gov/geo/www/ua/ua_2k.pdf. (For differences between the 1990 Census and 2000 Census Urbanized Area Criteria, see http://www.census.gov/geo/www/ua/uac2k_90.html.)

In *The Condition of Education 2006*, indicators 36 and 39 use these labels and definitions.

Locale Code

In the NCES Common Core of Data (CCD), the community type of *schools* is classified according to a “Locale Code” that is defined according to a mix of OMB (metropolitan area) and Census Bureau (urban/rural) classifications. There are eight categories within the school locale code classification: (1) large city; (2) midsize city; (3) urban fringe of a large city; (4) urban fringe of a midsize city; (5) large town; (6) small town; (7) nonmet-

Note 1: Commonly Used Variables

Continued

ropolitan rural; and (8) metropolitan rural. These categories roughly equate to a central city/suburb/large town/small town/rural scheme, identifying the general character of each school's location. "Large city" and "midsize city" schools are located in principal cities (formerly referred to as "central cities") of metropolitan statistical areas, with a threshold of 250,000 people distinguishing between a large city and a midsize city. The two "urban fringe" categories identify suburban schools within metropolitan statistical areas. The "large town" and "small town" categories identify schools in smaller urban centers (25,000 up to 50,000 people) and small towns (2,500 up to 25,000 people) that are located outside metropolitan areas; many of these communities represent the urban centers/small towns that serve a largely rural countryside. The two rural categories recognize that rural territory exists in both metropolitan areas and nonmetropolitan territory.

Each school is assigned to one of these categories based on the inside/outside principal city, urban/rural, and metropolitan/nonmetropolitan status of the census block in which the school is located. Schools are assigned to specific census blocks through a process called "geocoding" in which the address of the school is mapped in relation to census geography. The associated census geographic information is then used to assign the school to a specific locale code category based on a mix of characteristics. For instance, a school located in a Census Bureau-defined urbanized area (that is, inside an OMB-defined metropolitan statistical area and outside of a principal city) would be classified as an "urban fringe" school; the specific urban fringe category is determined by the population size of the largest principal city in the metropolitan statistical area in which the school is located. Likewise, a school located outside a Census Bureau-defined "urban" area (urbanized or urban area; or urbanized area or urban cluster, depending upon the relevant standards—1990

or 2000) is classified as rural; then it is further distinguished by whether it is inside or outside the boundaries of a metropolitan statistical area.

In the context of assigning school locale codes, it is important to note that a school located in a Census Bureau-defined urban area that is inside the boundaries of a metropolitan statistical area will be classified as "urban fringe" regardless of the distance from the large or midsize city with which it is associated. Further, if a school does not provide NCES with an address that can be geocoded to a specific census block (such as a P.O. Box or rural route/box number types of addresses) and clerical research cannot determine the specific location of the school in terms of Census Bureau geography, the locale code assignment process assigns the school an "urban fringe" code if the school is located in a metropolitan statistical area.

School district locale codes are assigned through the use of these school locale codes, according to classification rules, such as the following: if 50 percent or more of students in the district attend schools that are located in a single locale code, that code is assigned to the district. If not, schools are placed into one of three groups: large or midsize city; urban fringe or rural, inside an MA (or metro area); and large town, small town, or rural, outside an MA (or metro area). 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 least urban locale code is assigned. Districts with no schools or students are given a locale code of "N." (For more information on the Locale Code, download the "General" Documentation for the school year of interest from the Common Core of Data (CCD) Universe Survey Dataset webpage at <http://nces.ed.gov/ccd/pubschuniv.asp>, then search the document for occurrences of "Locale Code.")

Note 1: Commonly Used Variables

Continued

Category	Under 1990 Standards (definitions in use from 1990–91 to 2002–03)	Under 2000 Standards (definitions in use since 2002–03)
Large city	Central city of a MA, with the city having a population of 250,000 or more.	Principal city of a metro area, with the city having a population of 250,000 or more.
Midsize city	A central city of a MA, with the city having a population less than 250,000.	Central city of a metro area, with the city having a population less than 250,000.
Urban fringe of a large city	Any incorporated place, Census-designated place, or nonplace territory within a MA with a large city and defined as urbanized or urban by the Census Bureau.	Any incorporated place, Census-designated place, or nonplace territory within a metro area with a large city and defined as urbanized or urban cluster by the Census Bureau.
Urban fringe of a midsize city	Any incorporated place, Census-designated place, or nonplace territory within a MA with a midsize city and defined as urbanized or urban by the Census Bureau.	Any incorporated place, Census-designated place, or nonplace territory within a metro area with a midsize city and defined as urbanized or urban cluster 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 MA.	Any incorporated place or Census-designated place with a population greater than or equal to 25,000 and located outside of a metro area.
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 MA.	Any incorporated place or Census-designated place with a population less than 25,000 and greater than or equal to 2,500 and located outside of a metro area.
Rural (Rural, outside MA or metro area)	Any incorporated place, Census-designated place, or nonplace territory not within a MA with a large or midsize city and defined as rural by the Census Bureau.	Any incorporated place, Census-designated place, or nonplace territory not within a metro area with a large or midsize city and defined as rural by the Census Bureau.
Rural Urban Fringe (Rural, inside MA or metro area) (This category was not used before 1998.)	Any incorporated place, Census-designated place, or nonplace territory within a MA with a large or midsize city and defined as rural by the Census Bureau.	Any incorporated place, Census-designated place, or nonplace territory within a metro area with a large or midsize city and defined as rural by the Census Bureau.

Note 1: Commonly Used Variables

Continued

Besides being used for the CCD, the eight-level locale codes are used to categorize community type in other NCES surveys. Typically, however, the locale codes are collapsed into three categories. For example, in the National Assessment of Educational Progress (NAEP) and the Schools and Staffing Survey (SASS), the community type of a school is categorized according to its address as follows:

- *Central city*: in a large or midsize central (or principal) city.
- *Urban fringe/large town*: in the urban fringe of a large or midsize city; a large town; or a rural area, inside of an MA (or metro area).
- *Rural/small town*: in a small town or rural area, outside of an MA (or metro area).

In *The Condition of Education 2006*, these labels under the 2000 standards apply to *indicator 6*, and these labels under the 1990 standards for pre-2002–03 data and under the 2000 standards for 2002–03 (and subsequent) data apply to *indicators 4, 12, and 15*.

POVERTY

Data on household income and the number of people living in the household are combined with estimates of the poverty threshold published by the Bureau of the Census to classify children (or adults) as “poor” or “nonpoor” in *indicator 2*. Children (or adults) in families whose incomes are at or below the poverty threshold are classified as poor; those in families with incomes above the poverty threshold are classified as nonpoor. The thresholds used to determine whether an individual is poor or nonpoor differ for each survey year. The weighted average poverty thresholds for various household sizes for 1990, 1994, 1998, 1999, 2000, 2001, 2002, 2003, and 2004 are shown in the table on the next page. (For thresholds for other years, see <http://www.census.gov/hhes/poverty/threshld.html>.)

Indicators 7, 20, 21, 33, 34, 36, and 38 modify the categories of poverty, to include the “poor,” “near-poor,” and “nonpoor.” Poor is defined to include those families below the poverty threshold, near-poor is defined as those at 100–199 percent of the poverty threshold, and nonpoor is defined as those at 200 percent or more than the poverty threshold.

Eligibility for the National School Lunch Program also serves as a measure 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 Census Bureau, eligibility for the National School Lunch Program relies on the federal income poverty guidelines of the Department of Health and Human Services. 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 2006*, eligibility for the National School Lunch Program applies to *indicator 24*.

Small Area Income and Poverty Estimates (SAIPE) Program

The goal of the Census Bureau’s Small Area Income and Poverty Estimates (SAIPE) program is to make intercensal estimates of median income and numbers in poverty for states, counties, and school districts. *Indicator 41* employs SAIPE’s school district estimates of the population of children ages 5–17 and the number of related children ages 5–17 in families in poverty. *Indicator 41* also employs the SAIPE data rather than the free lunch eligible data to measure poverty by school district be-

Note 1: Commonly Used Variables

Continued

Weighted average poverty thresholds, by household size: Selected years, 1990–2004

Household size	Poverty threshold	Household size	Poverty threshold
1990		2001	
2	8,509	2	11,569
3	10,419	3	14,128
4	13,359	4	18,104
5	15,792	5	21,405
6	17,839	6	24,195
7	20,241	7	27,517
8	22,582	8	30,627
9 or more	26,848	9 or more	36,286
1994		2002	
2	9,661	2	11,756
3	11,821	3	14,348
4	15,141	4	18,392
5	17,900	5	21,744
6	20,235	6	24,576
7	22,923	7	28,001
8	25,427	8	30,907
9 or more	30,300	9 or more	37,062
1998		2003	
2	10,634	2	12,015
3	13,003	3	14,680
4	16,660	4	18,810
5	19,680	5	22,245
6	22,228	6	25,122
7	25,257	7	28,544
8	28,166	8	31,589
9 or more	33,339	9 or more	37,656
2000		2004	
2	11,239	2	12,335
3	13,738	3	15,071
4	17,603	4	19,311
5	20,819	5	22,837
6	23,528	6	25,791
7	26,754	7	29,304
8	29,701	8	32,430
9 or more	35,060	9 or more	38,659

NOTE: Poverty thresholds for 1990, 1994, 1998, and 2000 were last revised August 22, 2002; poverty thresholds for 2001 were last revised September 24, 2002; poverty thresholds for 2002 were last revised June 22, 2004; poverty thresholds for 2003 were last revised August 26, 2004; and poverty thresholds for 2004 were last revised March 9, 2006.

SOURCE: U.S. Census Bureau, Current Population Survey (CPS), 1990, 1994, 1998, 2000, 2001, and 2004; CPS, 2003 and 2004 Annual Social and Economic Supplements.

Note 1: Commonly Used Variables

Continued

cause SAIPE data are available for all regular operating school districts, while free lunch eligible data are missing for a sizeable number of school districts. Further, the SAIPE poverty data are constructed using consistent methodology while the designation of who is free lunch eligible may differ from school to school. More information about SAIPE is available at <http://www.census.gov/hhes/www/saipe/>.

GEOGRAPHIC REGION

The regional classification system presented below represents the four geographical regions of the United States as defined by the Census Bureau of the U.S. Department of Commerce. In *The Condition of Education 2006*, indicators 3, 4, 5, 7, 25, 36, 42, and 44 use the Census Bureau system.

U.S. Census Bureau, 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		

Note 2: The Current Population Survey (CPS)

The Current Population Survey (CPS) is a monthly survey of a nationally representative sample of all U.S. households. The survey is conducted in approximately 50,000 households that are selected scientifically from the 50 states and the District of Columbia. The population surveyed is referred to as the civilian, noninstitutional population. Members of the Armed Forces, inmates in correctional institutions, and patients in long-term medical or custodial facilities are not included in the sample. The CPS has been conducted for more than 50 years. The U.S. Department of Commerce, Census Bureau conducts the survey for the Bureau of Labor Statistics, asking a knowledgeable adult household member (known as the “household respondent”) to answer all the questions on all of the month’s questionnaires for all members of the household.

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. However, the CPS does not collect all this information every month. Each month a “basic” CPS questionnaire is used to collect data about participation in the labor force of each household member, age 15 or older, in every sampled household. In addition, different supplemental questionnaires are administered each month to collect information on other topics.

In March and October of each year, the supplementary questionnaires contain some questions of relevance to education policy. The Annual Social and Economic Supplement, or March CPS Supplement, is a primary source of detailed information on income and work experience in the United States. The labor force and work experience data from this survey are used to profile the U.S. labor market and to make employment projections. Data from this survey are also used to generate the annual Population Profile of the United States, reports on geographical mobility, educational attainment,

and detailed analyses of wage rates, earnings, and poverty status. The October Supplement contains basic annual school enrollment data for preschool, elementary and secondary, and postsecondary students, as well as educational background information needed to produce dropout estimates on an annual basis. In addition to the basic questions about education, interviewers ask supplementary questions about school enrollment for all household members age 3 or older.

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

DEFINITION OF SELECTED VARIABLES

Employment Status

Indicator 21 uses data from the March and Annual Social and Economic CPS Supplements, which include questions on employment of adults in the previous week, to determine employment status. Respondents could report that they were employed (either full or part time), unemployed (looking for work or on layoff), or not in the labor force (due to being retired, having unpaid employment, or some other reason).

Family Income

Indicator 29 uses data on family income that are collected as part of the October CPS to measure a student’s economic standing. The October CPS determines family income from a single question asked of the household respondent. Family income includes all monetary income from all sources (including jobs, business, interest, rent, and social security payments) over a 12-month period. The income of nonrelatives

Note 2: The Current Population Survey (CPS)

Continued

living in the household is excluded, but the income of all family members age 15 or older (age 14 or older before 1989), including those temporarily living away, is included.

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 on the next page shows the current dollar amount of the breakpoints between low and middle income and between middle and high income for the subpopulation of the CPS population used in *indicator 29*: high school completers ages 16–24. For example, low income for this subpopulation in 2003 is defined as the range between \$0 and \$16,394; middle income is defined as the range between \$16,394 and \$78,666; and high income is defined as \$78,666 or more.

Status Dropout Rate

Indicator 26 reports status dropout rates by race/ethnicity. The status rate is one of a number of rates reporting on high school dropout and completion behavior in the United States. Status dropout rates measure the percentage of individuals within a given age range who are not enrolled in high school and who lack a high school credential, irrespective of when they dropped out. Because they measure the extent of the dropout problem for the sampled population, status dropout rates can be used to estimate the need for further education and training for dropouts in that population. Status dropout rates should not be confused with event dropout rates, which measure the proportion of students who drop out of high school in a given year, and which have been reported in previous *The Condition of Education* volumes (NCES 2004-077, *indicator 16*. See also NCES 2005-046).

Indicator 26 uses CPS data to estimate the percentage of civilian, noninstitutionalized

young people ages 16 through 24 who are out of high school and who have not earned a high school credential (either a diploma or equivalency credential such as a General Educational Development certificate or “GED”). Status dropout rates include individuals who never attended school and immigrants who did not complete the equivalent of a high school education in their home country as dropouts. The inclusion of these individuals is appropriate because the status rate is designed to report the percentage of youth and young adults in the United States who lack what is now considered a basic level of education. However, the status rate should not be used as an indicator of the performance of U.S. schools because it counts as dropouts individuals who may have never attended a U.S. school.

The numerator of the status dropout rate for a given year is the number of individuals ages 16 through 24 who, as of October of that year, had not completed high school and were not currently enrolled in school. The denominator is the total number of 16- through 24-year-olds in the United States in October of that year.

The CPS October Education and School Enrollment Supplement items used to identify status dropouts include (1) “Is ... attending or enrolled in regular school?” and (2) “What is the highest level of school ... completed or the highest degree ... received?” See the Educational Attainment section below for details of how the second question changed from 1972 to 1992. Beginning in 1986, the Census Bureau instituted new editing procedures for cases with missing data on school enrollment (the first question listed above). This was done in an effort to improve data quality. The effect of the editing changes was evaluated for data from 1986 by applying both the old and new editing procedures. The effect was an increase in the number of students enrolled in school and a slightly lowered status dropout rate (12.2 percent based on the old procedures and 12.1

Note 2: The Current Population Survey (CPS)

Continued

Dollar value (in current dollars) at the breakpoint between low- and middle-income and between middle- and high-income categories of family income: October 1972–2004

Year	Breakpoints between low- and middle-income	Breakpoints between middle- and high-income
1972	\$3,600	\$13,600
1973	3,900	14,700
1974	—	—
1975	4,300	16,900
1976	4,600	18,300
1977	4,900	20,000
1978	5,200	21,600
1979	5,800	23,700
1980	6,000	25,200
1981	6,500	27,100
1982	7,100	31,200
1983	7,300	32,300
1984	7,400	34,200
1985	7,900	36,300
1986	8,400	38,100
1987	8,600	39,600
1988	9,300	42,000
1989	9,500	43,800
1990	9,600	46,200
1991	10,400	48,300
1992	10,700	49,600
1993	10,800	50,400
1994	11,800	55,500
1995	11,600	55,700
1996	12,100	58,100
1997	12,800	60,700
1998	13,800	64,900
1999	14,400	68,200
2000	15,300	71,900
2001	16,100	75,000
2002	16,400	75,400
2003	16,400	75,400
2004	16,100	77,200

—Not available.

NOTE: Estimates are limited to the study population of high school completers ages 16–24 of the survey year.

SOURCE: U.S. Department of Commerce, Census Bureau, Current Population Survey (CPS), October Supplement, 1972–2004, previously unpublished tabulations for 2004 (November 2005).

Note 2: The Current Population Survey (CPS)

Continued

percent based on the new ones). The difference in the two rates was not statistically significant. While a change in the procedures occurred in 1986, the new procedures are reflected beginning in 1987 in *indicator 26*.

Youth Neither Enrolled nor Working

The March CPS supplement added questions to collect information on the educational enrollment of all respondents as well as their employment status in 1986. To construct the variable for *indicator 21*, all youth ages 16–19 were categorized as being in one of four categories: enrolled in an education institution but not working; working but not enrolled; both enrolled and working; or neither enrolled nor working. Respondents who were unemployed and looking for work as well as those who were unemployed and not in the labor force (i.e., not looking for work) were both considered not working. The category “neither enrolled nor working” used in *indicator 21* comprises the population of youth neither enrolled nor working.

Educational Attainment

Data from CPS questions on educational attainment are used in *indicators 21, 22, 29, and 31*. 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?” This change means that some data collected before 1992

are not strictly comparable with data collected from 1992 onward and that care must be taken when making such comparisons. The new question revised the response categories from the highest grade completed to the highest level of schooling or degree completed. In the revised response categories, several of the lower levels are combined into 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 the following:

- 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.)
- 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.)

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

Note 2: The Current Population Survey (CPS)

Continued

high school equivalency credential would not have been counted as completing 12th grade. The new question counts these individuals as if they are high school completers. 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. Before 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.

Before 1992, the CPS considered individuals who completed 12th grade to be high school graduates. The revised question added the 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 researchers are concerned that the completion rate, based on the pre-1992 category “4th year or higher of college completed,” overstates 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 2006*.

Some College

Based on the question used in 1992 and in subsequent surveys, an individual who at-

tended college for less than a full academic year would respond “some college but no degree.” Before 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 then 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.

In *The Condition of Education*, the “some college” category for years preceding 1992 includes only the responses “1–3 years of college.” After 1991, the “some college” category includes those who responded “some college but no degree,” “Associate’s degree in college, occupational/vocational program,” and “Associate’s degree in college, academic program.” The effect of this change of the “some college category” is indicated by the fact that in 1992, 48.9 percent of 25- to 29-year-olds reported completing some college or more, compared with 45.3 percent in 1991 (see NCES 2002-025, table 25-2). The 3.6 percent difference is statistically significant. Some of the increase may be due to individuals who have completed less than 1 year of postsecondary education who in years preceding 1992 would not have responded that they completed “some college.”

Another potential difference in the “some college” category is how individuals who have completed a certificate or some other type of award other than a degree respond to the new

Note 2: The Current Population Survey (CPS)

Continued

questions about their educational attainment introduced in 1992. Some may answer “some college, no degree,” while others may indicate only high school completion, and others may equate their certificate with one of the types of associate’s degrees. No information is available on the tendencies of individuals with a postsecondary credential other than a bachelor’s or higher degree to respond to the new attainment question introduced in 1992.

Parental Education

Parents’ education is defined as either the highest educational attainment of the two parents who reside with the student or, if only one parent is in the residence, the highest educational attainment of that parent; when neither parent resides with the student, it is defined as the highest educational attainment of the householder.

Note 3: Other Surveys

AMERICAN COMMUNITY SURVEY (ACS)

The Census Bureau introduced the American Community Survey (ACS) in 1996. When fully implemented in 2005, it will provide a large monthly sample of demographic, socioeconomic, and housing data comparable in content to the Long Form of the Decennial Census. Aggregated over time, these data will serve as a replacement for the Long Form of the Decennial Census. The survey includes questions mandated by federal law, federal regulations, and court decisions.

Beginning in 2005, the survey has been mailed to approximately 250,000 addresses in the United States and Puerto Rico each month, or about 2.5 percent annually. A larger proportion of addresses in small governmental units (e.g., American Indian reservations, small counties, and towns) will receive the survey. The monthly sample size is designed to approximate the ratio used in Census 2000, requiring more intensive distribution in these areas.

National-level data from ACS are available starting with 2000. Under the current timetable, annual results will be available for areas with populations of 65,000 or more beginning in the summer of 2006, for areas with populations of 20,000 or more in the summer of 2008, and for all areas—down to the census tract level—by the summer of 2010. This schedule is based on the time it will take to collect data from a sample size large enough to produce accurate results for different size geographic units.

Indicator 7 uses data from the ACS for the years 2000–04. For further details on the survey, see <http://www.census.gov/acs/www/>.

BACCALAUREATE AND BEYOND LONGITUDINAL STUDIES (B&B)

The Baccalaureate and Beyond Longitudinal Studies (B&B) are longitudinal studies of subsamples of bachelor's degree recipients from the samples of students included in the 1992–93 and

1999–2000 National Postsecondary Student Aid Studies (NPSAS:93 and NPSAS:2000). NPSAS, described below, is a periodic, nationally representative cross-sectional study of all students in postsecondary education institutions in the 50 states, the District of Columbia, and Puerto Rico. The B&B subsamples include students who completed a bachelor's degree between July 1 and June 30 of the 1992–93 and 2000–01 NPSAS years. The 1992–93 cohort was followed up in 1994, 1997, and 2003, and the 1999–2000 cohort was followed up in 2001.

The B&B data provide profiles of college graduates, including degree recipients who delayed entry or enrolled sporadically over time as well as those who enrolled in college immediately after completing high school. The first follow-ups (1994 and 2001) of each cohort include comprehensive data on the enrollment, attendance, and demographic characteristics of college graduates and provide a unique opportunity to understand graduates' immediate transitions into work, graduate school, or other endeavors. The 2003 follow-up of the 1992–93 bachelor's degree recipients provides information on their advanced degree participation, labor force experiences, and family formation over a 10-year period.

Estimates from both B&B studies are based on interviews with approximately 10,000 bachelor's degree recipients. The unweighted response rate for the B&B:93/94 interviews was 92 percent. The weighted overall response rate for the B&B:2000/01 interviews 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 Internet-based 2003 survey could be self-administered or completed over the telephone with a trained interviewer. The weighted overall response rate for the B&B:93/03 interview was

Note 3: Other Surveys

Continued

74 percent, reflecting a base-year institution response rate of 88 percent and a 2003 follow-up student response rate of 83 percent.

For further information about the B&B methodology studies, see NCES 96-149, NCES 2003-156, NCES 2006-166, and the B&B website at <http://nces.ed.gov/surveys/b&b/>.

Data from B&B:93/94 and 2000/01 are used in *indicator 37*, and data from B&B:93/03 are used in *indicator 32*.

College Entrance Examination (CEE) Scores

For 1992–93 graduates, SAT mathematics and verbal scores and ACT composite scores were taken from one of three sources in the following order of preference: (1) Educational Testing Service (ETS) or ACT Inc., which administer the tests; (2) the institution the student attended; or (3) the student. For 1999–2000 graduates, the student was not used as a source. ACT composite scores were converted to an estimate of the SAT combined score. *Indicator 37* uses college entrance examination (CEE) score data.

Grade Point Averages

Each student's reported cumulative undergraduate grade point average (GPA) was standardized to a 4.00 scale. For 1992–93 graduates, the GPA was student-reported. For 2000–01 graduates, the institution was the primary source; if the institution did not report this information, the student-reported GPA was used. *Indicator 37* uses GPA data.

Undergraduate Field of Study

Data on the major field of study for the bachelor's degree, used in *indicator 37*, was collapsed as follows:

- **Business/management.** Accounting, finance, secretarial, data processing, business management systems, public administration, marketing/distribution, business support, and international relations
- **Education.** Early childhood, elementary, secondary, special, or physical education; other education; leisure studies; and library archival sciences
- **Humanities.** English, liberal arts, philosophy, theology, art, music, speech drama, art history/fine arts, area studies, African-American studies, ethnic studies, foreign languages, liberal studies, and women's studies
- **Mathematics, computer science, and natural sciences.** Life sciences, natural resources, forestry, biological sciences (including zoology), botany, biophysics, geography, interdisciplinary studies, including biopsychology, environmental studies; physical sciences (including chemistry and physics); mathematics, statistics, computer/information science, computer programming; electrical, chemical, mechanical, civil, or other engineering; engineering technology; and electronics
- **Social sciences.** Psychology, economics, political science, American civilization, clinical pastoral care, social work, anthropology/archaeology, history, and sociology
- **Other.** Nursing, nurse assisting, community/mental health, medicine, physical education/recreation, audiology, clinical health, dentistry, veterinary medicine, health/hospital, public health, dietetics, other/general health, mechanic technology including transportation, protective services, construction, air/other transportation, precision production, other technical/professional, agriculture, agricultural science, architecture, professional city planning, journalism, communications, communications technology, cosmetology, textiles, military science, dental/medical technology, home economics, vocational home economics including child care, law, paralegal, basic/personal skills

Note 3: Other Surveys

Continued

Undergraduate Field of Study

Data on the major field of study for the bachelor's degree, used in *indicator 32*, was collapsed as follows:

- *Arts and humanities.* English, liberal arts, philosophy, theology, art, music, speech/drama, history/fine arts, area studies, African-American studies, ethnic studies, foreign languages, liberal studies, women's studies
- *Business and management.* Accounting, finance, secretarial, data processing, business/management, public administration, marketing/distribution, business support, international relations
- *Education.* Early childhood, elementary, secondary, special, or physical education
- *Health.* Nursing, nurse assisting, community/mental health, medicine, physical education/recreation, audiology, clinical health, dentistry, veterinary medicine, health/hospital, dietetics, other/general health
- *Other.* Mechanic technology (including transportation), protective services, air/other transportation, precision production, agriculture, agricultural science, architecture, professional city planning, journalism, communications, communications technology, cosmetology, military science, dental/medical technology, home economics, vocational home economics (including child care), law, basic/personal skills
- *Science, mathematics, and engineering.* Natural resources, forestry, biological science (including zoology), biophysics, geography, interdisciplinary studies (including biopsychology environmental studies); physical sciences (including chemistry and physics); mathematics, statistics; computer/information science, computer program-

ming; electrical, chemical, mechanical, civil, or other engineering; engineering technology

- *Social and behavioral sciences.* Psychology, economics, political science, American civilization, clinical pastoral care, social work, anthropology/archaeology, history, sociology

COMMON CORE OF DATA (CCD)

The NCES Common Core of Data (CCD), the Department of Education's primary database on public elementary and secondary education in the United States, 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 five surveys that state education departments complete annually 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 3, 28, 35, 40, 41, 42, and 44 use data from the CCD. Further information about the database is available at <http://nces.ed.gov/ccd/>.

EDUCATIONAL LONGITUDINAL STUDY OF 2002 (ELS:2002)

The Education Longitudinal Study of 2002 (ELS:2002) is the fourth major national longitudinal survey of high school students conducted by NCES. Three similar previous surveys were the National Longitudinal Study of the High School Class of 1972 (NLS:72), the High School and Beyond Longitudinal Study of 1980 (HS&B:80), and the National Education Longitudinal Study of 1988 (NELS:88). Like its predecessors, ELS:2002 is designed to provide information to researchers, policymakers, and the public about high school students' experiences and activities, and to track subsequent

Note 3: Other Surveys

Continued

changes in these young people's lives after they leave high school and enroll in college and subsequently enter the workforce or enter the workforce immediately after high school.

ELS:2002 sampled and collected data from 10th-graders in spring 2002 (the base year), along with data from their English and mathematics teachers, their school's librarian and principal, and one parent for each student. The base-year data include 10th-graders' scores on cognitive tests in reading and mathematics. About 750 schools were selected (in both the public and private sectors); about 15,000 students in these schools completed base-year surveys, along with about 13,000 of their parents, 7,000 of their teachers, 700 principals, and 700 librarians.

The first follow-up collected data from cohort members 2 years later when most of them were 12th-graders in the spring 2004. The sample of 12th-graders was also augmented with students who were not sophomores in 2002 (or not in the country) to provide a nationally representative sample of 12th-graders. Special questionnaires were administered to the sophomore cohort members who were no longer in school because they had dropped out or graduated early. A mathematics test was administered to the 12th-graders and their high school transcripts were collected from the schools.

ELS:2002 has collected information on students' experiences while in high school (including their coursetaking, achievement, extracurricular activities, social lives, employment, and risk-taking behaviors); students' aspirations, life goals, attitudes, and values; and the influence of family members, friends, teachers, and other people in their lives.

The second follow-up is being administered in the spring of 2006, when many of the 12th-graders are enrolled in college and others have entered the workforce. Data will be collected on the colleges that students applied to, the financial aid offers they received, the colleges they

attended, and the financial aid they received while in college.

A third follow-up is tentatively scheduled for the spring of 2010 when many of the sample members who attend college will have graduated.

Following the same cohort of students over time allows data users to monitor changes in students' lives, including their progress through high school, participation in postsecondary education (entry, persistence, achievement, and attainment), early experiences in the labor market, family formation, and civic participation. In addition, by combining data about students' school programs, coursetaking experiences, and cognitive outcomes with information from teachers and principals, the ELS:2002 data support investigation of numerous educational policy issues.

Indicators 23 and 27 use data from the ELS:2002. For further details on the survey, see <http://nces.ed.gov/surveys/els2002/overview.asp>.

INTEGRATED POSTSECONDARY EDUCATION DATA SYSTEM (IPEDS)

The Integrated Postsecondary Education Data System (IPEDS) is the core program that NCES uses for collecting data on postsecondary education. (Before IPEDS some of the same information was collected by the Higher Education General Information Survey [HEGIS].) *Indicators 9, 10, and 30* use data from HEGIS. 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 sex; (2) institutional revenue and expenditure

Note 3: Other Surveys

Continued

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 sex; (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.

Data are collected from approximately 9,900 postsecondary institutions including 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, and 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 9, 10, 30, and 45 use data from the IPEDS. The institutional categories used in the surveys are described in *supplemental note 9*. Further information about IPEDS is available at <http://nces.ed.gov/ipeds/>.

NATIONAL ASSESSMENT OF ADULT LITERACY (NAAL)

The National Assessment of Adult Literacy (NAAL), conducted by NCES in 2003, and its earlier sister survey, the 1992 National Adult Literacy Survey (NALS), assess the literacy of adults age 16 or older living in households or prisons. Respondents were asked to demonstrate that they understood the meaning of information found in texts they were asked to read.

The assessment defines literacy as “using printed and written information to function

in society, to achieve one’s goals, and to develop one’s knowledge and potential.” Results are reported on three literacy scales:

- Prose literacy: the knowledge and skills needed to perform document tasks (i.e., to search, comprehend, and use information from continuous texts).
- Document literacy: the knowledge and skills needed to perform document tasks (i.e., to search, comprehend, and use information from noncontinuous texts in various formats).
- Quantitative literacy: the knowledge and skills required to perform quantitative tasks (i.e., to identify and perform computations, either alone or sequentially, using numbers embedded in printed materials).

Within each of these three literacy scales, respondents were grouped based upon their achievement level. *Below basic* indicates no more than the most simple and concrete literacy skills; *basic* indicates skills necessary to perform simple and everyday literacy activities; *intermediate* indicates skills necessary to perform moderately challenging literacy activities; and *proficient* indicates skills necessary to perform more complex and challenging literacy activities.

To compare results between 1992 and 2003, the 1992 results were rescaled using the criteria and methods established for the 2003 assessment.

Indicator 19 uses information from NAAL and NALS, while *indicator 20* uses information from NAAL only. Further information about NAAL can be found at <http://nces.ed.gov/naal/>.

NATIONAL CRIME VICTIMIZATION SURVEY (NCVS)

The National Crime Victimization Survey (NCVS) is the nation’s primary source of information on criminal victimization. Initiated in 1972 and redesigned in 1992, the NCVS annually collects detailed information on the

Note 3: Other Surveys

Continued

frequency and nature of the crimes of rape, sexual assault, robbery, aggravated and simple assault, theft, household burglary, and motor vehicle theft experienced by Americans and their households each year. The survey measures crimes reported as well as those not reported to police. The NCVS sample consists of about 53,000 households. U.S. Census Bureau personnel interview all household members age 12 or older within each sampled household to determine whether they had been victimized by the measured crimes during the 6 months preceding the interview. About 75,235 persons age 12 or older are interviewed each 6 months. Households remain in the sample for 3 years and are interviewed seven times at 6-month intervals. The first of these seven household interviews is used only to bound future interviews by establishing a timeframe in order to avoid duplication of crimes reported in the six subsequent interviews. After their seventh interview, households are replaced by new sample households. Data are obtained on the frequency, characteristics, and consequences of criminal victimization in the United States. The survey enables the Bureau of Justice Statistics (BJS) to estimate the likelihood of victimization for the population as a whole as well as for segments of the population such as women, the elderly, members of various racial groups, city dwellers, or other groups. The NCVS provides the largest national forum for victims to describe the impact of crime and the characteristics of violent offenders.

Indicator 39 uses data from NCVS. Further information about the survey is available at <http://www.census.gov/rodet/www/ncvs.html>.

NATIONAL HOUSEHOLD EDUCATION SURVEYS PROGRAM (NHES)

The National Household Education Surveys Program (NHES), conducted in 1991, 1993, 1995, 1996, 1999, 2001, 2003, and 2005, collects data on educational issues that cannot be addressed by school-level data. Each survey

collects data from households on at least two topics, such as adult education, early childhood program participation, parental involvement in education, and before- and afterschool activities.

NHES surveys the civilian, noninstitutionalized U.S. population in the 50 states and the District of Columbia. Interviews are conducted using computer-assisted telephone interviewing. Data are collected from adults and occasionally from older children (grades 6–12). Whether older or younger children are sampled, data about them are collected from the parent or guardian who is most knowledgeable.

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. NHES only conducts interviews in English and Spanish, so if there is no respondent in the household who can speak either language, then the interview is not completed.

Indicators 2, 11, 33, 34, 36, and 38 use data from the NHES. Further information about the program is available at <http://nces.ed.gov/nhes/>.

NATIONAL POSTSECONDARY STUDENT AID STUDY (NPSAS)

The National Postsecondary Student Aid Study (NPSAS) is based on a nationally representative sample of all students in postsecondary education institutions, including undergraduate, graduate, and first-professional students. For NPSAS:04, information was obtained from approximately 80,000 undergraduates and 11,000 graduate or first-professional students from about 1,400 postsecondary institutions. These students represented nearly 19 million undergraduate students, 3 million graduate students, and 300,000 first-professional students who were enrolled at some time between July 1, 2003 and June 30, 2004.

Note 3: Other Surveys

Continued

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. 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 the Commonwealth of 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, conducted in 1986–87, sampled students enrolled in fall 1986. Since the 1989–90 NPSAS, students enrolled at any time during the year have been eligible for inclusion in the survey. This design change provides the opportunity to collect data necessary to estimate full-year financial aid awards.

Unless otherwise specified, all estimates in *The Condition of Education* using data from the NPSAS include students in the 50 states, the District of Columbia, and the Commonwealth of Puerto Rico.

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: *Student Financing of Undergraduate Education*, *Student Financing of Graduate and First-Professional Education*, and *Profile of Undergraduates in U.S. Postsecondary Education Institutions* (all forthcoming; see NCES 2006-184, 2006-185, 2006-186).

Indicators 49 and *50* use data from NPSAS. Further information about the survey is available at <http://nces.ed.gov/surveys/npsas/>.

NATIONAL STUDY OF POSTSECONDARY FACULTY (NSOPF)

Indicators 46 and *47* use data collected for the National Study of Postsecondary Faculty (NSOPF), which NCES sponsors. NSOPF:04, which collected data in 2003–04, is the fourth data collection of postsecondary faculty and instructional staff at degree-granting institutions, following administrations of NSOPF in 1987–88, 1992–93, and 1998–99. NSOPF:04 covers a wide range of topics pertaining to faculty and instructional staff. The questionnaire administered to faculty and instructional staff focused on the fall 2003 term and included items relating to the nature of employment, academic and professional background, instructional responsibilities and workload, scholarly activities, job satisfaction and opinions, compensation, and sociodemographic characteristics.

Indicator 46 uses data from NSOPF. Further information about NSOPF is available at <http://nces.ed.gov/surveys/nsopf/>.

Note 3: Other Surveys

Continued

PRIVATE SCHOOL UNIVERSE SURVEY (PSS)

The Private School Universe Survey (PSS) was established in 1988 to ensure that private school data dating back to 1890 would be collected on a more regular basis. With the help of the Census Bureau, the PSS is conducted biennially to provide the total number of private schools, students, and teachers, and to build a universe of private schools in the 50 states and the District of Columbia to serve as

a sampling frame of private schools for NCES sample surveys.

In the most recent PSS data collection, conducted in 2003–04, the survey was sent to 31,848 qualified private schools, and it had a response rate of 94.6 percent.

Indicator 4 uses data from the PSS. Further information on the surveys is available at <http://nces.ed.gov/surveys/pss/>.

Note 4: National Assessment of Educational Progress (NAEP)

The National Assessment of Educational Progress (NAEP), governed by the National Assessment Governing Board (NAGB), is administered regularly in a number of academic subjects. Since its creation in 1969, NAEP has had 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 two assessments are administered to separate samples of students at separate times, use separate instruments, and measure different educational content. Thus, results from the two assessments should not be compared.

MAIN NAEP

Indicators 6, 12, 13, 14, 15, 18, and 24 are based on the main NAEP. Begun in 1990, the main NAEP periodically assesses students' performance in several subjects in grades 4, 8, and 12, following the curriculum frameworks developed by the 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. Each round of the main NAEP includes a student assessment and background questionnaires (for the student, teacher, and school) to provide information on instructional experiences and the school environment at each grade.

Before 2002, the main NAEP national sample was an independently selected national sample. However, beginning in 2002, the NAEP national sample was obtained by aggregating the samples from each state. As a result, the size of the national sample increased in 2002, which means that smaller differences between estimates from different administrations and different types of students can now be found to be statistically significant than can be detected from assessment results prior to 2002.

The content and nature of the main NAEP evolve 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. However, recent main NAEP assessment instruments for mathematics, science, and reading have typically been kept stable for short periods, allowing for a comparison across time. For example, from 1990 to 2005, assessment instruments in the same subject areas were developed using the same framework, shared a common set of questions, and used comparable procedures to sample and address student populations. For some subjects that are not assessed frequently, such as civics and the arts, no trend data are available.

The main NAEP results are reported in *The Condition of Education* in terms of both average scale scores and achievement levels. 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 chal-

Note 4: National Assessment of Educational Progress (NAEP)

Continued

lenging subject matter, including subject-matter knowledge, application of such knowledge to real-world situations, and analytical skills appropriate to the subject matter.

- *Advanced*: This level signifies superior performance.

Unlike estimates from other sample surveys presented in this report, NAEP estimates that are unstable (large standard error compared with the estimate) are not flagged as potentially unreliable. This practice for NAEP estimates is consistent with the current output from the NAEP online data analysis tool. The reader should always consult the appropriate standard errors when interpreting these findings. For additional information on NAEP, including technical aspects of scoring and assessment validity and more specific information on achievement levels, see <http://nces.ed.gov/nationsreportcard/researchcenter/papers.asp>.

Student Accommodations

Until 1996, the main NAEP assessments excluded certain subgroups of students identified as “special needs students,” including students with disabilities and students with limited English proficiency. For the 1996 and 2000 mathematics assessments and the 1998 and 2000 reading assessments, the main NAEP included a separate assessment with provisions for accommodating these students (e.g., extended time,

small group testing, mathematics questions read aloud, and so on). Thus, for these years, there are results for both the unaccommodated assessment and the accommodated assessment. For the 2002, 2003, and 2005 reading and 2003 and 2005 mathematics assessments, the main NAEP did not include a separate unaccommodated assessment; only a single accommodated assessment was administered. The switch to a single accommodated assessment instrument was made after it was determined that accommodations in NAEP did not have any significant effect on student scores. *Indicators 12 and 13* present NAEP results with and without accommodations.

LONG-TERM TREND NAEP

Indicator 16 is based on the long-term trend NAEP and measures basic student performance in reading, mathematics, science, and writing. Since the mid-1980s, the long-term trend NAEP has used the same instruments to provide a means to compare performance over time, but they do not necessarily reflect current teaching standards or curricula. Results have been reported for students at ages 9, 13, and 17 in mathematics, reading, and science, and at grades 4, 8, and 11 in writing. Results from the long-term trend NAEP are presented as mean scale scores because, unlike the main NAEP, the long-term trend NAEP does not define achievement levels.

Note 5: International Assessments

PROGRAM FOR INTERNATIONAL STUDENT ASSESSMENT (PISA)

The *Special Analysis* and *indicator 17* are based on data collected as part of the Program for International Student Assessment (PISA). First conducted in 2000, PISA had its first follow-up in 2003 and has a second follow-up scheduled in 2006. The focus of each PISA is on the capabilities of 15-year-olds in reading literacy, mathematics literacy and problem solving, and science literacy. However, in each assessment year, PISA provides a detailed examination of a different one of the three subjects and basic examination of the other two subjects. The 2000 assessment focused on reading. The 2003 assessment focused on mathematics literacy and problem solving. The 2006 assessment focuses on science literacy. PISA is sponsored by the Organization for Economic Cooperation and Development (OECD), an intergovernmental organization of 30 industrialized countries that serves as a forum for member countries to cooperate in research and policy development on social and economic topics of common interest.

In 2003, 41 countries participated in PISA, including all 30 of the OECD countries and 11 non-OECD countries. To implement PISA, each participating country selected a nationally representative sample of 15-year-olds. A minimum of 4,500 students from a minimum of 150 schools was required. Each student completed a 2-hour paper-and-pencil assessment. The results of one OECD country, the United Kingdom, are not discussed due to low response rates. Because PISA is an OECD initiative, all international averages presented for PISA are the averages of the participating OECD countries' results.

PISA seeks to represent the overall yield of learning for 15-year-olds. PISA assumes that by the age of 15, young people have had a series of learning experiences, both in and out of school, that allow them to perform at

particular levels in reading, mathematics, and science literacy. Formal education will have played a major role in student performance, but other factors, such as learning opportunities at home, also play a role. PISA's results provide an indicator of the overall performance of a country's educational system, but they also provide information about other factors that influence performance (e.g., hours of instructional time). By assessing students near the end of compulsory schooling in key knowledge and skills, PISA provides information about how well prepared students will be for their future lives as they approach an important transition point for education and work. PISA thus aims to show how well equipped 15-year-olds are for their futures based on what they have learned up to that point.

Both the *Special Analysis* and *indicator 17* discuss student performance in mathematics literacy and problem solving. These concepts are defined by PISA as follows.

Mathematics literacy is defined as “an individual's capacity to identify and understand the role that mathematics plays in the world, to make well-founded judgments and to use and engage with mathematics in ways that meet the needs of that individual's life as a constructive, concerned, and reflective citizen.” Mathematics literacy can be broken down into four domains or subscales: (1) space and shape, which includes recognizing shapes and patterns; (2) change and relationships, which includes data analysis needed to specify relationships or translate between representations; (3) quantity, which focuses on quantitative reasoning and understanding of numerical patterns, counts, and measures; and (4) uncertainty, which includes statistics and probability.

Problem solving is defined as “an individual's capacity to use cognitive processes to confront and resolve real, cross-disciplinary situations where the solution is not immediately obvious, and where the literacy domains or curricular

Note 5: International Assessments

Continued

areas that might be applicable are not within a single domain of mathematics, science, or reading.” Students completed exercises that assessed the students’ capabilities in using reasoning processes not only to draw conclusions, but also to make decisions, to troubleshoot (i.e., to understand the reasons for malfunctioning of a system or device), and/or to analyze the procedures and structures of a complex system (such as a simple kind of programming language). Problem-solving items required students to apply various reasoning processes, such as inductive and deductive reasoning, reasoning about cause and effect, or combinatorial reasoning (i.e., systematically comparing all the possible variations that can occur in a well-described situation). Students were also assessed in their skills in working toward a solution and communicating the solution to others through appropriate representations.

A comparative analysis of the National Assessment of Educational Progress (NAEP), Trends in International Mathematics and Science Study (TIMSS), and PISA mathematics assessments sponsored by NCES found that PISA used far fewer multiple-choice items and had a much stronger content focus on the “data” area (often dealing with using charts and graphs), which fits with PISA’s emphasis on using materials with a real-world context. For more results from the study, see *Comparing Mathematics Content in the NAEP, TIMSS, and PISA 2003 Assessments* (NCES 2006-029).

PROGRESS IN INTERNATIONAL READING LITERACY STUDY (PIRLS)

The *Special Analysis* uses data collected as part of the Progress in International Reading Literacy Study (PIRLS) 2001. Designed to be the first in a planned 5-year cycle of international trend studies in reading literacy by the International Association for the Evaluation of Educational Achievement (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. The study, conducted by IEA, assessed the 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.

For further information on PIRLS, see <http://nces.ed.gov/surveys/pirls>.

TRENDS IN INTERNATIONAL MATHEMATICS AND SCIENCE STUDY (TIMSS)

The *Special Analysis* uses data collected as part of the Trends in International Mathematics and Science Study (TIMSS). Under the auspices of the IEA, TIMSS assessed the science and mathematics achievement of students in 41 countries in grades 3, 4, 7, 8, and the final year of secondary school in 1995. Information about how mathematics and science learning takes place in each country was also collected. TIMSS asked students, their teachers, and their school principals to complete questionnaires about the curriculum, schools, classrooms, and instruction. The TIMSS assessment was repeated in 1999 in 45 countries at grade 8, and again in 2003 in 25 countries at grade 4 and 45 countries at grade 8 so that changes in achievement over time could be tracked. Moreover, TIMSS is closely linked to the curricula of the participating countries, providing an indication of the degree to which students have learned the concepts in mathematics and science that they have encountered in school.

2003 TIMSS

For the 2003 assessment, the international desired population consisted of all students in the country who were enrolled in the upper of the two adjacent grades that contained the greatest proportion of 9- and 13-year-olds at the time of testing (Populations 1 and 2, respectively, except only the upper of the two

Note 5: International Assessments

Continued

adjacent grades). In the United States and most countries, this corresponded to grades 4 and 8. In all, 25 countries participated at grade 4, and 45 countries participated at grade 8. (A list of participating countries is available on the TIMSS website at <http://nces.ed.gov/timss>.)

Approximately one-third of the 1995 4th-grade assessment items and one-half of the 1999 8th-grade assessment items were used in the 2003 assessment. Development of the 2003 assessment began with an update of the assessment frameworks to reflect changes in the curriculum and instruction of participating countries. “Problem-solving and inquiry” tasks were added to the 2003 assessment to assess how well students could draw on and integrate information and processes in mathematics and science as part of an investigation or in order to solve problems.

For the 2003 assessment, countries were placed into one of four categories based upon their response rate, detailed in the table below. In

the *Special Analysis*, countries in category 1 appear in the tables and figures without annotation; countries in category 2 are annotated in the tables and figures as “met international guidelines for participation rates only after replacement schools were included”; countries in category 3 are annotated in the tables and figures as “country did not meet international sampling or other guidelines”; and countries in category 4 are not included in the indicators. In addition, annotations are included when the exclusion rate for a country exceeds 10 percent. Latvia is designated as “Latvia-LSS (Latvian-speaking schools)” in some analyses because data collection in 1995 and 1999 was limited to only those schools in which instruction was in Latvian. Finally, Belgium is annotated as Belgium-Flemish because only the Flemish education system in Belgium participated in TIMSS.

For further information on TIMSS, see <http://nces.ed.gov/timss>.

Response rates for the 2003 TIMSS assessment	
Category	Reason for inclusion in group
Category 1: met requirements	<ul style="list-style-type: none"> ■ An unweighted or weighted school response rate without replacement of at least 85 percent and an unweighted or weighted student response rate of at least 85 percent. ■ The product of the weighted school response rate without replacement and the weighted student response rate of at least 75 percent.
Category 2: met requirements after replacement	<ul style="list-style-type: none"> ■ If the requirements for category 1 are not met but the country had either an unweighted or weighted school response rate without replacement of at least 50 percent and had either: <ul style="list-style-type: none"> ■ An unweighted or weighted school response rate with replacement of at least 85 percent and a weighted student response rate of at least 85 percent; or ■ The product of the weighted school response rate with replacement and the weighted student response rate of at least 75 percent.
Category 3: close to meeting requirements after replacements	<ul style="list-style-type: none"> ■ If the requirements for category 1 or 2 are not met but the country had either an unweighted or weighted school response rate without replacement of at least 50 percent; and ■ The product of the weighted school response rate with replacement and the weighted student response rate near 75 percent.
Category 4: failed to meet requirements	<ul style="list-style-type: none"> ■ Unacceptable sampling response rate even when replacement schools are included.

Note 5: International Assessments

Continued

ADULT LITERACY AND LIFESKILLS SURVEY (ALL)

The *Special Analysis* also uses data collected as part of the Adult Literacy and Lifeskills Survey (ALL). ALL is a large-scale, international comparative assessment designed to identify and measure a range of skills linked to the social and economic characteristics of individuals across (or within) nations. As our societies become more and more information oriented, it is clear that adults will need a broad set of skills in order to participate effectively in the labor market, in political processes, and in their communities. They will need to be literate and numerate; they will need to be capable problem solvers; and, increasingly, they will need to be familiar with information and communications technologies.

ALL is a household survey. Participants completed approximately 45 minutes of background questions and 60 minutes of assessment items in their homes. In the United States, a nationally representative sample of approximately 4,000 adults ages 16–65 was selected. Each participating country provided a sample that is representative of their adult population as a whole. Data collection for the main study took place between January and June 2003 in the United States.

ALL provides information on the skills and attitudes of adults ages 16–65 in a number of different areas, including the following:

- *Prose and Document Literacy*: the knowledge and skills to understand and use information from texts such as editorials, news stories, poems, and fiction; and the knowledge and skills required to locate and use information contained in various formats such as tables, forms, graphs, and diagrams
- *Numeracy*: the ability to interpret, apply, and communicate mathematical information
- *Analytical Reasoning/Problem Solving*: the ability to solve problems by clarifying the nature of the problem and developing and applying appropriate solution strategies

ALL consists of two components: a background questionnaire designed to collect general participant information; and an assessment of the skills of participants in Prose and Document Literacy, Numeracy, and Analytical Reasoning/Problem Solving. (The United States did not participate in Analytical Reasoning/Problem Solving.)

For further information on ALL, see <http://nces.ed.gov/Surveys/ALL/index.asp>.

Note 6: International Standard Classification of Education

LEVELS OF EDUCATION

Indicators 17 and 43 use the International Standard Classification of Education (ISCED) (OECD 1999) to compare educational systems in different countries. The ISCED is the standard used by many countries to report education statistics to UNESCO and the Organization for Economic Cooperation and Development (OECD). The ISCED divides educational systems into the following seven categories, based on six levels of education.

Education preceding the first level (early childhood education) usually begins at age 3, 4, or 5 (sometimes earlier) and lasts from 1 to 3 years when it is provided. 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 second level (lower secondary education) typically 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 using more specialized teachers who conduct classes in their field of specialization. The main criterion for distinguishing lower secondary education from primary education is whether programs begin to be organized in a more subject-oriented pattern, using more specialized teachers who conduct classes in their field of specialization. If there is no clear breakpoint for this organizational change, the lower secondary education is considered to begin 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. In 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. *Indicator 17* reports international comparisons of mathematics literacy among 15-year-old students.

Education at the fourth level (postsecondary nontertiary education) straddles the boundary between secondary and postsecondary education. This program of study, which is primarily vocational in nature, is generally taken after the completion of secondary school, typically lasts from 6 months to 2 years, and may be considered as an upper secondary or postsecondary program in a national context. Although the content of these programs may not be significantly more advanced than upper secondary programs, these programs serve to broaden the knowledge of participants who have already gained an upper secondary qualification. This level of education is included for select countries in *indicator 43*.

Note 6: International Standard Classification of Education

Continued

Education at the fifth level (first stage of tertiary education) includes programs with more advanced content than those offered at the two previous levels. Entry into programs at the fifth level normally requires successful completion of either of the two previous levels.

Tertiary-type A programs provide an education that 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 these programs normally requires the successful completion of an upper secondary education; admission is competitive in most cases. The minimum cumulative theoretical duration at this level is 3 years of full-time enrollment. In the United States, tertiary-type A programs include first university programs that last 4 years and lead to the award of a bachelor's degree and second university programs that lead to a master's degree.

Tertiary-type B programs are typically shorter than tertiary-type A programs and focus on

practical, technical, or occupational skills for direct entry into the labor market, although they may cover some theoretical foundations in the respective programs. They have a minimum duration of 2 years of full-time enrollment at the tertiary level. In the United States, such programs are often provided at community colleges and lead to an associate's degree.

Education at the sixth level (advanced research qualification) is provided in graduate and professional schools that generally require a university degree or diploma as a minimum condition for admission. Programs at this level lead to the award of an advanced, postgraduate degree, 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 five and six), although the length of actual enrollment is often longer. Programs at this level are devoted to advanced study and original research.

For *indicator 43*, postsecondary education includes the fifth and sixth levels, except as noted.

Note 7: Race/Ethnicity and Socioeconomic Status Measures for High School Seniors

Indicator 23 examines the expectations of 1981–82, 1991–92, and 2003–04 12th-graders by several characteristics. The three surveys used for this indicator differed slightly in how they constructed variables for race/ethnicity and socioeconomic status (SES) and in whether they imputed missing data. This supplemental note describes these survey differences to provide contextual information for the comparisons made between years in *indicator 23*. The surveys are the following:

- High School and Beyond Longitudinal Study of 1980 Sophomores (HS&B-So: 80/82);
- National Education Longitudinal Study of 1988 (NELS:88/92), “Second Follow-up, Student Survey, 1992”; and
- Education Longitudinal Study of 2002 (ELS:02/04), “First Follow-up, Student Survey, 2004.”

EDUCATIONAL EXPECTATIONS

Each of the three surveys asked students: “As things stand now, how far in school do you think you will get?” and gave them a choice of responses. Although the wording of the possible responses was not identical in all three surveys, the responses were collapsed into four broader categories with equivalent meaning: High school diploma or equivalent or less (no postsecondary experience); some college, including vocational/technical (including postsecondary credits but no credentials, certificates, and associate’s degrees—i.e., any postsecondary experience less than a bachelor’s degree); bachelor’s degree; and graduate or first-professional degree.

RACE/ETHNICITY

The HS&B and the NELS surveys had five categories for race/ethnicity: Hispanic or Latino (of any race) plus four categories among non-Hispanic respondents (White, Black or African

American, Asian/Pacific Islander, and American Indian/Alaska Native). The ELS questionnaire also included a sixth category: “more than one race, non-Hispanic.” Respondents in the two earlier surveys who would have identified themselves as multiracial presumably chose one of the available categories or did not respond to the question about their race. Therefore, comparing responses of any of the race categories over time may be misleading because of this inconsistency. (The categories “more than one race” and American Indian/Alaska Native categories are not shown separately due to the small number of cases.) The effects of this change in definitions are unknown, but they are likely to be minor: only 4 percent of the weighted ELS:2002 sample were in the “more than one race” category.

SOCIOECONOMIC STATUS

The SES variable was constructed similarly for each of the three surveys, but some differences exist. First, in NELS and ELS, five items were equally weighted to create the composite variable: father’s educational attainment, mother’s educational attainment, father’s occupation, mother’s occupation, and family income. However, the HS&B data omitted mother’s occupation and used only the other four items to create the SES variable. Second, HS&B relied on student reports for the variables used to create the SES variable, while NELS and ELS used parent reports and substituted student reports when parents’ data were unavailable; ELS imputed data that were still missing. Finally, HS&B estimated family income by incorporating both reported income and household belongings, while NELS used data on family income where available and turned to household belongings only if income was not reported. For more information on other differences among the SES-related variables used in the three datasets, see Appendix H of the ELS:02/04 data file documentation, available at <http://nces.ed.gov/pubsearch/pubsinfo.asp?pubid=2006344>.

Note 7: Race/Ethnicity and Socioeconomic Status Measures for High School Seniors

Continued

IMPUTATION

In addition to the differences in variable definitions, the ELS data used for *indicator 23* include imputed responses, while data from the NELS and HS&B surveys do not include imputed responses. Imputations are estimates of likely responses for cases where actual responses are missing. Imputations are extrapolated logically from respondents' answers to other items, to the extent possible.

When logical inference is not possible, widely accepted statistical methods are used to assign likely responses based on characteristics of the case being imputed and responses from people with similar characteristics. For information on the possible effects of imputation in ELS (including of the SES composite), see appendix C of the ELS:02/04 data file documentation, available at <http://nces.ed.gov/pubsearch/pubsinfo.asp?pubid=2006344>.

Note 8: Student Disabilities

Indicator 8 uses data from the U.S. Department of Education’s Office of Special Education Programs (OSEP), which collects information on students with disabilities as part of the implementation of the Individuals with Disabilities Education Act (IDEA). OSEP classifies disabilities according to 13 categories. (For more detailed definitions, see <http://www.ideadata.org>.)

DISABILITY CATEGORIES

Autism

A developmental disability significantly affecting verbal and nonverbal communication and social interaction, generally evident before age 3, that adversely affects a child’s educational performance. Other characteristics often associated with autism are engagement in repetitive activities and stereotyped movements, resistance to environmental change or change in daily routines, and unusual responses to sensory experiences.

Deaf-blindness

Concomitant hearing and visual impairments, the combination of which causes such severe communication and other developmental and educational problems that the student cannot be accommodated in special education programs solely for children with deafness or children with blindness.

Developmental Delay

This term may apply to children between the ages 3–9 who experience developmental delays in one or more of the following areas: physical development, communication development, social or emotional development, or adaptive development, and who therefore need special education and related services. It is optional for states and local education agencies (LEAs) to adopt and use this term to describe any child within its jurisdiction.

Emotional Disturbance

A condition exhibiting one or more of the following characteristics over a long period of time and to a marked degree that adversely affects a child’s educational performance:

1. An inability to learn that cannot be explained by intellectual, sensory, or health factors.
2. An inability to build or maintain satisfactory interpersonal relationships with peers and teachers.
3. Inappropriate types of behavior or feelings under normal circumstances.
4. A general pervasive mood of unhappiness or depression.
5. A tendency to develop physical symptoms or fears associated with personal or school problems.

The term includes schizophrenia. The term does not apply to children who are socially maladjusted, unless it is determined that they have an emotional disturbance.

Hearing Impairments

An impairment in hearing, whether permanent or fluctuating, that adversely affects a child’s educational performance, but that is not included under the definition of deafness in this section.

Although children and youth with deafness are not included in the definition of hearing impairment, they are counted in the hearing impairment category.

Mental Retardation

Significantly subaverage general intellectual functioning, existing concurrently with deficits in adaptive behavior and manifested during the developmental period, that adversely affects a child’s educational performance.

Note 8: Student Disabilities

Continued

Multiple Disabilities

Concomitant impairments (such as mental retardation-blindness, mental retardation-orthopedic impairment, etc.), the combination of which causes such severe educational needs that they cannot be accommodated in special education programs solely for one of the impairments. The term does not include deaf-blindness.

Orthopedic Impairments

A severe orthopedic impairment that adversely affects a child's educational performance. The term includes impairments caused by congenital anomaly (e.g., clubfoot, absence of some member, etc.), impairments caused by disease (e.g., poliomyelitis, bone tuberculosis, etc.), and impairments from other causes (e.g., cerebral palsy, amputations, and fractures, or burns that cause contractures).

Other Health Impairments

Having limited strength, vitality, or alertness, including a heightened alertness to environmental stimuli, that results in limited alertness with respect to the educational environment, that

- is due to chronic or acute health problems such as asthma, attention deficit disorder or attention deficit hyperactivity disorder, diabetes, epilepsy, a heart condition, hemophilia, lead poisoning, leukemia, nephritis, rheumatic fever, and sickle cell anemia; and
- adversely affects a child's educational performance.

Specific Learning Disabilities

A disorder in one or more of the basic psychological processes involved in understanding

or in using language, spoken or written, that may manifest itself in an imperfect ability to listen, think, speak, read, write, spell, or to do mathematical calculations, including conditions such as perceptual disabilities, brain injury, minimal brain dysfunction, dyslexia, and developmental aphasia. The term does not include learning problems that are primarily the result of visual, hearing, or motor disabilities, of mental retardation, of emotional disturbance, or of environmental, cultural, or economic disadvantage.

Speech or Language Impairments

A communication disorder, such as stuttering, impaired articulation, a language impairment, or a voice impairment, that adversely affects a child's educational performance.

Traumatic Brain Injury

An acquired injury to the brain caused by an external physical force, resulting in total or partial functional disability or psychosocial impairment, or both, that adversely affects a child's educational performance. The term applies to open or closed head injuries resulting in impairments in one or more areas, such as cognition; language; memory; attention; reasoning; abstract thinking; judgment; problem solving; sensory, perceptual, and motor abilities; psychosocial behavior; physical functions; information processing; and speech. The term does not apply to brain injuries that are congenital or degenerative, or to brain injuries induced by birth trauma.

Visual Impairments

An impairment in vision that, even with correction, adversely affects a child's educational performance. The term includes both partial sight and blindness.

Note 9: 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 9, 10, 30, 45, 46, 47, and 48*.

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 a 4-year degree or higher in one or more programs, or a post-baccalaureate, 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 non-degree-granting; type of financial control; and Title IV-participating versus not Title IV-participating.

Degree-granting institutions offer associate’s, bachelor’s, master’s, doctoral, and/or first-professional degrees that a state agency recognizes or authorizes. *Non-degree-granting* institutions offer other kinds of credentials and exist at all three levels. The number of 4-year non-degree-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, private for-profit 4-year institutions), the number of institutions is small relative to other sectors. Institutions in any of these nine sectors can be degree- or non-degree-granting.

Institutions in any of these nine sectors can also be Title IV-participating or not. For an institution to participate in federal Title IV Higher Education Act, 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. All indicators in this volume using IPEDS data are restricted to Title IV-participating institutions.

In some indicators based on IPEDS data, 4-year degree-granting institutions are further classified according to the highest degree awarded. *Doctoral* institutions award at least 20 doctoral degrees per year. *Master’s* institutions award 20 or more master’s degrees per year. The remaining institutions are considered to be *Other 4-year* institutions. The number of degrees awarded by an institution in a given year is obtained for each institution from data published in the IPEDS “Completions Survey” (IPEDS-C).

Note 9: Classification of Postsecondary Education Institutions

Continued

Indicator 9 includes 2-year (short for 2-year but less-than-4-year) and 4-year degree-granting institutions in its analysis.

Indicator 30 includes 4-year-and-above degree-granting institutions.

Indicator 45 includes 2-year (short for 2-year but less-than-4-year) and 4-year degree-granting institutions in its analysis.

CARNEGIE CLASSIFICATIONS

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. Since it was created, the Carnegie Classification system has been revised four times—in 1976, 1987, 1994, and 2000. The 2000 classification, used in this volume, divides postsecondary institutions into 9 categories, with the 9th category—Specialized Institutions—subdivided into 10 subcategories (see table of definitions on the next page).

The information used to classify institutions into the Carnegie categories comes from survey data. The 2000 version of Carnegie Classifications relied on data from the 1995–96 through 1997–98 “Completions” surveys. These surveys were conducted by the National Center for

Education Statistics (NCES) and are included in IPEDS.

The following key provides a guide to the category labels that appear in *indicators 46* and *47*, which use abbreviated versions of the Carnegie Classification labels.

Indicator 46

- Doctoral: includes Doctoral/Research Universities—Extensive and Doctoral/Research Universities—Intensive.
- Master’s: includes Master’s Colleges and Universities I and II.
- Bachelor’s: includes Baccalaureate Colleges—Liberal Arts, Baccalaureate Colleges—General, and Baccalaureate/Associate’s Colleges.

Indicator 47

- Doctoral: includes Doctoral/Research Universities—Extensive and Doctoral/Research Universities—Intensive.
- Master’s: includes Master’s Colleges and Universities I and II.
- Bachelor’s: includes Baccalaureate Colleges—Liberal Arts, Baccalaureate Colleges—General, and Baccalaureate/Associate’s Colleges.
- Associate’s: includes Associate’s Colleges.

Note 9: Classification of Postsecondary Education Institutions

Continued

Carnegie Classification Categories (2000 Definitions¹)

Doctoral/Research Universities—Extensive

"These institutions typically offer a wide range of baccalaureate programs, and they are committed to graduate education through the doctorate. During the period studied, they awarded 50 or more doctoral degrees per year across at least 15 disciplines."²

Doctoral/Research Universities—Intensive

"These institutions typically offer a wide range of baccalaureate programs, and they are committed to graduate education through the doctorate. During the period studied, they awarded at least 10 doctoral degrees per year across three or more disciplines, or at least 20 doctoral degrees per year overall."²

Master's Colleges and Universities I

"These institutions typically offer a wide range of baccalaureate programs, and they are committed to graduate education through the master's degree. During the period studied, they awarded 40 or more master's degrees per year across three or more disciplines."

Master's Colleges and Universities II

"These institutions typically offer a wide range of baccalaureate programs, and they are committed to graduate education through the master's degree. During the period studied, they awarded 20 or more master's degrees per year."

Baccalaureate Colleges—Liberal Arts

"These institutions are primarily undergraduate colleges with major emphasis on baccalaureate programs. During the period studied, they awarded at least half of their baccalaureate degrees in liberal arts fields."

Baccalaureate Colleges—General

"These institutions are primarily undergraduate colleges with major emphasis on baccalaureate programs. During the period studied, they awarded less than half of their baccalaureate degrees in liberal arts fields."

Baccalaureate/Associate's Colleges

"These institutions are undergraduate colleges where the majority of conferrals are below the baccalaureate level (associate's degrees and certificates). During the period studied, bachelor's degrees accounted for at least 10 percent of undergraduate awards."

Associate's Colleges

"These institutions offer associate's degree and certificate programs but, with few exceptions, award no baccalaureate degrees.³ This group includes institutions where, during the period studied, bachelor's degrees represented less than 10 percent of all undergraduate awards."

Specialized Institutions

"These institutions offer degrees ranging from the bachelor's to the doctorate, and typically award a majority of degrees in a single field. The list includes only institutions that are listed as separate campuses in the *2000 Higher Education Directory*." They are divided into the following subcategories:

- Theological seminaries and other specialized faith-related institutions;
- Medical schools and medical centers;
- Other separate health profession schools;
- Schools of engineering and technology;
- Schools of business and management;
- Schools of art, music, and design;
- Schools of law;
- Teachers' colleges;
- Other specialized institutions; and
- Tribal colleges.

¹ Carnegie Foundation of Institutions of Higher Education, 2000 Edition (<http://www.carnegiefoundation.org/Classification/index.htm>).

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

³ This group includes community, junior, and technical colleges.

Note 10: Fields of Study for Postsecondary Degrees

The general categories for fields of study used in *indicators 30* and *45* were derived from the 2000 edition of the Classification of Instructional Program (CIP-2000). To facilitate trend comparisons, in some instances further aggregations have been made of some of the CIP-2000 degree fields. These further aggregations are as follows:

Agriculture and natural resources: agriculture, agriculture operations and related sciences; and natural resources and conservation.

Business: business, management, marketing, and related support services; and personal and culinary services.

Communication, journalism, and related programs: communications, journalism, and related programs; and communications technologies/technicians and support services.

Engineering: engineering; engineering technologies/technicians; construction trades; and mechanic and repair technologies/technicians.

Data may differ from previously published figures as data from earlier years have been reclassified when necessary to make them conform to the new taxonomy. Further information about the CIP-2000 is available at <http://nces.ed.gov/pubs2002/cip2000/>.

Note 11: 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 households. Indexes vary for specific areas or regions, periods of time, major groups of consumer expenditures, and population groups. *Indicators 22, 40, 41, 42, 44, 48, 49, and 50 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 website (see below). Also, figures for both the calendar year CPI and the school year CPI can be obtained from the *Digest of Education Statistics, 2004* (NCES 2006-005), 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, etc.) 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's salary in 2002. In order to make such a comparison, the 1998 salary must be converted into 2002 constant dollars by multiplying the 1998 salary by a ratio of the 2002 CPI over the 1998 CPI. As a formula, this is expressed as

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

The reader should be aware that there are alternative price indexes to the CPI that could be used to make these adjustments. These alternative adjustments might produce findings that differ from the ones presented here. For more detailed information on how the CPI is calculated or the other types of CPI indexes, go to the Bureau of Labor Statistics website (<http://www.bls.gov/cpi/>).

CLASSIFICATIONS OF EXPENDITURES FOR ELEMENTARY AND SECONDARY EDUCATION

Indicators 40, 41, and 42 examine expenditures for public elementary and secondary education. *Indicator 41* uses two categories of expenditures in its analysis: total expenditures and current expenditures. *Indicator 42* uses six categories of expenditures: total expenditures, instructional expenditures, administration expenditures, operation and maintenance expenditures, capital expenditures, and other expenditures.

Total expenditures for elementary and secondary education include all expenditures allocable to per student costs: these are all current expenditures for regular school programs, interest on school debt, and capital outlay. Expenditures on education by other agencies or equivalent institutions (e.g., the Department of Health and Human Services and the Department of Agriculture) are included.

Current expenditures include expenditures for instruction, administration, operation and maintenance, and other expenditures with the exception of capital expenditures (capital outlays and interest on debt) and current expenditures for nonelementary and nonsecondary programs (see Total expenditures, above). Thus, current expenditures include such items as salaries for school personnel, fixed charges, student transportation, school books and materials, and energy costs.

Note 11: Finance

Continued

Instructional expenditures include salaries and benefits for teachers and instructional aides, supplies, and purchased services such as instruction via television. Also included are tuition expenditures to other local education agencies.

Administration expenditures include expenditures for general administration (salary, benefits, supplies, and contractual fees for boards of education staff and executive administration) and school administration (salary, benefits, supplies, and contractual fees for the office of the principal, full-time department chairpersons, and graduation expenses).

Operation and maintenance expenditures include salary, benefits, supplies, and contractual fees for supervision of operations and maintenance; operating buildings (heating, lighting, ventilating, repair, and replacement); care and upkeep of grounds and equipment; vehicle operations and maintenance (other than student transportation); security; and other operations and maintenance services.

Capital expenditures include interest on school debt and capital outlays. Capital expenditures represent the value of educational capital acquired or created during the year in question—that is, the amount of capital formation regardless of whether the capital outlay was financed from current revenue or by borrowing. Capital expenditures include outlays on construction, land and existing structures, instructional equipment, and all other equipment.

Other expenditures include funds for student support (health, attendance, and speech pathology services); instructional staff (curriculum development, staff training, libraries, and media and computer centers); student transportation; other support services, including business support services and central support services; food services; enterprise operations (operations funded by sales of products or services together with amounts for direct program support made by state education agencies for local school dis-

tricts); and other current expenditures (adult education, community colleges, private school programs funded by local and state education agencies, and community services).

CLASSIFICATIONS OF REVENUE

In *indicator 44*, revenue is classified by source (federal, state, or local). Revenue from federal sources includes direct grants-in-aid to schools or agencies, funds distributed through a state or intermediate agency, and revenue in lieu of taxes to compensate a school district for non-taxable federal institutions within a district's boundary. Revenue from state sources includes both direct funds from state governments and revenue in lieu of taxation. Revenue from local sources includes revenue from such sources as local property and nonproperty taxes; investments; and revenue from student activities, textbook sales, transportation and tuition fees, and food services. Intermediate revenue comes from sources that are not local or state education agencies, but operate at an intermediate level between local and state education agencies and possess independent fundraising capability—for example, county or municipal agencies. Intermediate revenue is included in local revenue totals. In *indicator 44*, local revenue is classified as either local property tax revenue or other local revenue.

In *indicator 44*, alternative local government revenue numbers for Texas were used in the calculation of the percentage distribution for the South in 1992–93 because, for that state, much of the revenue that was classified as local government property taxes was classified as revenue from intermediate sources. The alternative Texas local government property tax revenue for 1992–93 was calculated by applying the average of the proportions of the 1991–92 and 1993–94 local government property tax revenue to all local government revenue to the 1992–93 total for all local government revenue. Other local government revenue was calculated in a similar fashion.

Note 11: Finance

Continued

THE VARIATION IN EXPENDITURES PER STUDENT AND THE THEIL COEFFICIENT

Indicator 40 uses the Theil coefficient to measure the variation in expenditures per pupil in the regular public school elementary and secondary schools in the United States.

The Theil coefficient was developed by Henri Theil to measure the amount of information conveyed by a single message that an event has occurred. It was derived from the study of what Theil called the “information concept.” If we know an event is likely (i.e., the probability of the event is close to 1.0), then the amount of information conveyed is low (i.e., it is no surprise that the event occurred). But if the probability is low (i.e., near zero), a message saying it occurred provides a significant amount of information. Intuitively, and later rigorously proven by Theil and others, the function of the amount of information conveyed is logarithmic (i.e., $h(z) = \ln(1/z)$, where h = information function and z = probability of event).

Having developed the information function as a measure of the amount of information conveyed, Theil then suggested that this information function could also be used as a measure of dispersion. For example, if instructional expenditures per pupil in the nation are relatively close together (i.e., low disparity), then relatively little information would be provided by random draws of the districts (i.e., the $1/z$, the probabilities, are high, but the value of the information function, the sum of the logarithms, is low). In contrast, if instructional expenditures per pupil are very dissimilar, then probabilities for drawing a given level of expenditures are lower, and the information gained from a random draw will be high. Thus, the information function can be a measure of dispersion, and a comparison of the values of Theil coefficients for groups within a set (i.e., districts within the nation) will indicate relative dispersion and any variations that may exist among them. The Theil coefficient was subse-

quently used to measure the trends in variation of a number of items, including expenditures per student (see NCES 2000-020 and Murray, Evans, and Schwab 1998).

The Theil coefficient has a convenient property when the individual units of observation (e.g., school districts) can be aggregated into subgroups (e.g., states): the Theil coefficient for the aggregation of all the individual units of observation can be decomposed into a measure of the variation within the subgroups and a measure of the variation between the subgroups. Hence, in the examination of the variation in instructional expenditures in the United States, the national variation can be decomposed into measures of between-state and within-state variation.

The between-state Theil coefficient, T_B , equals:

$$T_B = \sum_{k=1}^K (P_k \bar{X}_k / \bar{X}) \ln(\bar{X}_k / \bar{X})$$

where P_k is the enrollment in state k , $X\{\bar{\}}_k$ is the student-weighted mean expenditure per student in state k , and $X\{\bar{\}}$ is the student-weighted mean expenditure per student for the country.

The within-state Theil coefficient, T_W , equals:

$$T_W = \sum_{k=1}^K (P_k \bar{X}_k / \bar{X}) T_k$$

where T_k is the Theil coefficient for state k .

T_k equals:

$$T_k = \frac{\sum_{j=1}^{J_k} P_{jk} X_{jk} \ln(X_{jk} / \bar{X}_k)}{\sum_{j=1}^{J_k} P_{jk} X_{jk}}$$

where P_{jk} is the enrollment of district j in state k and X_{jk} is the mean expenditure per student of district j in state k .

The national Theil coefficient, T , is

$$T = T_W + T_B$$

Note 11: Finance

Continued

CLASSIFICATIONS OF EXPENDITURES FOR INTERNATIONAL COMPARISONS

Indicator 43 presents international data on public and private expenditures for instructional and noninstructional educational institutions. Instructional educational institutions are educational institutions that directly provide instructional programs (i.e., teaching) to individuals in an organized group setting or through distance education. Business enterprises or other institutions providing short-term courses of training or instruction to individuals on a “one-to-one” basis are not included. Noninstructional educational institutions are educational institutions that provide administrative, advisory, or professional services to other educational institutions, although they do not enroll students themselves. Examples include national, state, and provincial bodies in the private sector; organizations that provide education-related services such as vocational and psychological counseling; and educational research.

Public expenditures refer to the spending of public authorities at all levels. *Total public expenditures* used for the calculation in *indicator 43* correspond to the nonrepayable current and capital expenditures of all levels of the government directly related to education. Expenditures that are not directly related to education (e.g., culture, sports, youth activities, etc.) are, in principle, not included. Expenditures on education by other ministries or equivalent

institutions, (e.g., Health and Agriculture) are included. Public subsidies for students’ living expenses are excluded to ensure international comparability of the data.

Private expenditures refer to expenditures funded by private sources (i.e., households and other private entities). “Households” mean students and their families. “Other private entities” include private business firms and nonprofit organizations, including religious organizations, charitable organizations, and business and labor associations. Private expenditures comprise school fees; the cost of materials such as textbooks and teaching equipment; transportation costs (if organized by the school); the cost of meals (if provided by the school); boarding fees; and expenditures by employers on initial vocational training. Private educational institutions are considered to be service providers and do not include sources of private funding.

Current expenditures include final consumption expenditures (e.g., compensation of employees, consumption of intermediate goods and services, consumption of fixed capital, and military expenditures), property income paid, subsidies, and other current transfers paid. Capital expenditures include spending to acquire and improve fixed capital assets, land, intangible assets, government stocks, and nonmilitary, nonfinancial assets, as well as spending to finance net capital transfers.

Note 12: Measures of Student Persistence and Progress

Various measures have been developed to provide information about student persistence and progress through elementary and secondary education. Four measures are presented in this report: status dropout rate (*indicator 26*), percentage of sophomores who left without graduating within 2 years (*indicator 27*), the public school averaged freshman graduation rate (*indicator 28*), and the educational attainment of 25- to 29-year-olds (*indicator 31*). The four indicators in this volume that present these measures each employ a different analytic method and dataset to document a different aspect of the complex high school graduation-dropout process. No one data source provides comprehensive information on the graduation and dropout process on an annual basis, but the four indicators presented here complement one another and draw upon the particular strength of their respective data. Each indicator is not without its limitations, however, which makes it critical to have multiple indicators when addressing the question of student persistence. A brief description of the relevant methodology and data used by each indicator follows.

STATUS DROPOUT RATE

Indicator 26 reports status dropout rates by race/ethnicity. Status dropout rates measure the extent of the dropout problem for a population and as such can be used to estimate the need for further education and training in that population. This indicator uses Current Population Survey (CPS) data to estimate the percentage of the civilian, noninstitutionalized population ages 16 through 24 who are not in high school and who have not earned a high school credential (either a diploma or equivalency credential such as a General Educational Development [GED] certificate), irrespective of when they dropped out. An advantage of using CPS data to compute this status dropout rate is that it can be computed on an annual basis for various demographic subgroups of adults and can report out a na-

tional rate that includes dropouts of public and private schools. The disadvantages of using CPS data to compute status dropout rates is that they (1) exclude all military personnel and incarcerated or institutionalized persons and (2) include as dropouts individuals who never attended U.S. schools, including immigrants who did not complete the equivalent of a high school education in their home country.

SOPHOMORES WHO LEFT WITHOUT GRADUATING WITHIN 2 YEARS

Indicator 27 examines data on public and private high school students who participated in the Education Longitudinal Study (ELS) of 2002. The sophomore class of 2002 was interviewed 2 years later in 2004 and asked about their high school enrollment and graduation status. This indicator shows the percentage of the sophomore class of 2002 who were not in school and had not graduated with a regular diploma or certificate of attendance by spring 2004. The time period of the sophomore base survey was typically between February and June; thus, students who dropped out before that time period would not have been included in the survey. The 1 percent of sophomores who left school and earned a GED certificate or other form of equivalency certificate as of the spring 2 years later were not counted as regular high school graduates in this analysis. An advantage of using ELS data to measure educational persistence is that, compared with other information sources, they provide much more detailed information about the background of the students, as well as their schools and parents. The disadvantages of using ELS data to measure educational persistence is that the survey (1) is conducted only about once per decade, (2) represents only those persons who are still on track for high school completion, and (3) represents the experience of one sophomore cohort (2002), which may or may not be a typical cohort.

Note 12: Measures of Student Persistence and Progress

Continued

AVERAGED PUBLIC SCHOOL FRESHMAN GRADUATION RATE

Indicator 28 examines the percentage of public high school students who graduate by using the averaged freshman graduation rate (AFGR). The AFGR is a measure of the percentage of the incoming freshman class that graduates 4 years later. The AFGR is the number of graduates divided by the estimated count of freshmen 4 years earlier as reported through the NCES Common Core of Data (CCD), the survey system based on state education departments' annual administrative records. The estimated count of freshmen is calculated by summing 10th-grade enrollment 2 years before the graduation year, 9th-grade enrollment 3 years before the graduation year, and 8th-grade enrollment 4 years before the graduation year and dividing this amount by 3. The intent of this averaging is to account for the high rate of grade retention in the freshman year, which adds 9th-grade repeaters from the previous year to the number of students in the incoming freshman class each year. Enrollment counts include a proportional distribution of students not enrolled in a specific grade. An advantage of using CCD data to calculate the AFGR is that they are available on an annual basis by state; however, the demographic details are limited. Also, the data neither include students attending private schools nor account for students transferring to and from private schools.

EDUCATIONAL ATTAINMENT OF 25- TO 29-YEAR-OLDS

Indicator 31 examines the percentage of adults just past the age when most would traditionally be expected to complete their postsecondary education. The rate can be reported by race/ethnicity and other demographic variables, and CPS data are used to estimate the percentage of civilian, noninstitutionalized people ages 25 through 29 who are out of high school and who have earned a high school credential (either a diploma or equivalency credential such as a

GED). The rate does not differentiate between those who graduated from public schools, graduated from private schools, or who earned a GED. The rate also includes individuals who never attended high school in the United States. An advantage of using CPS data to compute the educational attainment rate is that it can be computed on an annual basis for various demographic subgroups of adults and can report out a national rate that includes public and private schools. A disadvantage of using CPS data to compute the educational attainment rate is that these data exclude all military personnel and incarcerated or institutionalized persons.

Even though these four indicators document different aspects of student persistence, a number of important differences between these indicators should be noted and recognized as likely factors responsible for the divergence between their respective estimates. General differences can be found in the population of interest, definition of outcomes, information source, and data collection timeframe. For example, the four indicators focus on different populations: 16- through 24-year-olds between 1972 and 2004 (*indicator 26*), the sophomore class of 2002 in 2004 (*indicator 27*), the number of graduates in 2002–03 based on the 1999–2000 freshman class (*indicator 28*), and 25- through 29-year-olds between 1971 and 2005 (*indicator 31*). The indicators vary in the outcome measured. For example, *indicator 26* includes both students who earned a regular diploma or a GED certificate, while *indicator 27* does not include GED recipients with high school graduates. The source of information used to construct the indicators also varies. *Indicator 27* is based on student self-reports, while *indicator 28* is produced from the CCD, a survey system based on state education departments' annual administrative records. Another important variation between indicators is the timeframe that each uses. For example, *indicator 27* examines the percentage of sophomores in 2002 who left high school without graduating by 2004, and *indicator 26* examines the per-

Note 12: Measures of Student Persistence and Progress

Continued

centage of all persons ages 16–24 who were no longer in high school and who had not earned a high school credential by 2004, regardless of when they dropped out.

Given such differences, one would not expect to see identical or even similar estimates. In fact, very reasonable differences should be apparent. For example, if one estimate measures only regular diplomas completed on time, it should be smaller than one that is constructed to measure both regular diplomas and GEDs. Once accounting for these methodological differences, the divergence between estimates

tends to be in the correct direction and of the right magnitude.

This supplemental note is intended to provide only a brief overview of some of the commonly available data that address the complex issue of high school completion. For more detail on methods used to analyze dropout and graduation rates in these indicators and other related measures of student persistence and progress, see *supplemental notes 2* and *3* and the forthcoming publications by Seastrom et al. (NCES 2006-604; NCES 2006-605) and Laird, DeBell, and Chapman (NCES 2006-085).

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