

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 2005*. The definitions for these variables can vary from survey to survey and sometimes vary between different time periods for a single survey. This supplemental note describes how several common variables, used in various indicators in this volume, are defined in each of the surveys. In addition, this note describes in further detail certain terms used in several indicators.

PARENTS' EDUCATION

Parents' level of education is generally measured by either the mother's highest level of educational attainment or the highest level of education attained by either parent. *Indicators 8 and 18*, based upon the Early Childhood Longitudinal Study, Kindergarten Class of 1998–99 (ECLS–K), and *indicator 35*, based upon the Early Childhood Longitudinal Study, Birth Cohort (ECLS–B), both use mother's highest level of education as their measure of parents' education. For both these indicators, mother's education was constructed using a question on the highest grade the mother had completed and whether the mother had obtained a high school equivalency degree if she did not complete high school. *Indicator 3*, based upon the National Household Education Surveys Program (NHES), uses highest level of education attained by either parent. For this indicator, both mother's and father's education was constructed using three questions (1) on the highest grade completed, (2) whether he or she obtained a vocational or technical degree after high school, and (3) whether he or she obtained a high school equivalency degree if he or she had not completed high school. *Indicators 9 and 10* report parents' highest level of education based on a question in the National Assessment of Educational Progress (NAEP) that

asked students in 8th and 12th grades to indicate the highest level of education completed by each parent. Students could choose from "did not finish high school," "graduated from high school," "some education after high school," "graduated from college," and "I don't know." As of the 2001 assessment, data were not collected at grade 4 because 4th-graders' responses in previous assessments were highly variable and contained a large percentage of "I don't know" responses.

RACE/ETHNICITY

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

Ethnicity is based on the following categorization:

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

Race is based on the following categorization:

- *American Indian or Alaska Native, not Hispanic or Latino*: A person having origins in any of the original peoples of North and South America (including Central America) who maintains tribal affiliation or community attachment.
- *Asian, not Hispanic or Latino*: A person having origins in any of the original peoples of the Far East, Southeast Asia, the Indian subcontinent, including, for example, Cambodia, China, India, Japan, Korea, Malaysia, Pakistan, the Philippines, Thailand, and Vietnam.

Note 1: Commonly Used Variables

Continued

- *Black, not Hispanic or Latino*: A person having origins in any of the Black racial groups of Africa.
- *Native Hawaiian or Other Pacific Islander, not Hispanic or Latino*: A person having origins in any of the original peoples of Hawaii, Guam, Samoa, or other Pacific Islands.
- *White, not Hispanic or Latino*: A person having origins in any of the original peoples of Europe, North Africa, or the Middle East. In *The Condition of Education*, this category excludes persons of Hispanic origin.
- *More than one race*: A person who selected two or more of the racial categories—White, Black, Asian, Native Hawaiian, or American Indian—when offered the option of selecting one or more racial designations.

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

The introduction of the category “More than one race” follows a change in the Office of Management and Budget’s standard classification scheme for race/ethnicity. This change has required changes in the questions asked by the CPS, and it will require further changes in the questions asked of future federal survey participants. As a result of the new classifica-

tion scheme, distributions by race/ethnicity for 2003 CPS data and for later years may differ somewhat from earlier years. In the Census population estimates for July 1, 2003, about 1.5 percent of national population were classified as “More than one race.” (For further details, see <http://www.census.gov/popest/national/asrh/NC-EST2003-srh.html>.)

In *The Condition of Education 2005*, these definitions of race/ethnicity apply to *indicators 3, 4, 5, 6, 8, 9, 10, 14, 15, 16, 17, 19, 20, 21, 22, 23, 24, 25, 27, 28, 31, and 35*.

Indicators based on the National Household Education Surveys Program (*indicators 3, 29, and 30*) use up to five categories of race/ethnicity: White, non-Hispanic; Black, non-Hispanic; Hispanic; Asian or Pacific Islander, non-Hispanic; and all other races, non-Hispanic. The latter category includes American Indian, Alaska Native, and all other races. Not all categories are shown in all indicators because of insufficient data in some of the smaller categories.

COMMUNITY TYPE

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

Metropolitan Areas

The Census Bureau’s Current Population Survey (CPS) classifies community type based on

Note 1: Commonly Used Variables

Continued

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

In order to be designated as an MA under the 1990 standards, an area had to meet one or both of the following criteria: (1) include a city with a population of at least 50,000 or (2) include a Census Bureau-defined urbanized area of at least 50,000 and have a total MA population of at least 100,000 (75,000 in New England). Under the 1990 standards, the “central county” (or counties) contained either the central city (defined below) or at least 50 percent of the population of the central city, or had at least 50 percent of its population in an urbanized area. Additional “outlying counties” were included in the MA if they met specified requirements of commuting to the central counties and selected

requirements of metropolitan character (such as population density and percent urban). In New England, MAs were defined in terms of cities and towns, following rules analogous to those used with counties elsewhere.

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

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

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

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

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

Note 1: Commonly Used Variables

Continued

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

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

In *The Condition of Education 2005*, these labels and definitions apply to *indicators 15* and *30*. (*Indicator 30* uses the NCVS.)

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

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

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

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

Note 1: Commonly Used Variables

Continued

In *The Condition of Education 2005*, no indicators use these labels and definitions. However, some indicators use the NCES 2002-revised locale codes that are based on the metro area labels and definitions.

Urbanized, Urban, and Rural Areas

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

From the adoption of the urban/rural concept for the 1950 Census until the 2000 Census, an *urbanized area* consisted of one or more “central places” and the adjacent densely settled surrounding “urban fringe” that together had a minimum population of 50,000 people. A “place” was either an incorporated governmental unit, such as a city, village, borough, or town, or a Census Designated Place (CDP), which was an unincorporated population cluster for which the Census Bureau delineates boundaries in cooperation with state and local agencies. All of the territory within the urbanized area that was outside the central place or places comprised the “urban fringe.” Territory included in the urban fringe generally had a population density of at least 1,000 people per square mile but could include lower density territory that contained nonresidential urban land uses (e.g., areas zoned for commercial or industrial use or reserved for recreational purposes) or served to link outlying densely settled territory with the main body of the urbanized area. The Census Bureau defined as *urban* any incorporated places (cities, towns, villages, etc.)

or CDPs outside urbanized areas that contained a population of 2,500 or more.

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

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

Beginning with the 2000 Census, the Census Bureau has employed new definitions of urban areas based on the concepts of an *urbanized area* and an *urban cluster*, the former being similar to the urbanized area under the 1990 definitions and the latter replacing the concept of urban fringe and urban areas. Urbanized areas and urban clusters consist of densely settled census block groups and census blocks that meet specified minimum population density requirements. Urbanized areas continue to have minimum populations of 50,000; urban clusters have populations of at least 2,500 and less than 50,000. Place boundaries are no longer taken into consideration when defining these two types of urban areas. (Under the previous classification system, place boundaries were

Note 1: Commonly Used Variables

Continued

used to determine the urban/rural classifications of territory: all incorporated places that had at least 2,500 people were classified as urban if they were outside an urbanized area.) Thus, the Census Bureau's current urban area classification provides a seamless, nationally consistent method of defining urban areas that is not affected by varying state laws governing incorporation and annexation. For further details on the revised definitions, see http://www.census.gov/geo/www/ua/ua_2k.pdf. (For differences between the 1990 Census and 2000 Census Urbanized Area Criteria, see http://www.census.gov/geo/www/ua/uac2k_90.html.)

In *The Condition of Education 2005*, no indicators use these labels and definitions. However, some indicators use the NCES 2002-revised locale codes that are based on these labels and definitions.

Locale Code

In the Common Core of Data (CCD), the community type of *schools* is classified according to a "Locale Code" that is defined according to a mix of OMB (metropolitan area) and Census Bureau (urban/rural) classifications. There are eight categories within the school locale code classification: 1) large city; 2) midsize city; 3) urban fringe of a large city; 4) urban fringe of a midsize city; 5) large town; 6) small town; 7) nonmetropolitan rural; and 8) metropolitan rural. These categories roughly equate to a central city/suburb/large town/small town/rural scheme, identifying the general character of each school's location. "Large city" and "midsize city" schools are located in principal cities (formerly referred to as "central cities") of metropolitan statistical areas, with a threshold of 250,000 people distinguishing between a large city and a midsize city. The two "urban fringe" categories identify suburban schools within metropolitan statistical areas. The "large town" and "small

town" categories identify schools in smaller urban centers (25,000 up to 50,000 people) and small towns (2,500 up to 25,000 people) that are located outside metropolitan areas; many of these communities represent the urban centers/small towns that serve a largely rural countryside. The two rural categories recognize that rural territory exists in both metropolitan areas and nonmetropolitan territory.

Each school is assigned to one of these categories based on the inside/outside principal city, urban/rural, and metropolitan/nonmetropolitan status of the census block in which the school is located. Schools are assigned to specific census blocks through a process called "geocoding" in which the address of the school is mapped in relation to census geography. The associated census geographic information is then used to assign the school to a specific locale code category based on a mix of characteristics. For instance, a school located in a Census Bureau-defined urbanized area (that is, inside an OMB-defined metropolitan statistical area and outside of a principal city) would be classified as an "urban fringe" school; the specific urban fringe category is determined by the population size of the largest principal city in the metropolitan statistical area in which the school is located. Likewise, a school located outside a Census Bureau-defined "urban" area (urbanized or urban area; or urbanized area or urban cluster, depending upon the relevant standards—1990 or 2000) is classified as rural; then it is further distinguished by whether it is inside or outside the boundaries of a metropolitan statistical area.

In the context of assigning school locale codes, it is important to note that a school located in a Census Bureau-defined urban area that is inside the boundaries of a metropolitan statistical area will be classified as "urban fringe" regardless of the distance from the large or midsize city with which it is associated. Further, if a school does not provide NCES with an address that

Note 1: Commonly Used Variables

Continued

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

Note 1: Commonly Used Variables

Continued

can be geocoded to a specific census block (such as a P.O. Box or rural route/box number types of addresses) and clerical research cannot determine the specific location of the school in terms of Census Bureau geography, the locale code assignment process assigns the school an “urban fringe” code if the school is located in a metropolitan statistical area.

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

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

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

In *The Condition of Education 2005*, these labels under the 1990 standards apply to *indicators 2, 25, and 26*; these labels under the 2000 standards apply to *indicator 28*; and these labels under the 1990 standards for pre-2002–03 data and under the 2000 standards for 2002–03 (and subsequent) data apply to *indicators 9, 10, and 14*.

In addition, *indicator 14* further refines central city schools by combining these labels with the MA categories provided by the Census Bureau. A subset of central city schools was created consisting of schools that were located in central cities and where the school district was in an MA of 2.5 million or larger. In the 2003 NAEP assessment, there were 120 such school districts with grade 4 instruction and 95 school districts with grade 8 instruction. While most of these schools are what are commonly thought of when one thinks of central city schools, a few schools that are commonly understood to be suburban schools are included in this analysis. This is due to the fact that the largest city in each MA is designated a central city. If a suburban area of 2.5 million people or more is designated an MA, then the largest city in that suburban area is designated a central city and all schools in that city are “central city” schools.

POVERTY

Data on household income and the number of people living in the household are combined

Note 1: Commonly Used Variables

Continued

with estimates of the poverty threshold published by the Bureau of the Census to classify children (or adults) as “poor” or “nonpoor”

in *indicators 18* and *35*. Children (or adults) in families whose incomes are at or below the poverty threshold are classified as poor; those in

Weighted average poverty thresholds, by household size: Selected years, 1990–2003			
Household size	Poverty threshold	Household size	Poverty threshold
1990		2000	
2	8,509	2	11,239
3	10,419	3	13,738
4	13,359	4	17,603
5	15,792	5	20,819
6	17,839	6	23,528
7	20,241	7	26,754
8	22,582	8	29,701
9 or more	26,848	9 or more	35,060
1994		2001	
2	9,661	2	11,569
3	11,821	3	14,128
4	15,141	4	18,104
5	17,900	5	21,405
6	20,235	6	24,195
7	22,923	7	27,517
8	25,427	8	30,627
9 or more	30,300	9 or more	36,286
1998		2002	
2	10,634	2	11,756
3	13,003	3	14,348
4	16,660	4	18,392
5	19,680	5	21,744
6	22,228	6	24,576
7	25,257	7	28,001
8	28,166	8	30,907
9 or more	33,339	9 or more	37,062
1999		2003	
2	10,869	2	12,015
3	13,290	3	14,680
4	17,029	4	18,810
5	20,127	5	22,245
6	22,727	6	25,122
7	25,912	7	28,544
8	28,967	8	31,589
9 or more	34,417	9 or more	37,656

NOTE: Poverty thresholds for 1990, 1994, 1998, 1999, and 2000 were last revised August 22, 2002; poverty thresholds for 2001 were last revised September 24, 2002; poverty thresholds for 2002 were last revised June 22, 2004; poverty thresholds for 2003 were last revised August 26, 2004.
 SOURCE: U.S. Census Bureau, Current Population Survey (CPS), 1990, 1994, 1998, 1999, 2000, and 2001; CPS 2003 and 2004 Annual Social and Economic Supplements.

Note 1: Commonly Used Variables

Continued

families with incomes above the poverty threshold are classified as nonpoor. The thresholds used to determine whether an individual is poor or nonpoor differ for each survey year. The weighted average poverty thresholds for various household sizes for 1990, 1994, 1998, 1999, 2000, 2001, 2002, and 2003 are shown in the table on the previous page. (For thresholds for other years, see <http://www.census.gov/hhes/poverty/threshld.html>.)

Indicator 5 modifies the categories of poverty, to include the “poor,” “near-poor,” and “nonpoor.” Poor is defined to include those families below the poverty threshold, near-poor is defined as those at 100–199 percent of the poverty threshold, and nonpoor is defined as those at 200 percent or more than the poverty threshold.

Indicator 8 employs the Census poverty thresholds for 1998 in determining the number of family risk factors.

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 Bureau of the Census, 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 2005*, eligibility for the National School Lunch Program applies to *indicators 9, 10, 14, 24, 26, and 28*.

Indicators 25 and 36 use counts of free lunch eligible students from the Longitudinal School District Fiscal-Nonfiscal File, Fiscal Years 1990 to 2000 (FNF) to measure poverty by district. All missing free lunch eligible data have been replaced by statistical imputations, and clearly erroneous data have been edited and replaced by plausible values. Further information about the database is available at <http://nces.ed.gov/edfn/>.

GEOGRAPHIC REGION

The regional classification systems on the next page represent the four geographical regions of the United States as defined by the Bureau of the Census and a collapsed set of the eight geographic regions defined by the Bureau of Economic Analysis (BEA), both of the U.S. Department of Commerce. In *The Condition of Education 2005*, *indicators 1, 2, 4, 5, 19, 26, 37, and 38* use the Bureau of the Census system. *Indicators 25 and 28* use a set of four geographic regions derived from collapsing the BEA’s eight regions. Specifically, these indicators label (1) the BEA’s Mideast and New England regions as “Northeast,” (2) the BEA’s Great Lakes and Plains regions as “Central,” and (3) the BEA’s Far West, Rocky Mountains, and Southwest regions as “West.” The BEA’s Southeast region remains unchanged. Collapsing these categories in this way creates one identical region with the Bureau of the Census’ system: the “Central” region in the collapsed BEA set matches the Bureau of the Census’ Midwest region.

Note 1: Commonly Used Variables

Continued

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

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

Note 2: The Current Population Survey (CPS)

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

The CPS collects data on the social and economic characteristics of the civilian, noninstitutional population, including information on income, education, and participation in the labor force. However, the CPS does not collect all this information every month. Each month a “basic” CPS questionnaire is used to collect data about participation in the labor force of each household member, age 15 or older, in every sampled household. In addition, different supplemental questionnaires are administered each month to collect information on other topics.

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

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

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

DEFINITION OF SELECTED VARIABLES

Employment Status

Indicator 17 uses data from the March and Annual Social and Economic CPS Supplements, which include questions on employment of adults in the previous week, to determine employment status. Respondents could report that they were employed (either full or part time), unemployed (looking for work or on layoff), or not in the labor force (due to being retired, having unpaid employment, or some other reason). Employed respondents were further classified as either full-time or part-time employees. Respondents who reported working 50 or more weeks in the past year and typically worked 35 or more hours per week were classified as full-time employees. Respondents who reported working fewer weeks or fewer hours per week were classified as part-time employees because they did not work full time.

Note 2: The Current Population Survey (CPS)

Continued

Family Income

Indicator 20 uses data on family income that are collected as part of the October CPS to measure a student's economic standing. The October CPS determines family income from a single question asked of the household respondent. Family income includes all monetary income from all sources (including jobs, business, interest, rent, and social security payments) over a 12-month period. The income of nonrelatives living in the household is excluded, but the income of all family members age 15 or older (age 14 or older before 1989), including those temporarily living away, is included.

Families in the bottom 20 percent of all family incomes are classified as low income; families in the top 20 percent of all family incomes are classified as high income; and families in the 60 percent between these two categories are classified as middle income. The table on the next page shows the current dollar amount of the breakpoints between low and middle income and between middle and high income for the subpopulation of the CPS population used in *indicator 20*: high school completers ages 16–24. For example, low income for this subpopulation in 2003 is defined as the range between \$0 and \$16,394; middle income is defined as the range between \$16,394 and \$78,666; and high income is defined as \$78,666 or more.

Status Dropout Rate

Indicator 19 reports status dropout rates by race/ethnicity. The status rate is one of a number of rates reporting on high school dropout and completion behavior in the United States. Status dropout rates measure the percentage of individuals within a given age range who are not enrolled in high school and who lack a high school credential, irrespective of when they dropped out. Since they measure the extent of the dropout problem for the sampled

population, status dropout rates can be used to estimate the need for further education and training for dropouts in that population. Status dropout rates should not be confused with event dropout rates, which measure the proportion of students who drop out of high school in a given year, and which have been reported in previous *The Condition of Education* volumes (NCES 2004–077, *indicator 16*. See also NCES 2005–040).

Indicator 19 uses CPS data to estimate the percentage of the 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). Status dropout rates include individuals who never attended school and immigrants who did not complete the equivalent of a high school education in their home country as dropouts. The inclusion of these individuals is appropriate since the status rate is designed to report the percentage of youth and young adults in the United States who lack what is now considered a basic level of education. However, counting as dropouts individuals who may have never attended a U.S. school means the status rate should not be used as an indicator of the performance of U.S. schools.

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

The CPS October Education and School Enrollment Supplement items used to identify status dropouts include (1) “Is . . . attending or enrolled in regular school?” and (2) What is the highest level of school . . . has completed

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 1972–2003

Year	Breakpoints between low- and middle-income	Breakpoints between middle- and high-income
1972	\$3,600	\$13,600
1973	3,900	14,700
1974	—	—
1975	4,300	16,900
1976	4,600	18,300
1977	4,900	20,000
1978	5,200	21,600
1979	5,800	23,700
1980	6,000	25,200
1981	6,500	27,100
1982	7,100	31,200
1983	7,300	32,300
1984	7,400	34,200
1985	7,900	36,300
1986	8,400	38,100
1987	8,600	39,600
1988	9,300	42,000
1989	9,500	43,800
1990	9,600	46,200
1991	10,400	48,300
1992	10,700	49,600
1993	10,800	50,400
1994	11,800	55,500
1995	11,600	55,700
1996	12,100	58,100
1997	12,800	60,700
1998	13,800	64,900
1999	14,400	68,200
2000	15,300	71,900
2001	16,100	75,000
2002	16,400	75,400
2003	16,400	78,700

—Not available. Data on family income were not available in 1974.

NOTE: Some estimates are revised slightly from those published in NCES 2004–077 primarily because for *indicator 20* the population is high school completers ages 16–24 of the survey year instead of the entire CPS population.

SOURCE: U.S. Department of Education, National Center for Education Statistics. (2003). *The Condition of Education 2003* (NCES 2004–077), *supplemental note 2* and previously unpublished tabulation (January 2005). Data from U.S. Department of Commerce, Bureau of the Census, Current Population Survey (CPS), October Supplement, 1972–2003.

Note 2: The Current Population Survey (CPS)

Continued

or the highest degree . . . has received?” See the Educational Attainment section below for details of how the second question has changed from 1972 to 2002. Beginning in 1986, the U.S. Census Bureau instituted new editing procedures for cases with missing data on school enrollment (the first question listed above). This was done in an effort to improve data quality. The effect of the editing changes was evaluated for data from 1986 by applying both the old and new editing procedures. The effect was an increase in the number of students enrolled in school and a slightly lowered status dropout rate (12.2 percent based on the old procedures and 12.1 percent based on the new ones). The difference in the two rates was not statistically significant. While a change in the procedures occurred in 1986, the new procedures are reflected beginning in 1987 in *indicator 19*.

Educational Attainment

Data from CPS questions on educational attainment are used in indicators 16, 17, 19, 20, and 23. 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 ques-

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

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

High School Completion

The pre-1992 questions about educational attainment did not specifically consider high school equivalency certificates (GEDs). Consequently, an individual who attended 10th grade, dropped out without completing that grade, and who subsequently received a high school equivalency credential would not have been counted as completing 12th grade.

Note 2: The Current Population Survey (CPS)

Continued

The new question counts these individuals as if they are high school completers. Since 1988, an additional question has also asked respondents if they have a high school degree or the equivalent, such as a GED. People who respond “yes” are classified as high school completers. Before 1988, the number of individuals who earned a high school equivalency certificate was small relative to the number of high school graduates, so that the subsequent increase from including equivalency certificate recipients in the total number of people counted as “high school completers” was small in the years immediately after the change was made.

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

College Completion

Some students require more than 4 years to earn an undergraduate degree, so some researchers are concerned that the completion rate, based on the pre-1992 category “4th year or higher of college completed,” overstates the number of respondents with a bachelor’s degree (or higher). In fact, however, the completion rates among those ages 25–29 in 1992 and 1993 were similar to the completion rates for those in 1990 and 1991, before the change in the question’s wording. Thus, there appears to be good reason to conclude that the change has not affected the completion rates reported in *The Condition of Education 2005*.

Some College

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

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

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

Another potential difference in the “some college” category is how individuals who have

Note 2: The Current Population Survey (CPS)

Continued

completed a certificate or some other type of award other than a degree respond to the new questions about their educational attainment introduced in 1992. Some may answer “some college, no degree,” while others may indicate only high school completion, and others may

equate their certificate with one of the types of associate’s degrees. No information is available on the tendencies of individuals with a postsecondary credential other than a bachelor’s or higher degree to respond to the new attainment question introduced in 1992.

Note 3: Other Surveys

AMERICAN COMMUNITY SURVEY (ACS)

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

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

National-level data from ACS are available starting with 2000. Under the current timetable, annual results will be available for areas with populations of 65,000 or more beginning in the summer of 2006, for areas with populations of 20,000 or more in the summer of 2008, and for all areas—down to 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 5 uses data from the ACS for the years 2000–03. For further details on the survey, see <http://www.census.gov/acs/www/>.

ACADEMIC LIBRARY SURVEY

The Academic Library Survey has been conducted by NCES since 1966 at irregular intervals. Beginning with the 1990 survey, it has been conducted every 2 years. It covers

all academic libraries in 2- and 4-year degree-granting institutions, including institutions that are eligible for Title IV aid, branch campuses of Title IV-eligible institutions, and institutions that are eligible for Title IV aid for deferment only. IPEDS provides the frame used in the survey. The survey collects information on outlets, staff, collections, expenditures, library services, and electronic services.

Indicator 33 uses data from the Academic Library Survey. For further details on the survey, see <http://nces.ed.gov/surveys/libraries/academic.asp>.

COMMON CORE OF DATA (CCD)

The Common Core of Data (CCD), the Department of Education's primary database on public elementary and secondary education in the United States, is a comprehensive annual, national statistical database of information concerning all public elementary and secondary schools (approximately 91,000) and school districts (approximately 16,000). The CCD consists of five surveys that state education departments complete annually from their administrative records. The database includes a general description of schools and school districts; data on students and staff, including demographics; and fiscal data, including revenues and current expenditures.

Indicators 1, 2, 29, 36, 37, 38 and 39 use data from the CCD. Further information about the database is available at <http://nces.ed.gov/ccd/>.

EARLY CHILDHOOD LONGITUDINAL STUDY, BIRTH COHORT (ECLS–B)

The Early Childhood Longitudinal Study, Birth Cohort (ECLS–B) is an ongoing study conducted by the National Center for Education Statistics (NCES). The study follows a nationally representative sample of children born

Note 3: Other Surveys

Continued

in 2001 from birth to 1st grade. The ECLS–B is designed to provide detailed information on children’s development, health, and in- and out-of-home experiences in the years leading up to school.

A nationally representative sample of 10,688 babies born in 2001 participated in the ECLS–B. The sample includes children from different racial/ethnic and socioeconomic backgrounds and includes oversamples of Chinese and other Asian/Pacific Islander children, American Indian children, twins, and children with moderately low and very low birth weight. Sampled children subsequently identified by the state registrars as having died or who had been adopted after the issuance of the birth certificate were excluded from the sample. Also, infants whose birth mothers were younger than 15 years at the time of the child’s birth were excluded.

When babies in the sample were 9 months of age, ECLS–B collected data (through a child assessment, interview with primary caregiver, a self-administered father questionnaire, and an in-home visit, and from the National Center for Health Statistics) regarding prenatal care and delivery during a visit in the child’s home. These data were collected on a rolling basis between October 2001 and December 2002 (when babies born in January through December 2001 were turning 9 months old). The design was to collect information on children about 9 months of age (i.e., 8 to 10 months); however, children were assessed as young as 6 months and as old as 22 months. Seventy-two percent of the children were between 8–10 months at the time of the assessment and 84 percent were between 8–11 months. The data collection consisted of the following instruments:

- *Child Assessment.* Children participated in a variety of activities, with the parent’s permission, to assess their early cognitive (e.g., mental status), physical, and socio-

emotional development. Children’s mental and physical skills were measured through an untimed one-on-one assessment of the child in his/her home. A trained staff member assessed each child. Information was gathered using hard copy materials. Information about the child was recorded in a Child Activities Booklet that also contained administration and scoring instructions. The assessment—The Bayley Short Form—Research Edition (BSF–R)¹—was used to assess children’s mental (or cognitive) and motor (or physical) skills. The BSF–R is a shortened form of the Bayley Scales of Infant Development—Second Edition (BSID–II).² For families whose primary language was not English, the assessment was still administered. A Spanish version of the Child Activities Booklet was developed. If the family spoke a language other than English or Spanish, interviewers used an interpreter.

- *Parent Interview.* Parents/guardians were asked to provide key information about their children and themselves on such topics as family demographics (e.g., age, relation to child, race/ethnicity), family structure (household members and composition), parent attitudes, home educational activities, child care experience, child development and health, and parental education and employment status. In 99 percent of the cases, the biological mother was the parent respondent completing the interview. The parent interview included two instruments: the parent interview instrument and the parent self-administered questionnaire (PSAQ). The first was conducted in person by trained field interviewers using computer-assisted personal interviewing (CAPI) as part of the home visit. The PSAQ was a paper-and-pencil instrument, presented during the parent CAPI instrument for the respondent to complete and return in a provided envelope, and

Note 3: Other Surveys

Continued

contained 23 questions on topics some people might prefer to answer privately. The parent interviews were conducted primarily in English, but provisions were made to interview parents who spoke other languages. Bilingual interviewers were trained to conduct the parent interview in either English or Spanish. A Spanish CAPI instrument was used when needed because the parent CAPI instrument was programmed in both English and Spanish. An interpreter, either a community or household member, was used for families who spoke languages other than English or Spanish. Fewer than 0.1 percent of the cases were not completed due to language difficulties.

- *Father Questionnaire.* The ECLS–B also collected data from fathers directly through two separate father questionnaires: the resident father questionnaire and the nonresident father questionnaire. The resident father questionnaire was completed by the spouse/partner of the respondent to the parent interview. This was usually the child’s biological father. The nonresident father questionnaire was completed by the child’s biological father if he did not reside in the same household as the child and if he had regular contact with the child or the child’s mother. Both father questionnaires were self-administered with telephone follow-up. The father questionnaires were available in English and Spanish.

Indicator 35 uses data from the ECLS–B. Further information on the survey is available at <http://nces.ed.gov/ecls/Birth.asp>.

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

The Early Childhood Longitudinal Study, Kindergarten Class of 1998–99 (ECLS–K) is an ongoing study conducted by NCES. Launched

in fall 1998, the study follows a nationally representative sample of children from kindergarten through 5th grade. The purpose of the ECLS–K is twofold: to provide both descriptive and analytical data. First, the ECLS–K provides descriptive national data on children’s status at entry into school; children’s transition into school; and their progression through 5th grade. Second, the ECLS–K provides a rich data set that enables researchers to study how a wide range of family, school, community, and individual variables affect children’s early success in school.

A nationally representative sample of 21,260 children enrolled in 1,277 kindergarten programs participated in the initial survey during the 1998–99 school year. These children were selected from both public and private kindergartens, offering full- and half-day programs. The sample consists of children from different racial/ethnic and socioeconomic backgrounds and includes an oversample of Asian/Pacific Islander children. All kindergarten children within the sampled schools were eligible for the sampling process, including language minority and special education students. The sample design for the ECLS–K is a dual-frame, multistage sample. First, 100 Primary Sampling Units (PSUs), which are counties or groups of counties, were selected. Schools within the PSUs were then selected—public schools from a public school frame and private schools from a private school frame, which oversampled private kindergartens. In fall 1998, approximately 23 kindergartners were selected within each of the sampled schools.

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

Note 3: Other Surveys

Continued

collected from a 30 percent subsample of the cohort in the fall and from the full sample in the spring. Spring 1st-grade data were obtained between March and July 2000, and spring 3rd-grade data were obtained between March and July 2002, with 80 percent of the assessments at each round conducted between early April and late May.

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

ECLS-K constructed a family risk index consisting of whether the household income was below the poverty level, the primary home language was other than English, the mother's highest level of education was less than a high school diploma or GED, and whether the child lived in a single-parent household. The percentage of fall 1998 kindergartners with zero family risk factors was 62 percent; 23 percent had one family risk factor; 12 percent had two family risk factors; 3 percent had three family risk factors; and less than 0.5 percent had four family risk factors.

Indicators 8 and 18 are based on the ECLS-K.

Indicator 8 presents student proficiency in specific reading and mathematics skills. In reading, the skills are literal inference (e.g., recognizing the comparison being made in a simile), deriving meaning from text (e.g., us-

ing background knowledge combined with sentence cues to understand the use of homonyms), interpreting beyond text (making connections between problems in a narrative and similar life problems), and recognizing sight words (recognizing common words by sight). In mathematics, the skills include ordinality and sequence (demonstrating an understanding of the relative position of objects), place value (demonstrating an understanding of place value in integers to the hundreds place), and rate and measurement (using rate and measurement to solve word problems).

For *indicator 18*, children's kindergarten enrollment status in fall 1998 was determined from two items on the parent questionnaire. One addressed whether the child had been in kindergarten previously. If this was the child's second (or greater) year in kindergarten, the child's enrollment status was defined as "repeating kindergarten." The other question asked about the timing of the entry relative to when the child was age eligible according to district requirements. Children who were not repeating kindergarten (i.e., were enrolled for the first time in fall 1998) were categorized as "first-time, entered on time" when their parents reported enrolling them the year in which they met the age requirement; "first-time, delayed entrants" when their parents reported that they had waited until fall 1998 to enroll their children even though they had been age eligible a year earlier; and "first-time, early entry" if their districts had allowed them to start kindergarten before they were officially age eligible (this last category accounted for only 2 percent of children enrolled in kindergarten). "Delayed entry" children could have been kept out by their parents to allow for an extra year to mature or possibly because of developmental difficulties.

The analysis sample for *indicator 18* was limited to students who were enrolled in kindergarten in fall 1998, who did not enter

Note 3: Other Surveys

Continued

early, who were promoted to 1st grade in fall 1999, and who were assessed in English in the fall and spring of kindergarten and spring of 1st grade. Approximately 69 percent of Hispanic children and 84 percent of Asian children were assessed in English at all three points in time.

The ECLS–K battery to assess knowledge and skills covered reading and mathematics. Scale scores were developed to describe reading and mathematics achievement, and estimates of the percentage of children mastering certain skills were calculated. Reading skills assessed included letter recognition, beginning sounds, ending sounds, sight words, and the use of words in context. Mathematics skills assessed included number and shape recognition, relative size, ordinality, addition and subtraction, and multiplication and division.

Further information on the survey is available at <http://nces.ed.gov/ecls/kindergarten.asp/>.

EDUCATIONAL LONGITUDINAL STUDY OF 2002 (ELS:2002)

The Education Longitudinal Study of 2002 (ELS:2002) is the fourth major national longitudinal survey of high school students conducted by NCES. Three similar previous surveys were the National Longitudinal Study of the High School Class of 1972 (NLS–72), the High School and Beyond Longitudinal Study of 1980 (HS&B:80), and the National Education Longitudinal Study of 1988 (NELS:88). Like its predecessors, ELS:2002 is designed to provide information to researchers, policymakers, and the public about high school students' experiences and activities, and to track changes in these young people's lives as they mature in the years after high school. ELS:2002 sampled and collected data from 10th-graders in spring 2002 (the base year), along with data from their English and mathematics teachers, their school's librarian and principal, and one parent

for each student. The base-year data include 10th-graders' scores on cognitive tests in reading and mathematics, and the first follow-up will include a test in mathematics. Follow-up surveys are currently planned for 2004 (when most students in the cohort will be seniors preparing for high school graduation) and for 2006. About 750 schools were selected (in both the public and private sectors); about 15,000 students in these schools completed base-year surveys, along with about 13,000 of their parents, 7,000 of their teachers, 700 principals, and 700 librarians.

ELS:2002 collected information on students' experiences while in high school (including their coursetaking, achievement, extracurricular activities, social lives, employment, and risk-taking behaviors); students' aspirations, life goals, attitudes, and values; and the influence of family members, friends, teachers, and other people in their lives. Following the same cohort of students over time allows data users to monitor changes in students' lives, including their progress through high school, participation in postsecondary education (entry, persistence, achievement, and attainment), early experiences in the labor market, family formation, and civic participation. In addition, by combining data about students' school programs, coursetaking experiences, and cognitive outcomes with information from teachers and principals, the ELS:2002 data support investigation of numerous educational policy issues. Such policy questions include the influence of different curriculum paths, instructional methods, and teacher characteristics and whether the effectiveness of high schools varies with their size, organization, student body composition, academic climate, and other characteristics.

Indicator 29 uses data from the ELS: 2002. For further details on the survey, see <http://nces.ed.gov/surveys/els2002/overview.asp>.

Note 3: Other Surveys

Continued

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 7, 32, and 40* use data from the 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 and type of expense; (3) salaries of full-time instructional faculty by academic rank and tenure status; (4) completions (awards) by type of program, level of award, race/ethnicity, and sex; (5) characteristics of postsecondary institutions, including tuition, room and board charges, calendar systems, and so on; (6) status of postsecondary vocational education programs; and (7) other issues of interest.

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

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

Indicators 7, 31, 32, 33, 34, and 40 use data from the IPEDS. The institutional categories used in the surveys are described in *supplemental note 8*. Further information about IPEDS is available at <http://nces.ed.gov/ipeds/>.

LONGITUDINAL SCHOOL DISTRICT FISCAL-NONFISCAL FILE, FISCAL YEARS 1990 TO 2000 (FNF)

The Longitudinal School District Fiscal-Nonfiscal File, fiscal years 1990 to 2000 (FNF) contains fiscal and nonfiscal district data for each year from 1989–90 to 1999–2000 for the universe of regular public elementary and secondary school districts. The database is designed to be used by researchers to test hypotheses about longitudinal trends in school districts over this period. To facilitate analysis, all missing data have been replaced by statistical imputations, and clearly erroneous responses have been edited and replaced by plausible values.

Indicator 36 uses data from the FNF. Further information about the database is available at <http://nces.ed.gov/edfin/>.

NATIONAL CRIME VICTIMIZATION SURVEY (NCVS)

The National Crime Victimization Survey (NCVS) is the nation's primary source of information on criminal victimization. Initiated in 1972 and redesigned in 1992, the NCVS annually collects detailed information on the frequency and nature of the crimes of rape, sexual assault, robbery, aggravated and simple assault, theft, household burglary, and motor vehicle theft experienced by Americans and

Note 3: Other Surveys

Continued

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

Indicators 15 and 30 use data from NCVS. Further information about the survey is available at <http://www.census.gov/rodet/www/ncvs.html>.

NATIONAL EDUCATION LONGITUDINAL STUDY OF 1988 (NELS)

The National Education Longitudinal Study of 1988 (NELS:88) is the third major secondary school student longitudinal study sponsored by NCES. The two studies that preceded NELS:88, the National Longitudinal Study of the High School Class of 1972 (NLS-72) and the High School and Beyond Longitudinal Study of 1980

(HS&B:80), surveyed high school seniors (and sophomores in HS&B) through high school, postsecondary education, and work and family formation experiences. Unlike its predecessors, NELS:88 begins with a cohort of 8th-grade students. In 1988, some 25,000 8th-graders and their parents, teachers, and school principals were surveyed. Follow-ups were conducted in 1990, 1992, and 1994, when a majority of these students were in 10th and 12th grades, and then 2 years after their scheduled high school graduation. A fourth follow-up was conducted in 2000.

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

In 1990, when the students were in 10th grade, the students, school dropouts, teachers, and school principals were surveyed. The 1988 survey of parents was not a part of the 1990 follow-up. In 1992, when most of the students were in 12th grade, the second follow-up conducted surveys of students, dropouts, parents, teachers, and school principals. Also, information from the students' transcripts was collected. (For more information on the transcript data, see *supplemental note 6*.)

In 1994, the third follow-up of students took place. By this time, most of the survey participants had graduated from high school, and many had begun postsecondary education or

Note 3: Other Surveys

Continued

entered the workforce. This follow-up focused on issues related to postsecondary access, employment, and whether high school dropouts had earned a high school credential (and if so, by what route).

In 2000, the fourth (and final) NELS:88 follow-up occurred. By this time, most of the participants had been out of high school for 8 years. The study focused on postsecondary enrollment and completion, transitions into the labor force, and family formation. For those who had enrolled in any postsecondary education, postsecondary transcripts were collected from each institution attended.

Indicators 21 and 22 use data from NELS:88. Further information about the survey is available at <http://nces.ed.gov/surveys/nels88/>.

NATIONAL HOUSEHOLD EDUCATION SURVEYS PROGRAM (NHES)

The National Household Education Surveys Program (NHES), conducted in 1991, 1993, 1995, 1996, 1999, 2001, and 2003, collects data on educational issues that cannot be addressed by school-level data. Each survey collects data from households on at least two topics, such as adult education, early childhood program participation, parental involvement in education, and before- and afterschool activities.

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

Although NHES is conducted primarily in English, provisions are made to interview persons who speak only Spanish. Questionnaires

are translated into Spanish, and bilingual interviewers, who are trained to complete the interview in either English or Spanish, are employed. NHES only conducts interviews in English and Spanish, so if there is no respondent in the household who can speak either language, the interview is not completed.

Indicator 3 uses data from the NHES. Further information about the program is available at <http://nces.ed.gov/nhes/>.

OFFICE OF CIVIL RIGHTS ELEMENTARY AND SECONDARY SCHOOL SURVEY

The Elementary and Secondary School Survey (E&S Survey), conducted by the U.S. Department of Education, Office of Civil Rights since 1968, collects data on the public elementary and secondary schools in the United States. It is the primary vehicle for collecting data on children's civil rights and federal enforcement of those rights. It is used by the Department of Education to ensure implementation of Title IV of the Civil Rights Act of 1964, Title IX of the Education Amendments of 1972, Section 504 of the Rehabilitation Act of 1973, the Age Discrimination Act of 1975, and Title II of the Americans with Disabilities Act of 1990. Together, these regulations prohibit discrimination on the basis of race, color, national origin, sex, age, and disability in public education programs and activities that receive federal financial assistance.

The 2000 E&S Survey, unlike its previous versions, was a universe survey consisting of all public school districts in the country. The sample was formed by examining all possible public school districts and removing those that were deemed ineligible, primarily due to either having no schools or containing only prekindergarten schools. The survey was then sent to all 15,089 eligible school districts. Ninety-seven percent of school districts responded, and within those dis-

Note 3: Other Surveys

Continued

tricts, 99.95 percent of schools responded. Each school reported information on the children in the school and was required to sign and certify the accuracy of the information.

Indicator 6 uses data from the 2000 E&S Survey. Further information about the survey is available at <http://205.207.175.84/ocr2000r/>.

PRIVATE SCHOOL UNIVERSE SURVEY (PSS)

The Private School Universe Survey (PSS) was established in 1988 to ensure that private school data (in categories that have been used since the 1890s) would be collected on a more regular basis. With the help of the U.S. Bureau of the Census, 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 2001–02, the survey was sent to 29,273 qualified private schools and had a response rate of 94.9 percent.

Indicator 2 uses data from the PSS. Further information on the surveys is available at <http://nces.ed.gov/surveys/pss/>.

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:

- public schools, collecting data on school districts, schools, principals, teachers, and library media centers;
- private schools, collecting data on schools, principals, teachers, and library media centers;

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

SASS provides data on characteristics and qualifications of teachers and principals, teacher hiring practices, professional development, class size, and other conditions in schools. SASS data are designed to allow comparisons of public and private schools and staff and permit the analysis of trend data. In addition, SASS data are state-representative for the public sector and affiliation-representative for the private sector. Public schools are also linked to their respective districts. Public charter schools and their teachers and principals were included in the 1999–2000 administration of the SASS.

For the 1999–2000 SASS, to ensure that the sample sizes were sufficient for public and private school estimates, a stratified probability sample design was used that oversampled schools based on certain characteristics. All charter schools that were in existence during the 1998–99 school year and all schools funded by the BIA were included in the sample. For all sampled schools, teachers within those schools were first stratified by specific characteristics as reported by the school and then sampled. In addition, districts (for public schools only), principals, and library media centers (information on charter school libraries was collected on the school survey) associated with the schools were surveyed.

Indicator 26 and the special analysis use data from the SASS. Further information about the survey is available at <http://nces.ed.gov/surveys/SASS/OVERVIEW.ASP>.

Note 3: Other Surveys

Continued

SURVEY OF PUBLIC PARTICIPATION IN THE ARTS (SPPA)

The Survey of Public Participation in the Arts (SPPA), initiated by the National Endowment for the Arts (NEA) in 1982, is a periodic survey that examines the public's involvement in a variety of arts and art forms. The SPPA asks participants about their involvement with the performing arts, visual arts, historic site visits, music, and literature. The NEA surveyed the U.S. public in 1982, 1985, 1992, and 2002 as part of larger surveys conducted by the Bureau of the Census. In 1982, the SPPA was part of the National Crime Survey. In 1985 and 1992, it was part of the National Crime Victimization Survey. In 2002, it was part of the Current Population Survey, August Supplement. The NEA also conducted a stand-alone version of the survey in 1997, but due to different methodologies, the results are not compatible to those of other years in the historical trend.

The 1982 and 1985 SPPAs had over 17,000 respondents age 18 or older. These two surveys asked all respondents questions about their live arts attendance and participation and asked questions on a rotating basis pertaining to arts education, non-arts leisure activities, arts facilities, music preferences, arts creation and other participation, media engagement, and barriers to attending live performances.

The 1992 survey included 12,736 adults age 18 or older and used a similar format as the

earlier two surveys; however, the non-live arts questions were asked of all respondents. Additional changes were also made: for example, rather than just asking respondents one question about whether they had read any novels or short stories, plays, or poetry in the last 12 months, they were asked three separate questions. In addition, they were asked separate questions to determine whether they had read poetry or had listened to poetry in the past 12 months. In addition, a distinction was drawn between reading books and reading literature by first including a question about reading books (“With the exception of books required for work or school, did you read any books during the last 12 months?”) and then asking the question about reading literature.

The 2002 survey was part of the CPS and had 17,135 respondents. The questionnaire closely followed the 1992 questionnaire, with slight modifications.

Indicator 15 uses data from SPPA. Further information about the survey can be found at <http://www.cpanda.org/data/profiles/sppa.html>.

NOTES

¹ Bayley Short Form—Research Edition. Copyright © 2001 by The Psychological Corporation, a Harcourt Assessment Company. Adapted from the Bayley Scales of Infant Development: Second Edition. Copyright © 1993 by The Psychological Corporation. Adapted and reproduced by permission of the publisher. All rights reserved.

² Bayley, N. (1993). *Bayley Scales of Infant Development, Second Edition Manual*. San Antonio, TX: The Psychological Corporation.

Note 4: National Assessment of Educational Progress (NAEP)

The National Assessment of Educational Progress (NAEP), governed by the National Assessment Governing Board (NAGB), is administered regularly in a number of academic subjects. Since its creation in 1969, NAEP has had two major goals: to assess student performance reflecting current educational and assessment practices and to measure change in student performance reliably over time. To address these goals, the NAEP includes a main assessment and a long-term trend assessment. The assessments are administered to separate samples of students at separate times, use separate instruments, and measure different educational content. Consequently, results from the assessments should not be compared.

MAIN NAEP

Indicators 9, 10, and 14 are based on the main NAEP. The main NAEP periodically assesses students' performance in several subjects, following the curriculum frameworks developed by the 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. Before 2002, the NAEP national sample was an independently selected national sample. However, beginning in 2002, the NAEP national sample was obtained by aggregating the samples from each state. As a result, the size of the national sample increased in 2002, which means that smaller differences between estimates from different administrations and different types of students can now be found to be statistically significant than can be detected in assessment results reported before 2002.

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

main assessment instruments for mathematics, science, and reading have typically been kept stable for short periods, allowing for a comparison across time. For example, from 1990 to 2003, assessment instruments in the same subject areas were developed using the same framework, shared a common set of questions, and used comparable procedures to sample and address student populations. For some subjects that are not assessed frequently, such as civics and the arts, no trend data are available.

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

- *Basic*: This level denotes partial mastery of prerequisite knowledge and skills that are fundamental for proficient work at each grade.
- *Proficient*: This level represents solid academic performance for each grade assessed. Students reaching this level have demonstrated competency over 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.

Note 4: National Assessment of Educational Progress (NAEP)

Continued

For additional information on NAEP, including technical aspects of scoring and assessment validity and more specific information on achievement levels, see <http://nces.ed.gov/nationsreportcard/researchcenter/papers.asp>.

Student Accommodations

Until 1996, the main NAEP assessments excluded certain subgroups of students identified as “special needs students,” including students with disabilities and students with limited English proficiency. For the 1996 and 2000 mathematics assessments and the 1998 and 2000 reading assessments, the main NAEP included a separate assessment with provisions for accommodating these students (e.g., extended time, small group testing, mathematics questions read aloud, and so on). Thus, for these years, there are results for both the unaccommodated assessment and the accommodated assessment. For the 2002 and 2003 reading and 2003 mathematics assessments, the main NAEP did not include a separate unaccommodated assessment; only a single accommodated assessment was administered. The switch to a single accommodated assessment instrument was made after it was determined that accommodations in NAEP did not have any significant effect on student scores. *Indicators 9 and 10* present NAEP results with and without accommodations.

Mathematics Coursetaking

The 2003 main NAEP assessments include questions asking students about their coursetaking patterns. In 8th grade, students reported on the mathematics course they were currently taking. For reporting purposes, courses were grouped into lower level (group 1) courses and higher level (group 2) courses. Group 1 courses include 8th-grade mathematics and prealgebra. Group 2 courses include algebra I, algebra II, geometry, and integrated or sequential mathematics. *Indicator 10* presents NAEP results by 8th-grade mathematics coursetaking.

Charter School Pilot Study

As the charter school movement has grown, interest in how charter schools function and how their students perform academically has increased. Motivated by this interest, NAGB asked the National Center for Education Statistics (NCES) to conduct a pilot study of charter schools. This pilot study was conducted as part of the 2003 main NAEP national assessment of 4th-graders in reading and mathematics. This study applied the same procedures used for all other public schools in the main NAEP sample; however, additional procedures were also used to ensure that the sample of charter schools within each state was proportional to their representation in the total population of charter schools. In particular, charter schools in three states (California, Michigan, and Texas) were oversampled because they account for almost half of all charter school students nationally. The original charter school sample was drawn from the 2000–01 Common Core of Data (CCD). At final count, 150 charter schools were included in the sample. For more details on the pilot study, see <http://www.nces.ed.gov/pubsearch/pubsinfo.asp?pubid=2005456>. *Indicator 28* uses data from the Charter School Pilot Study.

LONG-TERM TREND NAEP

The long-term trend NAEP measures basic student performance in reading, mathematics, science, and writing. Since the mid-1980s, the long-term trend NAEP has used the same instruments to provide a means to compare performance over time, but they do not necessarily reflect current teaching standards or curricula. Results have been reported for students at ages 9, 13, and 17 in mathematics, reading, and science, and at grades 4, 8, and 11 in writing. Results from the long-term trend NAEP are presented as mean scale scores because, unlike the main NAEP, the long-term trend NAEP does not define achievement levels. None of the indicators in *The Condition of Education 2005* are based on the long-term trend NAEP assessments.

Note 5: International Assessments

PROGRAM FOR INTERNATIONAL STUDENT ASSESSMENT (PISA)

Indicators 13 and *26* are based on data collected as part of the Program for International Student Assessment (PISA). First conducted in 2000, PISA had its first follow-up in 2003 and has a second follow-up scheduled in 2006. The focus of each PISA is on the capabilities of 15-year-olds in reading literacy, mathematics literacy and problem solving, and science literacy. However, in each assessment year, PISA provides a detailed examination for a different one of the three subjects and basic examination of the other two subjects. The 2000 assessment focused on reading. The 2003 assessment focused on mathematics literacy and problem solving. The 2006 assessment will focus on science literacy. PISA is sponsored by the Organization for Economic Cooperation and Development (OECD), an intergovernmental organization of 30 industrialized countries that serves as a forum for member countries to cooperate in research and policy development on social and economic topics of common interest.

In 2003, 41 countries participated in PISA, including all 30 of the OECD countries and 11 non-OECD countries. To implement PISA, each participating country selected a nationally representative sample of 15-year-olds. A minimum of 4,500 students from a minimum of 150 schools was required. Each student completed a 2-hour paper-and-pencil assessment. The results of one OECD country, the United Kingdom, are not discussed due to low response rates. Because PISA is an OECD initiative, all international averages presented for PISA are the average 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 (such as hours of instructional time, which was used in *indicator 26*). 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.

Indicator 13 discusses student performance in mathematics literacy and problem solving. These concepts are defined by PISA as follows.

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

Problem solving is defined as "an individual's capacity to use cognitive processes to confront and resolve real, cross-disciplinary situations

Note 5: International Assessments

Continued

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

A comparative analysis of the National Assessment of Education Progress (NAEP), Trends in International Mathematics and Science Study (TIMSS), and PISA mathematics assessments sponsored by NCES found that PISA used far fewer multiple choice items and had a much stronger content focus on the “data” area (which often deals with using charts and graphs), which fits with PISA’s emphasis using materials with a real-world context. For more results from the study, see *A Content Comparison of the NAEP, TIMSS, and PISA 2003 Mathematics Assessments* (NCES 2005–112).

PROGRESS IN INTERNATIONAL READING LITERACY STUDY (PIRLS)

Indicator 26 is based on data collected in 2001 as part of the Progress in International Reading Literacy Study (PIRLS). The study, conducted by the International Association for the Evalu-

ation of Educational Achievement (IEA), assessed the reading comprehension of children in 35 countries. In each country, students from the upper of the two grades with the most 9-year-olds (4th grade in the United States and most countries) were assessed. Designed to be the first in a planned 5-year cycle of international trend studies in reading literacy by IEA, PIRLS 2001 provides comparative information on the reading literacy of 4th-graders and also examines factors that may be associated with the acquisition of reading literacy in young children, such as hours of instructional time, which is used in *indicator 26*.

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

TRENDS IN INTERNATIONAL MATHEMATICS AND SCIENCE STUDY (TIMSS)

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

Note 5: International Assessments

Continued

Indicators 11 and 12 use data from the TIMSS.

1995 TIMSS

In 1995, the assessment components of TIMSS tested students in three populations:

- *Population 1*: Students enrolled in the two adjacent grades that contained the largest proportion of 9-year-old students at the time of the assessment—3rd- and 4th-grade students in most countries.
- *Population 2*: Students enrolled in the two adjacent grades that contained the largest proportion of 13-year-old students at the time of the assessment—7th- and 8th-grade students in most countries.
- *Population 3*: Students enrolled in their final year of secondary education, which ranged from 9th to 14th grade. In many countries, students in more than one grade participated in the study because the length of secondary education varied by type of program (e.g., academic, technical, vocational). No indicators in *The Condition of Education 2005* used data from this population.

All countries that participated in the study were required to administer assessments to the students in the two grades at Population 2 but could choose whether to participate in the assessments of other populations. Results for Population 2 were reported for 42 countries.

TIMSS used a two-stage sample design. For Populations 1 and 2, the first stage involved selecting, at a minimum, 150 public and private schools within each country. Countries were allowed to oversample for analyses of particular national interest, and all collected data were appropriately weighted to account for the final sample. Random sampling methods were then used to select from each school one mathemat-

ics class for each grade level within a population (generally 3rd and 4th for Population 1 and 7th and 8th for Population 2). All of the students in these mathematics classes (except for excluded students) then participated in the TIMSS testing in science and mathematics. This design was also used in 1999 and 2003.

The development of TIMSS was a cooperative effort including representatives from every participating country (a list of participating countries is available on the TIMSS website, given below). The TIMSS assessment was based on collaboratively developed frameworks for the topics from curricula in mathematics and science to be assessed, and the framework and related consensus process involved content experts, education professionals, and measurement specialists from many different countries. The assessment included multiple-choice and constructed-response questions.

1999 TIMSS

For the 1999 assessment, the international desired population consisted of all students in the country who were enrolled in the upper of the two adjacent grades that contained the greatest proportion of 13-year-olds at the time of testing. These populations corresponded with Population 2 in 1995 except that only students in the higher of the two adjacent grades containing the largest proportion of 13-year-olds at the time of the assessment were included in the sample instead of students from both of these grades. In the United States and most countries, this corresponded to grade 8.

All countries that participated in the 1995 TIMSS were invited to participate in the 1999 TIMSS, along with some countries that did not participate in 1995. In total, 38 countries collected data for the 1999 TIMSS: 26 that had participated in the 1995 TIMSS and 12 that

Note 5: International Assessments

Continued

were participating for the first time. (A list of participating countries is available on the TIMSS website, given below.)

2003 TIMSS

For the 2003 assessment, the international desired population consisted of all students in the country who were enrolled in the upper of the two adjacent grades that contained the greatest proportion of 9- and 13-year-olds at the time of testing (Populations 1 and 2, respectively, except only the upper of the two adjacent grades). In the United States and most countries, this corresponded to grades 4 and 8. In all, 25 countries participated at grade 4, and 45 countries participated at grade 8. (A list of participating countries is available on the TIMSS website, given below.)

Approximately one-third of the 1995 4th-grade assessment items and one-half of the 1999 8th-grade assessment items were used in the 2003 assessment. Development of the 2003 assessment began with an update of the assessment frameworks to reflect changes in the curriculum and instruction of participating countries. “Problem-solving and inquiry” tasks were added to the 2003 assessment to assess

how well students could draw on and integrate information and processes in mathematics and science as part of an investigation or in order to solve problems.

For the 2003 assessment, countries were placed into one of 4 categories based upon their response rate, detailed in the table below. In *indicators 11* and *12*, countries in category 1 appear in the tables and figures without annotation; countries in category 2 are annotated in the tables and figures as “met international guidelines for participation rates only after replacement schools were included”; countries in category 3 are annotated in the tables and figures as “country did not meet international sampling or other guidelines”; and countries in category 4 are not included in the indicators. In addition, annotations are included when the exclusion rate for a country exceeds 10 percent. Latvia is designated as “Latvia-LSS (Latvian-speaking schools)” in some analyses because data collection in 1995 and 1999 was limited to only those schools in which instruction was in Latvian. Finally, Belgium is annotated as Belgium-Flemish because only the Flemish education system in Belgium participated in TIMSS.

Note 5: International Assessments

Continued

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

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

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

Transcript studies collect information on (1) the academic courses that individual students completed in high school or at college or university, (2) what type of diploma(s) or degree(s) those students earned, and (3) when they received them. This supplemental note describes how indicators in this volume of *The Condition of Education* use transcript data and the categorization schema used in their analysis.

Indicators 21 and *22* use data from the postsecondary transcript studies done as part of NCES longitudinal studies of academic cohorts:

- **1972 Cohort:** The National Longitudinal Study of the High School Class of 1972 (NLS:72/86), with a sample of 22,500 12th-graders. Postsecondary transcripts were collected in 1984 for 12,600 of these students.
- **1982 Cohort:** High School and Beyond Longitudinal Study of 1980 Sophomores (HS&B-So:PETS), with a sample of over 30,000 10th-graders. The students in this cohort were scheduled to graduate from high school in 1982. Postsecondary transcripts were collected in 1993 for 8,400 of these students (HS&B-So:PETS).
- **1992 Cohort:** The National Education Longitudinal Study of 1988 (NELS:88/2000), with a sample of 24,600 8th-graders. The students in this cohort were scheduled to graduate from high school in 1992. Postsecondary transcripts were collected in 2000 for 8,900 of these students (NELS:88/2000-PETS).

The analyses reported in *indicators 21* and *22* are based on a subsample of students from each cohort who were in 12th grade on schedule and who earned a bachelor's degree within 8.5 years of their graduation from high school.

ADVANCED ACADEMIC HIGH SCHOOL COURSEWORK

Indicator 25 borrows the definitions of advanced mathematics, English, science, and foreign language coursework from the “academic pipeline” taxonomy (for details on this taxonomy, see *The Condition of Education 2003* and *2004*, *supplemental note 6*). For its analysis, *indicator 25* counted how many advanced courses in each of these four subjects were offered by public and private high schools that participated in the U.S. Department of Education's National Assessment of Educational Progress (NAEP) 2000 High School Transcript Study (HSTS).

The courses (and subgroups of courses in the “academic pipeline”) that constitute the advanced academic coursework for each of the four subjects are as follows:

Mathematics

Advanced academic coursework in mathematics is divided into the following three sublevels:

- **Advanced academic level I:** algebra III; algebra/trigonometry; algebra/analytical geometry; trigonometry; trigonometry/solid geometry; analytical geometry; linear algebra; probability; probability/statistics; statistics; statistics (other); and independent study.
- **Advanced academic level II:** precalculus and introduction to analysis.
- **Advanced academic level III:** advanced placement (AP) calculus; calculus; and calculus/analytical geometry.

English

Advanced academic coursework includes all honors-level courses in English.

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

Continued

Science

Advanced academic coursework in science includes the following three subgroups:

- *Advanced biology*: advanced biology, International Baccalaureate (IB) biology II, IB biology III, AP biology, field biology, genetics, biopsychology, biology seminar, biochemistry and biophysics, biochemistry, botany, cell and molecular biology, cell biology, microbiology, anatomy, and miscellaneous specialized areas of life sciences.
- *Chemistry II*: chemistry II, IB chemistry II, IB chemistry III, and AP chemistry.
- *Physics II*: physics II, IB physics, AP physics B, AP physics C: mechanics, AP physics C: electricity/magnetism, and physics II without calculus.

Foreign Language

Advanced academic coursework in a foreign language includes the following two subgroups:

- *Year 4*: a year-long course in 12th-grade foreign language instruction or higher.¹
- *AP instruction*: an AP foreign language course.

The foreign language academic pipeline does not classify all foreign language study: only courses in French, German, Latin, and Spanish are counted because these were the most commonly offered foreign languages when the pipeline was created and remain so today.

FIELDS OF STUDY FOR POSTSECONDARY DEGREES

Indicator 21 used the following 12 general fields of study to categorize data on postsecondary degree majors collected as part of the “Postsecondary Transcript Study, 2002” of the National Education Longitudinal Study of

1988 (NELS:88/2000-PETS). Each general category includes several more narrowly defined fields of study.

Business: accounting; finance; management; labor relations; marketing; retailing; hospitality management; real estate; agriculture business/production.

Education: early childhood, elementary, secondary, special, and physical education; library/archival science.

Engineering/technical/architecture: architectural/environmental design; computer technology; electrical, chemical, civil, mechanical engineering.

Physical sciences: chemistry; geology/earth science; physics.

Mathematics/computer science: computer programming; data/information management; computer science; information technologies; statistics.

Life science: agricultural/animal/plant science; conservation/natural resources; forestry; biochemistry; environmental studies; biopsychology.

Health science and services: medical/vet lab technician/assistant; dental assistant/hygienist; physical therapy; occupational therapy; speech pathology/audiology; clinical health science; nursing; health/hospital administration; public health; nutrition/food science.

Humanities: foreign languages; English/American literature; writing; creative/technical; philosophy; religious studies.

Fine and performing arts: graphic/industrial design; drama, speech; film arts; music; fine arts/art history; interior design; textiles/fashion; graphic/print communication.

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

Continued

Social sciences: American studies/civilization; area studies; ethnic studies; paralegal/pre-law; law; women’s studies; psychology; anthropology/archaeology; economics; geography; history; sociology; political science; international relations.

Applied social sciences: journalism; communications; child study/guidance; clinical/counseling psychology; recreation/sports; social work; public administration; human/community service.

Other: other business support; medical office support; communication technologies; other personal service; culinary arts/food management; liberal/general studies; integrated/general science; theology; bible studies; air transport.

NOTES

¹Year 3 of foreign language study (1 year of 11th-grade instruction) is not included in this definition of advanced coursework.

Note 7: Student Disabilities

The U.S. Department of Education's Office of Special Education Program (OSEP) collects information on students with disabilities as part of the implementation of the Individuals with Disabilities Education Act (IDEA). OSEP classifies students with disabilities according to 4 categories of educational environments and 13 categories of disabilities. *Indicator 6* uses 3 of these categories of disabilities in its analysis: emotional disturbance, mental retardation, and specific learning disabilities. *Indicator 27* analyzes all 13 categories of disabilities (but only shows totals). These categories are defined by OSEP as follows. (For more detailed definitions, see www.ideadata.org.)

EDUCATIONAL ENVIRONMENTS FOR STUDENTS WITH DISABILITIES

- **Regular classroom:** includes children who receive special education services in programs designed primarily for nondisabled children.
- **Separate facility (public and private):** includes children and youth who receive special education services for greater than 50 percent of the school day in a facility that does not house programs for students without disabilities.
- **Residential facility (public and private):** includes children who are served in publicly or privately operated programs in which children receive *special education* or *related services* for greater than 50 percent of the school day.
- **Homebound/hospital:** includes children who are served in either a home or hospital setting, including those receiving special education and related services in

the home and provided by a professional or paraprofessional who visits the home on a regular basis or schedule.

DISABILITY CATEGORIES

Autism

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

Deaf-blindness

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

Developmental Delay

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

Note 7: Student Disabilities

Continued

Emotional Disturbance

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

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

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

Hearing Impairments

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

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

Mental Retardation

Significantly subaverage general intellectual functioning, existing concurrently with deficits in adaptive behavior and manifested during the

developmental period, that adversely affects a child's educational performance.

Multiple Disabilities

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

Orthopedic Impairments

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

Other Health Impairments

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

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

Note 7: Student Disabilities

Continued

Specific Learning Disabilities

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

Speech or Language Impairments

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

Traumatic Brain Injury

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

Visual Impairments

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

Note 8: Classification of Postsecondary Education Institutions

The U.S. Department of Education’s Integrated Postsecondary Education Data System (IPEDS) employs various categories to classify postsecondary institutions. This note outlines the different categories used in varying combinations in *indicators 7, 21, 31, 32, and 33*.

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

Postsecondary institutions are further divided according to these criteria: degree-granting versus nondegree-granting; type of financial control; and Title IV-participating versus not Title IV-participating.

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

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

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

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

Note 8: Classification of Postsecondary Education Institutions

Continued

published in the IPEDS “Completions Survey” (IPEDS-C).

- *Indicator 7* includes 2-year (short for 2-year but less-than-4-year) and 4-year degree-granting institutions in its analysis.
- *Indicator 31* includes Doctoral, Master’s, Other 4-year, and 2-year degree-granting institutions in its analysis.
- *Indicator 32* includes 2-year and 4-year; public and private; Doctoral, Master’s, and Other 4-year degree-granting institutions in its analysis.

Note that the data for *indicator 32* come from IPEDS’s “Salaries, Tenure, and Fringe Benefits of Full-Time Instructional Faculty Survey” (IPEDS-SA), which applies to all 4-year institutions and 2-year degree-granting institutions. Less-than-2-year institutions and 2-year non-degree-granting institutions are excluded from the scope of the Salaries survey. Also excluded are institutions in which all instructional faculty are military personnel; contribute their services; teach preclinical or clinical medicine; or are employed on a part-time basis. The final universe for the staff/faculty collection was 4,865 institutions (excluding those in outlying territories); for the Salary component, it was 4,061. Thus, 804 institutions were excluded from the Salary component: 748 were excluded because they were non-degree-granting 2-year or less-than-2-year institutions, 56 were excluded for one of these other reasons.

NELS CLASSIFICATIONS

Postsecondary institutions can be grouped into categories denoting different degrees of selectivity, as is often done for guides to colleges and universities. The five institutional selectivity categories for the 1992 NELS cohort in supplemental table 21-1—“highly selective,” “selective,” “nonselective,” “open door,” and “not ratable”—are from the *American Freshman*

(Higher Education Research Institute 1992). Assigning institutions to one of the first three of these categories was done based on a number of factors, including the ratio of acceptances to applicants and the average composite SAT score of students in the entering class. All community colleges and area vocational-technical institutes (AVTIs) were assigned to the category of “open door.” Institutions that cannot be categorized according to the criteria identified above are considered not ratable. In the 1992 cohort, 4 percent of students attended a highly selective institution, 13 percent attended a selective institution, 41 percent attended a nonselective institution, 3 percent attended an open-door institution, and 39 percent attended an institution that is not ratable.

CARNEGIE CLASSIFICATIONS

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

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

Note 8: Classification of Postsecondary Education Institutions

Continued

The following key provides a guide to the category labels used by *indicator 21*, which used different labels to refer to different combinations of the Carnegie Classification categories. *Indicator 33* used abbreviated versions of the Carnegie Classification labels but did not combine categories other than to collapse types I and II for categories with both types.

Indicator 21

- Doctoral: includes Research Universities I and II, Doctoral Universities I and II.
- Comprehensive: includes Comprehensive Universities I and II.
- Baccalaureate: includes Baccalaureate Colleges I and II.
- Specialized: includes Professional Schools and Specialized Institutions.

Carnegie Classification Categories (1994 Definitions¹)

Research Universities I

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

Research Universities II

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

Doctoral Universities I

"In addition to offering a full range of baccalaureate programs, the mission of these institutions includes a commitment to graduate education through the doctorate. They award at least 40 doctoral degrees² annually in five or more disciplines."⁴

Doctoral Universities II

"In addition to offering a full range of baccalaureate programs, the mission of these institutions includes a commitment to graduate education through the doctorate. They award annually at least 10 doctoral degrees²—in three or more disciplines—or 20 or more doctoral degrees² in one or more disciplines."⁴

Master's (Comprehensive) Universities and Colleges I

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

Master's (Comprehensive) Universities and Colleges II

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

Baccalaureate Colleges I

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

Baccalaureate Colleges II

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

Note 8: Classification of Postsecondary Education Institutions

Continued

Carnegie Classification Categories (1994 Definitions¹)—Continued

Two-Year or Associate of Arts Colleges

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

Professional Schools and Specialized Institutions

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

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

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

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

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

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

Note 9: 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. Finance indicators 16, 36, 37, 38, 39, and 40 in *The Condition of Education* use the U.S. All Items CPI for All Urban Consumers (CPI-U).

The CPI-U is the basis for both the calendar year CPI and the school year CPI. The calendar year CPI is the same as the annual CPI-U. The school year CPI is calculated by adding the monthly CPI-U figures, beginning with July of the first year and ending with June of the following year, and then dividing that figure by 12. The school year CPI is rounded to three decimal places. Data for the CPI-U are available on the Bureau of Labor Statistics website (given below). Also, figures for both the calendar year CPI and the school year CPI can be obtained from the *Digest of Education Statistics 2002* (NCES 2003–060), an annual publication of NCES.

Although the CPI has many uses, its principal function in *The Condition of Education* is to convert monetary figures (salaries, expenditures, income, etc.) into inflation-free dollars to allow comparisons over time. For example, due to inflation, the buying power of a teacher's salary in 1998 is not comparable to that of a teacher 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

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

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

CLASSIFICATIONS OF EXPENDITURES FOR ELEMENTARY AND SECONDARY EDUCATION

Indicators 36 and 38 examine expenditures for public elementary and secondary education. *Indicator 36* uses two categories of expenditures in its analysis: total expenditures and current expenditures. *Indicator 38* uses six categories of expenditure: total expenditures, instructional expenditures, administration expenditures, operation and maintenance expenditures, capital expenditures, and other expenditures.

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

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

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

Note 9: Finance

Continued

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

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

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

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

CLASSIFICATIONS OF REVENUE

In *indicator 37*, revenue is classified by source (federal, state, 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 fund-raising capability, for example, county or municipal agencies. Intermediate revenue is included in local revenue totals. In *indicator 37*, local revenue is classified as either local property tax revenue or other local revenue.

In *indicator 37*, alternative local government revenue numbers for Texas were used in the calculation of the percentage distribution for the South in 1992–93 because, for that state, much of the revenue that was classified as local government property taxes was classified as revenue from intermediate sources. The alternative Texas local government property tax revenue for 1992–93 was calculated by applying the average of the proportions of the 1991–92 and 1993–94 local government property tax revenue to all local government revenue to the 1992–93 total for all local government revenue. Other local government revenue was calculated in a similar fashion.

Note 9: Finance

Continued

MEASURES OF EFFORT TO FUND EDUCATION

There are several ways effort to fund education can be measured. *The Condition of Education* presents two measures: *revenues per student* and *governmental effort*. *Indicator 39* uses as a measure of *revenue per student* the public revenue for elementary and secondary education divided by the total number of public elementary and secondary students in constant dollars. *Indicator 40* uses as a measure of *revenue per student* the public revenues for postsecondary education in public degree-granting institutions divided by the total number of students enrolled in these institutions in constant dollars. (No adjustments are made in *indicator 40* for part-time enrollment.)

Indicators 39 and *40* use as a measure of *governmental effort* the total public revenue divided by gross domestic product (GDP) for the United States. This is meant to measure the amount of public resources provided for education in relation to available societal resources.

Algebraically,

$$\text{Governmental Effort} = \text{Public Revenue}/\text{GDP}$$

Alternatively,

$$\begin{aligned} \text{Governmental Effort} &= \frac{\text{Public Revenue/}}{\text{Enrollment}} \div \frac{\text{GDP/Population}}{\text{Enrollment}} \\ &= \frac{\text{Public Revenue}}{\text{per Student}} \div \frac{\text{GDP Per Capita}}{\text{Population}} \end{aligned}$$

Hence, the measure for governmental effort can also be expressed in a way that relates the level of public investment in education (as measured by revenues per student) to the per capita capacity for public investment in education (as measured by GDP per capita) and to the percentage of the population who are

enrolled. The latter adjustment is important to isolate changes in governmental effort that are exclusively due to changes in the level of public investment in education (as measured by revenues per student) versus change in the extent of enrollment in education in the society (as measured by the percentage of people in the population who are enrolled). For example, if both total public revenue for education and GDP remain constant, governmental effort, as described in the formula above (where public revenue is divided by GDP), remains constant. As shown in the second formula, governmental effort can also remain unchanged if the level of public revenues per student decreases, while the percentage of the population enrolled in education increases by a commensurate amount. If both the level of revenues per student and the percentage of the population who are enrolled increase, the level of governmental effort necessarily increases. In this way, the measure of governmental effort used in *indicators 39* and *40* implicitly adjusts for both the level of revenues per student invested in education and the percentage of students in the population who are enrolled.

Both the revenues per student and governmental effort measures are needed to provide a more complete picture of funding effort: revenues per student measures the average level of resources invested in the education of each student and the total amount of public resources invested in all students as a percentage of GDP measures the governmental effort.

In addition to providing measures of public effort to fund education, both the revenue per student and governmental effort measures can also be used to assess the total funding effort in education—that is, the total public and private funding effort—in comparison to the public funding effort. This is done in *indicator 40* for revenues per student in postsecondary education. Public postsecondary institutions receive both govern-

Note 9: Finance

Continued

ment appropriations for educating students and private funds in the form of tuition payments, endowment contributions, and other sources. The difference between the total revenues per student received by institutions and the public revenues per student received is the private effort per student. As a measure of total funding effort, the “governmental funding effort” measure for postsecondary institutions would have to be redefined as total revenues as a percentage of the domestic GDP of the United States. This measure is not used in this volume.

Public revenue for elementary and secondary education is measured by the total revenue received by school districts providing public elementary and secondary education. Most of this revenue is used to fund the education of children in public schools from prekindergarten through grade 12. However, many school districts have adult education and community service programs that are funded out of this revenue. Also, in at least a dozen states, there is support for private schools (usually textbooks) that goes through the district. Altogether, public elementary and secondary education makes up 98 percent of the expenditures in public elementary and secondary schools. Also, a small percentage (2.3 percent in 2001–02) of the revenue received by school districts was from nongovernmental private sources (gifts and tuition and transportation fees from patrons).

In *indicator 39*, public revenue for postsecondary education is measured by government appropriations for public postsecondary institutions. Excluded from this measure are funds for certain student aid such as Pell grants and subsidies for student loans together with government appropriations for private institutions.

Revenue per student in *indicators 39* and *40* is in constant dollars based on the CPI, prepared

by the Bureau of Labor Statistics, U.S. Department of Labor. Gross domestic product is the market value of goods and services produced by labor and property in the United States.

Revenue data from elementary/secondary and postsecondary education are based on different accounting systems and are not entirely comparable. For example, public revenues for elementary and secondary education represent additions to assets (cash) from taxes, appropriation, and other funds, which do not incur an obligation that must be met at some future date (loans) in all public schools. These include revenues that are spent on construction of buildings and other investments in the physical plant. Due to the difficulty in constructing a comparable time series, public funds given to private schools (for Head Start, disabled children, etc.) are excluded. For postsecondary education, educational and general revenues are those available from public sources for the regular or customary activities of an institution that are part of its instruction or program. In contrast, revenue from (unrestricted and restricted) grants and contracts at all government levels are included. Overall, public revenue at postsecondary institutions includes salaries and travel of faculty and administrative or other employees; purchase of supplies or materials for current use in classrooms, libraries, laboratories, or offices; and operation and maintenance of the educational plant. Unlike public revenues for elementary/secondary education, postsecondary public revenues, as defined in *indicator 40*, do not include public funds used for expansion of a physical plant. As a result, readers should focus on the changes over time within the elementary/secondary and postsecondary education measures rather than making comparisons across measures.

Note 10: State Transfer and Articulation Policies for Community College Students

To increase the number of community college students with bachelor's degree goals who successfully transfer to 4-year postsecondary institutions, many states have passed legislation and adopted various types of transfer and articulation policies. Transfer is the procedure by which the credits students earn at one institution are applied toward a degree at another institution; articulation refers to the statewide policies and/or agreements among institutions to accept the transfer of credits. This supplemental note defines the various policies that are identified in *indicator 34*. All information on these state policies presented in *indicator 34* was gathered from states in 2000 by the Education Commission of the States (ECS).

- *Legislation*: Statutes, bills, or resolutions that codify transfer and articulation policies. The content varies from state to state and may establish either general guidelines or very specific requirements for institutions to follow.
- *Cooperative agreements*: Cooperative agreements between institutions related to transfer requirements. These agreements may be formulated on a course-by-course, department-to-department, or institution-to-institution basis. They can sometimes take the place of legislation in the absence of official policy on transfer and articulation.
- *Transfer data reporting*: Regular reporting by institutions to state commissions or departments of higher education on the number of transfers. The reporting usually occurs either each term or annually, but sometimes less often. In some states, transfers are tracked through a student data system.
- *Incentives and rewards*: Specific incentives or rewards offered to students to encourage them to transfer may include financial aid (such as scholarships or tuition waivers), guaranteed transfer of credit under certain conditions, or priority admission to a 4-year institution assuming the student meets specified requirements.
- *Statewide articulation guide*: Concrete descriptions of transfer requirements and answers to questions students frequently ask. These guides are designed to help students understand transfer requirements and navigate the process successfully. They are often available on the Web.
- *Common core*: A common core of courses designed to eliminate the confusion that can arise when separate institutions require different courses to fulfill graduation requirements. (The common core usually applies to community college courses only.)
- *Common course numbering*: Refers to common course numbering for the same course at community colleges and 4-year institutions. This practice allows students to know with confidence which credits will be transferable.

