

Indicator 36. Science Proficiency

Science proficiency, by age and by selected characteristics of students: 1977, 1990, and 1992

Selected characteristics of students	9-year-olds			13-year-olds			17-year-olds ¹		
	1977	1990	1992	1977	1990	1992	1977	1990	1992
All students	220	229	231	247	255	258	290	290	294
Sex									
Male	222	230	235	251	258	260	297	296	299
Female	218	227	227	244	252	256	282	285	289
Race/ethnicity									
White	230	238	239	256	264	267	298	301	304
Black	175	196	200	208	226	224	240	253	256
Hispanic	192	206	205	213	232	238	262	262	270
Region									
Northeast	224	231	234	255	257	257	296	293	300
Southeast	205	220	223	235	251	254	276	284	283
Central	225	234	238	254	260	263	294	300	304
West	221	230	227	243	253	258	286	286	290
Parental education (as reported by students) ²									
Not high school graduate	198	210	217	224	233	234	265	261	262
Graduated high school	223	226	222	245	247	246	284	276	280
Some college	237	238	237	260	263	266	296	296	296
Graduated college	232	236	239	266	268	269	309	306	308
Type of school									
Public	218	228	229	245	254	257	288	289	292
Private	235	237	240	268	269	264	308	308	312

¹ Excludes persons not enrolled in school.

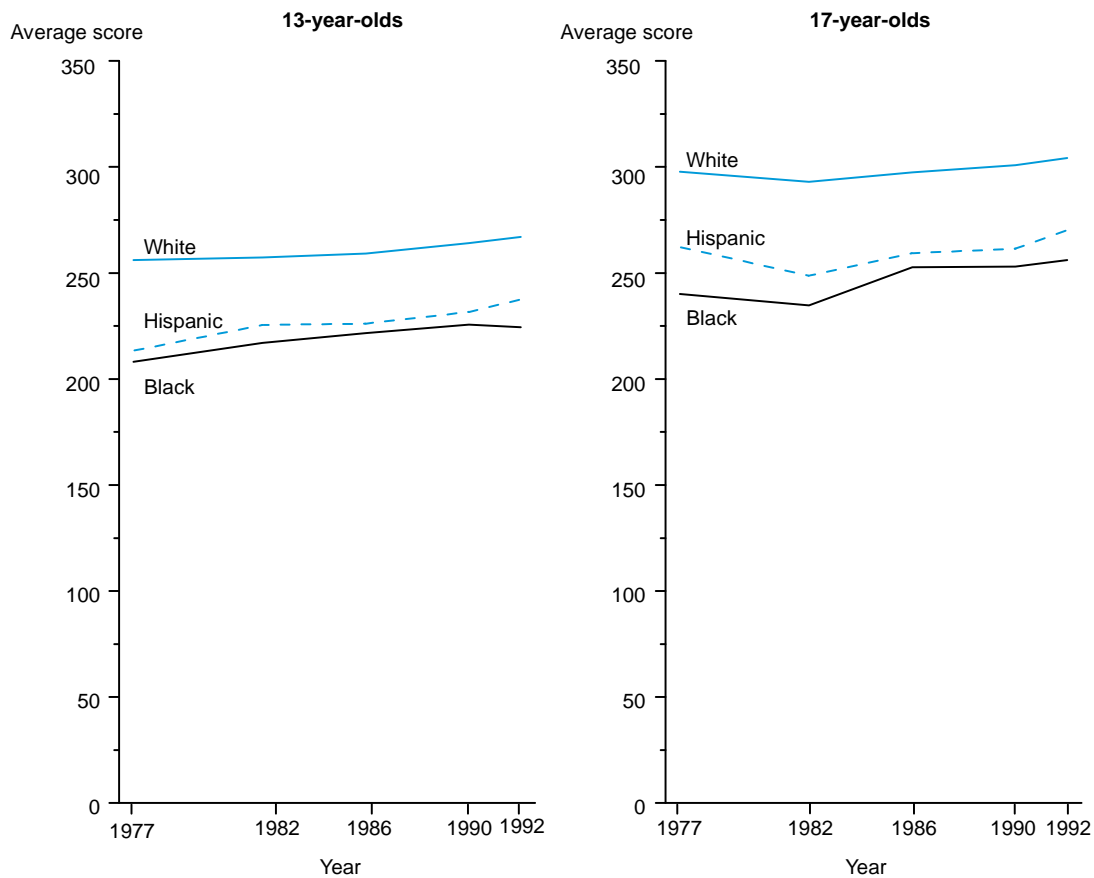
² One quarter to one third of the 9-year-olds did not know their parents' education level.

NOTE: The NAEP scores range from 0 to 500, but have been evaluated at certain performance levels. A score of 300 implies the ability to evaluate the appropriateness of the design of an experiment and the skill to apply 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 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 200 level are developing some understanding of simple scientific principles, particularly in the life sciences. Performers at the 150 level know some general scientific facts of the kind that can be learned from everyday experiences.

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Assessment of Educational Progress, *NAEP 1992 Trends in Academic Progress*.

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Science proficiency of 13- and 17-year-olds, by race/ethnicity: 1977 to 1992



NOTE: NAEP scores range from 0 to 500.

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Assessment of Educational Progress, *NAEP 1992 Trends in Academic Progress*.

Between 1977 and 1992, the average proficiency of 13-year-olds and 17-year-olds increased significantly. Very large differences among the racial/ethnic groups persisted through 1992 with white 13-year-olds scoring as high or higher than black and Hispanic 17-year-olds. Higher levels of parental education were strongly correlated with higher science performance.