## CHAPTER 3

## A First Look at Attainment of Achievement Levels by America's Students

The percentages of students who attained each of the achievement levels in the NAEP 1994 geography assessment are presented in this chapter. Results are displayed for the nation, for region, and for the major subgroups.

The National Education Statistics Act of 1994 requires that the National Assessment Governing Board develop "appropriate student performance levels" for reporting NAEP results. The NAEP law requires that these levels be "used on a developmental basis until the Commissioner of Education Statistics determines . . . that such levels are reasonable, valid, and informative to the public." It requires the Commissioner and the Board to make clear the developmental status of such levels.

The student achievement levels in this report have been developed and adopted by the National Assessment Governing Board, NAEP's independent policy-making body, with contributions from a wide variety of educators, business and government leaders, and interested citizens. These levels of student achievement have been established to help Americans answer two questions that are important to parents and to all citizens in the communities and nation in which we live. These questions are: "What should students know and be able to do as they progress and graduate from school?" and "How good is good enough in terms of student achievement on NAEP?" Answering these questions obviously involves judgements. The National Assessment Governing Board is not suggesting that there is a single answer to these questions. Rather, the Board is trying to put forward reasonable judgements that can inform citizens across America — information they can use to answer these questions in their own schools and communities.

Developing carefully considered judgements about "what students should know and be able to do" and "how good is good enough" is both difficult and controversial. The Governing Board believes that these questions are so important that answers must be sought in an informed, responsible way. The process is subject to revision and refinement as appropriate.

The student achievement levels in this report approved by the Governing Board are the result of many hours of work. The levels are based on preliminary descriptions developed as part of the national consensus process to determine the assessment design and content. The Board's contractor, American College Testing (ACT), which has extensive experience in standard-setting in many fields, designed the achievement level-setting process. This process was reviewed by scores of individuals, including policymakers, professional organizations, teachers, parents, and other members of the general public. To develop the levels, ACT convened a cross-section of educators and interested citizens from across the nation and asked them to recommend what students should know and be able to do in geography. Prior to adopting these levels of student achievement, the Board engaged a large number of persons to comment on the recommended levels and to review the results.

The result of the achievement level setting process is a set of achievement level descriptions, a set of achievement level cutpoints on the 500-point NAEP scale, and exemplar items. The cutpoints are minimum scores that define basic, proficient, and advanced performance at grades 4, 8, and 12. At present, evaluations conducted on the level setting process and critiques of these evaluations have provided mixed reviews. Therefore, both the Governing Board and the Commissioner of Education Statistics regard the achievement levels as developmental: they should not be interpreted as statistically conclusive. Because these levels are still considered developmental, the reader of this report is advised to consider that status when interpreting the results. The reader should recognize that the results are based on the judgements of panels, approved by the Governing Board, of what advanced, proficient, and basic students should know and be able to do in each subject assessed, as well as on their judgements regarding what percent of students at the borderline for each level should answer each test item correctly. The latter information is used in translating the achievement level descriptions into cutpoints on the NAEP scale. NCES uses these levels in reporting NAEP results, but it does not currently adjudicate the reliability or validity of these achievement levels. Rather they are reported directly as adopted by the Governing Board.

The National Assessment Governing Board urges all who are concerned about "what students should know and be able to do" and "how good is good enough" to read and interpret these performance levels recognizing that this is a developing, judgmental process and is subject to various interpretations. The decision to include the levels in NAEP reports is an attempt to make the assessment results more useful for parents, educators, and policymakers by providing performance standards against which to measure educational progress.

As explained in Chapter 1, three achievement levels — *Basic, Proficient*, and *Advanced* — have been established by the National Assessment Governing Board (NAGB) for reporting NAEP results. The *Basic* level denotes partial mastery of the knowledge and skills that are fundamental for proficient work at a given grade. The *Proficient* level represents solid academic performance. Students reaching this level demonstrate competency with a range of challenging subject matter. The *Advanced* level signifies superior performance at a given grade.

Specific definitions of the three levels of geography achievement for each of the three grades are presented in Figure 4. For each grade, the definitions are cumulative from *Basic* through *Advanced*. In other words, students performing at the *Proficient* level also display the competencies associated with the *Basic* level; and students performing at the *Advanced* level demonstrate skills and knowledge associated with both preceding levels.

As part of the development of the achievement levels, NAGB also selected student responses that, in the judgement of the panelists, illustrated the levels. Figure 5 presents an eighth-grade question and three student responses corresponding to the three achievement levels. Accompanying the question is a table that presents two types of percentages: (1) the overall percentage of students within a grade who successfully answered the question, and (2) the percentages of students within each of the achievement level intervals — Basic, Proficient, and Advanced who answered the question successfully. For the question presented in Figure 5, 41 percent of all eighth graders provided answers rated "Essential" or better as described in the scoring rubric. For those eighth graders who scored within the Basic and Proficient achievement level intervals, 39 and 78 percent, respectively, provided answers rated as "Essential" or better. The vast majority of eighth graders (92 percent) who scored within the Advanced achievement level interval provided such answers. The standard errors associated with each percentage are also included in the table. (Appendix B contains additional sample questions from the NAEP 1994 geography assessment.)

#### Figure 4. Geography Achievement Levels

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GRADE 4	
<i>Basic</i> (187)	Students should be able to use words or diagrams to define basic geographic vocabulary; identify personal behaviors and perspectives related to the environment and describe some environmental and cultural issues in their community; use visual and technological tools to access information; identify major geographic features on maps and globes; be able to read and draw simple maps, map keys and legends; demonstrate how people depend upon, use, and adapt to the environment; and give examples of the movement of people, goods, services, and ideas from one place to another. In addition to demonstrating an understanding of how individuals are alike and different, they should demonstrate a knowledge of the ways people depend on each other.
Proficient (240)	Students should be able to use fundamental geographic knowledge and vocabulary to identify basic geographic patterns and processes; describe an environmental or cultural issue from more than one perspective; and read and interpret information from visual and technological tools such as photographs, maps and globes, aerial photography, and satellite images. They should be able to use number and letter grids to plot specific locations; understand relative location terms; and sketch simple maps and describe and/or draw landscapes they have observed or studied. Proficient students should be able to illustrate how people depend upon, adapt to, and modify the environment, describe and/or illustrate geographic aspects of a region using fundamental geographic vocabulary and give reasons for current human migration; discuss the impact a location has upon cultural similarities and differences; and be able to demonstrate how an event in one location can have an impact upon another location.
Advanced (276)	Students should be able to use basic geographic knowledge and vocabulary to describe global patterns and processes; describe ways individuals can protect and enhance environmental quality; describe how modifications to the environment may have a variety of consequences; explain differing perspectives that apply to local environmental or cultural issues; and demonstrate an understanding of forces that result in migration, changing demographics, and boundary changes. They should be able to solve simple problems by applying information learned through working with visual and technological tools such as aerial and other photographs, maps and globes, atlases, news media, and computers. They should be able to construct models and sketch and label maps of their own state, the United States, and the world; use them to describe and compare differences, similarities, and patterns of change in landscapes; and be able to predict the impact a change in one location can have on another. They should be able to analyze the ways individuals and groups interact.

## Figure 4. Geography Achievement Levels (continued)

GRADE 8	
<i>Basic</i> (242)	Students should possess fundamental knowledge and vocabulary of concepts relating to patterns, relationships, distance, direction, scale, boundary, site, and situation; solve fundamental locational questions using latitude and longitude; interpret simple map scales; identify continents and their physical features, oceans, and various countries and cities; respond accurately to descriptive questions using information obtained by use of visual and technological tools such as geographic models and/or translate that information into words; explain differences between maps and globes; and find a wide range of information using an atlas or almanac. Students should be able to recognize and illustrate the relationships that exist between humans and their environments, and provide evidence showing how physical habitat can influence human activity. They should be able to define a region and identify its distinguishing characteristics. Finally, they should be able to demonstrate how the interaction that takes place between and among regions is related to the movement of people, goods, services, and ideas.
Proficient (282)	Students should possess a fundamental geographic vocabulary; understand geography's analytical concepts; solve locational questions requiring integration of information from two or more sources, such as atlases or globes; compare information presented at different scales; identify a wide variety of physical and cultural features and describe regional patterns. Students should be able to respond accurately to interpretive questions using geography's visual and technological tools and translate that information into patterns; identify differences in map projections and select proper projections for various purposes; and develop a case study working with geography's analytical concepts. In addition, students should be able to describe the physical and cultural characteristics of places; explain how places change due to human activity; explain and illustrate how the concept of regions can be used as a strategy for organizing and understanding Earth's surface. Students should be able to analyze and interpret data bases and case studies as well as use information from maps to describe the role that regions play in influencing trade and migration patterns and cultural and political interaction.
Advanced (315)	Students should have a command of extensive geographic knowledge, analytical concepts, and vocabulary; be able to analyze spatial phenomena using a variety of sources with information presented at a variety of scales and show relationships between them; and use case studies for spatial analysis and to develop maps and other graphics. Students should be able to identify patterns of climate, vegetation, and population across Earth's surface and interpret relationships between and among these patterns, and use one category of a map or aerial photograph to predict other features of a place such as vegetation based on climate or population density based on topographic features. Students should also be able to relate the concept of region to specific places and explain how regions change over time due to a variety of factors. They should be able to profile a region of their own design using geographic concepts, tools, and skills.
GRADE 12	
<i>Basic</i> (270)	Students should possess a knowledge of concepts and terms commonly used in physical and human geography as well as skills enabling them to employ applicable units of measurement and scale when solving simple locational problems using maps and globes. They should be able to read maps; provide examples of plains, plateaus, hills, and mountains; and locate continents, major bodies of water, and selected countries and cities. They should be able to interpret geographic data and use visual and technological tools such as charts, tables, cartograms, and graphs; know the nature of and be able to identify several basic types of map projections; understand the basic physical structure of the planet; explain and apply concepts such as continental drift and plate tectonics; and describe geography's analytical concepts using case studies. Students should have a comprehen- sive understanding of spatial relationships including the ability to recognize patterns that exist across Earth in terms of phenomena, including climate regions, time zones, population distributions, availability of resources, vegetation zones, and transportation and communication networks. They should be able to develop data bases about specific places and provide a simple analysis about their importance.
Proficient (305)	Students should have an extensive understanding and knowledge of the concepts and terminology of physical and human geography. They should be able to use geographic concepts to analyze spatial phenomena and to discuss economic, political and social factors that define and interpret space. They should be able to do this through the interpretation of maps and other visual and technological tools, through the analysis of case studies, the utilization of data bases, and the selection of appropriate research materials. Students should be able to design their own maps based on descriptive data; describe the physical and cultural attributes of major world regions; relate the spatial distribution of population to economic and environmental factors; report both historical and contemporary events within a geographic framework using tools such as special purpose maps, and primary and secondary source materials.
Advanced (339)	Students should possess a comprehensive understanding of geographic knowledge and concepts; apply this knowledge to case studies; formulate hypotheses and test geographic models that demonstrate complex relationships between physical and human phenomena; apply a wide range of map skills; develop maps using fundamental cartographic principles including translating narratives about places and events into graphic representations, and use other visual and technological tools to perform locational analysis and interpret spatial relationships. Students should also be able to undertake sophisticated analysis from aerial photographs or satellite imagery and other visuals. Advanced students should be able to develop criteria assessing issues relating to human spatial organization and environmental stability and, through research skills and the application of critical thinking strategies, identify alternative solutions. They should be able to compile data bases from disparate pieces of information and from these data develop generalizations and speculations about outcomes when data change.

After we anchored our ships in the ocean and went ashore to explore, we marched west. The forest was so thick we could only travel three miles in the first two days. Then we came to the mountains and climbed to the top. A rushing river flowed west out of the mountains. We continued to march two miles west and came down out of the mountains. Two miles further we came to the coast. It was obvious that the area we were exploring was an isthmus.

In the box below, draw a map of the region described above. Be sure to include all of the geographical elements mentioned in the description. Include a scale to indicate distances.



A **Complete** response includes an accurate map in which at least four elements are correctly placed. The response must be an isthmus and have direction of travel and river correctly indicated.

An **Essential** response includes a map in which three elements are correctly placed. The response may be a peninsula or an island.

A **Partial** response includes a map in which at least two elements are correctly placed.

Grade 8	Percentage Achie	Percentage "Essential" or Better within Achievement Level Intervals			
Overall Percentag Essential or Bett	ge <i>Basic</i> er 242-281*	Proficient 282-314*	Advanced 315 and above*		
41 (1.3)	39 (2.4)	78 (3.4)	92 (4.8)		

\* NAEP geography composite scale range.

The percentage of students below *Basic* who successfully answered the question is not included in the table. However, these students are included in the overall percentage.

The standard errors of the estimated percentages appear in parentheses. It can be said with 95 percent certainty that for each population of interest, the value for the whole population is within plus or minus two standard errors of the estimate for the sample.

The following samples of students' responses were selected by the National Assessment Governing Board (NAGB) to be illustrative for the three achievement levels they established for the 1994 NAEP geography assessment. The scoring guide or rubric presented on page 12 was used in rating students' responses. The responses were not scored using the NAGB achievement level descriptions as guides. Students within any of the three achievement levels would be expected to vary in terms of their performance on any given question. The sample response presented were selected to illustrate what a typical student in a given achievement level was capable of producing.





**Proficient - Grade 8** 



Advanced - Grade 8



# Achievement Level Results for the Nation

The percentages of students performing at or above the three achievement levels are shown in Table 7. At all three grades, at least 70 percent of students were able to reach the *Basic* level. However, a far smaller proportion of students — roughly one-quarter — were able to

reach the *Proficient* level that signifies solid performance. Among high school seniors, 27 percent were classified as *Proficient* or *Advanced*. At grades 4 and 8, the percentages of students reaching the *Proficient* level were 22 and 28, respectively. Finally, 3 percent of fourth graders, 4 percent of eighth graders, and 2 percent of twelfth graders reached the *Advanced* level. (Note that the percentage of students below *Basic* is 100 percent minus the percentage at or above *Basic*.)

TABLE 7	•	THE NATION'S				
	Geogi	raphy Achieve by Regio	REPORT CARD 1994 Geography Assessment			
			Percentage of Students			
	Percentage of All Students	At or Above Advanced	At or Above Proficient	At or Above Basic	Below Basic	
Grade 4						
Nation	100	3	22	70	30	
Region						
Northeast	22	3	22	67	33	
Southeast	23	2	17	64	36	
Central	25	4	28	78	22	
West	30	3	21	70	30	
Grade 8						
Nation	100	4	28	71	29	
Region						
Northeast	20	6	33	76	24	
Southeast	25	3	21	62	38	
Central	24	6	36	80	20	
West	31	3	23	67	33	
Grade 12						
Nation	100	2	27	70	30	
Region						
Northeast	21	2	25	69	31	
Southeast	23	1	20	60	40	
Central	28	2	32	75	25	
West	29	2	29	72	28	

The standard errors for the (a) Advanced Level, national percentages range from 0.4 to 0.5; (b) Proficient Level, national percentages range from 1.0 to 1.2; and (c) Basic Level, national percentages range from 0.9 to 1.1

The standard errors for the (a) Advanced Level, regional percentages range from 0.5 to 1.3; (b) Proficient Level, regional percentages range from 1.3 to 3.3; and (c) Basic Level, regional percentages range from 1.5 to 2.7.

Percentages of students in the region may not total 100 due to rounding.

## **Achievement Level Results by Region**

Table 7 and Figure 6 show the regional percentages of students scoring at or above each geography achievement level. There were few statistically significant differences among regions at the fourth grade level. The percentages of students at or above the *Basic* and *Proficient* levels were significantly higher for the Central region compared to the Southeast region. Also at grade 4, the percentage of students at or above the *Basic* level was higher for the Central region than the Northeast.

Eighth graders in the Northeast and Central regions were more likely to perform at or above the *Basic* level as well as *Proficient* level than were students in the Southeast and West regions. Also, eighth-grade students in the Central region were more likely to score at the *Advanced* level than were students in the Southeast region.

At grade 12, students in the Southeast were less likely to be at or above the *Basic* level than were those in the other three regions. Also, high school seniors in the Southeast were less likely to be at or above the *Proficient* level than were students in the West and Central regions.

#### Figure 6. Percent of Students At or Above the Geography Achievement Levels by Grade and by Region







 $\rm NE-Northeast$   $\rm SE-Southeast$ 

## Achievement Levels by Major Reporting Subgroups

Tables 8 through 11 present the percentages of students in various subgroups scoring at or above each of the three achievement levels. Again, the discussion of the findings is limited to *statistically significant differences* between subgroups. **Race/Ethnicity.** The achievement levels that students in particular racial/ethnic subgroups attained are shown in Table 8. As in other NAEP assessments, there were substantial subgroup differences. At grade 4, White students were more likely to attain each of the three achievement levels than were Black and Hispanic students. Further, White students had a higher probability of reaching the *Basic* or *Proficient* levels than did American Indian students. Asian students were

TABLE 8	THE NATION'S					
Geog		Geog	by Race/Eth			
			<i>a j</i> 1100 <i>j</i> 2111			Geography Assessment
				Percentage	of Students	
		Percentage of All Students	At or Above Advanced	At or Above Proficient	At or Above Basic	Below Basic
Grade 4						
Nation		100	3	22	70	30
Race/Ethnicity						
White		69	4	29	81	19
Black		15	0	3	34	66
Hispanic		12	1	10	49	51
Asian		2	5	32	79	21
Pacific Islander		1	1	17	70	30
American Indiar	ı	1	0	9	62	38
Grade 8						
Nation		100	4	28	71	29
Race/Ethnicity						
White		69	5	36	82	18
Black		15	0	5	34	66
Hispanic		11	1	10	50	50
Asian		2	8	40	79	21
Pacific Islander		1!	3!	15!	63 !	37 !
American Indiar	ı	2!	2!	15!	59 !	41 !
Grade 12						
Nation		100	2	27	70	30
Race/Ethnicity						
White		74	2	33	78	22
Black		12	0	5	32	68
Hispanic		8	0	10	48	52
Asian		3	3	32	69	31
Pacific Islander		1!	1!	19!	69!	31 !
American Indiar	1	1!	***	***	***	***

The standard errors for the (a) Advanced Level, national percentages range from 0.4 to 0.5; (b) Proficient Level, national percentages range from 1.0 to 1.2; and (c) Basic Level, national percentages range from 0.9 to 1.1

The standard error for the (a) Advanced Level, race/ethnicity percentages range from 0.2 to 3.6; (b) Proficient Level, race/ethnicity percentages range from 1.3 to 3.3; and (c) Basic Level, race/ethnicity percentages range from 1.5 to 2.7.

! Interpret with caution any comparisons involving this statistic. The nature of the sample does not allow for accurate determination of the variability of this value. Percentages may not total 100 due to rounding or, in the case of the race/ethnicity variable, because some students categorized themselves as "other". The estimates of population percentages reported as zero (and standard errors reported as 0.0) are actually non-zero but rounded to zero when reporting to the nearest integer (or nearest tenth in the case of the standard errors).

\*\*\* Sample size insufficient to permit a reliable estimate.

more likely than Black and Hispanic students to perform at or above the *Proficient* and *Basic* levels and more likely than American Indian students to be at or above the *Proficient* level. The percentage of Pacific Islander students who were classified at or above the *Basic* level was significantly higher than that of Black and Hispanic students. Finally, Hispanic and American Indian students were more likely to perform at or above the *Basic* level than were their Black counterparts.

The pattern evidenced at grade 4 was repeated at grade 8. However, at grade 12 there were fewer significant differences across the racial/ethnic subgroups than there were at the other grades. No significant differences among racial/ethnic subgroups were detected for the percentage of students reaching the *Advanced* level. White and Asian students were more likely than Black and Hispanic students to reach the *Basic* and *Proficient* levels. Finally, Hispanic students were more likely than Black students to score at or above the *Basic* level.

As was mentioned in Chapter 2, the nature of the eighth and twelfth grade Pacific Islander and American

Indian student samples does not allow accurate determination of the standard errors. For this reason, differences among these samples and other racial/ethnic subgroups are not discussed.

When considering these data, readers should keep in mind the cautions about interpreting group differences that are discussed in Chapter 1. A further reason for caution is that while the percentages of White students scoring at the *Advanced* level are larger (in a statistically significant sense) than the percentages of Black students or Hispanic students (at grades 4 and 8), the practical importance of these differences may be limited by the small numbers of students reaching the *Advanced* level.

*Gender.* Table 9 presents achievement level results for males and females. At grades 4 and 8 males were more likely than females to score at or above the *Proficient* level and at the *Advanced* level. At grade 12, males were more likely than females to score at or above the *Basic* level and at or above the *Proficient* level.

TABLE 9		THE NATION'S					
		Geog	raphy Achieve by Gend	ement Levels er		REPORT CARD 1994 Geography Assessment	
		Percentage of Students					
		Percentage of All Students	At or Above Advanced	At or Above Proficient	At or Above Basic	Below Basic	
Grade 4							
Nation		100	3	22	70	30	
Gender							
Male		51	4	26	71	29	
Female		49	2	19	68	32	
Grade 8							
Nation		100	4	28	71	29	
Gender							
Male		51	5	30	72	28	
Female		49	3	25	69	31	
Grade 12							
Nation		100	2	27	70	30	
Gender							
Male		50	2	32	73	27	
Female		50	1	22	67	33	
The standard errors for the (a) Advanced Level, national percentages range from 0.4 to 0.5; (b) Proficient Level, national percentages range from 1.0 to 1.2; and (c) Basic Level, national percentages range from 0.9 to 1.1 The standard errors for the (a) Advanced Level, gender percentages range from 0.4 to 0.7; (b) Proficient Level, gender percentages range from 1.1 to 1.7; and (c) Basic Level, gender percentages range from 1.1 to 1.7; and (c) Basic Level, gender percentages range from 1.1 to 1.7; and SOURCE: National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 1994 Geography Assessment.							

**Parents' Education Level.** As shown in Table 10, parental education and student achievement are positively related. This mirrors the average proficiency results discussed in the previous chapter. At all three grades, students who reported that at least one parent had graduated from college were more likely to reach the *Advanced* level than were those reporting that their parents had a high school or lower level of education. Also at grade 8, students who reported that at least one parent had graduated from college were more likely to reach the *Advanced* level than those reporting that their parents had some education after high school.

At the *Proficient* and *Basic* levels, the patterns were similar. At grade 4, students who reported that at least one parent graduated from college or had some education after high school were more likely to be at or above the *Basic* and *Proficient* levels than those reporting that their parents had a high school or lower level of education. At grades 8 and 12, students reporting that their parents had achieved a given level of education were more likely than those reporting lower levels of parental education to reach one of the three achievement ranges. For example, at grade 12, students

who reported that at least one parent graduated from college were more likely to score at or above the *Basic* and Proficient levels than were students who reported that at least one parent had achieved some education after high school. The latter group was more likely to score at or above the Basic and Proficient levels than were students who reported at least one parent graduated from high school; they, in turn, showed higher achievement than those who reported that neither parent had finished high school. The exception to this rule was at grade 8, where there were no significant differences in the percentage of students at or above the Basic level who reported that at least one parent graduated from college and those who reported at least one parent had some education after high school.

It should be noted that one-third of fourth graders and one-tenth of eighth graders did not know their parents' level of education. Also, as was noted previously, the accuracy of student self-reported data may be open to some question. Nonetheless, the positive relationship between parental education and achievement in geography remains striking.

#### TABLE 10

### Geography Achievement Levels by Parents' Education Level



		Percentage of Students			
	Percentage of All Students	At or Above Advanced	At or Above Proficient	At or Above Basic	Below Basic
Grado A					
Nation	100	3	99	70	30
Parents' Education Level	100	5		70	50
Graduated College	42	5	21	78	22
Some Education After High School	7	3	30	80	20
Graduated High School	, 12	1	15	63	37
Did Not Finish High School	4	0	8	52	48
I Don't Know	34	1	14	63	37
Grade 8					
Nation	100	4	28	71	29
Parents' Education Level					
Graduated College	42	7	41	82	18
Some Education After High School	19	3	29	79	21
Graduated High School	22	1	15	62	38
Did Not Finish High School	7	1	8	47	53
I Don't Know	10	1	8	44	56
Grade 12					
Nation	100	2	27	70	30
Parents' Education Level					
Graduated College	44	3	40	81	19
Some Education AfterHigh School	25	1	24	75	25
Graduated High School	22	0	14	56	44
Did Not Finish High School	7	0	7	41	59
I Don't Know	3	0	7	36	64

The standard errors for the (a) Advanced Level, national percentages range from 0.4 to 0.5; (b) Proficient Level, national percentages range from 1.0 to 1.2; and (c) Basic Level, national percentages range from 0.9 to 1.1

The standard error for the (a) Advanced Level, parents' education level percentages range from 0.3 to 1.4; (b) Proficient Level, parents' education level percentages range from 1.1 to 3.4; and (c) Basic Level, parents' education level percentages range from 1.1 to 5.2.

The estimates of population percentages reported as zero (and standard errors reported as 0.0) are actually non-zero but rounded to zero when reporting to the nearest integer (or nearest tenth in the case of the standard errors).

Percentages of students in the subgroups may not total 100 due to rounding.

**Public and Nonpublic Schools.** Achievement level results for students in public and nonpublic schools are shown in Table 11. At all grades, nonpublic school students were significantly more likely than their public school counterparts to perform at or above both the *Basic* and *Proficient* levels. At the eighth grade, nonpublic school students were also more likely to perform at the *Advanced* level.

As was noted in Chapter 1, the reader is cautioned against making simplistic inferences about the relative effectiveness of public and nonpublic schools from these data. Achievement level differences between the two types of schools are in part related to socioeconomic factors and sociological factors, such as levels of parental education. To get a clearer picture of the differences between public and nonpublic schools, more in-depth analyses are needed.

TABLE 11		THE NATION'S						
		Geogi	by Type of S	1994 Geography Assessment				
				Percentage of Students				
		Percentage of All Students	At or Above Advanced	At or Above Proficient	At or Above Basic	Below Basic		
Grade 4								
Nation		100	3	22	70	30		
Type of School								
Public Schools		90	3	21	68	32		
All Nonpublic Sc	hools	10	5	30	84	16		
Catholic Scho	ols	6	5	30	85	15		
Other Nonpublic Schools		4	4	30	82	18		
Grade 8								
Nation		100	4	28	71	29		
Type of School								
Public Schools		90	4	26	69	31		
All Nonpublic Sc	hools	10	8	44	87	13		
Catholic Scho	ols	6	8	44	89	11		
Other Nonpul	blic Schools	4	7	45	86	14		
Grade 12								
Nation		100	2	27	70	30		
Type of School								
Public Schools		89	1	26	68	32		
All Nonpublic Schools		11	3	36	83	17		
Catholic Scho	ols	6	1	33	80	20		
Other Nonpul	olic Schools	4	5	40	87	13		

The standard errors for the (a) Advanced Level, national percentages range from 0.4 to 0.5; (b) Proficient level, national percentages range from 1.0 to 1.2; and (c) Basic Level, national percentages range from 0.9 to 1.1

The standard error for the (a) Advanced Level, type of school percentages range from 0.4 to 2.0; (b) Proficient level, type of school percentages range from 1.0 to 4.8; and (c) Basic Level, type of school percentages range from 1.0 to 3.9.

The percentages of students in the two types of nonpublic schools may not total the percent in all nonpublic schools due to rounding.