

**Table 130.—Average science proficiency, by age and by selected characteristics of students: 1970 to 1999**

Selected characteristics of students	1970 <sup>1</sup>	1973	1977	1982	1986	1990	1992	1994	1996	1999
1	2	3	4	5	6	7	8	9	10	11
9-year-olds										
<b>Total</b> .....	<b>225 (1.2)</b>	<b>220 (1.2)</b>	<b>219.9 (1.2)</b>	<b>220.8 (1.8)</b>	<b>224.3 (1.2)</b>	<b>228.7 (0.8)</b>	<b>230.6 (1.0)</b>	<b>231.0 (1.2)</b>	<b>229.7 (1.2)</b>	<b>229.4 (0.9)</b>
Male .....	228 (1.3)	223 (1.3)	222.1 (1.3)	221.0 (2.3)	227.3 (1.4)	230.3 (1.1)	234.7 (1.2)	232.2 (1.3)	231.5 (1.7)	230.9 (1.3)
Female .....	223 (1.2)	218 (1.2)	217.6 (1.2)	220.7 (2.0)	221.3 (1.4)	227.1 (1.0)	226.7 (1.0)	230.0 (1.4)	228.0 (1.5)	227.9 (1.1)
Race/ethnicity										
White, non-Hispanic .....	236 (0.9)	231 (0.9)	229.6 (0.9)	229.0 (1.9)	231.9 (1.2)	237.5 (0.8)	239.1 (1.0)	240.3 (1.3)	239.0 (1.4)	239.6 (0.9)
Black, non-Hispanic .....	179 (1.9)	177 (1.9)	174.8 (1.8)	187.0 (3.0)	196.2 (1.9)	196.4 (2.0)	200.3 (2.7)	201.4 (1.7)	201.9 (3.0)	198.9 (2.5)
Hispanic .....	—	—	191.9 (2.7)	189.0 (4.2)	199.4 (3.1)	206.2 (2.2)	204.7 (2.8)	201.0 (2.7)	207.1 (2.8)	206.1 (2.2)
Parental education										
Not high school graduate .....	—	—	198.5 (2.2)	198.2 (6.0)	203.6 (2.9)	209.8 (2.7)	217.2 (2.6)	211.4 (3.4)	210.4 (2.9)	212.7 (3.9)
Graduated high school .....	—	—	223.0 (1.4)	218.0 (3.3)	219.6 (1.5)	225.8 (1.7)	222.0 (1.9)	225.3 (1.4)	222.1 (2.3)	218.0 (1.9)
Some college .....	—	—	237.2 (1.5)	229.1 (3.2)	235.8 (2.6)	237.6 (2.1)	236.6 (2.4)	238.9 (2.8)	242.1 (2.9)	234.2 (3.1)
Graduated college .....	—	—	232.3 (1.4)	230.5 (2.3)	235.2 (1.4)	236.2 (1.3)	238.9 (1.2)	238.5 (1.4)	240.2 (1.6)	237.4 (1.1)
Type of school										
Public .....	—	—	218.0 (1.4)	219.7 (2.0)	222.6 (1.4)	227.7 (0.9)	229.1 (1.0)	229.5 (1.4)	228.5 (1.3)	228.0 (0.9)
Private .....	—	—	234.6 (2.2)	231.5 (3.2)	233.0 (2.9)	236.8 (2.4)	240.2 (2.7)	242.2 (2.8)	237.9 (4.1)	238.9 (2.6)
Region										
Northeast .....	230 (2.9)	222 (2.9)	224.4 (1.6)	221.8 (2.9)	228.2 (3.5)	231.1 (2.4)	234.4 (2.8)	234.6 (2.5)	233.6 (2.6)	237.8 (2.8)
Southeast .....	206 (1.6)	207 (1.6)	205.1 (2.9)	213.9 (3.6)	218.8 (3.1)	219.9 (1.9)	222.8 (1.7)	227.4 (2.2)	224.1 (3.4)	223.1 (3.2)
Central .....	233 (3.0)	228 (3.0)	225.2 (2.2)	226.3 (3.5)	227.9 (2.2)	234.2 (1.7)	237.5 (1.8)	236.2 (2.7)	233.7 (2.4)	233.0 (1.8)
West .....	226 (2.2)	221 (2.2)	220.9 (2.2)	219.9 (4.1)	222.1 (3.2)	229.5 (1.8)	227.4 (2.2)	226.4 (2.7)	228.0 (1.9)	224.3 (1.4)
13-year-olds										
<b>Total</b> .....	<b>255 (1.1)</b>	<b>250 (1.1)</b>	<b>247.4 (1.1)</b>	<b>250.1 (1.3)</b>	<b>251.4 (1.4)</b>	<b>255.2 (0.9)</b>	<b>258.0 (0.8)</b>	<b>256.8 (1.0)</b>	<b>256.0 (1.0)</b>	<b>255.8 (0.7)</b>
Male .....	257 (1.3)	252 (1.3)	251.1 (1.3)	255.6 (1.5)	256.1 (1.6)	258.5 (1.1)	260.1 (1.2)	259.4 (1.2)	260.5 (1.0)	258.7 (0.9)
Female .....	253 (1.2)	247 (1.2)	243.7 (1.2)	245.0 (1.3)	246.9 (1.5)	251.8 (1.1)	256.0 (1.0)	254.3 (1.2)	251.7 (1.3)	252.9 (1.0)
Race/ethnicity										
White, non-Hispanic .....	263 (0.8)	259 (0.8)	256.1 (0.8)	257.3 (1.1)	259.2 (1.4)	264.1 (0.9)	267.1 (1.0)	266.5 (1.0)	265.9 (1.1)	265.8 (0.8)
Black, non-Hispanic .....	215 (2.4)	205 (2.4)	208.1 (2.4)	217.1 (1.3)	221.6 (2.5)	225.9 (3.1)	224.4 (2.7)	225.9 (4.2)	226.7 (2.1)	226.9 (2.4)
Hispanic .....	—	—	213.4 (1.9)	225.5 (3.9)	226.1 (3.1)	231.6 (2.6)	237.5 (2.6)	232.1 (2.4)	232.2 (2.5)	227.2 (1.9)
Parental education										
Not high school graduate .....	—	—	223.5 (1.3)	225.3 (1.9)	229.4 (2.7)	232.9 (2.1)	233.8 (2.9)	234.3 (2.5)	229.8 (3.1)	229.3 (2.8)
Graduated high school .....	—	—	245.3 (1.1)	243.1 (1.3)	248.4 (1.4)	247.3 (1.3)	246.4 (1.4)	247.1 (1.2)	247.6 (1.7)	243.2 (1.4)
Some college .....	—	—	260.3 (1.3)	258.8 (1.5)	257.8 (1.4)	262.8 (1.2)	265.9 (1.1)	260.4 (2.0)	260.6 (1.4)	260.9 (1.3)
Graduated college .....	—	—	266.4 (1.0)	263.5 (1.5)	264.4 (1.9)	267.5 (1.1)	269.2 (1.0)	268.8 (1.3)	266.4 (1.2)	267.7 (1.0)
Type of school										
Public .....	—	—	245.2 (1.2)	248.5 (1.4)	250.9 (1.4)	253.6 (1.1)	257.2 (1.0)	255.4 (1.1)	254.5 (1.1)	254.0 (1.1)
Private .....	—	—	267.7 (2.1)	263.7 (3.2)	263.1 (6.4)	269.0 (1.8)	264.5 (2.4)	267.6 (2.6)	267.8 (5.0)	269.3 (2.7)
Region										
Northeast .....	261 (2.2)	256 (2.2)	255.2 (2.3)	254.1 (2.1)	257.6 (3.1)	256.8 (2.7)	256.8 (2.2)	262.7 (1.7)	254.7 (3.0)	257.6 (2.4)
Southeast .....	239 (2.4)	237 (2.4)	235.1 (1.8)	238.7 (2.3)	247.1 (2.2)	251.3 (1.9)	254.2 (2.8)	252.6 (2.6)	250.8 (2.7)	251.0 (2.2)
Central .....	262 (1.8)	256 (1.8)	253.8 (1.8)	253.8 (2.6)	249.4 (5.3)	260.4 (2.8)	262.5 (2.1)	261.1 (3.5)	265.7 (1.8)	259.9 (1.9)
West .....	255 (1.8)	248 (1.8)	243.0 (2.3)	252.4 (2.8)	252.3 (2.7)	252.6 (2.1)	258.0 (1.6)	252.2 (2.1)	253.6 (1.8)	254.2 (1.5)
17-year-olds										
<b>Total</b> .....	<b>305 (1.0)</b>	<b>296 (1.0)</b>	<b>289.5 (1.0)</b>	<b>283.3 (1.2)</b>	<b>288.5 (1.4)</b>	<b>290.4 (1.1)</b>	<b>294.1 (1.3)</b>	<b>294.0 (1.6)</b>	<b>295.7 (1.2)</b>	<b>295.3 (1.3)</b>
Male .....	314 (1.2)	304 (1.2)	297.0 (1.2)	291.9 (1.4)	294.9 (1.9)	295.6 (1.3)	299.1 (1.7)	299.5 (2.0)	299.7 (1.6)	300.4 (1.6)
Female .....	297 (1.1)	288 (1.1)	282.2 (1.1)	275.2 (1.3)	282.3 (1.5)	285.4 (1.6)	289.0 (1.5)	288.9 (1.7)	291.8 (1.4)	290.6 (1.5)
Race/ethnicity										
White, non-Hispanic .....	312 (0.8)	304 (0.8)	297.7 (0.7)	293.1 (1.0)	297.5 (1.7)	300.9 (1.1)	304.2 (1.3)	306.0 (1.5)	306.8 (1.2)	306.2 (1.3)
Black, non-Hispanic .....	258 (1.5)	250 (1.5)	240.2 (1.5)	234.7 (1.7)	252.8 (2.9)	253.0 (4.5)	256.2 (3.2)	256.8 (3.1)	260.3 (2.4)	254.4 (2.9)
Hispanic .....	—	—	262.3 (2.2)	248.7 (2.3)	259.3 (3.8)	261.5 (4.4)	270.2 (5.6)	261.4 (6.7)	269.3 (3.3)	276.0 (4.2)
Parental education										
Not high school graduate .....	—	—	265.3 (1.3)	258.5 (2.4)	257.5 (3.1)	261.4 (2.8)	262.0 (3.8)	255.8 (4.2)	259.3 (4.0)	264.0 (3.7)
Graduated high school .....	—	—	284.4 (0.8)	275.2 (1.6)	277.0 (2.0)	276.3 (1.4)	280.2 (2.4)	279.2 (1.7)	282.2 (2.5)	280.8 (2.0)
Some college .....	—	—	295.6 (1.1)	290.1 (1.7)	295.1 (2.5)	296.5 (1.6)	295.9 (1.7)	294.8 (1.9)	297.1 (1.9)	296.5 (2.1)
Graduated college .....	—	—	309.3 (1.0)	300.2 (1.7)	303.8 (2.1)	305.5 (1.7)	308.3 (1.3)	310.6 (1.6)	307.8 (1.5)	307.2 (1.5)
Type of school										
Public .....	—	—	288.2 (1.0)	282.3 (1.1)	287.1 (1.6)	289.0 (1.1)	292.2 (1.3)	291.7 (1.5)	294.9 (1.2)	293.4 (1.3)
Private .....	—	—	308.4 (2.4)	292.0 (2.9)	321.3 (10.1)	307.8 (6.6)	311.7 (3.7)	310.4 (4.8)	303.6 (5.5)	311.4 (4.9)
Region										
Northeast .....	308 (2.5)	298 (2.5)	296.3 (2.2)	284.4 (2.0)	292.2 (4.3)	292.6 (3.2)	300.1 (2.4)	298.9 (4.2)	296.0 (3.3)	300.6 (3.2)
Southeast .....	287 (2.3)	283 (2.3)	276.4 (1.9)	276.3 (2.7)	283.5 (2.0)	283.6 (2.4)	283.0 (2.5)	287.8 (2.8)	287.8 (3.1)	286.1 (2.7)
Central .....	308 (1.9)	300 (1.9)	294.0 (1.5)	289.3 (2.6)	294.4 (2.3)	299.6 (3.0)	304.2 (2.7)	297.8 (3.7)	307.3 (2.6)	296.2 (2.4)
West .....	308 (1.7)	295 (1.7)	286.5 (1.5)	280.9 (2.7)	283.2 (3.8)	285.8 (2.3)	290.4 (3.8)	291.8 (4.1)	291.7 (2.4)	297.8 (2.7)

—Not available.

<sup>1</sup> Data for 17-year-olds are for 1969.

NOTE: All age groups exclude persons not enrolled in school. These test scores are from the National Assessment of Educational Progress (NAEP). Performers at the 150 level know some general scientific facts of the type that could be learned from everyday experiences. Performers at the 200 level are developing some understanding of simple scientific principles, particularly in the life sciences. Performers at the 250 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 and also demonstrate some knowledge of basic information from the physical sciences. Performers at the 300 level can evaluate the appropriateness of the design of an experiment

and have the skill to apply their scientific knowledge in interpreting information from text and graphs. These students also exhibit a growing understanding of principles from the physical sciences. Performers at the 350 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. Scale ranges from 0 to 500. Standard errors appear in parentheses.

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Assessment of Educational Progress, *NAEP Trends in Academic Progress*, various years, by Educational Testing Service. (This table was prepared November 2001.)