

Supplemental Tables and Notes

Listed below are all of the supplemental tables and notes prepared for The Condition of Education 1999. Due to space limitations, all of the tables and notes listed are not included in the printed volume; only those shown in bold are included here. To receive the second volume, The Condition of Education 1999 Supplemental and Standard Error Tables, which includes the complete set of tables (and any associated standard error tables), contact EDPUBS at (877) 433-7827 or to view the electronic version of The Condition of Education 1999, go to the NCES Internet site <http://nces.ed.gov/pubs99/condition99/index.html>

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Table 1-1 Science achievement levels**Level 150: Knows everyday science facts**

Students at this level know some general scientific facts of the type that could be learned from everyday experiences. They can read simple graphs, match the distinguishing characteristics of animals, and predict the operation of familiar apparatus that work according to mechanical principles.

Level 200: Understands simple scientific principles

Students at this level are developing some understanding of simple scientific principles, particularly in the life sciences. For example, they exhibit some rudimentary knowledge of the structure and function of plants and animals.

Level 250: Applies general scientific information

Students at this level can interpret data from simple tables and make inferences about the outcomes of experimental procedures. They exhibit knowledge and understanding of the life sciences, including a familiarity with some aspects of animal behavior and of ecological relationships. These students also demonstrate some knowledge of basic information from the physical sciences.

Level 300: Analyzes scientific procedures and data

Students at this level can evaluate the appropriateness of the design of an experiment. They have more detailed scientific knowledge and the skill to apply their knowledge in interpreting information from text and graphs. These students also exhibit a growing understanding of principles from the physical sciences.

Level 350: Integrates specialized scientific information

Students at this level can infer relationships and draw conclusions using detailed scientific knowledge from the physical sciences, particularly chemistry. They also can apply basic principles of genetics and interpret the societal implications of research in this field.

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Assessment of Educational Progress, *NAEP 1996 Trends in Academic Progress*, revised 1998.

Table 2-1 Achievement levels of mathematics proficiency

Basic:	<p>Grade 4 (scoring at or above 214) Fourth-grade students performing at the basic level should show some evidence of understanding the mathematical concepts and procedures in the five NAEP content strands.</p> <p>Grade 8 (scoring at or above 262) Eighth-grade students performing at the basic level should exhibit evidence of conceptual and procedural understanding in the five NAEP content strands. This level of performance signifies an understanding of arithmetic operations—including estimation—on whole numbers, decimals, fractions, and percents.</p> <p>Grade 12 (scoring at or above 288) Twelfth-grade students performing at the basic level should demonstrate procedural and conceptual knowledge in solving problems in the five NAEP content strands.</p>
Proficient:	<p>Grade 4 (scoring at or above 249) Fourth-grade students performing at the proficient level should consistently apply integrated procedural knowledge and conceptual understanding to problem solving in the five NAEP content strands.</p> <p>Grade 8 (scoring at or above 299) Eighth-grade students performing at the proficient level should apply mathematical concepts and procedures consistently to complex problems in the five NAEP content strands.</p> <p>Grade 12 (scoring at or above 336) Twelfth-grade students performing at the proficient level should consistently integrate mathematical concepts and procedures with the solutions of more complex problems in the five NAEP content strands.</p>
Advanced:	<p>Grade 4 (scoring at or above 282) Fourth-grade students performing at the advanced level should apply integrated procedural knowledge and conceptual understanding to complex and nonroutine real-world problem solving in the five NAEP content strands.</p> <p>Grade 8 (scoring at or above 333) Eighth-grade students performing at the advanced level should be able to reach beyond the recognition, identification, and application of mathematical rules in order to generalize and synthesize concepts and principles in the five NAEP content strands.</p> <p>Grade 12 (scoring at or above 367) Twelfth-grade students performing at the advanced level should consistently demonstrate the integration of procedural and conceptual knowledge and the synthesis of ideas in the five NAEP content strands.</p>

SOURCE: U.S. Department of Education, National Center for Education Statistics, *NAEP 1996 Mathematics Report Card for the Nation and the States: Findings from the National Assessment of Educational Progress*, 1997.

Table 2-2 Percentage distribution of students, by mathematics achievement level and grade: 1990, 1992, and 1996

Achievement level	Grade 4			Grade 8			Grade 12		
	1990	1992	1996	1990	1992	1996	1990	1992	1996
At or above basic	50	59	64	52	58	62	58	64	69
Below basic	50	41	36	48	42	38	42	36	31

NOTE: "At or above basic" includes those scoring at the basic, proficient, and advanced levels. See supplemental table 2-2 for an explanation of the basic, proficient, and advanced levels of mathematics achievement. Details may not add to 100 due to rounding.

SOURCE: U.S. Department of Education, National Center for Education Statistics, *NAEP 1996 Mathematics Report Card for the Nation and the States: Findings from the National Assessment of Educational Progress, 1997*.

Table 2-3 Average mathematics scale scores of public school 4th- and 8th-grade students, and change in scores from 1992 and from 1990, by grade and jurisdiction: 1996

Jurisdiction	Grade 4		Grade 8		
	Average 1996 scale score	Change from 1992 average scale score	Average 1996 scale score	Change from 1992 average scale score	Change from 1990 average scale score
National average	222	²4	271	5	8
Alabama	212	3	257	4	4
Alaska ¹	224	—	278	—	—
Arizona ¹	218	2	268	3	³ 8
Arkansas ¹	216	² 6	262	² 5	³ 5
California	209	1	263	2	³ 6
Colorado	226	² 5	276	3	³ 8
Connecticut	232	² 5	280	² 6	³ 10
Delaware	215	² -3	267	² 4	³ 6
District of Columbia	187	² -5	233	-2	1
Florida	216	2	264	4	³ 8
Georgia	215	0	262	3	4
Hawaii	215	1	262	² 5	³ 11
Indiana	229	² 8	276	² 5	³ 8
Iowa ¹	229	-1	284	1	³ 6
Kentucky	220	² 5	267	² 4	³ 9
Louisiana	209	² 5	252	2	³ 6
Maine	232	1	284	² 5	—
Maryland ¹	221	3	270	5	³ 9
Massachusetts	229	2	278	5	—
Michigan ¹	226	² 6	277	² 10	³ 12
Minnesota	232	² 4	284	2	³ 9
Mississippi	208	² 7	250	4	—
Missouri	225	3	273	2	—
Montana ¹	228	—	283	—	3
Nebraska	228	2	283	² 5	³ 7
Nevada ¹	218	—	—	—	—
New Jersey ¹	227	0	—	—	—
New Mexico	214	1	262	2	³ 6
New York ¹	223	² 4	270	4	³ 9
North Carolina	224	² 11	268	² 9	³ 17
North Dakota	231	2	284	1	3
Oregon	223	—	276	—	³ 5
Pennsylvania ¹	226	2	—	—	—
Rhode Island	220	² 5	269	² 3	³ 9
South Carolina ¹	213	1	261	0	—
Tennessee	219	² 8	263	4	—
Texas	229	² 11	270	² 6	³ 12
Utah	227	2	277	2	—
Vermont ¹	225	—	279	—	—
Virginia	223	2	270	2	³ 5
Washington	225	—	276	—	—
West Virginia	223	² 8	265	² 6	³ 9
Wisconsin ¹	231	3	283	5	³ 8
Wyoming	223	-2	275	0	³ 3

— State did not participate in the assessment for one or more years.

¹ State did not satisfy one or more of the guidelines for school participation rates in 1996 in grade 4 and/or grade 8.

² Change between 1992 and 1996 is statistically significant.

³ Change between 1990 and 1996 is statistically significant.

SOURCE: U.S. Department of Education, National Center for Education Statistics, *NAEP 1996 Mathematics Report Card for the Nation and the States: Findings from the National Assessment of Educational Progress, 1997*.

Table 3-1 Average mathematics and science achievement scores of 4th-grade students,¹ by sex and country: 1995

Country	Mathematics			Science		
	Overall	Male	Female	Overall	Male	Female
International average²	529	535	533	524	534	525
Singapore	625	620	630	547	549	545
Korea	611	618	603	597	604	590
Japan	597	601	593	574	580	567
Hong Kong	587	586	587	533	540	526
Netherlands ³	577	585	569	557	570	544
Czech Republic	567	568	566	557	565	548
Austria ³	559	563	555	565	572	556
Slovenia ³	552	551	554	546	548	544
Ireland	550	548	551	539	543	536
Hungary ³	548	552	546	532	539	525
Australia ^{2,3}	547	548	546	563	569	556
United States	545	545	544	565	571	560
Canada	532	534	531	549	553	545
Israel ³	531	537	528	505	512	501
Latvia (Latvian-speaking schools) ³	525	521	530	512	512	513
Scotland	520	520	520	536	538	533
England ³	513	515	510	551	555	548
Norway	502	504	499	530	534	526
Cyprus	502	506	499	475	480	471
New Zealand	499	494	504	531	527	535
Greece	492	491	493	497	501	494
Thailand ³	490	485	496	473	471	474
Portugal	475	478	473	480	481	478
Iceland	474	474	473	505	514	496
Iran, Islamic Republic	429	433	424	416	421	412
Kuwait ³	400	—	—	401	—	—

— Not available.

¹ Fourth grade in most nations.

² The average scores for the international average and Australia (grade 4) differ slightly from those published in *Mathematics Achievement in the Primary School Years, 1997* and *Science Achievement in the Primary School Years, 1997*, because the data for Australia have since been revised.

³ Country did not satisfy one or more of the sampling or other guidelines. See the supplemental note to this indicator for further explanation.

NOTE: Nations are sorted from highest to lowest by average mathematics achievement score.

SOURCE: International Association for the Evaluation of Educational Achievement, TIMSS International Study Center, *Mathematics Achievement in the Primary School Years, IEA's Third International Mathematics and Science Study, 1997* and *Science Achievement in the Primary School Years, IEA's Third International Mathematics and Science Study, 1997*.

Table 3-2 Average mathematics and science achievement scores of 8th-grade students,¹ by sex and country: 1995

Country	Mathematics			Science		
	Overall	Male	Female	Overall	Male	Female
International average	513	519	512	516	525	509
Singapore	643	642	645	607	612	603
Korea	607	615	598	565	576	551
Japan	605	609	600	571	579	562
Hong Kong	588	597	577	522	535	507
Belgium (Flemish)	565	563	567	550	558	543
Czech Republic	564	569	558	574	586	562
Slovak Republic	547	549	545	544	552	537
Switzerland	545	548	543	522	529	514
Netherlands ²	541	545	536	560	570	550
Slovenia ²	541	545	537	560	573	548
Bulgaria ²	540	—	—	565	—	—
Austria ²	539	544	536	558	566	549
France	538	542	536	498	506	490
Hungary	537	537	537	554	563	545
Russian Federation	535	535	536	538	544	533
Australia ²	530	527	532	545	550	540
Canada	527	526	530	531	537	525
Ireland	527	535	520	538	544	532
Belgium (French) ²	526	530	524	471	479	463
Israel ²	522	539	509	524	545	512
Thailand ²	522	517	526	525	524	526
Sweden	519	520	518	535	543	528
Germany ²	509	512	509	531	542	524
New Zealand	508	512	503	525	538	512
England ²	506	508	504	552	562	542
Norway	503	505	501	527	534	520
Denmark ²	502	511	494	478	494	463
United States	500	502	497	534	539	530
Scotland ²	498	506	490	517	527	507
Latvia (Latvian-speaking schools) ²	493	496	491	485	492	478
Iceland	487	488	486	494	501	486
Spain	487	492	483	517	526	508
Greece ²	484	490	478	497	505	489
Romania ²	482	483	480	486	492	480
Lithuania ²	477	477	478	476	484	470
Cyprus	474	472	475	463	461	465
Portugal	454	460	449	480	490	468
Iran, Islamic Republic	428	434	421	470	477	461
Kuwait ²	392	—	—	430	—	—
Colombia ²	385	386	384	411	418	405
South Africa ²	354	360	349	326	337	315

— Not available.

¹ Eighth grade in most nations.

² Country did not satisfy one or more of the sampling or other guidelines. See the supplemental note to this indicator for further explanation.

NOTE: Nations are sorted from highest to lowest by average mathematics achievement score.

SOURCE: International Association for the Evaluation of Educational Achievement, TIMSS International Study Center, *Mathematics Achievement in the Middle School Years, IEA's Third International Mathematics and Science Study, 1996* and *Science Achievement in the Middle School Years, IEA's Third International Mathematics and Science Study, 1996*.

Data collection and sampling guidelines for the TIMSS

Indicators 3 and 16 include data from the Third International Mathematics and Science Study (TIMSS), which assessed and collected data for more than half a million students at various levels, encompassing three separate populations. The indicators in this publication used data from *Population 1*, *Population 2*, and *Population 3*, as defined below:

- *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 (i.e., academic, technical, vocational).

Table 1. Countries participating in the TIMSS, by population covered

Country	Population 1	Population 2	Population 3		
			General knowledge	Advanced mathematics	Physics
Argentina		✓			
Australia	✓	✓	✓	✓	✓
Austria	✓	✓	✓	✓	✓
Belgium (Flemish)		✓			
Belgium (French)		✓			
Bulgaria		✓			
Canada	✓	✓	✓	✓	✓
Colombia		✓			
Cyprus	✓	✓	✓	✓	✓
Czech Republic	✓	✓	✓	✓	✓
Denmark		✓	✓	✓	✓
England	✓	✓			
France		✓	✓	✓	✓
Germany		✓	✓	✓	✓
Greece	✓	✓		✓	✓
Hong Kong	✓	✓			
Hungary	✓	✓	✓		
Iceland	✓	✓	✓		
Indonesia	✓	✓			
Iran, Islamic Republic	✓	✓			
Ireland	✓	✓			
Israel	✓	✓	✓	✓	✓
Italy	✓	✓	✓		
Japan	✓	✓			
Korea	✓	✓			
Kuwait	✓	✓			
Latvia	✓	✓			✓
Lithuania		✓	✓	✓	
Mexico	✓	✓			
Netherlands	✓	✓	✓		
New Zealand	✓	✓	✓		
Norway	✓	✓	✓		✓
Philippines		✓			
Portugal	✓	✓			
Romania		✓			
Russian Federation		✓	✓	✓	✓
Scotland	✓	✓			
Singapore	✓	✓			
Slovak Republic		✓			
Slovenia	✓	✓	✓	✓	✓
South Africa		✓	✓		
Spain		✓			
Sweden		✓	✓	✓	✓
Switzerland		✓	✓	✓	✓
Thailand	✓	✓			
United States	✓	✓	✓	✓	✓

It is important to note that because countries varied in how they defined their population and in their compliance with the TIMSS sampling guidelines, caution should be taken in interpreting cross-country comparisons.

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 or not to participate in the assessments of other populations. Forty-six countries participated in the survey of *Population 2*, of which 14 participated in the general assessment for all three *Populations*. For *Population 3*, as an additional option, countries were able to test two subgroups of students in their last year of secondary education: students taking advanced courses in mathematics, and students taking physics.

Four countries—Argentina, Indonesia, Mexico, and the Philippines—were unable to complete the steps necessary for their data to appear in the International TIMSS reports, chose not to release their results in the international report, or had their results published in a separate appendix to the international reports. Achievement scores and sampling information for these four countries are not included in *The Condition of Education, 1999*.

The achievement scores for Italy are included in *The Condition of Education, 1999* only for *Population 3*. Italy was unable to complete the steps necessary for achievement score data to appear in the TIMSS reports for the primary and middle school years.

For all *Populations*, participants were required to meet various sampling and other guidelines. These guidelines, and the extent to which countries met them for each of the *Populations*, are described in the following sections.

Table 2. Countries covering less than 100 percent of the International Desired Population

Country	International Desired Population
<i>Population 1 Coverage</i>	
Israel	72% Hebrew Public Education System only
Latvia	60% Latvian-speaking schools only
<i>Population 2 Coverage</i>	
Germany	88% 15 of 16 regions
Israel	74% Hebrew Public Education System only
Latvia	51% Latvian-speaking schools only
Lithuania	84% Lithuanian-speaking schools only
Philippines	91% 2 provinces/autonomous regions excluded
Switzerland	86% 22 of 26 cantons
<i>Population 3 Coverage</i>	
Israel	74% Hebrew Public Education System only
Italy	70% 16 of 20 regions
Latvia	50% Latvian-speaking students only
Lithuania	84% Lithuanian-speaking students only

In some situations, where it was not possible to implement testing for the entire International Desired Population (*Population 1, 2, or 3*), countries defined a National Desired Population, which excluded some portion of the International Desired Population. For example, Israel's and Latvia's populations covered less than 100 percent of the International Desired Population because they defined their population according to the structure of school systems.

Countries were also permitted within their desired population to define a population that excluded a small percentage (less than 10 percent) of schools or students that would be difficult to test (e.g., very small schools or schools located in a remote area). Only England exceeded the 10 percent level for *Populations 1 and 2*, excluding 12.1 and 11.3 percent of schools, respectively. For *Population 3*, Austria, Cyprus, Germany, the Netherlands, and the Russian Federation exceeded the 10 percent level.

Table 3. Countries that participated in the TIMSS, by compliance with sampling guidelines for *Population 1*

Compliance with sampling guidelines	Countries
Population 1	
<i>Countries satisfying guidelines for sample participation rates, grade selection, and sampling procedures</i>	Canada Cyprus Czech Republic England ^{1,2} Greece Hong Kong Iceland Iran, Islamic Republic Ireland Japan Korea New Zealand Norway Portugal Scotland ² Singapore United States
<i>Countries not satisfying guidelines for sample participation rates</i>	Australia Austria Latvia ³ Netherlands
<i>Countries not meeting age/grade specifications</i>	Slovenia
<i>Countries with unapproved sampling procedures at the classroom level and/or not meeting other guidelines</i>	Hungary Israel ³ Kuwait Thailand

¹ National defined population covers less than 90 percent of national desired population.

² Met guidelines for sample participation rates only after replacement schools were included.

³ National defined population does not cover all of the international defined population. Because coverage falls below 65 percent, Latvia is annotated LSS for "Latvian-speaking schools" only.

Table 4. Countries that participated in the TIMSS, by compliance with sampling guidelines for Population 2

Compliance with sampling guidelines	Countries
Population 2	
<i>Countries satisfying guidelines for sample participation rates, grade selection, and sampling procedures</i>	Belgium (Flemish) ² Canada Cyprus Czech Republic England ^{1,2} France Hong Kong Hungary Iceland Iran, Islamic Republic Ireland Japan Korea Latvia ³ Lithuania ³ New Zealand Norway Portugal Russian Federation Singapore Slovak Republic Spain Sweden Switzerland ³ United States ²
<i>Countries not satisfying guidelines for sample participation rates</i>	Australia Austria Belgium (French) Bulgaria Netherlands Scotland
<i>Countries not meeting age/grade specifications</i>	Colombia Germany ^{2,3} Romania Slovenia
<i>Countries with unapproved sampling procedures at the classroom level and/or not meeting other guidelines</i>	Denmark Greece Israel ³ Kuwait Philippines ⁴ South Africa ³ Thailand
<i>Countries with unapproved sampling procedures at school level</i>	Philippines ⁴

¹ National defined population covers less than 90 percent of national desired population.

² Met guidelines for sample participation rates only after replacement schools were included.

³ National defined population does not cover all of the international defined population. Because coverage falls below 65 percent, Latvia is annotated LSS for "Latvian-speaking schools" only.

⁴ TIMSS was unable to compute sampling weights for the Philippines.

For *Populations 1* and *2*, TIMSS used a two-stage sample design. The first stage involved selecting 150 public and private schools within each country. Random sampling methods were then used to select from each school one mathematics class for each grade level within a population (generally 3rd and 4th for *Population 1*; and 7th and 8th for *Population 2*).

For *Population 3*, the first stage involved selecting 120 public and private schools in each country, and, within each school, 40 students were selected using random procedures. The required participation rates from the samples for all *Populations* were at least 85 percent of both schools and students or a combined student and school rate of 75 percent.

Countries that either did not reach a 50 percent participation rate without the inclusion of replacement schools, or failed to reach the required rate even with the inclusion of replacement schools, failed to meet participation standards.

Table 5. Countries that participated in the TIMSS, by compliance with sampling guidelines for Population 3

Compliance with sampling guidelines	Countries
Population 3	
<i>Countries satisfying guidelines for sample participation rates, grade selection, and/or sampling procedures</i>	Cyprus ¹ Czech Republic Hungary Lithuania ³ New Zealand ² Russian Federation ¹ Sweden Switzerland
<i>Countries not satisfying guidelines for sample participation rates</i>	Australia Austria ¹ Canada France Iceland Italy Norway United States
<i>Countries with unapproved sampling procedures and/or not meeting other guidelines</i>	Denmark Germany ² Netherlands ¹ Slovenia South Africa

¹ National defined population covers less than 90 percent of national desired population.

² Met guidelines for sample participation rates only after replacement schools were included.

³ National defined population does not cover all of the international defined population. Because coverage falls below 65 percent, Latvia is annotated LSS for "Latvian-speaking schools" only.

SOURCE: International Association for the Evaluation of Educational Achievement, TIMSS International Study Center, *Mathematics Achievement in the Middle School Years, IEA's Third International Mathematics and Science Study (TIMSS)*, 1996; *Science Achievement in the Middle School Years, IEA's Third International Mathematics and Science Study (TIMSS)*, 1996; *Mathematics Achievement in the Primary School Years, IEA's Third International Mathematics and Science Study (TIMSS)*, 1997; *Mathematics and Science Achievement in the Final Year of Secondary School: IEA's Third International Mathematics and Science Study (TIMSS)*, 1998.

Table 4-1 **Levels of reading proficiency****Level 150: Simple, discrete reading tasks**

Readers at this level can follow brief written directions. They can also select words, phrases, or sentences to describe a simple picture and can interpret simple written clues to identify a common object. Performance at this level suggests the ability to carry out simple, discrete reading tasks.

Level 200: Partial skills and understanding

Readers at this level can locate and identify facts from simple informational paragraphs, stories, and news articles. In addition, they can combine ideas and make inferences based on short, uncomplicated passages. Performance at this level suggests the ability to understand specific or sequentially related information.

Level 250: Interrelates ideas and makes generalizations

Readers at this level use intermediate skills and strategies to search for, locate, and organize the information they find in relatively lengthy passages and can recognize paraphrases of what they have read. They can also make inferences and reach generalizations about main ideas and the author's purpose from passages dealing with literature, science, and social studies. Performance at this level suggests the ability to search for specific information, interrelate ideas, and make generalizations.

Level 300: Understands complicated information

Readers at this level can understand complicated literary and informational passages, including material about topics they study at school. They can also analyze and integrate less familiar material and provide reactions to and explanations of the text as a whole. Performance at this level suggests the ability to find, understand, summarize, and explain relatively complicated information.

Level 350: Learns from specialized reading materials

Readers at this level can extend and restructure the ideas presented in specialized and complex texts. Examples include scientific materials, literary essays, and historical documents. Readers are also able to understand the links between ideas, even when those links are not explicitly stated, and to make appropriate generalizations. Performance at this level suggests the ability to synthesize and learn from specialized reading materials.

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Assessment of Educational Progress, *NAEP 1996 Trends in Academic Progress*, revised 1998.

Table 5-1 Achievement levels of reading proficiency

Basic:	<p>Grade 4 (scoring at or above 208)</p> <p>Fourth-grade students performing at the Basic level should demonstrate an understanding of the overall meaning of what they read. When reading text appropriate for 4th-grade students, they should be able to make relatively obvious connections between the text and their own experiences and extend the ideas in the text by making simple references.</p> <p>Grade 8 (scoring at or above 243)</p> <p>Eighth-grade students performing at the Basic level should demonstrate a literal understanding of what they read and be able to make some interpretations. When reading text appropriate to 8th grade, they should be able to identify specific aspects of the text that reflect overall meaning, extend the ideas in the text by making simple inferences, recognize and relate interpretations and connections among ideas in the text to personal experience, and draw conclusions based on the text.</p> <p>Grade 12 (scoring at or above 265)</p> <p>Twelfth-grade students performing at the Basic level should be able to demonstrate an overall understanding and make some interpretations of the text. When reading text appropriate to 12th grade, they should be able to identify and relate aspects of the text to its overall meaning, extend the ideas in the text by making simple inferences, recognize interpretations, make connections among and relate ideas in the text to their personal experiences, and draw conclusions. They should be able to identify elements of an author's style.</p>
Proficient:	<p>Grade 4 (scoring at or above 238)</p> <p>Fourth-grade students performing at the Proficient level should be able to demonstrate an overall understanding of the text, providing inferential as well as literal information. When reading text appropriate to 4th grade, they should be able to extend the ideas in the text by making inferences, drawing conclusions, and making connection to their own experiences. The connection between the text and what the student infers should be clear.</p> <p>Grade 8 (scoring at or above 281)</p> <p>Eighth-grade students performing at the Proficient level should be able to show an overall understanding of the text, including inferential as well as literal information. When reading text appropriate to 8th grade, they should be able to extend the ideas in the text by making clear inferences from it, by drawing conclusions, and by making connections to their own experiences—including other reading experiences. Proficient 8th-graders should be able to identify some of the devices authors use in composing text.</p> <p>Grade 12 (scoring at or above 302)</p> <p>Twelfth-grade students performing at the Proficient level should be able to show an overall understanding of the text, including inferential as well as literal information. When reading text appropriate to 12th grade, they should be able to extend the ideas of the text by making inferences, drawing conclusions, and making connections to their own personal experiences and other readings. Connections between inferences and the text should be clear, even when implicit. These students should be able to analyze the author's use of literary devices.</p>

Table 5-1 Achievement levels of reading proficiency—Continued

Advanced: Grade 4 (scoring at or above 268)

Fourth-grade students performing at the Advanced level should be able to generalize about topics in the reading selection and demonstrate an awareness of how authors compose and use literary devices. When reading text appropriate to 4th grade, they should be able to judge text critically and, in general, give thorough answers that indicate careful thought.

Grade 8 (scoring at or above 323)

Eighth-grade students performing at the Advanced level should be able to describe the more abstract themes and ideas of the overall text. When reading text appropriate to 8th grade, they should be able to analyze both meaning and form and support their analyses explicitly with examples from the text; they should be able to extend text information by relating it to their experiences and to world events. At this level, student responses should be thorough, thoughtful, and extensive.

Grade 12 (scoring at or above 346)

Twelfth-grade students performing at the Advanced level should be able to describe more abstract themes and ideas in the overall text. When reading text appropriate to 12th grade, they should be able to analyze both the meaning and the form of the text and explicitly support their analyses with specific examples from the text. They should be able to extend the information from the text by relating it to their experiences and to the world. Their responses should be thorough, thoughtful, and extensive.

SOURCE: U.S. Department of Education, National Center for Education Statistics, *NAEP 1998 Reading, A Report Card for the Nation and the States*, 1999.

Table 5-2 Percentage of students, by reading achievement level and grade: 1992, 1994, and 1998

Reading achievement level	Grade 4			Grade 8			Grade 12		
	1992	1994	1998	1992	1994	1998	1992	1994	1998
At advanced	6	7	7	3	3	3	4	4	6
At proficient	22	22	24	26	27	31	36	32	35
At basic	34	31	32	40	40	41	39	38	37
Below basic	38	40	38	31	30	26	20	25	23

NOTE: See supplemental table 5-2 for an explanation of the basic, proficient, and advanced levels of reading achievement. Details may not add to 100 due to rounding.

SOURCE: U.S. Department of Education, National Center for Education Statistics, *NAEP 1998 Reading, A Report Card for the Nation and the States, 1999*.

Overview of NAEP assessments

The National Assessment of Educational Progress (NAEP) has been administered regularly in several subjects since 1969, and has two goals: (1) to reflect current educational and assessment practices and (2) to measure change reliably over time. To meet these dual goals, NAEP administers two assessments, referred to as the *main* assessment and the *long-term trend* assessment. These two assessments are administered to separate samples of students, at separate times, and use separate instrumentation; therefore, data from the two should not be compared. NAEP data presented in *The Condition of Education, 1999* are taken from both types of assessments.

Main NAEP

The main NAEP periodically measures students' achievement in a variety of subjects, following the curriculum frameworks developed by the National Assessment Governing Board (NAGB) and using the latest advances in assessment methodology. For example, the main NAEP follows curriculum standards developed within the field, such as the mathematics standards developed by the National Council of Teachers of Mathematics.

As the content and nature of the NAEP instruments evolve to match instructional practices, the ability of the assessment to measure change over time is greatly reduced. As standards for instruction and curriculum change, so does the main NAEP, and as a result, trend data cannot be collected. Recent NAEP main assessment instruments have typically been kept stable for relatively short periods of time, allowing trend results to be reported for, at most, three time points. However, for some subjects that are not assessed as frequently, such as performance in the arts, trend data are unavailable. Indicators 2, 5, and 7 are based upon the main NAEP.

Long-term trend NAEP

The long-term trend NAEP measures student achievement in mathematics, science, reading, and writing, and has used the same instrument since its first administration in the late 1960s and early 1970s, and the early 1980s for writing. The long-term trend NAEP does not reflect current teaching standards or curricula because the same instruments have been used for nearly 30 years. The benefits of the long-term trend NAEP, however, are that progress in student achievement can be measured over time. Indicators 1, 4, and 6 are based upon the long-term trend NAEP.

Another important difference between the two assessments is that they collect data from different age groups. As opposed to the main NAEP, in which results are reported by grade level (grades 4, 8, and 12), performance scores for most of the long-term trend assessments are reported for students by age. For mathematics, science, and reading, students at age 9, 13, and 17 are assessed. The long-term trend writing assessment is the only exception, with students in grades 4, 8, and 11 being assessed.

SOURCE: Calderone, J., King, L.M., and Horkay, N. 1997. *The NAEP Guide: A Description of the Content and Methods of the 1997 and 1998 Assessments* (NCES 97-990). Washington, D.C.: U.S. Department of Education, National Center for Education Statistics.

Table 6-1 Writing achievement levels

Level 150:	Disjointed, unclear writing Writing at this level tends to be too brief and disjointed to be considered a response to the task or, when longer, so vague and unclear that it is hard to understand.
Level 200:	Incomplete, vague writing Writing at this level, although clearer and more detailed than at the previous level, still tends to be vague and incomplete.
Level 250:	Beginning, focused, clear writing Writing at this level tends to be more focused and clear, containing enough development and detail likely to accomplish the assigned task successfully.
Level 300:	Complete, sufficient writing Responses at this level tend to be complete and to contain sufficient information to accomplish the basic task.
Level 350:	Effective, coherent writing Writing at this level provides clear complete responses to the assigned task. It tends to contain supportive details and discussion that contributes to the effectiveness of the response. This writing is also characterized by an overall unity and coherence not found at the lower levels.

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Assessment of Educational Progress, *NAEP 1996 Trends in Academic Progress*, revised 1998.

Table 6-2 Percentage of students scoring at or above each of five levels of writing performance: 1984–96

Proficiency levels	Grade	Year					
		1984	1988	1990	1992	1994	1996
Level 150:							
Disjointed, unclear writing	4	93	91	89	93	92	93
	8	100	100	² 100	100	100	100
	11	100	100	100	100	100	100
Level 200:							
Incomplete, vague writing	4	54	56	53	58	56	59
	8	¹ 98	97	^{1,2} 93	98	96	² 96
	11	100	100	99	100	99	99
Level 250:							
Beginning, focused, clear writing	4	10	² 15	12	13	12	13
	8	72	67	^{1,2} 57	¹ 75	67	² 66
	11	¹ 89	¹ 93	² 84	87	² 85	² 83
Level 300:							
Complete, sufficient writing	4	1	1	1	1	0	1
	8	13	13	¹ 12	^{1,2} 25	17	16
	11	39	¹ 39	37	36	33	² 31
Level 350:							
Effective, coherent writing	4	0	0	0	0	0	0
	8	¹ 0	0	² 1	^{1,2} 2	² 1	1
	11	2	¹ 1	¹ 4	2	3	2

¹ Statistically significant difference from 1996.

² Statistically significant difference from 1984.

NOTE: See table 6-1 for detailed explanations of levels.

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Assessment of Educational Progress, *NAEP 1996 Trends in Academic Progress*, revised 1998.

Table 6-3 Percentile distribution of writing performance scores, by grade and race-ethnicity: 1984-96

Percentile	Grade 4						Grade 8						Grade 11					
	1984	1988	1990	1992	1994	1996	1984	1988	1990	1992	1994	1996	1984	1988	1990	1992	1994	1996
All students																		
5	144	135	131	142	140	142	216	209	195	214	204	202	236	244	227	233	227	225
10	157	151	147	157	155	158	227	222	208	227	218	216	249	255	240	246	240	238
25	179	177	174	182	180	182	247	242	231	250	242	240	269	273	262	266	262	260
50	204	207	203	208	206	209	268	264	257	275	266	264	291	292	288	288	285	283
75	229	235	231	233	232	234	288	286	282	300	290	288	312	311	312	310	308	307
90	250	259	255	256	253	255	304	305	304	320	311	310	330	326	334	328	328	327
95	263	274	268	269	266	268	313	316	318	332	323	322	340	335	347	338	340	339
White																		
5	155	151	146	159	156	159	224	216	202	220	214	213	249	252	235	244	237	234
10	167	165	162	172	170	171	235	229	215	234	228	227	260	263	247	256	248	247
25	188	189	186	194	192	192	253	248	237	256	250	249	277	279	269	275	269	266
50	211	216	211	217	215	217	273	270	262	280	273	272	298	297	294	295	291	289
75	233	242	237	240	238	240	291	290	287	304	295	294	316	314	317	314	313	311
90	255	265	260	261	258	260	306	309	308	324	315	314	333	329	338	331	333	331
95	266	278	272	273	270	272	315	319	322	335	327	326	343	338	350	341	344	343
Black																		
5	124	109	105	117	114	122	201	194	182	200	190	184	222	232	213	216	214	213
10	135	122	120	130	127	135	212	205	193	212	201	197	232	243	225	226	226	224
25	160	148	144	152	150	155	228	226	216	232	222	218	252	258	245	245	246	245
50	182	173	172	176	173	182	248	247	240	257	245	243	270	276	268	264	267	267
75	205	200	198	198	196	206	265	266	263	282	268	265	290	294	291	283	289	289
90	228	224	223	218	217	229	281	285	284	306	288	285	309	309	311	300	309	310
95	240	238	239	229	231	242	292	296	297	319	300	297	318	318	324	309	320	324
Hispanic																		
5	130	125	120	132	131	126	197	199	187	203	192	187	208	228	217	220	212	213
10	141	139	135	144	143	141	207	210	199	219	204	202	216	236	232	234	224	224
25	162	163	159	166	164	166	225	230	220	242	227	223	238	256	253	252	250	245
50	188	191	184	189	188	192	247	251	246	265	252	246	260	274	275	275	273	268
75	214	218	210	213	213	216	268	271	270	288	276	270	281	294	301	294	294	291
90	234	241	234	234	234	237	286	290	292	310	298	291	297	309	324	314	313	312
95	247	256	248	247	245	250	298	301	305	324	308	303	306	316	338	324	327	326

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Assessment of Educational Progress, *NAEP 1996 Trends in Academic Progress*, revised 1998.

Table 7-1 Average music, theatre, and visual arts performance scores, by various characteristics of arts education: 1997

Characteristics of arts education	Music			Theatre ¹		Visual arts	
	Creating (0-100 percent)	Performing (0-100 percent)	Responding (0-300)	Creating/performing (0-100 percent)	Responding (0-300)	Creating (0-100 percent)	Responding (0-300)
Total	34	34	150	49	150	43	150
Frequency of instruction							
At least 3 or 4 times a week	33	34	151	47	149	45	147
Once or twice a week	35	33	154	55	156	44	155
Less than once a week	37	34	146	(²)	(²)	35	137
Subject not taught	41	(²)	139	—	—	42	150
District or state curriculum in subject area							
Yes	34	34	151	49	154	44	148
No	35	35	152	50	149	43	153
Use visiting artists							
Yes	32	34	151	50	153	44	151
No	37	34	151	50	148	43	149
Position of arts staff person							
Full-time specialist	35	33	151	48	149	44	150
Part-time specialist	33	37	150	52	146	42	154
Elementary classroom teacher	(²)	(²)	(²)	(²)	(²)	39	151
Other faculty member	(²)	(²)	(²)	(²)	(²)	45	151
Artist-in-residence	(²)	(²)	(²)	(²)	(²)	(²)	(²)
Volunteer	(²)	(²)	(²)	(²)	(²)	(²)	(²)
Subject is not taught	(²)	(²)	132	(²)	(²)	41	146
Type of space where arts is taught							
Room/stage dedicated to subject, with special equipment	37	34	154	54	161	45	152
Room/stage dedicated to subject, without special equipment	34	35	150	(²)	(²)	43	148
(For theatre only), Room, no stage	—	—	—	46	141	—	—
No dedicated space ³	21	23	139	—	—	(²)	(²)
Classrooms only	29	(²)	155	(²)	(²)	37	148
Other	(²)	(²)	(²)	(²)	(²)	(²)	(²)
Subject is not taught	(²)	(²)	(²)	(²)	(²)	40	140

— Not available/applicable.

¹The theatre assessment was administered to a targeted sample of students in schools with theatre instructional programs who had taken at least 30 hours of theatre classes.

²Not available.

³"No dedicated space" indicates a room without a stage for theatre education and classrooms used only for visual arts education.

NOTE: Students were assessed in the arts on three separate scales: Responding, Creating, and Performing. Because sampling and scoring procedures varied by arts subject and arts proficiency type, comparisons cannot be made across assessments. See the supplemental note to this indicator for a description of the NAEP Arts Education Assessment, including definitions for "responding," "creating," and "performing."

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Assessment of Educational Progress, *The NAEP 1997 Arts Report Card*, 1998.

Information on NAEP Arts Education Assessment

The National Assessment of Educational Progress (NAEP) 1997 Arts Education Assessment was administered to a nationally representative sample of 8th-grade students for music and visual arts, and to a targeted sample of 8th-grade students for theatre.* Students participating in the theatre assessment had accumulated 30 hours of theatre classes by the end of the 1996–97 school year and attended schools that offered at least 44 classroom hours of theatre per semester, offering courses that included more than the history or literature of theatre.

The arts assessment was designed according to the specifications of the NAEP *Arts Education Assessment Framework*, developed between 1992 and 1994. This framework was developed through a consensus process involving arts educators, artists, policy makers, representatives from the business community, assessment specialists, and members of the public. Mirroring this framework, the Arts Education Assessment was built around three arts processes—*Creating*, *Performing*, and *Responding*, defined below:

- *Creating* refers to generating original art. This may include, but should not be limited to, the expression of a student’s unique and personal ideas, feelings, and responses in the form of a visual image, a character, a written or improvised dramatic work, or the composition or improvisation of a piece of music or a dance.
- *Performing* means performing an existing work, a process that calls upon the interpretive or re-creative skills of the student. Typically, “performing” an existing work does not apply to the visual arts, where reproducing an artist’s existing work is not central. However, it does suggest the engagement and motivation involved in creating a work of art.
- *Responding* varies from that of an audience member to the interactive response between a student and a particular medium. The response is usually a combination of affective, cognitive, and physical behavior. Responding involves a level of perceptual or observational skill; a description, analysis, or interpretation on the part of the respondent; and sometimes a judgment or evaluation based on some criteria that may be self-constructed or commonly held by a group or

culture. Responding calls on higher-order thinking and is central to the creative process. Although a response is usually thought of as verbal (oral or written), responses can and should also be conveyed nonverbally or in the art forms themselves. Major works of art in all traditions engage artists in a dialogue that crosses generations.

In music, the processes of *Creating*, *Performing*, and *Responding* were all emphasized. In theatre, *Creating* and *Performing* were understood as a combined act. In visual arts, *Creating* is more highly valued than the performance, or duplication, of existing works; *Performing* in the visual arts was, therefore, not included in the assessment.

The assessments in each subject area included “blocks,” or sets of questions, of approximately 25 or 50 minutes. Each block consisted of one or more stimuli and sets of multiple-choice, constructed-response, or *Creating/Performing* items to assess students’ mastery of the material. Students sampled for the music assessment and for the theatre assessment completed one of the *Creating/Performing* blocks and two *Responding* blocks. For the visual arts assessment, students either completed one *Responding* block and one *Creating* block, or two *Creating* blocks.

Responding results for music, theatre, and the visual arts were grouped and summarized on three NAEP arts *Responding* scales, which ranged from 0 to 300. *Creating* and *Performing* results, however, were not scaled in this way because each student took only one *Creating/Performing* task, and therefore there were not sufficient numbers of students taking a given group of exercises. Instead, *Creating* and *Performing* results were summarized as an average percentage of the maximum possible score. Because the scales in each content area are derived independently, the same score in two areas may not represent the same level of achievement. Consequently, comparisons of average scores across content areas are not inherently meaningful.

* The assessment was also designed and field-tested for dance; however, a sample suitable in size and national distribution could not be found.

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Assessment of Educational Progress, *The NAEP 1997 Arts Report Card*, 1998.

Table 8-1 Percentage of adults ages 16–65 at each level of education who scored at level 3 or above in document literacy, by country: 1994

Country	Highest level of education			
	Less than high school	High school diploma	Some college	College degree
Belgium (Flanders) *	39.1	66.6	83.3	90.4
Canada	26.8	65.5	77.5	86.8
Germany	50.3	69.3	77.0	79.7
Ireland *	23.6	56.2	69.7	78.4
Netherlands	42.7	78.1	—	85.5
New Zealand *	30.8	62.1	69.4	81.3
Poland	14.4	34.6	48.2	54.6
Sweden	58.1	77.1	87.2	90.2
Switzerland (French)	21.4	58.7	76.3	87.4
Switzerland (German)	26.7	60.1	72.8	78.3
United Kingdom *	36.5	60.1	70.2	85.2
United States	17.0	47.9	63.3	80.0

— Not available.

* Data are for 1995.

NOTE: See the supplemental note to this indicator for a description of the literacy scales and levels.

SOURCE: Organisation for Economic Co-operation and Development, *International Adult Literacy Survey*, unpublished tabulations, 1994, 1995.

Information on the International Adult Literacy Survey (IALS)

The International Adult Literacy Survey (IALS) was a collaborative effort by seven governments and three intergovernmental organizations. This survey reports the results of a wide-ranging test of literacy skills given to a large sample of adults (ranging from 1,500 to 1,800 per country) in Europe and North America in fall 1994 and in additional countries in Europe and Australia in fall 1995, for a total of 12 countries.* Each country was required to draw a probability sample from which results representative of the civilian, noninstitutionalized population aged 16 to 65 could be derived. In nine countries, the survey was carried out in the national language; in Canada, respondents were given a choice of English or French; in Switzerland, samples drawn from French-speaking and German-speaking cantons were required to respond in those respective languages; and in Belgium, only the Flemish-speaking communities were tested.

Literacy is not limited to a single skill suited for dealing with all types of text, nor is it defined as an infinite set of skills. As a result, the IALS defined literacy in terms of three domains, each encompassing a common set of skills relevant for diverse tasks:

- *Prose literacy*: the knowledge and skills needed to understand and use information from texts including editorials, news stories, poems, and fiction;
- *Document literacy*: the knowledge and skills required to locate and use information contained in various formats, including job applications, payroll forms, transportation schedules, maps, tables, and graphics; and
- *Quantitative literacy*: the knowledge and skills required to apply arithmetic operations, either alone or sequentially, to numbers embedded in printed materials, such as balancing a checkbook, figuring a tip, completing an order form, or determining the amount of interest on a loan from an advertisement.

In each of these three domains, rather than expressing a threshold for achieving literacy, a scale from 0 to 500 was constructed, upon which tasks of varying difficulty were placed. These scales were developed through the item response theory (IRT) scaling procedures. First, the difficulty of tasks was ranked on the scale according to how well respondents actually performed on them. Then, each scale was divided into five levels reflecting the empirically determined progression of information-processing skills and

strategies. Next, individuals were assigned scores between 0 and 500 according to how well they did on a variety of tasks at different levels. Finally, the percentage of readers in each skill level was calculated.

A person's literacy ability in each domain can be expressed by a score, defined as the point at which he or she has an 80 percent chance of successfully performing a given task. If a person's score places them in level 2, it means that they have an 80 percent chance of successfully performing level 2 tasks and a greater than 80 percent chance of performing level 1 tasks. It does not mean, however, that individuals with low proficiency can never succeed at more difficult tasks—that is, on tasks that are rated at higher skill levels. It means only that their probability of success is relatively low. Below is a description of the three literacy scales and the tasks required at each proficiency level:

Prose literacy

Prose literacy includes text from newspapers, magazines and brochures accompanied by one or more questions or directives asking the reader to perform specific tasks. These tasks represent three major aspects of information-processing: locating, integrating, and generating. Locating tasks require the reader to find information in the text based on conditions or features specified in the question or directive. Integrating tasks ask the reader to pull together two or more pieces of information in the text. In the generating tasks, readers must produce a written response by processing information from the text and also by making text-based inferences or drawing on their own background knowledge.

- *Prose Level 1 (Difficulty values 0–225)*: Most of the tasks at this level require the reader to locate and match a single piece of information in the text that is identical to or synonymous with the information given in the directive. If a plausible incorrect answer is present in the text, it tends not to be near the correct information.
- *Prose Level 2 (Difficulty values 226–275)*: Tasks at this level tend to require the reader to locate one or more pieces of information in the text, but several distracters may be present, or low-level inferences may be required. Tasks at this level also begin to ask readers to integrate two or more pieces of information, or to compare and contrast information.

- *Prose Level 3 (Difficulty values 276–325):* Tasks at this level tend to direct readers to search texts to match information that require low-level inferences or that meet specified conditions. Sometimes the reader is required to identify several pieces of information that are located in different sentences or paragraphs rather than in a single sentence. Readers may also be asked to integrate or to compare and contrast information across paragraphs or sections of text.
- *Prose Level 4 (Difficulty values 326–375):* These tasks require readers to perform multiple-feature matching or to provide several responses in which the requested information must be identified through text-based inferences. Tasks at this level may also require the reader to integrate or contrast pieces of information, sometimes presented in relatively lengthy texts. Typically, these texts contain more distracting information and the information that is requested is more abstract.
- *Prose Level 5 (Difficulty values 376–500):* Some tasks at this level require the reader to search for information in dense text that contains a number of plausible distracters. Some require readers to make high-level inferences or use specialized knowledge.
- *Document Level 3 (Difficulty values 276–325):* Tasks at this level appear to be most varied. Some require the reader to make literal or synonymous matches, but usually the matches require the reader to take conditional information into account or to match on multiple features of information.
- *Document Level 4 (Difficulty values 326–375):* Tasks at this level, like those in the previous levels, ask the reader to match on multiple features of information, to cycle through documents, and to integrate information; frequently, however, these tasks require the reader to make higher-order inferences to arrive at the correct answer. Conditional information is occasionally present in the document, which the reader must take into account.
- *Document Level 5 (Difficulty values 376–500):* Tasks at this level require the reader to search through complex displays of information that contain multiple distracters, to make high-level inferences, process conditional information, or use specialized knowledge.

Document literacy

Document literacy involves using materials such as tables, schedules, graphs, maps, and forms. Questions or directives associated with the various document tasks are basically of four types: locating, cycling, integrating, and generating. Locating, integrating, and generating refer to the same skills in document literacy as in prose literacy. Cycling tasks require the reader to locate and match one or more features of information, but differ from locating tasks because they require the reader to engage in a series of feature matches to satisfy conditions given in the question.

- *Document Level 1 (Difficulty values 0–225):* Most of the tasks at this level require the reader to locate a piece of information based on a literal match. Distracting information, if present, is typically located away from the correct answer. Some tasks may direct the reader to enter personal information onto a form.
- *Document Level 2 (Difficulty values 226–275):* Document tasks at this level are more varied. While some tasks still require the reader to match on a single feature, more distracting information may be present or the match may require a low-level inference. Some tasks at this level may require

the reader to enter information onto a form or to cycle through information in a document.

Quantitative Literacy

Quantitative literacy involves using numbers and arithmetic operations to complete a task. These numbers often must be located and extracted from different types of documents that contain similar but irrelevant information, be inferred from printed directions, or undergo multiple operations.

- *Quantitative Level 1 (Difficulty values 0–225):* Although no quantitative tasks used in the IALS fall below the score value of 225, experience suggests that such tasks would require the reader to perform a single, relatively simple operation (usually addition) for which either the numbers are already entered onto the given document and the operation is stipulated, or the numbers are provided and the operation does not require the reader to borrow.
- *Quantitative Level 2 (Difficulty values 226–275):* Tasks in this level typically require readers to perform a single arithmetic operation (frequently addition or subtraction) using numbers that are easily located in the text or document. The operation to be performed may be easily inferred from the wording of the question or the format of the

material (for example, a bank deposit form or an order form).

- *Quantitative Level 3 (Difficulty values 276–325):* Tasks found in this level typically require the reader to perform a single operation. However, the operations become more varied—some multiplication and division tasks are found in this level. Sometimes two or more numbers are needed to solve the problem, and the numbers are frequently embedded in more complex displays. While semantic relation terms such as “how many” or “calculate the difference” are often used, some tasks require the reader to make higher-order inferences to determine the appropriate operation.
- *Quantitative Level 4 (Difficulty values 326–375):* With one exception, the tasks at this level require the reader to perform a single arithmetic operation where typically either the quantities or the opera-

tion are not easily determined. That is, for most of the tasks at this level, the question or directive does not provide a semantic relation term such as “how many” or “calculate the difference” to help the reader.

- *Quantitative Level 5 (Difficulty values 376–500):* These tasks require readers to perform multiple operations sequentially; they must pull out the features of the problem from the material provided or rely on background knowledge to determine the quantities or operations needed.

* Australia participated in the IALS, but it chose not to release their data, thus, its results are not reported here.

SOURCE: Organisation for Economic Co-operation and Development and Statistics Canada, *Literacy, Economy, and Society, Results of the International Adult Literacy Survey, 1995.*

Table 9-1 Political knowledge of students in grades 9–12, by selected student characteristics: 1996

Selected student characteristics	Percentage of students who gave correct answers to political items*		
	None or one	Two or three	Four or five
Total	49.1	31.3	19.6
Sex			
Male	43.4	32.1	24.5
Female	55.1	30.5	14.3
Race–ethnicity			
White	43.0	32.9	24.2
Black, Hispanic, or other	62.3	28.0	9.7
Academic performance			
A	32.9	35.2	31.9
B	50.0	33.0	17.0
C	63.7	25.2	11.1
D–F	70.5	24.5	5.0
Language spoken most at home by student			
English	47.8	31.8	20.4
Other	68.7	24.4	7.0
Parents' highest educational level			
Less than high school	75.1	20.0	4.9
High school only	61.4	27.5	11.1
Some college/vocational/technical	48.9	34.4	16.7
Bachelor's degree	34.9	36.5	28.7
Graduate/professional school	25.7	34.7	39.6
Control of school			
Public	50.7	30.8	18.6
Private	33.4	37.2	29.4
Participation in community service during school year			
No participation	57.7	28.9	13.3
Once or twice	43.2	34.2	22.6
Regularly/under 35 hours	40.7	34.3	25.0
Regularly/35 hours or more	36.5	32.4	31.1

* Students were given one of the two sets of questions. The first set includes the following five questions: 1) What job or political office is now held by Al Gore? 2) Whose responsibility is it to determine if a law is constitutional or not? 3) Which party now has the most members in the House of Representatives in Washington? 4) How much of a majority is required for the U.S. Senate and House to override a presidential veto? 5) Which of the two major parties is more conservative at the national level? The second set includes the following five questions: 1) What job or political office is now held by Newt Gingrich? 2) Whose responsibility is it to nominate judges to the federal courts? 3) Which party now has the most members in the U.S. Senate? 4) What are the first ten amendments to the U.S. Constitution called? 5) Which of the two major parties is in favor of the larger defense budget?

NOTE: Details may not add to 100.0 due to rounding.

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Household Education Survey, Spring 1996 (Youth Civic Involvement Component and Parent and Family Involvement in Education and Civic Involvement Component).

Table 9-2 Attention to politics, participation skills, political efficacy, and tolerance of diversity of students in grades 9–12, by selected student characteristics: 1996

Selected student characteristics	Percentage of students who reported:							
	Attention to politics		Political participation skills		Political efficacy		Tolerance of diversity	
	They read national news at least once a week	They watch or listen to national news almost daily	They could write a letter to a government office	They could make a statement at a public meeting	They understand politics or government	Their family has a say in what government does	People should be allowed to speak against religion	Controversial books could be kept in a public library
Total	41.1	39.6	93.4	82.4	55.0	64.2	88.3	56.9
Sex								
Male	45.7	42.9	92.0	80.7	58.5	62.4	88.2	59.0
Female	36.2	36.1	94.8	84.3	51.4	66.2	88.3	54.7
Race–ethnicity								
White	43.4	37.6	93.5	82.3	58.1	64.5	89.9	60.2
Black, Hispanic, or other	36.1	43.8	93.1	82.8	48.4	63.8	84.8	49.7
Academic performance								
A	46.2	41.7	95.6	86.2	64.8	70.0	88.3	59.8
B	38.7	38.2	93.1	80.7	53.6	63.3	88.9	56.5
C	39.9	40.7	91.3	81.1	46.9	60.2	86.7	54.6
D–F	34.4	31.7	91.3	79.4	47.2	56.3	90.3	53.2
Language spoken most at home by student								
English	41.5	39.4	93.5	82.6	56.1	64.7	89.1	57.6
Other	34.4	42.5	91.2	80.6	38.6	56.5	74.4	46.0
Parents' highest educational level								
Less than high school	32.1	42.8	91.5	77.9	40.6	52.4	80.1	47.0
High school only	35.6	38.7	91.5	80.1	48.4	58.0	88.6	52.6
Some college/vocational/technical	39.8	38.1	93.6	83.7	54.4	65.9	87.4	54.4
Bachelor's degree	46.2	38.8	95.3	83.4	59.2	68.9	90.3	65.5
Graduate/professional school	53.5	42.6	95.7	86.2	72.6	75.1	92.1	66.6
Control of school								
Public	40.8	39.3	93.1	81.7	53.8	63.3	88.0	56.0
Private	43.6	42.9	96.4	89.6	67.0	73.3	90.9	65.4
Participation in community service during school year								
No participation	37.7	38.3	91.4	77.2	48.5	60.6	87.1	55.7
Once or twice	39.4	37.3	95.4	85.1	56.6	65.8	89.8	55.3
Regularly/under 35 hours	47.6	42.0	95.1	88.8	63.5	69.1	88.4	60.6
Regularly/35 hours or more	49.4	45.6	95.4	90.1	67.2	69.6	89.5	60.0

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Household Education Survey, Spring 1996 (Youth Civic Involvement Component and Parent and Family Involvement in Education and Civic Involvement Component).

Table 10-1 Employment rates for recent high school completers not enrolled in college and for recent high school dropouts, by sex: October 1960–97

October	Recent high school completers not enrolled in college			Recent high school dropouts		
	Total	Male	Female	Total	Male	Female
1960	65.0	75.3	58.8	50.9	61.8	40.8
1961	65.4	70.1	62.5	49.4	60.3	38.3
1962	68.3	77.8	61.5	40.4	61.9	23.3
1963	64.7	72.6	59.5	45.1	64.4	27.0
1964	63.4	79.2	53.5	41.6	63.0	24.0
1965	71.9	84.3	63.2	47.9	66.8	26.8
1966	64.9	79.7	55.8	51.4	69.4	33.6
1967	65.9	78.3	57.7	50.3	65.0	34.4
1968	67.3	79.1	60.2	50.0	65.5	34.0
1969	70.1	83.1	61.1	51.0	69.8	30.9
1970	63.2	76.1	52.6	44.7	56.5	31.9
1971	65.1	77.5	55.6	46.8	59.3	31.7
1972	70.1	79.9	62.2	46.8	64.7	28.3
1973	70.7	81.7	61.9	52.7	62.5	40.0
1974	69.1	76.0	63.2	49.3	63.8	32.2
1975	65.1	74.1	57.5	41.9	54.8	29.5
1976	68.8	75.9	61.7	44.8	58.0	28.2
1977	72.0	77.7	67.2	52.7	64.0	39.3
1978	74.9	81.6	67.5	51.2	63.7	34.8
1979	72.4	79.2	66.7	49.7	65.3	34.3
1980	68.9	72.6	65.0	44.6	51.9	34.8
1981	65.9	70.0	62.1	42.1	54.1	29.3
1982	60.4	64.9	56.0	38.0	44.4	30.5
1983	63.0	66.1	60.1	44.4	51.6	35.8
1984	64.0	69.1	59.7	44.0	53.1	33.7
1985	62.0	65.0	59.3	44.2	51.9	35.8
1986	65.2	69.4	61.6	48.0	57.9	36.8
1987	68.9	76.9	61.9	41.8	46.0	36.6
1988	71.9	74.2	69.5	43.6	53.7	30.6
1989	71.7	77.4	65.6	46.7	52.2	40.1
1990	67.8	73.1	61.9	46.3	51.3	40.6
1991	59.6	62.2	56.1	36.8	48.8	25.0
1992	62.7	68.8	55.8	36.2	44.8	28.7
1993	64.2	67.6	60.6	46.9	61.6	30.1
1994	64.2	70.4	57.7	42.9	58.2	27.1
1995	63.1	64.1	62.3	47.7	52.8	41.1
1996	59.0	61.6	55.9	42.3	51.0	34.1
1997	66.9	73.7	59.0	44.9	57.2	28.1

NOTE: Recent high school completers are individuals ages 16–24 who completed high school during the survey year. Recent high school dropouts are individuals ages 16–24 who had not completed high school, were not enrolled during the survey month, and were in school 12 months earlier. In 1994, the survey instrument for the CPS was changed and weights were adjusted. See the supplemental note to *Indicator 52* for further discussion.

SOURCE: U.S. Department of Labor, Bureau of Labor Statistics, *Labor Force Statistics Derived from the Current Population Survey: 1940–87*, and U.S. Department of Commerce, Bureau of the Census, October Current Population Surveys.

Table 12-1 Ratio* of median annual earnings of all male to all female wage and salary workers ages 25–34, by educational attainment: 1970–97

Year	Grades 9–11	High school completer	Some college	Bachelor's degree or higher
1970	3.40	2.42	2.21	1.64
1971	3.09	2.36	2.17	1.54
1972	3.01	2.40	2.05	1.59
1973	2.93	2.47	1.93	1.61
1974	3.05	2.35	2.00	1.55
1975	2.65	2.17	1.87	1.47
1976	2.70	2.10	1.91	1.58
1977	2.56	2.08	1.74	1.60
1978	3.05	2.14	1.92	1.63
1979	2.24	2.08	1.84	1.55
1980	2.22	1.95	1.64	1.53
1981	2.23	1.86	1.61	1.56
1982	1.90	1.77	1.64	1.46
1983	1.86	1.76	1.61	1.43
1984	1.94	1.73	1.64	1.46
1985	1.86	1.66	1.67	1.47
1986	1.80	1.67	1.62	1.41
1987	1.78	1.66	1.50	1.38
1988	2.09	1.73	1.45	1.35
1989	1.95	1.75	1.49	1.32
1990	2.04	1.65	1.42	1.27
1991	1.66	1.65	1.42	1.32
1992	1.42	1.59	1.34	1.27
1993	1.82	1.60	1.37	1.26
1994	1.79	1.54	1.46	1.26
1995	1.89	1.58	1.37	1.28
1996	1.73	1.61	1.44	1.33
1997	1.77	1.57	1.44	1.24

* This ratio is most useful when compared with 1.0. For example, the ratio of 1.24 in 1997 for those whose highest education level was a bachelor's degree or higher means that males who had attained a bachelor's degree or higher earned 24 percent more than females with the same level of educational attainment.

NOTE: The Current Population Survey (CPS) questions used to obtain educational attainment were changed in 1992. See the

supplemental note to *Indicator 60* for further discussion. In 1994, the survey instrument for the CPS was changed and weights were adjusted. See the supplemental note to *Indicator 52* for further discussion.

SOURCE: U.S. Department of Commerce, Bureau of the Census, March Current Population Surveys.

Table 13-1 Percentage distribution of 1992–93 bachelor's degree recipients according to employment and enrollment status in April 1997, by selected student characteristics

Selected student characteristics	Employment and enrollment status in April 1997			
	Employed and not enrolled	Enrolled and employed	Enrolled and not employed	Not employed and not enrolled
Total	76.3	13.0	4.7	6.1
Sex				
Male	78.5	12.1	5.4	4.1
Female	74.4	13.8	4.1	7.7
Race–ethnicity				
White	76.8	13.1	4.3	5.8
Black	79.4	11.3	4.6	4.7
Hispanic	70.5	15.0	6.0	8.5
Asian/Pacific Islander	69.7	11.9	10.0	8.4
American Indian/Alaskan Native	76.4	6.5	6.2	10.9
Marital status in April 1997				
Never married	74.5	14.1	6.6	4.9
Married/cohabit as married	77.6	12.1	3.0	7.3
Divorced/separated/widowed	78.1	13.3	4.3	4.3
Number of children				
No children	76.0	13.8	5.7	4.5
One	79.0	9.6	2.6	8.9
Two or more children	74.6	12.2	1.0	12.2
Baccalaureate degree major				
Professional fields	80.2	12.0	2.4	5.4
Arts and sciences	68.6	15.1	9.1	7.2
Other	79.9	11.9	2.4	5.9
Baccalaureate degree major				
Business and management	85.8	7.4	1.8	4.9
Education	71.0	20.1	2.3	6.7
Engineering	80.0	14.1	3.6	2.3
Health professions	79.2	9.8	4.2	6.8
Public affairs/social services	80.4	12.4	0.7	6.5
Biological sciences	50.7	16.6	25.4	7.3
Mathematics and other sciences	74.5	13.1	7.7	4.7
Social sciences	71.1	16.7	6.1	6.2
History	72.8	11.8	11.1	4.3
Humanities	71.7	13.6	5.2	9.5
Psychology	63.9	18.2	8.4	9.5
Other	79.9	11.9	2.4	5.9

NOTE: Details may not add to 100.0 due to rounding.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1993 Baccalaureate and Beyond Longitudinal Study, Second Follow-up (B&B:93/97), Data Analysis System.

Advanced Placement (AP) Examinations

The Advanced Placement (AP) examinations are offered to high school students annually to give them an opportunity to demonstrate college-level achievement. The AP program is open to all students. However, it is advised that only students who have studied beyond the normal secondary school level take these examinations. High school students take the examinations voluntarily; however, several states have legislation that supports and encourages participation in the AP program.

It should be noted that while the AP program is open to all students, not all schools participate. This means that schools may not offer courses to prepare students for the AP examinations or administer them. If students wish, they may take AP examinations at a school other than the one they attend if the school attended does not administer AP examinations. However, whether a school offers AP courses and examinations will affect the likelihood of whether a student participates in the AP program. Students who attend schools that offer AP courses and examinations are probably more likely to take AP examinations than students who attend schools that do not participate in the AP program.

Data used in the denominators for this analysis were taken from the October Current Population Survey (CPS) and should not be compared with data from *The National Education Goals Report*. In this analysis, the number of 11th- and 12th-graders who took AP examinations and the number of examinations taken by these students, as reported by The College Board, were compared to populations of 12th-graders as defined by the October CPS. This comparison provides an estimate of the average number of students who participate in the AP program for a single cohort and the average number of AP examinations a single cohort takes because students rarely take any given AP examination (e.g., biology) in both the 11th and 12th grades.

Enrollment figures from the CPS include both public and private school data, which are somewhat different from the data shown in *The National Education Goals Report*. Enrollment figures from *The National Education Goals Report* are based on the Common Core of Data, which does not include data from private schools, but produces private school enrollment data by multiplying the public school figures by a private school enrollment adjustment factor. As a result, data in this analysis are not directly comparable to data found in the *Goals* report.

Subject definitions

The following are the specific subjects that comprise the AP examination subject areas presented in this analysis:

Social Studies: U.S. History, European History, U.S. Government and Politics, Comparative Government and Politics, and Psychology;

English: English Language and Composition, and English Literature and Composition;

Foreign Language: French Language, French Literature, German Language, Latin/Vergil, Latin Literature, Spanish Language, and Spanish Literature;

Calculus: Calculus AB and Calculus BC;

Computer Science: Computer Science A and Computer Science AB;

Science: Biology, Chemistry, Physics B, Physics C (mechanical), and Physics C (electricity and magnetism).

Examinations

Most of the AP examinations contain multiple choice and free-response sections. The examinations are graded based on scores from both types of responses. The program's examinations are criterion- rather than normed-referenced, with cut scores established at four different points along these scales to designate a grade of 5, 4, 3, 2, or 1 (grade of 5: extremely well qualified; grade of 4: well qualified; grade of 3: qualified; grade of 2: possibly qualified; and grade of 1: no recommendation). The grades are determined by the chief readers who rely on their subject matter expertise, statistical equating data, and data from comparability studies. Cut scores frequently vary from year to year for each examination, reflecting changes in the level of examination difficulty. Therefore, The College Board does not recommend using grade data for trend analysis. Grades of 3 and above are usually accepted for college credit and advanced placement at participating colleges and universities, although credit varies among institutions.

SOURCE: The College Board, *A Guide to the Advanced Placement Program*, 1992.

Table 16-1 Percentage distribution of 8th-grade students¹ according to frequency with which they reported having a quiz or test in their mathematics lessons, by frequency and country: 1995

Country	Once in a while or never	Pretty often	Almost always
Australia ²	46	38	16
Austria ²	77	15	9
Belgium (Flemish)	7	71	22
Belgium (French) ²	27	49	24
Canada	27	52	20
Colombia ²	22	35	43
Cyprus	22	63	15
Czech Republic	72	24	5
Denmark ²	69	21	10
England ²	50	40	10
France	30	51	20
Germany ²	66	22	12
Greece ²	44	40	16
Hong Kong	21	43	36
Hungary	80	15	5
Iceland	70	24	6
Iran, Islamic Republic	45	28	27
Ireland	51	36	14
Israel ²	43	39	18
Japan	59	30	11
Korea	74	19	7
Kuwait ²	29	29	42
Latvia (Latvian-speaking schools) ²	80	17	3
Lithuania ²	30	59	11
Netherlands ²	45	43	12
New Zealand	45	35	20
Norway	66	31	3
Portugal	49	28	23
Romania ²	30	36	34
Russian Federation	23	53	24
Scotland ²	63	28	9
Singapore	27	55	18
Slovak Republic	51	42	7
Slovenia ²	36	44	20
Spain	25	37	39
Sweden	43	49	7
Switzerland	41	45	14
Thailand ²	41	28	31
United States	15	47	38

¹ Eighth grade in most nations.

² Country did not satisfy one or more sampling or other guidelines. See the supplemental note to *Indicator 3* for further explanation.

NOTE: Details may not add to 100 due to rounding.

SOURCE: International Association for the Evaluation of Educational Achievement, TIMSS International Study Center, *Mathematics Achievement in the Middle School Years, 1996*.

Table 16-2 Percentage distribution of 8th-grade students¹ according to teacher reports of the use of various pieces of written information² as their main source for deciding which topics to teach and how to present in mathematics, by country: 1995

Country	Deciding which topics to teach			Deciding how to present a topic		
	Curriculum guide	Textbook	Examination specifications	Curriculum guide	Textbook	Examination specifications
Australia ³	⁴ 91	⁴ 9	—	⁴ 13	⁴ 87	—
Austria ³	⁴ 75	⁴ 25	⁴ 0	⁴ 28	⁴ 72	⁴ 0
Belgium (Flemish)	92	8	—	8	92	—
Belgium (French) ³	⁵ 87	⁵ 13	—	⁵ 2	⁵ 98	—
Canada	—	—	—	—	—	—
Colombia ³	⁴ 63	⁴ 35	⁴ 3	⁴ 43	⁴ 56	⁴ 1
Cyprus	⁴ 67	⁴ 33	⁴ 0	⁴ 17	⁴ 83	⁴ 0
Czech Republic	79	21	—	9	91	—
Denmark ³	—	—	—	—	—	—
England ³	—	—	—	—	—	—
France	89	10	1	⁴ 13	⁴ 87	⁴ 0
Germany ³	⁵ 80	⁵ 20	—	⁵ 25	⁵ 75	—
Greece ³	53	47	—	5	95	—
Hong Kong	61	30	9	15	85	0
Hungary	79	19	2	18	81	1
Iceland	⁵ 63	⁵ 36	⁵ 1	⁵ 12	⁵ 87	⁵ 1
Iran, Islamic Republic	⁴ 64	⁴ 31	⁴ 5	⁴ 55	⁴ 36	⁴ 9
Ireland	⁴ 65	⁴ 35	—	⁴ 14	⁴ 86	—
Israel ³	⁴ 91	⁴ 5	⁴ 5	⁴ 28	⁴ 69	⁴ 3
Japan	24	74	1	11	87	2
Korea	22	76	2	22	74	4
Kuwait ³	—	—	—	—	—	—
Latvia (Latvian-speaking schools) ³	⁴ 81	⁴ 16	⁴ 3	⁴ 17	⁴ 80	⁴ 4
Lithuania ³	⁴ 88	⁴ 10	⁴ 2	⁴ 6	⁴ 93	⁴ 1
Netherlands ³	2	87	12	1	94	5
New Zealand	91	5	4	47	53	0
Norway	⁴ 53	⁴ 47	—	⁵ 9	⁵ 91	—
Portugal	86	14	—	64	36	—
Romania ³	94	3	3	28	67	5
Russian Federation	76	13	11	7	86	6
Scotland ³	⁵ 79	⁵ 10	⁵ 11	⁵ 28	⁵ 68	⁵ 4
Singapore	82	18	0	10	89	1
Slovak Republic	83	17	0	16	83	1
Slovenia ³	⁴ 87	⁴ 9	⁴ 4	⁴ 27	⁴ 71	⁴ 2
Spain	—	—	—	—	—	—
Sweden	⁴ 46	⁴ 54	—	⁴ 6	⁴ 94	—
Switzerland	⁵ 69	⁵ 30	⁵ 1	(⁶)	(⁶)	(⁶)
Thailand ³	⁵ 44	⁵ 50	⁵ 6	⁴ 17	⁴ 83	⁴ 0
United States	⁵ 64	⁵ 30	⁵ 6	⁵ 9	⁵ 88	⁵ 3

— Not available.

¹ Eighth grade in most nations.

² Curriculum guides include national, regional, and school curriculum guides; textbooks include teacher and student editions, as well as other resource books; and examination specifications include national and regional levels.

³ Country did not satisfy one or more sampling or other guidelines. See the supplemental note to *Indicator 3* for further explanation.

⁴ Teacher response data available for 70–84 percent of the students.

⁵ Teacher response data available for 50–69 percent of the students.

⁶ Teacher response data available for less than 50 percent of students.

NOTE: Details may not add to 100 due to rounding.

SOURCE: International Association for the Evaluation of Educational Achievement, TIMSS International Study Center, *Mathematics Achievement in the Middle School Years, 1996*.

Table 17-1 Percentage of schools and instructional rooms with Internet access, by control and level of school: Fall 1995

Level of school ²	Percentage of schools with Internet access		Percentage of instructional rooms with Internet access ¹	
	Public	Private	Public	Private
Total	50	25	8	5
Elementary	46	23	8	3
Secondary	65	57	8	6
Combined	(?)	19	(?)	8

¹ Based on the total number of instructional rooms in regular public and private schools.

² Data for combined public schools are not reported as a separate level of school because there are too few sample observations for reliable estimates. Data for combined public schools are included in the public school total.

SOURCE: U.S. Department of Education, National Center for Education Statistics, *Advanced Telecommunications in U.S. Public Elementary and Secondary Schools, Fall 1996, 1997*, and *Advanced Telecommunications in U.S. Private Schools, K-12, Fall 1995, 1997*.

Table 17-2 Percentage of public schools with various Internet capabilities and members of the school community with access to Internet capabilities, by type of Internet capability: Fall 1996

Internet capabilities	Available ¹	Member of the school community with access to Internet capability ²		
		Teachers	Administrative staff	Students
E-mail	90	88	92	35
News groups	57	91	85	43
Resource location services (e.g., Gopher, Archie, Veronica, etc.)	67	93	87	64
World Wide Web access (e.g., browsers such as Netscape, MOSAIC)	89	94	86	74

¹ Based on the number of schools with Internet access (65 percent of public schools).

² Based on the number of schools with the corresponding Internet capability.

SOURCE: U.S. Department of Education, National Center for Education Statistics, *Advanced Telecommunications in U.S. Public Elementary and Secondary Schools, Fall 1996, 1997*.

Table 18-1 Percentage of students who used a computer at home, by purpose, current grade level, race-ethnicity, and family income: 1997

Current grade level, race-ethnicity, and family income*	Word processing	E-mail	Internet	School assignments	Databases	Graphics/design
Total (Grades 1-12)	33.9	13.0	17.5	49.1	1.6	14.7
Grades 1-6						
Total	19.8	6.8	10.2	34.0	0.0	12.0
Race-ethnicity						
White	21.7	8.0	11.5	35.6	0.0	13.5
Black	11.2	2.5	4.2	27.4	0.0	6.1
Hispanic	15.2	2.2	7.3	28.4	0.0	7.6
Family income						
Low income	12.5	4.4	4.7	21.7	0.0	7.3
Middle income	15.5	4.8	7.6	29.7	0.0	10.3
High income	27.5	10.1	15.1	42.6	0.0	15.3
Grades 7-12						
Total	47.5	19.0	24.6	63.9	3.1	17.4
Race-ethnicity						
White	50.1	20.9	26.4	65.6	3.3	18.8
Black	31.7	7.1	12.8	50.7	1.1	9.2
Hispanic	37.6	9.0	16.6	53.0	2.1	11.6
Family income						
Low income	26.9	8.0	10.2	44.6	0.8	9.7
Middle income	41.4	15.1	19.2	60.7	3.1	16.4
High income	58.6	25.9	33.8	70.8	3.5	19.7

* Low income is the bottom 20 percent of all family incomes; high income is the top 20 percent of all family incomes; and middle income is the 60 percent in between. See the supplemental note to *Indicator 54* for further discussion.

SOURCE: U.S. Department of Commerce, Bureau of the Census, October Current Population Surveys.

Table 20-1 Percentage of students with disabilities ages 6–21* according to the educational environment in which they are educated, by type of disability: Academic years ending 1986–96

Type of disability	Academic year ending											Percentage point change
	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	
Regular class												
All disabilities	25.5	26.4	28.9	30.5	31.5	32.8	34.9	39.8	43.4	44.5	45.4	19.9
Specific learning disabilities	15.4	15.9	17.6	19.6	20.7	22.5	24.7	34.8	39.3	41.1	42.4	27.0
Traumatic brain injury	—	—	—	—	—	—	7.9	16.4	22.3	26.0	28.5	20.6
Speech or language impairments	68.6	70.1	74.8	75.6	76.8	78.9	85.5	81.8	87.5	87.3	88.6	20.0
Hearing impairments	20.0	21.6	24.4	26.9	27.0	26.9	27.0	29.5	30.6	35.0	36.2	16.2
Other health impairments	27.4	30.5	30.6	29.9	31.2	30.2	35.3	40.0	40.1	42.5	43.3	15.9
Visual impairments	32.8	32.7	37.7	39.8	39.3	42.1	39.6	45.5	45.2	45.9	47.7	14.9
Serious emotional disturbance	9.1	10.2	12.6	14.1	14.9	16.8	15.9	19.6	20.5	22.0	23.5	14.4
Orthopedic impairments	28.7	24.2	27.8	29.3	29.6	29.6	32.4	35.1	37.4	39.1	40.8	12.1
Mental retardation	2.9	3.3	5.7	5.9	6.8	7.4	5.1	7.1	8.6	9.7	10.3	7.4
Autism	—	—	—	—	—	—	4.7	9.0	9.6	10.7	12.0	7.3
Multiple disabilities	2.4	4.4	6.4	7.0	5.9	6.6	6.2	7.6	9.1	9.0	9.5	7.1
Deaf-blindness	7.0	6.0	8.8	11.6	8.0	10.5	5.8	12.3	7.7	9.3	10.8	3.8
Resource room												
All disabilities	43.1	42.7	40.0	39.0	37.6	36.5	36.3	31.7	29.5	28.8	28.7	-14.4
Specific learning disabilities	62.4	60.9	59.1	57.9	56.1	53.7	54.2	43.9	41.0	39.6	39.4	-23.0
Traumatic brain injury	—	—	—	—	—	—	9.0	19.8	23.5	24.1	24.9	15.9
Speech or language impairments	26.0	23.8	19.7	19.0	17.7	13.9	9.1	10.7	7.6	7.8	6.5	-19.5
Hearing impairments	22.4	25.1	20.9	21.0	18.2	19.7	20.5	19.7	20.0	19.3	18.9	-3.5
Other health impairments	19.8	28.4	20.8	20.3	22.3	27.7	27.6	27.4	27.0	29.0	30.2	10.4
Visual impairments	25.1	29.3	25.6	25.4	23.7	23.2	21.2	21.1	21.3	21.1	20.6	-4.5
Serious emotional disturbance	34.9	35.7	32.9	30.0	28.5	29.2	27.8	26.7	25.8	24.1	23.7	-11.2
Orthopedic impairments	17.6	23.1	18.0	18.6	18.9	22.2	21.0	20.0	20.7	20.6	20.8	3.2
Mental retardation	26.2	27.0	24.0	22.4	20.1	23.0	25.4	26.8	26.2	27.1	28.6	2.4
Autism	—	—	—	—	—	—	6.9	9.6	8.1	9.3	10.7	3.8
Multiple disabilities	17.6	19.5	13.3	14.1	14.3	17.2	18.1	19.1	19.8	11.9	14.9	-2.7
Deaf-blindness	19.0	20.6	7.2	5.3	16.3	6.4	6.2	9.7	8.0	8.7	9.9	-9.1

Table 20-1 Percentage of students with disabilities ages 6–21* according to the educational environment in which they are educated, by type of disability: Academic years ending 1986–96—Continued

Type of disability	Academic year ending											Percentage point change
	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	
Separate class												
All disabilities	24.4	24.9	24.7	24.3	24.9	25.1	23.5	23.4	22.7	22.4	21.7	-2.7
Specific learning disabilities	20.7	21.1	21.7	20.9	21.7	22.4	20.0	20.1	18.8	18.4	17.4	-3.3
Traumatic brain injury	—	—	—	—	—	—	23.7	28.4	30.2	30.4	30.6	6.9
Speech or language impairments	3.7	4.1	3.8	3.8	3.8	5.7	3.9	6.0	4.5	4.6	4.5	0.8
Hearing impairments	32.6	33.1	35.2	33.5	31.7	32.7	31.2	28.1	30.6	28.6	26.8	-5.8
Other health impairments	24.5	19.8	18.7	19.6	24.6	26.2	21.4	20.6	21.3	18.5	18.4	-6.1
Visual impairments	17.9	21.3	20.8	20.3	21.1	19.9	19.6	18.0	18.3	17.2	17.1	-0.8
Serious emotional disturbance	36.2	36.9	34.6	35.8	37.1	35.8	36.9	35.2	35.3	35.2	34.3	-1.9
Orthopedic impairments	29.7	32.9	31.7	33.5	34.7	33.0	34.3	34.1	33.3	31.6	30.5	0.8
Mental retardation	56.6	58.0	57.6	58.9	61.1	58.3	59.2	56.8	57.0	55.8	54.2	-2.4
Autism	—	—	—	—	—	—	48.5	50.0	54.5	55.0	53.8	5.3
Multiple disabilities	43.2	47.6	45.9	46.2	43.7	42.8	47.1	44.6	44.1	51.3	48.8	5.6
Deaf-blindness	21.6	36.4	35.0	29.9	29.9	32.3	36.3	31.4	34.6	36.2	40.2	18.6
Separate facilities												
All disabilities	6.9	6.1	6.4	6.2	6.1	5.6	5.3	5.1	4.4	4.3	4.3	-2.6
Specific learning disabilities	1.5	2.1	1.6	1.5	1.5	1.4	1.1	1.2	0.8	0.9	0.9	-0.6
Traumatic brain injury	—	—	—	—	—	—	59.5	35.4	23.9	19.5	16.0	-43.5
Speech or language impairments	1.7	2.0	1.6	1.6	1.7	1.6	1.5	1.6	0.4	0.4	0.4	-1.3
Hearing impairments	25.0	20.3	19.5	18.6	23.1	20.7	21.3	22.7	18.9	17.1	18.2	-6.8
Other health impairments	28.4	21.3	29.9	30.1	21.9	15.9	15.6	12.0	11.6	10.0	8.2	-20.2
Visual impairments	24.2	16.7	15.9	14.5	15.9	14.8	19.6	15.5	15.3	15.8	14.6	-9.6
Serious emotional disturbance	19.8	17.2	20.0	20.1	19.5	18.3	19.5	18.5	18.4	18.7	18.6	-1.2
Orthopedic impairments	24.0	19.8	22.5	18.7	16.8	15.2	12.3	10.8	8.7	8.7	8.0	-16.0
Mental retardation	14.2	11.7	12.8	12.8	12.1	11.4	10.3	9.3	8.3	7.4	7.0	-7.2
Autism	—	—	—	—	—	—	39.9	31.3	27.8	25.0	23.5	-16.4
Multiple disabilities	36.7	28.5	34.4	32.7	36.1	33.3	28.6	28.8	27.1	27.8	26.8	-9.9
Deaf-blindness	52.4	37.1	48.9	53.2	45.9	50.8	51.6	46.7	49.7	45.8	39.1	-13.3

— Not available.

* Based on the number of students served under Part B of the Individuals with Disabilities Education Act (IDEA), in the United States and outlying areas.

NOTE: Disability types are listed in order of greatest to least increase in being served in a regular classroom. See the supplemental note to this indicator for definitions of the different educational environments and disability types.

SOURCE: U.S. Department of Education, Office of Special Education and Rehabilitative Services, *Annual Report to Congress on the Implementation of the Individuals with Disabilities Education Act, 1988–1998*.

Educational environments and types of disabilities

The educational environments described in *Indicator 20* are defined by the U.S. Department of Education, Office of Special Education and Rehabilitative Services, as follows:

- *Regular class*: A student with a disability is educated in a regular class if he or she is removed from regular classes to receive special education and related services for less than 21 percent of the school day.
- *Resource room*: A student with a disability is educated in a resource room if he or she receives special education and related services outside the regular class for 21 to 60 percent of the school day.
- *Separate class*: A student with a disability is educated in a separate class if he or she receives special education and related services outside the regular class for more than 60 percent of the school day.
- *Separate facilities*: A student with a disability is educated in a separate facility if he or she does not attend school with his or her nondisabled peers; instead, he or she is educated either in a separate day school, a residential facility, or a homebound/hospital setting.

The 12 disability types presented in *Indicator 20* are classified according to federal law, under the Individuals with Disabilities Education Act, and are defined below.

- *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 they cannot be accommodated in special education programs solely for children with deafness or children with blindness.

- *Hearing impairments*: an impairment in hearing, whether permanent or fluctuating, that adversely affects a child's educational performance, in the most severe case because the child is impaired in processing linguistic information through hearing.
- *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 problems 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, due to chronic or acute health problems such as a heart condition, tuberculosis, rheumatic fever, nephritis, asthma, sickle cell anemia, hemophilia, epilepsy, lead poisoning, leukemia, or diabetes that adversely affects a child's educational performance.
- *Serious 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:
 - (a) an inability to learn that cannot be explained by intellectual, sensory, or health factors;
 - (b) an inability to build or maintain satisfactory interpersonal relationships with peers and teachers;

(c) inappropriate types of behavior or feelings under normal circumstances;

(d) a general pervasive mood of unhappiness or depression; or

(e) 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 a serious emotional disturbance.

- *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. The term includes such conditions as perceptual disabilities, brain injury, minimal brain dysfunction, dyslexia, and developmental aphasia. The term does not apply to children who have 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 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.

SOURCE: U.S. Department of Education, Office of Special Education and Rehabilitative Services, *Twentieth Annual Report to Congress on the Implementation of the Individuals with Disabilities Education Act (IDEA)*, 1998, *Code of Federal Regulations, Title 34, Section 300.7*, 1995.

Table 21-1 Average reading proficiency of students who read for fun, by frequency and age: Selected years 1984–96

Frequency	Age 9						Age 13						Age 17					
	1984	1988	1990	1992	1994	1996	1984	1988	1990	1992	1994	1996	1984	1988	1990	1992	1994	1996
Almost every day	214	213	215	215	215	213	264	266	269	269	272	270	297	296	304	304	302	301
1–2 times a week	212	212	211	212	214	212	255	260	255	260	255	259	290	284	294	291	286	292
1–2 times a month	204	201	210	204	213	210	255	257	251	257	255	260	290	285	288	287	286	290
Few times a year	197	200	198	197	193	206	252	248	245	250	252	254	280	274	280	282	281	285
Never/hardly ever	198	198	192	189	193	199	239	241	247	246	237	238	269	277	266	268	258	269

NOTE: The range of the reading scale is from 0 to 500. See supplemental table 4-1 for detailed explanations of levels. In 1996, the average scores for 9-, 13-, and 17-year-olds were 212, 259, and 287, respectively.

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Assessment of Educational Progress, *Almanac: Reading 1984 to 1996, Writing 1984 to 1996, 1998.*

Table 21-2 Percentage distribution of students according to the type of material most recently having read at school and on their own, by age: Selected years 1984–96

	Age 9						Age 13						Age 17					
	1984	1988	1990	1992	1994	1996	1984	1988	1990	1992	1994	1996	1984	1988	1990	1992	1994	1996
At school																		
Newspaper or magazine	4.3	4.5	4.4	5.3	5.5	5.3	4.8	4.0	5.6	5.2	5.2	5.4	6.4	6.1	6.2	6.4	6.4	5.9
Play	1.9	1.8	2.5	1.8	1.5	1.9	1.9	2.7	2.4	2.4	2.4	2.6	5.9	8.8	6.3	6.7	6.8	6.7
Poem	2.9	2.6	2.9	3.5	3.7	2.7	1.2	1.4	1.2	1.6	1.1	1.7	4.1	4.7	4.4	4.6	5.4	4.8
Story/novel	16.9	18.1	19.6	23.7	27.5	28.7	22.5	27.9	26.6	28.7	32.2	34.2	39.7	40.1	41.1	42.6	41.1	41.3
Science book	17.3	18.8	16.3	16.8	16.5	15.4	21.3	20.2	22.3	18.4	18.7	17.1	11.5	12.1	12.3	12.6	12.6	12.7
Social studies book	20.5	22.8	20.3	18.1	14.8	16.0	25.6	24.2	22.1	22.3	18.8	17.8	15.7	13.1	14.5	14.0	13.4	14.2
Math book	17.5	15.3	16.6	15.2	14.6	14.7	16.2	14.8	15.2	16.3	16.8	16.1	11.1	11.1	11.5	10.4	10.7	10.6
Workbook	18.8	16.2	17.5	15.6	16.0	15.2	6.5	4.9	4.7	5.0	4.7	5.2	5.6	4.0	3.8	2.8	3.5	3.8
On own																		
Newspaper	8.9	7.0	5.7	6.1	5.5	5.2	16.3	12.7	11.8	12.3	11.5	8.4	25.7	23.5	23.1	24.9	20.7	21.3
Magazine	17.4	15.4	17.4	17.0	19.9	17.0	31.1	36.2	37.1	35.2	35.6	39.5	36.6	39.9	38.4	38.1	38.9	41.0
Play	3.2	2.8	2.6	2.4	1.6	1.2	0.8	0.9	0.9	1.2	0.8	1.2	0.8	0.7	0.6	0.8	0.8	0.7
Poem	5.8	4.3	5.5	6.4	5.1	4.4	1.3	1.8	2.0	2.0	1.5	2.7	1.7	2.2	2.3	2.7	2.5	2.7
Story/novel	36.5	37.6	37.2	42.9	39.4	42.6	39.0	36.9	36.9	40.8	40.5	38.0	29.3	27.3	28.4	26.7	30.3	27.1
Science book	3.8	4.8	3.8	3.7	3.3	3.1	1.6	1.2	1.3	1.3	1.4	1.3	1.1	0.8	1.0	1.0	0.9	0.6
Social studies book	3.3	3.1	3.2	2.8	2.2	2.6	1.5	1.5	1.4	1.0	1.1	0.9	0.5	0.5	0.4	0.8	0.3	0.6
Math book	3.6	3.5	2.9	3.2	2.7	2.2	1.3	0.7	0.9	0.5	0.7	0.7	0.5	0.5	0.7	0.7	0.3	0.7
Workbook	4.4	3.4	2.8	2.9	3.4	3.3	0.7	0.5	0.3	0.4	0.4	0.3	0.2	0.2	0.1	0.2	0.3	0.2
Something else	13.0	18.0	19.0	12.5	16.9	18.3	6.4	7.6	7.3	5.4	6.5	6.9	3.6	4.5	5.1	4.2	4.9	5.2

NOTE: Details may not add to 100.0 due to rounding.

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Assessment of Educational Progress, *Almanac: Reading 1984 to 1996, Writing 1984 to 1996, 1998.*

Table 22-1 Percentage of public school districts with various requirements when considering teacher applicants, by type of requirements, percentage of students eligible for free or reduced-price lunch, and percentage of minority students enrolled: School year 1993–94

District characteristics	Requirements in teacher hiring							Passage of the National Teachers Examination (NTE)*	Passage of district test of basic skills or subject knowledge
	Full standard state certification for field to be taught	Graduation from state-approved teacher education program	Emergency or temporary state certification	College major or minor in field to be taught	Passage of state test of basic skills	Passage of state test of subject knowledge	Passage of the National Teachers Examination (NTE)*		
Total	83.3	71.9	67.4	66.9	49.0	39.3	30.8	2.0	
Percentage of students eligible for free or reduced-price lunch									
0–5	81.6	61.5	61.1	58.0	44.1	36.9	33.2	1.9	
6–20	88.9	69.8	66.0	67.8	48.4	36.8	27.4	0.8	
21–40	83.4	75.4	66.9	68.2	47.5	40.2	33.6	2.8	
41 or more	79.0	72.6	70.5	66.7	51.8	40.7	30.2	1.6	
Percentage of minority students enrolled									
Less than 5	87.9	74.9	63.9	74.0	40.3	31.9	29.2	2.4	
5–19	82.1	72.9	67.1	64.4	47.7	40.7	33.5	1.0	
20–49	77.2	66.8	71.7	59.0	61.1	50.5	29.3	1.7	
50 or more	75.9	65.2	76.7	54.7	68.4	48.8	33.9	2.6	

* In 1993–94 only, districts indicated whether they required the NTE Core Battery and/or the Professional Specialty Area. Districts were counted as requiring the NTE if they checked either response option. In other years, districts indicated only whether they required the NTE Core Battery.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Schools and Staffing Survey, 1993–94 (Teacher Demand and Shortage Questionnaire for Public School Districts).

Table 22-2 Percentage of public school districts with various requirements when considering teacher applicants, by type of requirements, region, and state: 1993–94

State	Requirements in teacher hiring							Passage of district test of basic skills or subject knowledge
	Full standard state certification for field to be taught	Graduation from state-approved teacher education program	Emergency or temporary state certification	College major or minor in field to be taught	Passage of state test of basic skills	Passage of state test of subject knowledge	Passage of the National Teachers Examination (NTE)*	
Northeast	93.0	56.7	61.3	63.7	39.0	36.0	50.0	2.3
Connecticut	95.2	72.0	58.7	56.8	84.5	81.7	11.9	2.1
Maine	87.6	59.2	69.3	67.2	40.6	16.4	65.2	0.5
Massachusetts	89.9	41.6	68.0	59.7	4.4	6.1	1.3	0.7
New Hampshire	85.0	55.4	78.9	70.8	7.1	4.3	0.0	0.0
New Jersey	88.4	37.4	53.0	44.0	28.9	31.8	77.6	1.5
New York	95.4	61.8	60.3	66.1	49.3	44.5	81.7	1.5
Pennsylvania	97.6	73.6	58.7	81.7	68.2	66.2	50.1	6.0
Rhode Island	100.0	67.6	54.1	70.3	18.9	16.2	70.3	2.7
Vermont	98.4	55.3	64.8	63.7	1.3	1.3	0.9	2.8
Midwest	87.5	81.3	63.8	77.3	41.8	34.4	17.0	2.1
Illinois	88.3	72.4	59.2	69.2	86.5	76.3	7.8	2.9
Indiana	88.2	80.5	68.9	80.6	66.8	62.8	72.8	5.2
Iowa	77.5	75.5	80.9	64.6	0.0	0.0	0.3	0.0
Kansas	89.7	80.6	55.2	75.4	76.7	56.8	53.5	2.7
Michigan	94.6	89.8	66.8	90.0	48.5	47.0	14.2	1.8
Minnesota	92.3	80.8	65.6	90.5	43.5	29.8	4.7	4.2
Missouri	64.6	86.9	82.6	68.7	15.8	13.7	14.1	0.7
Nebraska	89.3	83.7	55.7	69.0	51.6	28.8	11.9	3.8
North Dakota	95.7	81.7	33.3	96.4	1.6	1.5	2.4	1.0
Ohio	97.0	84.9	57.3	78.1	28.0	26.2	35.6	1.0
South Dakota	89.2	80.5	61.1	70.2	0.0	0.0	0.8	0.0
Wisconsin	84.6	80.0	72.6	90.0	10.2	5.6	0.0	0.4
South	70.1	73.6	78.2	62.0	63.0	63.0	38.1	1.5
Alabama	87.0	89.8	63.3	88.2	11.5	7.1	4.6	2.2
Arkansas	63.5	84.7	64.1	62.8	60.6	57.9	93.8	2.5
Delaware	—	—	—	—	—	—	—	—
District of Columbia	—	—	—	—	—	—	—	—
Florida	58.0	36.3	75.8	27.1	69.4	72.5	1.5	2.9
Georgia	46.0	42.3	85.9	46.8	51.8	87.9	0.8	0.6
Kentucky	93.5	95.2	54.8	92.6	34.2	37.2	79.1	0.0
Louisiana	78.7	78.2	84.3	60.0	17.0	11.7	91.6	0.0
Maryland	—	—	—	—	—	—	—	—
Mississippi	91.2	76.3	86.2	70.3	27.3	26.8	100.0	6.6
North Carolina	64.3	58.1	74.2	67.4	20.6	21.4	96.8	1.9
Oklahoma	69.8	76.9	80.3	73.6	80.1	87.7	11.6	1.1
South Carolina	84.4	80.6	82.4	51.3	58.9	55.3	96.6	3.1
Tennessee	93.2	77.2	70.4	47.7	41.8	39.2	77.3	2.3
Texas	63.4	75.9	85.1	54.3	90.1	82.2	6.3	0.5
Virginia	71.3	40.3	84.1	52.1	22.0	22.0	86.8	3.0
West Virginia	81.3	87.1	77.3	68.3	77.7	79.5	13.1	1.8

Table 22-2 Percentage of public school districts with various requirements when considering teacher applicants, by type of requirement, region, and state: 1993–94—Continued

State	Requirements in teacher hiring							Passage of district test of basic skills or subject knowledge
	Full standard state certification for field to be taught	Graduation from state-approved teacher education program	Emergency or temporary state certification	College major or minor in field to be taught	Passage of state test of basic skills	Passage of state test of subject knowledge	Passage of the National Teachers Examination (NTE)*	
West	79.8	67.9	68.8	55.7	57.7	25.6	28.5	2.1
Alaska	66.4	71.0	45.4	22.1	0.0	0.0	0.0	0.0
Arizona	85.3	59.3	69.6	64.9	76.7	40.6	6.3	1.0
California	78.0	63.0	82.2	44.8	89.4	35.8	19.5	2.8
Colorado	77.2	55.7	68.3	69.7	86.7	29.3	1.5	0.0
Hawaii	—	—	—	—	—	—	—	—
Idaho	88.7	75.1	66.4	62.4	28.4	19.6	85.5	0.0
Montana	85.7	73.8	56.6	77.7	32.8	19.2	72.9	4.3
Nevada	—	—	—	—	—	—	—	—
New Mexico	74.8	85.4	76.1	71.0	47.2	27.7	84.6	2.8
Oregon	72.7	74.1	50.2	39.3	38.9	12.0	14.4	0.0
Utah	74.2	72.6	76.3	58.8	0.0	0.0	0.0	0.0
Washington	80.9	75.4	63.2	51.4	16.0	12.5	0.7	1.5
Wyoming	85.7	57.8	60.7	69.0	4.3	1.7	0.0	0.0

— Too few sample observations for a reliable estimate.

* In 1993–94 only, districts indicated whether they required the NTE Core Battery and/or the Professional Specialty Area. Districts were counted as requiring the NTE if they checked either response option. In other years, districts indicated only whether they required the NTE Core Battery.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Schools and Staffing Survey, 1993–94 (Teacher Demand and Shortage Questionnaire for Public School Districts).

Table 24-1 Percentage distribution of public school teachers according to frequency of participation in various collaborative activities in the past 12 months, by type of activity: 1998

Activity	Never	A few times a year	Once a month	2 to 3 times a month	At least once a week
Common planning period for team teachers	38	9	7	9	38
Being mentored by another teacher in a formal relationship	81	9	3	3	5
Individual or collaborative research on topic of interest professionally	47	25	8	9	10
Regularly scheduled collaboration with other teachers	19	19	17	18	27
Networking with teachers outside your school	39	37	11	7	6
Mentoring another teacher in a formal relationship	74	7	3	4	11

NOTE: Details may not add to 100 due to rounding.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Fast Response Survey System, Teacher Survey on Professional Development and Training, 1998.

Table 26-1 Percentage of high school seniors who reported being victimized at school during the previous 12 months, by type of victimization and race-ethnicity: 1976-97

Year	Had something stolen		Property deliberately damaged		Injured with a weapon		Threatened with a weapon		Injured without a weapon		Threatened without a weapon	
	White	Black	White	Black	White	Black	White	Black	White	Black	White	Black
1976	38.9	35.9	25.1	30.1	5.0	7.8	11.4	16.3	13.2	14.3	21.2	24.2
1977	40.4	32.8	24.3	21.0	4.0	8.1	11.0	19.7	10.6	11.4	20.2	24.2
1978	38.8	32.4	25.7	21.2	3.9	7.2	11.2	13.3	11.5	14.4	20.4	17.5
1979	34.6	27.2	24.5	20.8	4.0	8.1	11.1	16.5	11.7	9.8	20.3	17.9
1980	34.3	33.1	25.3	21.9	3.5	9.9	9.5	17.8	10.3	14.9	19.0	20.0
1981	40.1	39.2	30.4	29.8	5.1	13.4	13.4	23.7	13.8	19.1	23.6	25.0
1982	37.9	42.0	25.6	25.4	4.2	4.5	11.1	15.9	11.8	11.7	21.3	19.5
1983	39.4	39.2	25.0	23.1	4.3	5.6	11.9	14.8	13.4	13.2	23.9	24.5
1984	38.4	35.3	24.3	21.8	3.2	6.0	10.9	16.7	12.1	13.3	23.0	24.4
1985	39.3	35.2	26.6	28.0	5.4	8.9	11.6	22.6	13.6	18.2	24.5	25.2
1986	41.1	36.3	25.7	24.5	4.9	6.9	12.6	15.7	14.5	12.8	25.7	22.7
1987	42.1	39.4	27.0	25.0	4.4	5.6	11.2	17.5	15.4	15.4	25.4	20.2
1988	41.4	46.6	27.4	25.8	3.9	9.0	11.3	22.2	13.5	16.6	24.3	27.7
1989	39.4	46.4	26.0	28.9	4.9	11.3	12.0	24.1	13.7	17.8	24.5	21.0
1990	41.6	42.2	28.9	26.1	4.6	10.0	12.0	16.0	13.6	10.0	26.1	21.7
1991	41.4	44.3	28.4	24.6	5.3	9.6	15.7	20.2	15.4	17.1	26.5	27.5
1992	36.2	44.2	25.7	26.3	4.5	5.2	12.3	19.4	12.7	13.8	25.5	20.5
1993	41.6	46.0	25.8	26.3	4.3	6.4	13.8	23.5	11.0	11.5	23.8	22.3
1994	39.5	46.5	28.3	21.5	4.0	8.1	14.8	18.1	11.5	11.5	24.7	22.1
1995	40.0	42.3	28.0	27.3	4.1	8.7	12.3	18.9	11.6	9.2	25.1	22.9
1996	37.6	43.2	25.2	26.0	3.7	9.8	12.3	17.1	11.2	15.7	21.9	21.9
1997	37.6	42.8	25.5	18.8	4.3	7.1	9.6	13.7	12.0	11.1	22.4	19.3

NOTE: Estimates were tabulated using restricted-use files. Response rates for this survey do not meet NCES standards.

SOURCE: University of Michigan, Survey Research Center, Institute for Social Research, Monitoring the Future Study.

Table 26-2 Percentage of high school seniors who reported being victimized at school during the previous 12 months, by type of victimization and population density: 1994–97

Year	Had something stolen	Property deliberately damaged	Injured with a weapon	Threatened with a weapon	Injured without a weapon	Threatened without a weapon
Large metropolitan statistical area						
1994	42.7	25.8	4.3	15.2	13.1	23.1
1995	40.0	23.1	4.1	12.7	11.2	22.0
1996	35.8	27.3	5.9	14.4	12.3	20.5
1997	38.9	24.9	4.3	10.6	11.8	21.0
Other metropolitan statistical area						
1994	36.8	27.1	5.5	14.6	11.2	24.3
1995	39.8	29.0	5.3	13.9	12.4	24.0
1996	40.7	25.8	4.1	12.5	12.4	21.6
1997	37.3	24.2	5.3	12.0	11.3	21.7
Nonmetropolitan statistical area						
1994	41.2	28.7	3.9	15.6	11.1	23.4
1995	41.4	28.9	4.9	12.7	10.7	24.3
1996	36.0	25.2	5.4	13.5	10.4	22.4
1997	41.7	25.5	5.8	8.9	14.2	20.6

NOTE: Estimates were tabulated using restricted-use files. Response rates for this survey do not meet NCES standards.

SOURCE: University of Michigan, Survey Research Center, Institute for Social Research, Monitoring the Future Study.

Table 27-1 Percentage of high school seniors who reported using alcohol or drugs any time during the previous year, by type of drug: School years 1975–98

Type of drug	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986
Alcohol	84.8	85.7	87.0	87.7	88.1	87.9	87.0	86.8	87.3	86.0	85.6	84.5
Marijuana	40.0	44.5	47.6	50.2	50.8	48.8	46.1	44.3	42.3	40.0	40.6	38.8
Any illicit drug other than marijuana	26.2	25.4	26.0	27.1	28.2	30.4	34.0	30.1	28.4	28.0	27.4	25.9
Stimulants	16.2	15.8	16.3	17.1	18.3	20.8	26.0	20.3	17.9	17.7	15.8	13.4
LSD	7.2	6.4	5.5	6.3	6.6	6.5	6.5	6.1	5.4	4.7	4.4	4.5
Cocaine	5.6	6.0	7.2	9.0	12.0	12.3	12.4	11.5	11.4	11.6	13.1	12.7
Sedatives	11.7	10.7	10.8	9.9	9.9	10.3	10.5	9.1	7.9	6.6	5.8	5.2
Tranquilizers	10.6	10.3	10.8	9.9	9.6	8.7	8.0	7.0	6.9	6.1	6.1	5.8
Inhalants	—	3.0	3.7	4.1	5.4	4.6	4.1	4.5	4.3	5.1	5.7	6.1

Type of drug	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998
Alcohol	85.7	85.3	82.7	80.6	77.7	76.8	*72.7	*73.0	*73.7	*72.5	*74.8	*74.3
Marijuana	36.3	33.1	29.6	27.0	23.9	21.9	26.0	30.7	34.7	35.8	38.5	37.5
Any illicit drug other than marijuana	24.1	21.1	20.0	17.9	16.2	14.9	17.1	18.0	19.4	19.8	20.7	20.2
Stimulants	12.2	10.9	10.8	9.1	8.2	7.1	8.4	9.4	9.3	9.5	10.2	10.1
LSD	5.2	4.8	4.9	5.4	5.2	5.6	6.8	6.9	8.4	8.8	8.4	7.6
Cocaine	10.3	7.9	6.5	5.3	3.5	3.1	3.3	3.6	4.0	4.9	5.5	5.7
Sedatives	4.1	3.7	3.7	3.6	3.6	2.9	3.4	4.2	4.9	5.3	5.4	6.0
Tranquilizers	5.5	4.8	3.8	3.5	3.6	2.8	3.5	3.7	4.4	4.6	4.7	5.5
Inhalants	6.9	6.5	5.9	6.9	6.6	6.2	7.0	7.7	8.0	7.6	6.7	6.2

— Not available.

* In 1993, the questions regarding alcohol consumption changed; therefore, data for alcohol use from 1993 through 1998 may not be comparable to earlier years. For example, in 1993, the original wording produced an estimate of 76 percent for alcohol use. The new wording produced an estimate of 73 percent.

NOTE: Only drug use not under a doctor's orders is included. Estimates were tabulated using restricted-use files. Response rates for this survey do not meet NCES standards.

SOURCE: University of Michigan, Survey Research Center, Institute for Social Research, Monitoring the Future Study.

Table 27-2 Percentage of students who reported using alcohol or drugs any time during the previous 30 days, by type of drug and grade: School years 1991–98

Type of drug and grade	1991	1992	1993	1994	1995	1996	1997	1998
Alcohol								
8 th -graders	25.1	26.1	¹ 24.3	¹ 25.5	¹ 24.6	¹ 26.2	¹ 24.5	¹ 23.0
10 th -graders	42.8	39.9	¹ 38.2	¹ 39.2	¹ 38.8	¹ 40.4	¹ 40.1	¹ 38.8
12 th -graders	54.0	51.3	¹ 48.6	¹ 50.1	¹ 51.3	¹ 50.8	¹ 52.7	¹ 52.0
Marijuana/hashish								
8 th -graders	3.2	3.7	² 6.1	7.8	9.1	11.3	10.2	9.7
10 th -graders	8.7	8.1	10.9	15.8	17.2	20.4	20.5	18.7
12 th -graders	13.8	11.9	15.5	19.0	21.2	21.9	23.7	22.8
Any illicit drug other than marijuana								
8 th -graders	3.8	4.7	5.3	5.6	6.5	6.9	6.0	5.5
10 th -graders	5.5	5.7	6.5	7.1	8.9	8.9	8.8	8.6
12 th -graders	7.1	6.3	7.9	8.8	10.0	9.5	10.7	10.7
Stimulants								
8 th -graders	2.6	3.3	3.6	3.6	4.2	4.6	3.8	3.3
10 th -graders	3.3	3.6	4.3	4.5	5.3	5.5	5.1	5.1
12 th -graders	3.2	2.8	3.7	4.0	4.0	4.1	4.8	4.6
LSD								
8 th -graders	0.6	0.9	1.0	1.1	1.4	1.5	1.5	1.1
10 th -graders	1.5	1.6	1.6	2.0	3.0	2.4	2.8	2.7
12 th -graders	1.9	2.0	2.4	2.6	4.0	2.5	3.1	3.2
Cocaine								
8 th -graders	0.5	0.7	0.7	1.0	1.2	1.3	1.1	1.4
10 th -graders	0.7	0.7	0.9	1.2	1.7	1.7	2.0	2.1
12 th -graders	1.4	1.3	1.3	1.5	1.8	2.0	2.3	2.4
Tranquillizers								
8 th -graders	0.8	0.8	0.9	1.1	1.2	1.5	1.2	1.2
10 th -graders	1.2	1.5	1.1	1.5	1.7	1.7	2.2	2.2
12 th -graders	1.4	1.0	1.2	1.4	1.8	2.0	1.8	2.4
Cigarettes								
8 th -graders	14.3	15.5	16.7	18.6	19.1	21.0	19.4	19.1
10 th -graders	20.8	21.5	24.7	25.4	27.9	30.4	29.8	27.6
12 th -graders	28.3	27.8	29.9	31.2	33.5	34.0	36.5	35.1
Inhalants								
8 th -graders	4.4	4.7	5.4	5.6	6.1	5.8	5.6	4.8
10 th -graders	2.7	2.7	3.3	3.6	3.5	3.3	3.0	2.9
12 th -graders	2.4	2.3	2.5	2.7	3.2	2.5	2.5	2.3

¹ In 1993, the questions regarding alcohol consumption changed; therefore, data for alcohol use from 1993 through 1998 may not be comparable to earlier years. For example, in 1993, the original wording produced an estimate of 26, 42, and 51 percent for alcohol use of 8th-, 10th-, and 12th-graders, respectively. The new wording produced an estimate of 24, 38, and 49 percent for alcohol use of 8th-, 10th-, and 12th-graders, respectively.

² Revised from previously published figure.

NOTE: Only drug use not under a doctor's orders is included. Estimates were tabulated using restricted-use files. Response rates for this survey do not meet NCES standards.

SOURCE: University of Michigan, Survey Research Center, Institute for Social Research, Monitoring the Future Study.

Table 27-3 Percentage of students who reported that it would be “fairly easy” or “very easy” to get drugs, by type of drug and grade: School years 1992–98

Type of drug and grade	1992	1993	1994	1995	1996	1997	1998
Alcohol							
8 th -graders	76.2	73.9	74.5	74.9	75.3	74.9	73.1
10 th -graders	88.6	88.9	89.8	89.7	90.4	89.0	88.0
12 th -graders	—	—	—	—	—	—	—
Marijuana							
8 th -graders	42.3	43.8	49.9	52.4	54.8	54.2	50.6
10 th -graders	65.2	68.4	75.0	78.1	81.1	80.5	77.9
12 th -graders	82.7	83.0	85.5	88.5	88.7	89.6	90.4
Heroin							
8 th -graders	19.7	19.8	19.4	21.1	20.6	19.8	18.0
10 th -graders	24.3	24.3	24.7	24.6	24.8	24.4	23.0
12 th -graders	34.9	33.7	34.1	35.1	32.2	33.8	35.6
LSD							
8 th -graders	21.5	21.8	21.8	23.5	23.6	22.7	19.3
10 th -graders	33.6	35.8	36.1	39.8	41.0	38.3	34.0
12 th -graders	44.5	49.2	50.8	53.8	51.3	50.7	48.8
Cocaine							
8 th -graders	25.7	25.9	26.4	27.8	27.2	26.9	25.7
10 th -graders	35.0	34.1	34.5	35.3	36.9	37.1	36.8
12 th -graders	48.0	45.4	43.7	43.8	44.4	43.3	45.7
Tranquillizers							
8 th -graders	22.9	21.4	20.4	21.3	20.4	19.6	18.1
10 th -graders	31.6	30.5	29.8	30.6	30.3	28.7	26.5
12 th -graders	40.9	41.1	39.2	37.8	36.0	35.4	36.2
Cigarettes							
8 th -graders	77.8	75.5	76.1	76.4	76.9	76.0	73.6
10 th -graders	89.1	89.4	90.3	90.7	91.3	89.6	88.1
12 th -graders	—	—	—	—	—	—	—

— Not available.

SOURCE: University of Michigan, Survey Research Center, Institute for Social Research, Monitoring the Future Study.

NOTE: Respondents answered the question “How difficult do you think it would be for you to get each of the following types of drugs, if you wanted some?” on the following scale: “probably impossible,” “very difficult,” “fairly difficult,” “fairly easy,” or “very easy.” Eighth- and 10th-graders were also given the response option “can’t say, drug unfamiliar.” Percentages include responses of “fairly easy” and “very easy.” Estimates were tabulated using restricted-use files. Response rates for this survey do not meet NCES standards.

Table 28-1 Percentage distribution of enrollment according to family income, by school level and type: October 1979, 1982, 1985, 1991, 1994, and 1997

School level and type	Family income*								
	1979			1982			1985		
	Low	Middle	High	Low	Middle	High	Low	Middle	High
Preschool									
All public	24.6	58.5	16.9	28.6	55.3	16.0	23.7	62.3	14.0
All private	4.7	57.8	37.5	3.6	59.9	36.5	3.6	56.9	39.6
Church-related	6.4	52.3	41.3	4.9	57.2	37.9	3.6	57.8	38.6
Nonchurch-related	3.7	61.3	35.0	2.7	61.7	35.5	3.5	56.3	40.2
Kindergarten									
All public	16.4	65.9	17.6	19.5	62.6	17.9	20.9	62.2	16.9
All private	3.3	63.6	33.1	5.3	60.7	34.0	5.3	61.9	32.8
Church-related	2.7	64.5	32.8	5.2	61.5	33.4	5.8	60.9	33.3
Nonchurch-related	4.6	61.7	33.6	5.6	58.3	36.1	3.9	64.6	31.4
Elementary									
All public	13.1	64.4	22.5	17.6	60.8	21.7	18.2	61.0	20.9
All private	4.3	54.4	41.2	5.7	57.1	37.2	5.7	56.9	37.4
Church-related	4.4	57.5	38.1	6.2	58.9	34.9	5.7	58.8	35.5
Nonchurch-related	3.9	33.3	62.8	2.4	43.8	53.8	5.9	45.2	48.9
Secondary									
All public	10.5	59.4	30.1	13.1	58.4	28.4	13.2	58.3	28.5
All private	3.3	44.3	52.4	3.3	47.9	48.7	4.5	43.2	52.2
Church-related	3.1	46.4	50.5	3.5	49.8	46.7	4.3	45.9	49.8
Nonchurch-related	3.8	35.8	60.4	2.5	40.6	57.0	5.6	29.9	64.5

School level and type	Family income*								
	1991			1994			1997		
	Low	Middle	High	Low	Middle	High	Low	Middle	High
Preschool									
All public	31.5	55.3	13.2	29.6	57.0	13.4	28.9	56.6	14.5
All private	4.2	53.5	42.3	5.6	52.9	41.5	6.7	55.0	38.3
Church-related	2.9	54.1	43.1	4.3	56.6	39.1	5.9	57.8	36.4
Nonchurch-related	5.3	53.0	41.7	6.7	49.9	43.4	7.4	52.6	40.0
Kindergarten									
All public	23.0	58.9	18.2	21.9	59.5	18.6	20.5	60.6	18.9
All private	5.7	50.7	43.6	7.5	57.6	35.0	7.4	55.9	36.7
Church-related	6.6	53.1	40.4	7.5	61.4	31.2	7.8	58.8	33.4
Nonchurch-related	3.7	45.1	51.2	7.5	48.3	44.2	6.6	49.7	43.7
Elementary									
All public	18.4	60.5	21.0	17.1	60.4	22.5	18.0	59.9	22.1
All private	4.7	51.9	43.4	5.6	55.2	39.2	4.8	53.4	41.9
Church-related	5.0	53.8	41.2	5.7	58.2	36.0	4.5	56.0	39.6
Nonchurch-related	3.5	42.7	53.9	5.0	44.7	50.4	5.8	44.0	50.3
Secondary									
All public	14.7	59.6	25.8	14.2	59.4	26.4	14.6	59.5	25.9
All private	4.3	46.3	49.4	5.3	49.8	44.9	5.6	44.5	49.9
Church-related	3.5	49.5	47.0	5.1	50.8	44.0	4.8	45.5	49.7
Nonchurch-related	7.0	36.3	56.6	5.6	47.0	47.5	7.9	41.5	50.6

* Low income is the bottom 20 percent of all family incomes; high income is the top 20 percent of all family incomes; and middle income is the 60 percent in between. See the supplemental note to *Indicator 54* for further discussion.

SOURCE: U.S. Department of Commerce, Bureau of the Census, October Current Population Surveys.

NOTE: In 1994, the survey instrument for the Current Population Survey (CPS) was changed and weights were adjusted. See the supplemental note to *Indicator 52* for further discussion. Details may not add to 100.0 due to rounding.

Private School Tuition

Prior to 1994, the Current Population Survey (CPS) gathered information regarding private school tuition rates using the following question: "What is the amount of tuition and fees for this school year at the school . . . is attending?" Beginning in 1994, this question was revised to: "What is the amount being paid for . . . 's tuition and fees at school this year?" The change in survey questions in 1994 may cause an underrepresentation of tuition rates compared with earlier years because some students receive reduced or free tuition based on grants, scholarships, vouchers, and other means of assistance, and therefore do not pay all tuition and fees.

Another change to the CPS in 1997 was that respondents were asked the following question: "Is this amount paid per month, per semester, or per year?" Based upon the answer provided for the question, the tuition amount paid was multiplied by the frequency with which the tuition was paid.

SOURCE: U.S. Department of Commerce, Bureau of the Census, October Current Population Surveys.

