

# *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 2008*. The definitions for these variables can vary across surveys and sometimes vary between different time periods of 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 certain terms used in several indicators.

### PARENTS' EDUCATION

Parents' level of education is generally measured by either the mother's highest level of education attained or the highest level of education attained by either parent. *Indicators 12, 13, 14, and 15* report parents' highest level of education based on a question in the National Assessment of Educational Progress (NAEP) that asks 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."

*Indicator 2*, based on the Early Childhood Longitudinal Survey, Birth Cohort (ECLS-B), is derived from parent interview information on the highest educational attainment of the parents or nonparental guardians who reside in the household. Respondents were asked to indicate the highest level of education they had completed and these responses were coded "no formal schooling," "1st grade," "2nd grade," "3rd grade," "4th grade," "5th grade," "6th grade," "7th grade," "8th grade," "9th grade," "10th grade," "11th grade," "12th grade but no diploma," "high school diploma/equivalent," "voc/tech program after high school but no voc/tech diploma," "voc/tech diploma after high school," "some college but no degree," "associate's degree," "bachelor's degree," "graduate or professional school but no degree," "master's

degree," "doctorate degree," and "professional degree after bachelor's degree." For this volume, the responses were collapsed into a four-category variable: (1) less than high school, (2) high school completion, (3) some college/vocational, and (4) bachelor's degree and any graduate school.

### 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*: 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*: 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*: A person having origins in any of the Black racial groups of Africa.
- *Native Hawaiian or Other Pacific Islander*: A person having origins in any of the original peoples of Hawaii, Guam, Samoa, or other Pacific Islands.
- *White*: A person having origins in any of the original peoples of Europe, North Africa, or the Middle East.

## Note 1: Commonly Used Variables

Continued

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

Race categories presented in *The Condition of Education 2008* exclude persons of Hispanic ethnicity; thus, the race/ethnicity categories are mutually exclusive. Not all categories are shown in all indicators. In some cases, categories are omitted because there are insufficient data in some of the smaller categories or because survey sampling plans did not distinguish between groups (between Asians and Pacific Islanders, for example). In other cases, omissions occur 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 from indicators that present a historical series of data with constant categories, and it is sometimes 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 to the questions asked by the CPS, and it will require further changes to 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 those in earlier years. In the Census population estimates for July 1, 2007, about 1.6 percent of the national population were classified as “More than one race.” (For further details, see <http://www.census.gov/popest/national/>.)

In *The Condition of Education 2008*, the above definitions of race/ethnicity apply to *indicators*

2, 4, 5, 7, 8, 11, 12, 13, 14, 15, 16, 17, 20, 21, 23, 24, 25, 26, 28, 29, and 30.

### 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 (NCES) system of *locale codes*. All three of these classification systems were revised in 2000 and were fully in effect by 2003. In 2006, a new urban-centric classification system for NCES locale codes was released.

### 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 that are as consistent as possible for all MAs nationwide. Under its 1990 standards, the OMB

## Note 1: Commonly Used Variables

### Continued

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, PANJ-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 *metro-*

*politan*. Any territory, population, or housing units located outside of an MA were 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.

### 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, 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

## Note 1: Commonly Used Variables

Continued

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 classifications 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 2008*, no indicators use these labels and definitions. However, *indicators 12* and *13* use the NCES 2002-

revised codes that are based on the metro area labels and definitions (see exhibit A).

### 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 the NCES codes (described below). Thus, this supplemental note explains the 1990–2000 criteria in detail for readers to understand fully the 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), 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 cit-

## Note 1: Commonly Used Variables

Continued

Exhibit A. Metropolitan areas—1990 and 2000 standards		
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 defined as rural by the Census Bureau and not within a MA with a large or midsize city.	Any incorporated place, Census-designated place, or nonplace territory defined as rural by the Census Bureau and not within a metro area with a large or midsize city.
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 defined as rural by the Census Bureau and within a MA with a large or midsize city.	Any incorporated place, Census-designated place, or nonplace territory defined as rural by the Census Bureau and within a metro area with a large or midsize city.

## Note 1: Commonly Used Variables

Continued

ies 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](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](http://www.census.gov/geo/www/ua/uac2k_90.html).)

### Locale Code

In the NCES Common Core of Data (CCD), the community type of schools is classified according to an urban-centric "Locale Code" system. Locale codes are assigned to each school according to the school's physical location (longitude and latitude). There are four major categories within the urban-centric locale code classification system: (1) city, (2) suburban, (3) town, and (4) rural. Each major category is divided into three subcategories. Cities and suburban areas are subdivided into the categories of small, midsize, and large; towns and rural areas are subdivided by their proximity to an urbanized area into the categories of fringe, distant, and remote (see exhibit B). These 12 categories are based on three key concepts that the Census Bureau uses to define an area's urbanicity: *principal city*, *urbanized area*, and *urban cluster*. A principal city is a city that contains the primary population and economic center of a metropolitan statistical area, which, in turn, is defined as one or more contiguous counties that have a "core" area with a large population nucleus and adjacent communities that are highly integrated economically or socially with the core. Urbanized areas and urban clusters are densely settled "cores" of Census-defined blocks with adjacent densely settled surrounding areas. Core areas with populations of 50,000 or more are designated as urbanized areas; those with populations between 25,000 and 50,000 are designated as urban clusters. For more information on urbanized areas and urban clusters, see [http://www.census.gov/geo/www/ua/ua\\_2k.html](http://www.census.gov/geo/www/ua/ua_2k.html). Rural areas are designated by Census as those

## Note 1: Commonly Used Variables

### Continued

areas that do not lie inside an urbanized area or urban cluster.

NCES has classified all schools into one of these 12 categories based on schools’ actual addresses and their corresponding coordinates of latitude and longitude. Not only does this mean that the location of any school can be identified precisely, but also that distance measures can be used to identify town and rural subtypes. Unlike the previous classification system that differentiated towns on the basis of population size, the new system differentiates towns and rural areas on the basis of their proximity to larger urban centers.

School districts’ locale codes are assigned through the use of these urban-centric 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 no single locale code accounts for 50 percent of the students, then the major category (city, suburban, town, or rural) with the greatest percentage of students determines the locale. Districts with no schools or students are given a locale code of “N.” (For more information on the urban-centric locale code system, see [http://nces.ed.gov/ccd/rural\\_locales.asp](http://nces.ed.gov/ccd/rural_locales.asp).)

#### Exhibit B. NCES urban-centric locale categories

Locale	Definition
<b>City</b>	
Large	Territory inside an urbanized area and inside a principal city with population of 250,000 or more
Midsize	Territory inside an urbanized area and inside a principal city with population less than 250,000 and greater than or equal to 100,000
Small	Territory inside an urbanized area and inside a principal city with population less than 100,000
<b>Suburban</b>	
Large	Territory outside a principal city and inside an urbanized area with population of 250,000 or more
Midsize	Territory outside a principal city and inside an urbanized area with population less than 250,000 and greater than or equal to 100,000
Small	Territory outside a principal city and inside an urbanized area with population less than 100,000
<b>Town</b>	
Fringe	Territory inside an urban cluster that is less than or equal to 10 miles from an urbanized area
Distant	Territory inside an urban cluster that is more than 10 miles and less than or equal to 35 miles from an urbanized area
Remote	Territory inside an urban cluster that is more than 35 miles from an urbanized area
<b>Rural</b>	
Fringe	Census-defined rural territory that is less than or equal to 5 miles from an urbanized area, as well as rural territory that is less than or equal to 2.5 miles from an urban cluster
Distant	Census-defined rural territory that is more than 5 miles but less than or equal to 25 miles from an urbanized area, as well as rural territory that is more than 2.5 miles but less than or equal to 10 miles from an urban cluster
Remote	Census-defined rural territory that is more than 25 miles from an urbanized area and is also more than 10 miles from an urban cluster

SOURCE: Office of Management and Budget (2000). Standards for Defining Metropolitan and Micropolitan Statistical Areas; Notice. *Federal Register* (65) No. 249.

## Note 1: Commonly Used Variables

Continued

Besides being used for the CCD, the expanded 12-level locale codes are used to categorize community type in other NCES surveys. Typically, however, the locale codes are collapsed into the four major categories of city, suburban, town, and rural.

In *The Condition of Education 2008*, urban-centric locale codes are used in *indicators 4, 12, 13, 14, 15, 28, 29, 30, 32, and 37*.

### 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 Census Bureau to determine the poverty status of children (or adults). The thresholds used to determine poverty status for an individual differ for each survey year. The weighted average poverty thresholds for various household sizes for 1990, 1995, and 2000 through 2007 are shown in the table on the next page. (For thresholds for other years, see <http://www.census.gov/hhes/www/poverty/threshld.html>.)

In *indicators 6 and 7*, children in families whose incomes are below the poverty threshold are classified as *poor*; those in families with incomes at 100–199 percent of the poverty threshold are classified as *near-poor*, and those in families with incomes at 200 percent or more of the poverty threshold are classified as *nonpoor*.

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 2008*, eligibility for the National School Lunch Program applies to *indicators 12, 13, 14, 15, 29, and 31*. *Indicators 31 and 32* also discuss approval for the National School Lunch Program.

### 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 37* 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 37* employs the SAIPE data, rather than the free lunch-eligible data, to measure poverty by school district because SAIPE data are available for all regular operating school districts, while free lunch-eligible data are missing for a sizable number of school districts. Further, the SAIPE poverty data are constructed using consistent methodology, while the designation of free lunch eligibility may differ from school to school. More information about SAIPE is available at <http://www.census.gov/hhes/www/saipe/>.

## Note 1: Commonly Used Variables

Continued

Weighted average poverty thresholds, by household size: Selected years, 1990–2007			
Household size	Poverty threshold	Household size	Poverty threshold
<b>1990</b>		<b>2003</b>	
2	\$8,509	2	\$12,015
3	10,419	3	14,680
4	13,359	4	18,810
5	15,792	5	22,245
6	17,839	6	25,122
7	20,241	7	28,544
8	22,582	8	31,589
9 or more	26,848	9 or more	37,656
<b>1995</b>		<b>2004</b>	
2	9,933	2	12,334
3	12,158	3	15,067
4	15,569	4	19,307
5	18,408	5	22,831
6	20,804	6	25,788
7	23,552	7	29,236
8	26,237	8	32,641
9 or more	31,280	9 or more	39,048
<b>2000</b>		<b>2005</b>	
2	11,239	2	12,755
3	13,738	3	15,577
4	17,603	4	19,971
5	20,819	5	23,613
6	23,528	6	26,683
7	26,754	7	30,249
8	29,701	8	33,610
9 or more	35,060	9 or more	40,288
<b>2001</b>		<b>2006</b>	
2	11,569	2	13,167
3	14,128	3	16,079
4	18,104	4	20,614
5	21,405	5	24,382
6	24,195	6	27,560
7	27,517	7	31,205
8	30,627	8	34,774
9 or more	36,286	9 or more	41,499
<b>2002</b>		<b>2007</b>	
2	11,756	2	13,542
3	14,348	3	16,537
4	18,392	4	21,201
5	21,744	5	21,201
6	24,576	6	28,345
7	28,001	7	32,094
8	30,907	8	35,764
9 or more	37,062	9 or more	42,681

SOURCE: U.S. Census Bureau, Current Population Survey (CPS). Retrieved April 9, 2008, from <http://www.census.gov/hhes/www/poverty/threshld.html>.

## Note 1: Commonly Used Variables

Continued

### GEOGRAPHIC REGION

The regional classification systems below represent 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 2008*, indicators 3, 4, 5, 7, 32, and 34 use this 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)

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The Current Population Survey (CPS) is a monthly survey of a nationally representative sample of all U.S. households. The survey's scientifically selected sample consists of approximately 50,000 households 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 of 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.

Each year, the March and October 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 also ask 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.census.gov/cps>.

### DEFINITION OF SELECTED VARIABLES

#### Employment Status

*Indicator 20* uses data from the March CPS and its supplement, 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).

*Indicator 43* uses data from the October CPS and its supplement, which also include questions on employment of adults in the previous week to determine employment status. Employed persons include those age 16 or older, who, during the reference week, (1) did any work at all (at least 1 hour) as paid employees, or (2) were not working but who had jobs or businesses from which they were temporarily absent because of vacation, illness, bad weather, child care problems, maternity or paternity

## Note 2: The Current Population Survey (CPS)

Continued

leave, labor-management dispute, job training, or other family or personal reasons, whether or not they were paid for the time off or were seeking other jobs.

### Hours Worked per Week

*Indicator 43* presents data on the number of hours worked per week. This estimate is the number of hours a respondent worked in all jobs in the week prior to the time of the survey interview. The population for this variable includes any employed person who also worked in the week prior to the time of the survey interview. The sum of the categories may not equal the total percentage employed because those who were employed, but did not work in the previous week, were excluded.

### Family Income

*Indicator 24* 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, businesses, interest, rent, and social security payments) over a 12-month period. The income of nonrelatives 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.

In *indicator 24*, family income of a recent high school graduate is defined as the income of the household where the graduate has membership. A household is defined as all individuals whose usual place of residence at the time of the interview is the sample unit. The following considerations guide the determination of household members:

- *Persons staying in the sample housing unit at the time of the interview:* Persons for whom the household is their usual place of residence are included in the household

membership. Persons who are living in the household temporarily (such as students) and who have living quarters held elsewhere are not considered part of the household, unless they are living with their spouse or children.

- *Persons who usually live in the sample housing unit and are absent at the time of the interview:* Individuals who are temporarily absent and who have no other usual place of residence are classified as household members even if they are not present in the household during the survey week. If such persons are away temporarily attending school, they are considered part of the household unless they are living with their spouse or children.

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 used in *indicator 24*. For example, low income for families in 2006 is defined as the range from \$0 to \$18,000; middle income is defined as the range from \$18,000 to \$84,500; and high income is defined as \$84,500 or more.

### Median Earnings

*Indicator 20* uses data on earnings that are collected as part of the March CPS. The March CPS collects information on earnings from individuals who were full-year workers (individuals who were employed 50 or more weeks in the previous year) and full-time workers (those who were usually employed 35 or more hours per week). Earnings include all wage and salary income. Unlike mean earnings, median earnings do not change or change very little in response to extreme observations.

## 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 1972–2006

Year	Breakpoints between low- and middle-income	Breakpoints between middle- and high-income
1972	\$3,600	\$13,600
1973	3,900	14,800
1974	—	—
1975	4,400	17,000
1976	4,600	18,300
1977	4,900	20,000
1978	5,300	21,600
1979	5,800	23,700
1980	6,100	25,300
1981	6,500	27,100
1982	7,200	31,200
1983	7,300	32,300
1984	7,500	34,200
1985	7,900	36,400
1986	8,400	38,100
1987	8,800	39,600
1988	9,300	42,100
1989	9,500	43,900
1990	9,600	46,200
1991	10,500	48,300
1992	10,700	49,600
1993	10,800	50,600
1994	11,900	55,500
1995	11,700	56,100
1996	12,300	58,100
1997	12,800	60,800
1998	13,900	64,900
1999	14,700	68,200
2000	15,300	71,900
2001	16,300	75,000
2002	16,700	75,400
2003	16,600	75,500
2004	16,000	77,100
2005	16,800	80,700
2006	18,000	84,500

—Not available

SOURCE: U.S. Department of Commerce, Census Bureau, Current Population Survey (CPS), October Supplement, 1972–2006.

## Note 2: The Current Population Survey (CPS)

Continued

### Race/Ethnicity

Over time, the CPS has had different response options for race/ethnicity. From 1972 through 1988, the response options were limited to White, Black, Hispanic, and Other. From 1989 through 1995, the response options included White, Black, American Indian/Aleut Eskimo, Asian/Pacific Islander, Hispanic, and Other. From 1996 through 2002, the response options included White, Black, American Indian/Aleut Eskimo, Asian/Pacific Islander, and Hispanic. From 2003 through the present, the response options included White, Black, American Indian/Alaskan Native, Asian, Hawaiian/Pacific Islander, and Hispanic and allowed respondents to select more than one race category. Race categories presented in *The Condition of Education 2008* exclude persons of Hispanic ethnicity; thus, the race/ethnicity categories are mutually exclusive. *Indicators 5, 6, 20, 23, 24, 25, and 43* present data by race/ethnicity using CPS data. See *supplemental note 1* for more information on race/ethnicity.

### Enrolled in School

In *indicator 5*, which presents the racial/ethnic distribution of public school students, the data for 1979 and 1980 are missing because the data for the variable “attending school” were judged unacceptable due to an error in the design of the questionnaire; therefore, the records are all blank.

### Status Dropout Rate

*Indicator 23* reports status dropout rates by race/ethnicity. The status dropout rate is one of a number of rates that are used to report 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 a previous volume of *The Condition of Education* (NCES 2004-077, *indicator 16*; see also NCES 2005-046).

*Indicator 23* uses the October CPS data to estimate the status dropout rate, or 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 [GED]). Status dropout rates count as dropouts individuals who never attended school and immigrants who did not complete the equivalent of a high school education in their home country. The inclusion of these individuals is appropriate because the status dropout 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 dropout rate should not be used as a measure 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 individuals ages 16 through 24 in the United States in October of that year.

The CPS October 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 on how the second question changed

## Note 2: The Current Population Survey (CPS)

### Continued

from 1972 to 1992. Beginning in 1986, the Census Bureau instituted new editing procedures for cases with missing data on school enrollment, i.e., missing data relating to the first October supplement item, above. These changes were made in an effort to improve data quality. The effect of the editing changes was evaluated by applying both the old and new editing procedures to the data from 1986. The changes resulted in 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 percent based on the new ones). The difference in the two rates was not statistically significant. While the change in the procedures occurred in 1986, the new procedures are reflected in *indicator 23* beginning in 1987.

### Educational Attainment

Data from CPS questions on educational attainment are used in *indicators 6, 20, 24, and 25*. 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 revision changed the response categories from highest grade completed to highest level of schooling or degree completed.

In the revised response categories, several of the lower grade 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. 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-1988 questions about educational attainment did not specifically consider high school equivalency certificates (GEDs). Consequently, an individual who attended 10th grade, dropped out without completing that grade, and who subsequently received a high school equivalency credential would not have been counted as completing high school. The new question counts these individuals as if they are high school 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”

## Note 2: The Current Population Survey (CPS)

Continued

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 caused by 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 2008*.

### Some College

Based on the question used in 1992 and in subsequent surveys, an individual who attended college for less than a full academic year would respond “some college but no degree.” Before 1992, the appropriate response would have been “attended first year of college and did not complete it,” thereby excluding those individuals from the calculation of the percentage of the population with 1–3 years of college. 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 them. 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 to 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 *indicator 25*, table 25-2). The 3.6 percent difference is statistically significant. Some of the increase between 1991 and 1992 may be the result of individuals who completed less than 1 year of postsecondary education responding differently to the “completed some college” category; that is, including themselves in the category in 1992, but not including themselves in the category in 1991.

Another potential difference in the “some college” category is how individuals who have completed a certificate or other type of award other than a degree respond to the new questions introduced in 1992 about their educational attainment. Some may answer “some college, no degree”; others may indicate only high school completion; and still others may equate their certificate with one of the types of associate’s degrees. No information is available

## Note 2: The Current Population Survey (CPS)

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### Continued

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. *Indicators 6 and 24* present data by parents' education.

## Note 3: Other Surveys

### AMERICAN COMMUNITY SURVEY (ACS)

The Census Bureau introduced the American Community Survey (ACS) in 1996. Fully implemented in 2005, it provides 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 of the population annually. A larger proportion of addresses in small governmental units (e.g., American Indian reservations, small counties, and towns) 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 the year 2000. Under the current timetable, annual results were or 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 2000–06. For further details on the survey, see <http://www.census.gov/acs/www/>.

### 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 94,000) and school districts (approximately 17,000). 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, 21, 29, 30, 33, 34, 35, 36, and 37* use data from the CCD. Further information about the database is available at <http://nces.ed.gov/ccd/>.

### EARLY CHILDHOOD LONGITUDINAL STUDY, BIRTH COHORT

The Early Childhood Longitudinal Study, Birth Cohort (ECLS-B) is designed to provide detailed information on children's development, health, and early learning experiences in the years leading up to entry into school. The ECLS-B is the first nationally representative study within the United States to directly assess children's early mental and physical development, the quality of their early care and education settings, and the contributions of their fathers, as well as their mothers, to their lives. The children participating in the ECLS-B are followed from birth through kindergarten entry. To date, information has been collected from children and their parents during three rounds of data collection: rounds were conducted when the children were about 9 months old (2001), about 2 years old (2003), and about preschool age, or about 4 years old (2005). Data were collected on a nationally representative sample of 14,000 children born in the year 2001. Their experiences are representative of the experiences of the approximately 4 million children born in the United States in 2001.

Children, their parents, their child care providers, their teachers, and their school administrators provide information on children's

## Note 3: Other Surveys

### Continued

cognitive, social, emotional and physical development across multiple settings (e.g., home, child care, school). At all waves of data collection (9 months, 2 years, preschool, and kindergarten), parents are asked about themselves, their families, and their children; fathers are asked about themselves and their roles in their children's lives; and children are observed and participate in assessment activities. In addition, when the children are 2 years old and in preschool (about 4 years old), early care and education providers are asked to provide information about their own experience and training and the setting's learning environment. When the ECLS-B children are in kindergarten, teachers are also asked to provide information about the children's early learning and the school and classroom environments. Trained assessors visit children in their homes. With the parent's permission, children participate in activities designed to measure important developmental skills in the cognitive, language, social, emotional, and physical domains. Trained assessors also conduct a computer-assisted interview with the sampled child's primary caregiver, most frequently the mother.

With the permission of the child's parents, individuals and organizations who provide regular care for the child are interviewed. Trained staff conduct a computer-assisted interview over the phone. For home-based care settings, the primary provider is interviewed about the care setting and the sampled child's experiences there. For center-based care programs, the center director is first interviewed for general information about the program; the sampled child's primary provider in the center is then interviewed about the group care environment and the child's experiences. Child care settings were subsampled then observed and rated.

#### Child's primary type of nonparental early care and education

Parents were asked if they currently had regular early care and education arrangements for their

child, and, if so, were then asked how many hours per week their child spent in that setting. This composite measure presents information on the type of nonparental care and education in which the child spent the most hours, which is identified as the primary care arrangement. The composite was created by reviewing the number of hours the child spent in each arrangement and identifying the one where the child spent the most hours. If a child spent equal time in each of two or more types of arrangements, care was coded as "multiple care arrangements." Children with no regular nonparental care arrangements were coded as "no child care." For this presentation of primary care, Head Start refers to services received at a public or private school, religious center, or private home, as reported by the parent. "Regular" refers to arrangements that occurred on a routine schedule (i.e., occurring at least weekly or on some other schedule), not including occasional babysitting or "back-up" arrangements.

#### 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, 11, and 42* 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 patterns by source of income

## Note 3: Other Surveys

Continued

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.

Participation in IPEDS was a requirement for the 6,700 institutions that participated in Title IV federal student financial aid programs such as Pell Grants or Stafford Loans during the 2006–07 academic year. Title IV institutions include traditional colleges and universities, 2-year institutions, and for-profit degree- and non-degree-granting institutions (such as schools of cosmetology), among others. 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. In addition, 84 administrative offices (central and system offices) listed in the IPEDS universe were expected to provide minimal data through a shortened version of the Institutional Characteristics component. Four of the U.S. service academies are included in the IPEDS universe as if they were Title IV institutions. Institutions that do not participate in Title IV programs may participate in the IPEDS data collection on a voluntary basis.

IPEDS data for 1999 were imputed using alternative procedures. See NCES 2008-022, *Guide to Sources*, for more information.

*Indicators 9, 11, 26, 27, 39, 40, and 42* use data from 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/>.

### 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 2005–06, the survey was sent to 31,848 qualified private schools, and it had a response rate of 94.3 percent.

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

### SCHOOL SURVEY ON CRIME AND SAFETY (SSOCS)

The School Survey on Crime and Safety (SSOCS) focuses on incidents of specific crimes and offenses and a variety of specific discipline issues in public schools. SSOCS was administered in the spring of the 1999–2000, 2003–04, and 2005–06 school years. The survey also covers characteristics of school policies, school violence prevention programs and policies, and school characteristics that have been associated with school crime. The survey was conducted with a nationally representative sample of regular public primary, middle, high, and combined schools in the 50 states and the District of Columbia.

In the 2005–06 school year, a total of 3,565 schools were selected for the study. In March 2006, questionnaires were mailed to school principals, who were asked to complete the survey or to have it completed by the person most knowledgeable about discipline issues at the school. “At school” was defined for respondents to include activities that happen in school buildings, on school grounds, on school buses, and at places that hold school-sponsored events or activities. Respondents were instructed to provide information on the total

## Note 3: Other Surveys

### Continued

number of recorded incidents and the number of incidents reported to the police or other law enforcement. Respondents were instructed to provide information on the number of incidents, not the number of victims or offenders, regardless of whether any disciplinary action was taken or whether students or nonstudents were involved. In the questions pertaining to *indicator 28*, respondents were instructed to record incidents occurring before, during, or after normal school hours. Due to changes to questionnaire items between survey iterations, data may be unavailable for some survey years. A total of 2,724 schools completed the survey. For more information about the SSOCS, visit <http://nces.ed.gov/surveys/ssocs/>.

### SCHOOLS AND STAFFING SURVEY (SASS)

The Schools and Staffing Survey (SASS) is the nation's largest sample survey of America's elementary and secondary schools. First conducted in 1987–88, SASS periodically surveys the following:

- surveys public schools and collects data on school districts, schools, principals, teachers, and library media centers;

- surveys private schools and collects data on schools, principals, teachers, and library media centers;
- surveys schools operated by the Bureau of Indian Affairs (BIA) and collects data on schools, principals, teachers, and library media centers; and
- surveys public charter schools and collects data on schools, principals, teachers, and library media centers.

To ensure that the samples contain sufficient numbers for estimates, SASS uses a stratified probability sample design. Public and private schools are oversampled into groups based on certain characteristics. After the schools are stratified and sampled, the teachers within the schools are stratified and sampled based on their characteristics. For the 2003–04 SASS, a sample of public charter schools was included in the sample as part of the public school questionnaire.

*Indicators 31* and *32* use data from the SASS. Further information about the survey is available at <http://nces.ed.gov/surveys/SASS/>.

## 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, 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 12, 13, 14, 15, and 16* 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 assessment framework developed by 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.

Since 1990, NAEP assessments have also been conducted to give results for participating states. States that choose to participate receive assessment results that report on the performance of students within the state. In its content, the state assessment is identical to the assessment conducted nationally. However, because the national NAEP samples were not, and are not, designed to support the reporting of accurate and representative state-level results, separate representative samples of

students are selected for each participating jurisdiction/state.

Beginning with the 2002 assessments, a combined sample of public schools was selected for both the state and national NAEP. This was done in response to the NCES/NAGB redesign of 1998. It was thought that, with most or almost all states participating in the state component of the NAEP, separate national samples would not be necessary. Thus, by using all students from all of the state samples to produce national estimates, the precision of estimates would be improved greatly and the burden of participation would be somewhat reduced by decreasing the total number of sampled schools. The national NAEP sample is a combination of state samples for those subjects where state scores are available at grades 4 and 8.

Therefore, since 2002, on those assessments with a state component, the main national sample includes all students assessed in the participating states. The typical sample size per grade and subject being assessed is 3,000 students from 100 schools and the Trial Urban District Assessment (TUDA) samples where applicable per state. Should any state or significant part of a state refuse to participate, a small additional sample is selected from schools in the same stratum. This additional sample ensures that the national sample is representative of the total national student population.

The ability of the assessments to measure change in student performance over time is sometimes limited by changes in the NAEP framework. While shorter term trends can be measured in most of the NAEP subjects, data from different assessments are not always comparable. (In cases where the framework of a given assessment changes, linking studies are generally conducted to ensure comparability over time.) However, recent main NAEP assessment instruments for science and reading have typically been kept stable for shorter periods, allowing for comparisons across time. For example, from 1990

## Note 4: National Assessment of Educational Progress (NAEP)

### Continued

to 2005, in general, 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. In 2005, the NAGB revised the grade 12 mathematics framework to reflect changes in high school mathematics standards and coursework. As a result, even though many questions are repeated from previous assessments, the 2005 results cannot be directly compared with those from previous years.

NAGB called for the development of a new mathematics framework for the 2005 assessment. The revisions made to the mathematics framework for the 2005 assessment were intended to reflect recent curricular emphases and to include clear and more specific objectives for each grade level. The new mathematics framework focuses on two dimensions: mathematical content and cognitive demand. By considering these two dimensions for each item in the assessment, the framework ensures that NAEP assesses an appropriate balance of content along with a variety of ways of knowing and doing mathematics. For grades 4 and 8, comparisons over time can be made among the assessments prior to and after the implementation of the 2005 framework. In grade 12, with the implementation of the 2005 framework, the assessment included more questions on algebra, data analysis, and probability to reflect changes in high school mathematics standards and coursework. Additionally, the measurement and geometry content areas were merged. Grade 12 results could not be placed on the old NAEP scale and could not be directly compared with previous years. The reporting scale for grade 12 mathematics was changed from 0–500 to 0–300. For more information regarding the 2005 framework revisions, see <http://nces.ed.gov/nationsreportcard/mathematics/whatmeasure.asp>.

The main NAEP results are reported in *The Condition of Education* in terms of both aver-

age scale scores and achievement levels. The achievement levels define what students who are performing at the *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. As provided by law, NCES, upon review of congressionally mandated evaluations of NAEP, has determined that achievement levels are to be used on a trial basis and should be interpreted with caution. NAEP achievement levels have been widely used by national and state officials. 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 assessed.
- *Proficient*: This level represents solid academic performance for each grade assessed. Students reaching this level have demonstrated competency over challenging subject matter, including subject-matter knowledge, application of such knowledge to real-world situations, and analytical skills appropriate to the subject matter.
- *Advanced*: This level signifies superior performance at each grade assessed.

In some indicators, the percentage of students at or above *Proficient* or at or above *Basic* are reported. The percentage of students at or above *Proficient* includes students at the *Advanced* achievement level. Similarly, the percentage of students at or above *Basic* includes students at the *Basic*, those at the *Proficient*, and those at the *Advanced* achievement levels.

Unlike estimates from other sample surveys presented in this report, NAEP estimates that are potentially 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

## Note 4: National Assessment of Educational Progress (NAEP)

Continued

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/>.

### 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 assessments and 2003 and 2005 mathematics assessments, the main NAEP did not include a separate unaccommodated assessment; only a single accommodated assess-

ment 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

The long-term trend NAEP measures basic student performance in reading, mathematics, science, and writing. *Indicator 17* reports findings from the long-term reading and mathematics assessments. Since the early 1970s, the long-term trend NAEP has used the same instruments to provide a means to compare performance over time, but the instruments 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 12 in writing. Future assessments are scheduled to be conducted in reading and mathematics. 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)

*Indicator 19* is 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 had a second follow-up 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 for a different one of the three subjects and a 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 focused 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 2006, some 57 countries participated in PISA, including all 30 of the OECD countries and 27 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. 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.

Science literacy is defined as “an individual's scientific knowledge and use of that knowledge to identify questions, to acquire new knowledge, to explain scientific phenomena, and to draw evidence-based conclusions about science related issues, understanding of the characteristic features of science as a form of human knowledge and enquiry, awareness of how science and technology shape our material, intellectual, and cultural environments, and willingness to engage in science-related issues, and with the ideas of science, as a reflective citizen.”

Science literacy can be broken down into three “competency clusters”: (1) identification, which includes recognizing issues that are possible to investigate scientifically; (2) explaining phenomena, which covers applying knowledge of science in a given situation; (3) using evidence, which includes interpreting scientific data and making and communicating conclusions.

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 areas that might be applicable are not within a single domain of mathematics, science, or reading.” Students completed exercises that assessed their capabilities in using reasoning processes not only to draw conclusions, but also to make decisions, to troubleshoot (i.e.,

## Note 5: International Assessments

Continued

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. For more information about the PISA, see <http://nces.ed.gov/Surveys/PISA>.

### Progress in International Reading Literacy Study (PIRLS)

*Indicator 18* uses data collected as part of the Progress in International Reading Literacy Study (PIRLS). PIRLS 2006 was the second cycle of the study, which was first administered in 2001. Designed to be collected 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 2006 provides comparative information on the reading literacy of 4th-graders and 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 45 jurisdictions. In each jurisdiction, 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>.

## Note 6: International Standard Classification of Education

### LEVELS OF EDUCATION

*Indicator 38* uses 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 the United Nations Educational, Scientific and Cultural Organization (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 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.

*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 38*.

*Education at the fifth level (first stage of tertiary education)* includes programs with more

## Note 6: International Standard Classification of Education

Continued

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, second university programs that lead to a master's degree, and professional programs that lead to a first-professional 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 38*, postsecondary education includes the fifth and sixth levels, except as noted.

## Note 7: Measures of Student Persistence and Progress

Various measures have been developed to provide information about student persistence and progress through formal elementary and secondary education. Three measures are presented in this report: the status dropout rate (*indicator 23*), the public school averaged freshman graduation rate (*indicator 21*), and the educational attainment of 25- to 29-year-olds (*indicator 25*). The three 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 and dropout process. No one data source provides comprehensive information on the graduation and dropout process on an annual basis, but the three 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.

The reader should note that for *indicator 22*, students with disabilities exiting high school with a regular diploma, the Office of Special Education Programs (OSEP) calculates the “graduation rate” for students with disabilities by dividing the number of students age 14 or older who graduated with a regular high school diploma by the number of students in the same age group who are known to have left school (i.e., graduated with a regular high school diploma, received a certificate of completion, reached a maximum age for services, died, moved and are not known to be continuing in an education program, or dropped out). This percentage should not be confused with other graduation rates reported by NCES in this volume and elsewhere because it is based only on those students leaving school. It does not account for students who remain in school nor does it follow a specific cohort over time. For more information, see *supplemental note 8* on student disabilities.

### STATUS DROPOUT RATE

*Indicator 23* 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 October 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 an 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 the rate can be computed on an annual basis for various demographic subgroups of adults and can be used to report a national rate that includes dropouts of public and private schools. The disadvantages of using CPS data to compute status dropout rates are 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.

### PUBLIC SCHOOL AVERAGED FRESHMAN GRADUATION RATE

*Indicator 21* examines the percentage of public high school students who graduate on time 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 with a regular diploma divided by the estimated count of incoming 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 incoming freshmen is the sum of the number of 8th-graders 5 years earlier, the number of

## Note 7: Measures of Student Persistence and Progress

Continued

9th-graders 4 years earlier (because this is when current year seniors were freshmen), and the number of 10th-graders 3 years earlier, divided 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.

### EDUCATIONAL ATTAINMENT OF 25- TO 29-YEAR-OLDS

*Indicator 25* examines the educational attainment of adults just past the age when most would traditionally be expected to complete their postsecondary education. This indicator uses March CPS data 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 an equivalency credential such as a GED); the rate can be reported by race/ethnicity and other demographic variables. The rate does not differentiate between those who graduated from public schools, who 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 the rate can be computed on an annual basis for various demographic sub-groups of adults and can be used to report 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 *indicators 21, 23, and 25* 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, information source, and data collection time frame. For example, the three indicators mentioned above focus on different populations: *indicator 23* focuses on 16- through 24-year-olds between 1972 and 2005; *indicator 21* focuses on the number of graduates in 2003–04 based on the 2000–01 freshman class; and *indicator 25* focuses on 25- through 29-year-olds between 1971 and 2006. The source of information used to construct the indicators also varies. *Indicator 21* is produced from the CCD, a universe survey system based on state education departments' annual administrative records, while *indicators 23 and 25* use data from the CPS, a sample survey of the civilian, noninstitutional population.

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 publications by Seastrom et al. (NCES 2006-604; NCES 2006-605) and Laird, DeBell, and Chapman (NCES 2007-024).

## Note 8: Student Disabilities

*Indicators 8 and 22* use 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 of these categories, see the part B and C data dictionaries at <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 ages 3 through 9 who are experiencing developmental delays in one or more of the following areas: physical development, cognitive development, communication development, social or emotional development, or adaptive development, and who therefore need special education and related services. It is optional for states to adopt

and use this term to describe any child within its jurisdiction. A local education agency (LEA) may use the term if its state has adopted it for use, but it must conform its use of the term to that of the state.

#### 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 Impairment

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.

## Note 8: Student Disabilities

Continued

### 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.

### 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 Impairment

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 Impairment

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 Disability

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 Impairment

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 8: Student Disabilities

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### Continued

#### Students with Disabilities and Exiting School

The Office of Special Education Programs (OSEP) calculates the graduation rate for students with disabilities by dividing the number of students age 14 or older who graduated with a regular high school diploma by the number of students in the same age group who are known to have left school (i.e., graduated with a regular high school diploma, received a certificate of completion, reached a maximum age for services, died, moved and are not known to be continuing in an education program, or dropped out). This percentage should not be confused with other graduation rates because it is based only on those students leaving school. It does not account for students who remain in school nor does it follow a specific cohort over time.

Because states have different eligibility criteria for each disability category, state-to-state comparisons by disability should be interpreted with caution. Further, in 2002–03, the definitions of several categories were clarified. The definition of “graduated with a regular high school diploma” was revised to make it clear that this category should only include those students who met the same standards for graduation as those for students without disabilities. Students who received a high school diploma, but did not meet the same standards for graduation as those for students without disabilities should be reported in the received a certificate category. Not all states distinguish between students who met the same standards for graduation and those who did not. For more information, see <https://www.ideadata.org/docs/bfactsheetex.pdf>.

## 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, 11, 26, 27, 39, 40, 41, and 42.*

### 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, post-master’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:* A postsecondary institution that offers programs of less than 2 years’ duration below the baccalaureate level. Includes occupational and vocational schools with programs that do not exceed 1,800 contact hours.

Postsecondary institutions are further divided according to these criteria: degree-granting versus non-degree-granting; type of financial control; and Title IV-participating versus non-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-and-above non-degree-granting institutions is small compared with the number of non-degree granting institutions at both the 2-year but less-than-4-year and less-than-2-year levels.

IPEDS also 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-and-above 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 at least 20 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

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### Continued

*Indicators 9, 26, 39, 41, and 42* include 2-year (short for 2-year but less-than-4-year) and 4-year-and-above degree-granting institutions in their analyses. *Indicators 10, 11, 27, and 40* include 4-year-and-above degree-granting institutions.

## Note 10: Fields of Study for Postsecondary Degrees

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The general categories for fields of study used in *indicators 26, 27, 39, and 40* were derived from the 2000 edition of the *Classification of Instructional Programs* (CIP-2000). To facilitate trend comparisons, aggregations of some categories have been made in some instances. These 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*: communication, journalism, and related programs; and communications technologies/

technicians and support services. This category is used at the bachelor's, master's, doctoral, and first-professional degree levels. For *indicator 39*, the following category is used at the associate's degree level:

*Communications and communications technologies*: This category is not directly comparable to the communication, journalism, and related programs referenced above.

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 20, 34, 35, 36, 37, and 42* 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 (BLS) 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, 2007* (NCES 2008-022), an annual publication of the National Center for Education Statistics (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 BLS website (<http://www.bls.gov/cpi/>).

### Using the Comparable Wage Index (CWI) to Adjust for Geographic Cost Differences

The Comparable Wage Index (CWI) reflects systematic, regional variations in the salaries of college graduates who are not educators. Provided that these noneducators are similar to educators in terms of age, educational background, and tastes for local amenities, a CWI can be used to measure the uncontrollable component of variations in the wages paid to educators. Intuitively, if accountants in the Atlanta metro area are paid 5 percent more than the national average accounting wage, Atlanta engineers are paid 5 percent more than the national average engineering wage, Atlanta nurses are paid 5 percent more than the national average nursing wage, and so on, then the CWI predicts that Atlanta teachers should also be paid 5 percent more than the national average teacher wage.

The CWI was calculated by combining baseline estimates of these salaries from the 2000 U.S. Census with annual data from the Bureau of Labor Statistics' Occupational Employment Statistics (OES) Survey. Different sets of CWIs are available for adjusting finance data at different levels of aggregation: the region, state, labor market, and school district. The school district CWI can also be used to adjust for other geographic levels as well.

In *indicator 37*, for each year under study, an index number was developed for each of the five district poverty levels used in the indicator. These district poverty-level index numbers were calculated by (1) summing, within each poverty level, each district's index number multiplied by

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the district's enrollment, and then (2) dividing that sum by the total enrollment in that district poverty level. The same method was used to develop the 20 index numbers for the different combinations of community type and district poverty level for 2004–05 and the national index numbers for each year.

When a series of annual CWIs are used for adjusting trend data, an adjustment for inflation is inherently introduced along with the CWI's adjustment for geographic cost differences. In order to maintain consistency in adjustments for inflation across indicators in *The Condition of Education*, CWI adjustments for trend data are further adjusted to eliminate the inherent CWI adjustment for inflation. This is done for each year by dividing each district's CWI by the national CWI, which leaves only an adjustment based on geographic cost differences for each year. Adjustments for the effect of inflation are then made using the Consumer Price Index (CPI).

*Indicator 36* presents two Theil coefficients for instruction expenditures: one that is adjusted for cost differences and one that is unadjusted. The adjusted Theil coefficient in this indicator is calculated in the same way as the unadjusted Theil coefficient, except that each district's instruction expenditures that are used in the calculation have been adjusted first by dividing the district's instruction expenditures by the district's CWI. (For details on how the Theil coefficient is calculated, see The Variation in Expenditures per Student and the Theil Coefficient section later in this supplemental note.)

Further information about the CWI is available at <http://nces.ed.gov/edfin/adjustments.asp>.

### Classifications of Expenditures for Elementary and Secondary Education

*Indicators 35, 36, and 37* examine expenditures for public elementary and secondary education. *Indicator 35* uses total expenditures as a whole together with the four major functions

(categories) of total expenditures: current expenditures, capital expenditures, interest on school debt, and other expenditures. Current expenditures in turn is broken into seven subfunctions (subcategories): expenditures for instruction, administration, student and staff support, operation and maintenance, transportation, food services, and enterprise operations. *Indicator 36* uses expenditures for instruction (referred to usually as instruction expenditures) in its analysis. *Indicator 37* uses two categories of expenditures in its analysis: current expenditures and instruction 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, capital outlay, interest on school debt, and other expenditures. 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, student and staff support, operation and maintenance, transportation, food services, and enterprise operations. Thus, current expenditures include such items as salaries for school personnel, fixed charges, student transportation, school books and materials, and energy costs. Current expenditures and each of its seven subfunctions can be further broken down by the object of the expenditure: salaries, employee benefits, purchased services, supplies, tuition, and other.

*Instruction 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 (boards of education staff and executive administration)

## Note 11: Finance

### Continued

and school administration (i.e., the office of the principal, full-time department chairpersons, and graduation expenses).

*Student and staff support expenditures* include expenditures for student support (attendance and social work, guidance, health, psychological services, speech pathology, audiology and other student support services); instructional staff services (instructional staff training, educational media [libraries and audiovisual], and other instructional staff support services); and other support services (business support services, central support services, and other support services not reported elsewhere).

*Operation and maintenance expenditures* include expenditures 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.

*Transportation* includes expenditures for vehicle operation, monitoring, and vehicle servicing and maintenance.

*Food services* include all expenditures associated with providing food to students and staff in a school or school district. The services include preparing and serving regular and incidental meals or snacks in connection with school activities as well as the delivery of food to schools.

*Enterprise operations* include expenditures for operations funded by sales of products or services together with amounts for direct program support made by state education agencies for local school districts.

*Capital outlays* include funds for the acquisition of land and buildings; building construction, remodeling, and additions; the initial installation or extension of service systems and other built-in equipment; and site improvement. The category also encompasses architectural and

engineering services including the development of blueprints.

*Interest on debt* includes expenditures for long-term debt service interest payments (i.e., those longer than 1 year).

*Other expenditures* include expenditures for adult education, community colleges, and private school programs, which are funded by local and state education agencies and by community services.

### CLASSIFICATIONS OF REVENUE

In *indicator 34*, 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 34*, local revenue is classified as either local property tax revenue or other local revenue.

In *indicator 34*, 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

## Note 11: Finance

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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.

### THE VARIATION IN EXPENDITURES PER STUDENT AND THE THEIL COEFFICIENT

*Indicator 36* uses the Theil coefficient to measure the variation in expenditures per pupil in 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  $1/z_i$ —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 subsequently 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  $k$ ,  $\bar{X}_k$  is the student-weighted mean expenditure per student in state  $k$ , and  $\bar{X}$  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  $k$ .

## Note 11: Finance

### Continued

$T_k$  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  $\bar{X}_{jk}$  is the mean expenditure per student of district  $j$  in state  $k$ .

The national Theil coefficient,  $T$ , is:

$$T = T_w + T_B$$

### CLASSIFICATIONS OF EXPENDITURES FOR INTERNATIONAL COMPARISONS

*Indicator 38* 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 ex-*

*penditures* used for the calculation in *indicator 38* 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 non-military, nonfinancial assets, as well as spending to finance net capital transfers.

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