

**Table 131.—Percent of students at or above selected science proficiency levels, by sex, race/ethnicity, control of school, and age: 1977 to 1999**

Sex, race/ethnicity, control, and year	9-year-olds <sup>1</sup>				13-year-olds <sup>2</sup>				17-year-olds <sup>2</sup>			
	Know everyday science facts <sup>3</sup>	Understand simple scientific principles <sup>4</sup>	Apply general scientific information <sup>5</sup>	Analyze scientific procedures and data <sup>6</sup>	Understand simple scientific principles <sup>4</sup>	Apply general scientific information <sup>5</sup>	Analyze scientific procedures and data <sup>6</sup>	Integrate specialized scientific information <sup>7</sup>	Understand simple scientific principles <sup>4</sup>	Apply general scientific information <sup>5</sup>	Analyze scientific procedures and data <sup>6</sup>	Integrate specialized scientific information <sup>7</sup>
1	2	3	4	5	6	7	8	9	10	11	12	13
<b>Total</b>												
1977 .....	93.5 (0.6)	68.0 (1.1)	25.7 (0.7)	3.2 (0.3)	86.0 (0.7)	48.8 (1.1)	11.1 (0.5)	0.7 (0.1)	97.1 (0.2)	81.6 (0.7)	41.7 (0.9)	8.5 (0.4)
1982 .....	95.2 (0.7)	70.7 (1.9)	24.3 (1.8)	2.3 (0.7)	89.8 (0.8)	50.9 (1.6)	9.6 (0.7)	0.4 (0.1)	95.7 (0.5)	76.6 (1.0)	37.3 (0.9)	7.1 (0.4)
1986 .....	96.2 (0.3)	72.0 (1.1)	27.5 (1.4)	3.0 (0.5)	91.6 (1.0)	52.5 (1.6)	9.1 (0.9)	0.2 (0.1)	97.1 (0.5)	80.7 (1.3)	41.3 (1.4)	7.9 (0.7)
1990 .....	97.0 (0.3)	76.4 (0.9)	31.1 (0.8)	3.1 (0.3)	92.3 (0.7)	56.5 (1.0)	11.2 (0.6)	0.4 (0.1)	96.7 (0.3)	81.2 (0.9)	43.3 (1.3)	9.2 (0.5)
1992 .....	97.4 (0.3)	78.0 (1.2)	32.8 (1.0)	3.4 (0.3)	93.1 (0.5)	61.3 (1.1)	12.0 (0.8)	0.2 (0.1)	97.8 (0.5)	83.3 (1.2)	46.6 (1.5)	10.1 (0.7)
1994 .....	97.2 (0.4)	77.4 (1.0)	33.7 (1.2)	3.8 (0.4)	92.4 (0.6)	59.5 (1.1)	11.8 (0.9)	0.2 (0.1)	97.1 (0.7)	83.1 (1.2)	47.5 (1.3)	10.0 (0.8)
1996 .....	96.8 (0.4)	76.1 (1.2)	32.2 (1.3)	4.4 (0.4)	92.0 (0.8)	57.6 (1.1)	12.3 (0.7)	0.4 (0.2)	97.8 (0.3)	83.8 (0.9)	48.4 (1.3)	10.8 (1.0)
1999 .....	97.0 (0.3)	77.4 (0.8)	31.4 (1.0)	3.0 (0.4)	92.7 (0.4)	57.9 (1.0)	10.9 (0.7)	0.2 (0.1)	98.0 (0.3)	85.0 (1.1)	47.4 (1.4)	9.7 (0.7)
<b>Male</b>												
1977 .....	94.3 (0.5)	69.5 (1.2)	27.4 (0.9)	3.7 (0.3)	87.2 (0.8)	52.3 (1.3)	13.1 (0.6)	0.9 (0.2)	97.8 (0.2)	85.2 (0.7)	48.8 (1.1)	11.8 (0.6)
1982 .....	95.0 (1.0)	69.7 (2.0)	25.6 (2.6)	2.5 (1.0)	91.9 (0.8)	56.2 (1.8)	12.6 (1.1)	0.5 (0.2)	96.8 (0.5)	81.2 (1.2)	45.2 (1.2)	10.4 (0.8)
1986 .....	96.8 (0.5)	74.1 (1.4)	29.9 (2.0)	3.8 (0.6)	92.9 (1.0)	57.3 (2.1)	11.9 (1.3)	0.3 (0.2)	97.4 (0.7)	82.4 (1.4)	48.8 (2.1)	11.4 (1.3)
1990 .....	96.8 (0.5)	76.3 (1.2)	33.1 (1.1)	4.2 (0.6)	92.7 (0.8)	59.8 (1.3)	14.0 (0.9)	0.6 (0.2)	96.8 (0.5)	82.5 (1.2)	48.2 (1.6)	13.0 (0.8)
1992 .....	97.7 (0.3)	80.4 (1.4)	37.2 (1.7)	4.6 (0.6)	93.1 (0.8)	62.9 (1.4)	14.2 (1.1)	0.3 (0.1)	98.0 (0.6)	85.0 (1.4)	50.9 (2.0)	13.6 (1.0)
1994 .....	97.1 (0.4)	77.6 (0.9)	35.3 (1.4)	4.5 (0.7)	92.2 (0.8)	62.0 (1.3)	14.8 (1.1)	0.3 (0.2)	97.1 (0.6)	84.9 (1.3)	52.9 (1.8)	13.8 (1.2)
1996 .....	96.9 (0.5)	76.8 (1.8)	33.9 (1.9)	5.2 (0.7)	93.2 (0.9)	61.7 (1.4)	15.5 (0.9)	0.7 (0.2)	97.5 (0.5)	83.8 (1.1)	53.1 (1.5)	14.2 (1.4)
1999 .....	97.1 (0.5)	77.8 (1.3)	33.4 (1.3)	3.7 (0.6)	93.0 (0.6)	61.0 (1.2)	13.1 (1.2)	0.2 —	98.0 (0.5)	85.6 (1.5)	52.7 (1.6)	12.9 (1.2)
<b>Female</b>												
1977 .....	92.8 (0.7)	66.5 (1.1)	24.0 (0.9)	2.6 (0.3)	84.7 (0.8)	45.4 (1.2)	9.0 (0.5)	0.4 (0.1)	96.4 (0.3)	78.0 (1.0)	34.8 (1.0)	5.3 (0.4)
1982 .....	95.5 (1.2)	71.8 (2.2)	23.0 (2.0)	2.1 (0.6)	87.9 (1.0)	46.0 (1.6)	6.9 (0.7)	0.2 (0.1)	94.6 (0.8)	72.2 (1.3)	29.9 (1.2)	3.9 (0.4)
1986 .....	95.6 (0.6)	70.0 (1.3)	25.1 (1.4)	2.2 (0.5)	90.3 (1.2)	47.7 (1.7)	6.3 (1.1)	0.1 (0.1)	96.9 (0.5)	79.1 (1.7)	34.1 (1.5)	4.5 (0.8)
1990 .....	97.1 (0.4)	76.4 (1.1)	29.1 (1.0)	2.0 (0.3)	92.0 (0.8)	53.3 (1.4)	8.5 (0.6)	0.2 —	96.6 (0.6)	79.9 (1.4)	38.7 (1.7)	5.5 (0.5)
1992 .....	97.1 (0.5)	75.7 (1.2)	28.6 (1.1)	2.2 (0.3)	93.1 (0.7)	59.6 (1.4)	9.9 (0.8)	0.2 —	97.5 (0.7)	81.6 (1.4)	42.0 (1.7)	6.6 (1.0)
1994 .....	97.3 (0.5)	77.2 (1.4)	32.2 (1.5)	3.2 (0.4)	92.6 (0.6)	57.1 (1.4)	8.8 (1.0)	0.1 —	97.2 (1.0)	81.6 (1.6)	42.4 (1.8)	6.4 (0.6)
1996 .....	96.6 (0.6)	75.5 (1.0)	30.7 (1.9)	3.6 (0.6)	90.9 (1.2)	53.8 (1.5)	9.2 (0.8)	0.2 —	98.1 (0.4)	83.7 (1.1)	43.9 (1.7)	7.4 (1.0)
1999 .....	97.0 (0.5)	77.0 (1.3)	29.5 (1.3)	2.4 (0.4)	92.4 (0.6)	54.7 (1.7)	8.8 (0.8)	0.1 —	98.0 (0.5)	84.5 (1.4)	42.5 (1.7)	6.8 (0.8)
<b>White, non-Hispanic</b>												
1977 .....	97.7 (0.3)	76.8 (0.7)	30.8 (0.7)	3.9 (0.3)	92.2 (0.5)	56.5 (0.9)	13.4 (0.5)	0.8 (0.1)	99.2 (0.1)	88.2 (0.4)	47.5 (0.7)	10.0 (0.4)
1982 .....	98.3 (0.4)	78.4 (2.0)	29.4 (2.1)	2.9 (0.9)	94.4 (0.6)	58.3 (1.4)	11.5 (0.8)	0.4 (0.1)	98.6 (0.2)	84.9 (0.9)	43.9 (1.1)	8.6 (0.6)
1986 .....	98.2 (0.3)	78.9 (1.0)	32.7 (1.5)	3.8 (0.6)	96.1 (0.8)	61.0 (1.7)	11.3 (1.2)	0.3 (0.1)	98.8 (0.3)	87.8 (1.4)	48.7 (1.7)	9.6 (0.9)
1990 .....	99.2 (0.2)	84.4 (0.7)	37.5 (1.1)	3.9 (0.4)	96.9 (0.4)	66.5 (1.2)	14.2 (0.8)	0.5 (0.1)	99.0 (0.2)	89.6 (0.8)	51.2 (1.5)	11.4 (0.7)
1992 .....	99.2 (0.1)	85.5 (0.9)	39.4 (1.1)	4.3 (0.4)	97.9 (0.4)	71.1 (1.3)	15.0 (1.0)	0.3 (0.1)	99.3 (0.3)	90.5 (1.0)	55.4 (1.7)	12.8 (0.9)
1994 .....	99.1 (0.3)	85.6 (1.0)	40.8 (1.5)	4.9 (0.6)	97.6 (0.4)	70.5 (1.1)	14.8 (1.0)	0.3 (0.1)	99.3 (0.3)	91.5 (0.9)	57.5 (1.6)	13.2 (1.1)
1996 .....	98.6 (0.3)	83.8 (1.2)	39.6 (1.5)	5.9 (0.5)	97.0 (0.5)	68.5 (1.2)	15.9 (0.8)	0.6 (0.2)	99.3 (0.3)	92.2 (0.7)	58.5 (1.6)	13.8 (1.4)
1999 .....	99.3 (0.2)	86.7 (0.7)	39.2 (1.3)	4.1 (0.5)	97.5 (0.3)	69.4 (1.0)	14.3 (1.0)	0.2 —	99.4 (0.2)	92.6 (0.8)	57.2 (2.0)	12.4 (0.7)
<b>Black, non-Hispanic</b>												
1977 .....	72.4 (1.8)	27.2 (1.5)	3.5 (0.6)	0.2 —	57.3 (2.4)	14.9 (1.7)	1.2 (0.4)	0.0 —	83.6 (1.3)	40.5 (1.5)	7.7 (1.0)	0.4 (0.2)
1982 .....	82.1 (3.0)	38.9 (2.7)	3.9 (1.3)	0.1 —	68.6 (2.4)	17.1 (1.9)	0.8 (0.3)	0.0 —	79.7 (1.9)	35.0 (2.1)	6.5 (1.1)	0.2 (0.2)
1986 .....	88.6 (1.4)	46.2 (2.3)	8.3 (1.5)	0.3 —	73.6 (3.0)	19.6 (2.9)	1.1 (0.4)	0.0 —	90.9 (2.1)	52.2 (3.2)	12.5 (2.2)	0.9 (0.6)
1990 .....	88.0 (1.3)	46.4 (3.1)	8.5 (1.1)	0.1 —	77.6 (3.6)	24.3 (3.3)	1.5 (0.5)	0.1 —	88.3 (1.9)	51.4 (3.7)	15.7 (4.0)	1.5 (0.8)
1992 .....	90.7 (1.8)	51.3 (3.5)	9.2 (1.4)	0.3 —	73.8 (2.8)	26.2 (2.8)	1.8 (0.8)	0.0 —	92.1 (1.8)	55.7 (3.7)	14.1 (2.5)	0.8 —
1994 .....	91.0 (1.5)	51.6 (2.3)	11.1 (1.4)	0.2 —	73.5 (3.2)	22.4 (4.3)	2.2 —	0.0 —	91.1 (1.9)	58.1 (3.7)	15.4 (2.3)	0.5 (0.3)
1996 .....	91.0 (1.6)	52.2 (3.4)	10.6 (2.0)	0.3 —	75.9 (2.7)	25.5 (2.2)	1.9 (0.9)	0.0 —	93.0 (1.2)	59.8 (3.2)	17.7 (2.7)	0.8 (0.5)
1999 .....	88.9 (1.6)	49.2 (2.6)	9.5 (1.6)	0.3 —	79.1 (2.4)	24.9 (3.6)	1.1 (0.4)	0.0 —	91.9 (1.7)	54.8 (3.4)	12.4 (2.2)	0.4 —
<b>Hispanic</b>												
1977 .....	84.6 (1.8)	42.0 (3.1)	8.8 (1.7)	0.3 —	62.2 (2.4)	18.1 (1.8)	1.8 (0.8)	0.0 —	93.1 (1.7)	61.5 (1.7)	18.5 (2.1)	1.8 (0.6)
1982 .....	85.1 (3.1)	40.2 (6.1)	4.2 (2.7)	0.0 —	75.5 (3.3)	24.1 (5.1)	2.4 (0.9)	0.0 —	86.9 (2.9)	48.0 (2.7)	11.1 (2.0)	1.4 (0.9)
1986 .....	89.6 (2.4)	50.1 (3.7)	10.7 (2.4)	0.2 —	76.7 (3.2)	24.9 (4.3)	1.5 (0.7)	0.0 —	93.3 (2.4)	60.0 (7.2)	14.8 (2.9)	1.1 (0.7)
1990 .....	93.6 (1.5)	56.3 (3.7)	11.6 (2.1)	0.4 —	80.2 (2.9)	30.0 (2.8)	3.3 (0.8)	0.1 —	91.9 (2.2)	59.9 (5.0)	21.0 (3.3)	2.1 —
1992 .....	92.4 (1.7)	55.5 (4.3)	11.7 (1.8)	0.4 —	86.2 (2.6)	36.5 (2.9)	3.3 (1.3)	0.0 —	94.6 (2.6)	68.3 (6.6)	23.0 (3.8)	2.5 (1.2)
1994 .....	91.1 (2.3)	49.9 (3.1)	10.8 (2.5)	0.7 (0.5)	81.2 (2.5)	31.6 (3.3)	2.4 (0.9)	0.0 —	89.9 (3.3)	58.6 (7.4)	21.7 (4.1)	1.5 (0.7)
1996 .....	92.6 (1.9)	57.8 (3.1)	13.1 (3.1)	0.4 —	81.0 (2.8)	30.9 (3.3)	3.2 (1.0)	0.0 —	94.1 (1.6)	67.6 (4.5)	23.9 (2.5)	3.0 (1.4)
1999 .....	94.2 (1.8)	56.3 (2.5)	11.6 (1.6)	0.3 —	78.3 (2.3)	24.7 (2.2)	1.8 (0.6)	0.0 —	96.9 (2.0)	73.3 (4.2)	27.2 (4.5)	4.7 (1.6)
<b>Public</b>												
1977 .....	93.0 (0.7)	66.4 (1.3)	24.5 (0.9)	2.9 (0.3)	84.9 (0.8)	46.7 (1.2)	10.2 (0.5)	0.6 (0.1)	97.0 (0.2)	80.8 (0.7)	40.5 (0.8)	8.1 (0.4)
1982 .....	94.9 (0.8)	69.5 (2.1)	23.9 (2.1)	2.3 (0.7)	89.2 (0.9)	49.2 (1.8)	8.9 (0.8)	0.3 (0.1)	95.4 (0.6)	75.8 (1.0)	36.6 (0.9)	6.9 (0.4)
1986 .....	95.8 (0.4)	70.5 (1.3)	26.3 (1.5)	2.8 (0.6)	91.3 (1.0)	51.9 (1.7)	8.9 (0.9)	0.2 (0.1)	97.0 (0.5)	80.1 (1.4)	39.9 (1.5)	7.2 (0.7)
1990 .....	96.7 (0.4)	75.5 (1.0)	30.3 (0.8)	3.0 (0.4)	91.6 (0.8)	54.7 (1.2)	10.7 (0.7)	0.4 (0.1)	96.5 (0.4)	80.4 (0.9)	42.0 (1.3)	8.7 (0.5)
1992 .....	97.1 (0.4)	76.7 (1.3)	31.5 (1.0)	3.2 (0.3)	92.7 (0.5)	60.2 (1.2)	11.9 (0.9)	0.3 (0.1)	97.5 (0.5)	82.0 (1.2)	44.8 (1.5)	9.6 (0.8)
1994 .....	96.9 (0.4)	76.1 (1.2)	32.5 (1.4)	3.6 (0.5)	91.9 (0.6)	57.8 (1.2)	11.3 (0.9)	0.2 (0.1)	96.8 (0.7)	81.7 (1.3)	45.3 (1.1)	9.4 (0.5)
1996 .....	96.7 (0.5)	75.3 (1.3)	30.9 (1.4)	4.1 (0.3)	91.5 (0.8)	56.0 (1.3)	11.5 (0.8)	0.4 (0.2)	97.7 (0.4)	83.2 (1.0)	47.7 (1.3)	10.5 (1.0)
1999 .....	96.7 (0.4)	76.1 (1.1)	30.4 (0.9)	2.8 (0.4)	92.0 (0.5)	55.7 (1.3)	10.1 (0.9)	0.1 —	97.8 (0.3)	83.8 (1.1)	45.7 (1.5)	9.2 (0.7)
<b>Private</b>												
1977 .....	98.1 (0.6)	80.3 (1.7)	35.6 (1.9)	5.1 (1.1)	95.7 (1.0)	68.8 (2.6)	19.6 (1.9)	1.6 (0.3)	99.5 (0.2)	92.9 (1.2)	58.9 (2.8)	14.8 (1.9)
1982 .....	98.9 —	82.6 (3.5)	28.2 (5.6)	2.1 (1.2)	95.0 (1.5)	65.8 (4.1)	16.0 (2.4)	0.8 (0.5)	97.9 (0.7)	83.5 (2.8)	44.2 (2.6)	8.5 (2.3)
1986 .....	98.2 (0.7)	79.7 (2.3)	33.8 (2.8)	4.0 (0.7)	97.3 (1.8)	66.8 (8.2)	12.8 (3.6)	0.3 —	99.8 —	96.5 (2.2)	74.6 (10.9)	23.1 (7.7)
1990 .....	98.7 —	83.6 (2.4)	37.2 (3.0)	3.9 (1.0)	98.4 (0.8)	72.0 (2.6)	16.2 (1.5)	0.5 —	99.5 —	90.6 (4.1)	59.8 (6.7)	15.8 (3.2)
1992 .....	99.2 —	86.2 (2.0)	40.6 (3.4)	4.6 (1.3)	96.4 (1.1)	68.9 (3.1)	13.2 (2.0)	0.1 —	100.0 —	95.5 (2.0)	63.1 (5.3)	14.1 (2.7)
1994 .....	99.3 (0.4)	87.1 (2.4)	42.7 (2.8)	5.6 (1.0)	96.5 (1.4)	72.7 (3.2)	15.5 (2.6)	0.1 —	99.3 (0.4)	93.1 (2.3)	62.7 (5.2)	14.8 (4.0)
1996 .....	97.2											