# Fifteen Years After *A Nation at Risk*

| That Was Then: 1983[1] | This Is Now: 1998[2] |
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| **General Findings** | |
| International comparisons of student achievement reveal that on 19 academic tests American students were never first or second and, in comparison with other industrialized nations, were last seven times. | The recently released TIMSS study shows that American 12th graders rank 19th out of 21 industrialized nations in mathematics achievement and 16th out of 21countries in science.[3] |
| Some 23 million American adults are functionally illiterate by the simplest tests of everyday reading, writing, and comprehension. | A 1992 survey estimated that 1/5 of the adult population has only rudimentary reading and writing skills. These adults can pick out key facts in a newspaper article, for example, but cannot draft a letter explaining an error on their credit card bill.[4] |
| About 13% of all 17-year-olds in the United States can be considered functionally illiterate. Functional illiteracy among minority youth may run as high as 40 % | The literacy level of young adults ages 15-21 dropped more than 11 points from 1984 to 1992.[5]<br><br>25% of 12th graders scored below "basic" in reading on the 1994 National Assessment of Educational Progress (NAEP).[6] |
| The College Board's Scholastic Aptitude Tests (SAT) demonstrate a virtually unbroken decline from 1963 to 1980. Average verbal scores fell over 50 points and average mathematics scores dropped nearly 40 points. | SAT scores rose slightly from 1984 to 1995, gaining 2 points on the verbal test and 11 points in math.[7] The average combined score in 1995 (before "recentering") was still 70 points lower than in 1963.[8] |
| There was a steady decline in science achievement scores of U.S. 17-year-olds as measured by national assessments of science in 1969, 1973, and 1977. | The performance of 17-year-olds on the science portion of the National Assessment of Educational Progress has increased slightly since 1982, but the average in 1994 remained lower than in 1969.[9] |
| Between 1975 and 1980, remedial mathematics courses in public 4-year colleges increased by 72% and now constitute one-quarter of all mathematics courses taught in these institutions. | In 1995, nearly 30% of first-time college freshmen enrolled in at least one remedial course and 80% of all public 4-year universities offered remedial courses.[10] |
| Business and military leaders complain that they are required to spend millions of dollars on costly remedial education and training programs in such basic skills as reading, writing, spelling, and computation. | According to U.S. manufacturers, 40% of all 17-year-olds do not have the math skills and 60% lack the reading skills to hold down a production job at a manufacturing company.[11] |

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| Over half the population of gifted students does not match their tested ability with comparable achievement in school. | U.S. physics and advanced mathematics students scored last among 16 nations on the "advanced" portion of the recent TIMSS test.[12] |
| **Findings Regarding Content** | |
| Secondary school curricula have been homogenized, diluted, and diffused to the point that they no longer have a central purpose. In effect, we have a cafeteria style curriculum in which the appetizers and desserts can easily be mistaken for the main courses. Students have migrated from vocational and college preparatory programs to "general track" courses in large numbers. The proportion of students taking a general program of study has increased from 12% in 1964 to 42% in 1979. | High school graduates taking a "college prep" program of study rose from 9% in 1982 to 39% in 1994, while the percentage taking a vocational program dropped from 23% to 6%.[13] |
| This curricular smorgasbord, combined with extensive student choice, explains a great deal about where we find ourselves today. We offer intermediate algebra, but only 31% of our recent high school graduates complete it; we offer French I, but only 13% complete it; and we offer geography, but only 16% complete it. Calculus is available in schools enrolling about 60% of all students, but only 6% of all students complete it. | In 1994, 58% of high school graduates passed Algebra II, only 18% passed French I, only 25% passed geography, and only 16% passed Calculus.[14]<br><br>In 1994, 39% of high school graduates had studied most of the "New Basics" (4 years of English, 3 years each of math, science, and social studies), up from 14% in 1982.[15] |
| **Findings Regarding Expectations** | |
| The amount of homework for high school seniors has decreased (two-thirds report less than 1 hour a night). | In 1996, 64% of high school seniors reported doing less than 1 hour of homework a night.[16] |
| A 1980 State-by-State survey of high school diploma requirements reveals that only eight States require high schools to offer foreign language instruction, but none requires students to take the courses. Thirty-five States require only 1 year of mathematics, and 36 require only 1 year of science for a diploma. | In 1996, only four States required students to take a foreign language in order to graduate. Twenty-six States required two or fewer years of mathematics, and 32 required 2 or fewer years of science.[17] |

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| In 13 States, 50% or more of the units required for high school graduation may be electives chosen by the student. Given this freedom to choose the substance of over half or more of their education, many students opt for less demanding personal service courses, such as bachelor living. | In 1994, only 41% of high school students' courses were required by States to be spent studying a core academic curriculum. The remaining amount was available for electives.[18] |
| "Minimum competency" examinations (now required in 37 States) fall short of what is needed, as the "minimum" tends to become the "maximum," thus lowering educational standards for all. | By January 1998, 38 States had drafted academic standards in core subjects (English, math, science, and social studies) and 34 States used standards-based assessments of math and English.[19]<br><br>But scholars engaged by the Thomas B. Fordham Foundation found that only 1 state had truly rigorous and clear standards in English, 1 in history, 3 in geography, 3 in math, and 6 in science. Failing grades were earned by state standards as follows: 12 out of 28 in English, 19 of 38 in history, 18 of 39 in Geography, 16 of 48 in math, and 9 of 36 in science.[20] |
| **Findings Regarding Time** | |
| In England and other industrialized countries, it is not unusual for academic high school students to spend 8 hours a day at school, 220 days per year. In the United States, by contrast, the typical school day lasts 6 hours and the school year is 180 days. | In 1991, the average school year in the US was 178 days, 20 days shorter than the international average.[21] |
| A study of the school week in the United States found that some schools provided students only 17 hours of academic instruction during the week, and the average school provided about 22. | The 1994 report of the National Commission on Time and Learning estimated that French, German, and Japanese students receive more than twice as much core academic instruction over four years as American students.[22] |
| In most schools, the teaching of study skills is haphazard and unplanned. Consequently, many students complete high school and enter college without disciplined and systematic study habits. | A recent survey found that 76% of professors and 63% of employers believe that "a high school diploma is no guarantee that the typical student has learned the basics." Most judge students weak on skills needed to succeed in college or on the job.[23] |

| Findings Regarding Teaching | |
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| Half of the newly employed mathematics, science, and English teachers are not qualified to teach these subjects; fewer than one-third of U.S. high schools offer physics taught by qualified teachers. | In 1993-94, 40% of public high school science teachers had neither an undergraduate major nor minor in their main teaching field and 34% of public school math teachers did not major or minor in math or related fields.[24]<br><br>In 1990-91, 56% of high school students taking physical science were taught by out-of-field teachers, as were 27% of those taking mathematics and 21% of those taking English.[25]<br><br>Among public school academic teachers in schools where more than 40% of the students received free or reduced-price lunches, 47% had neither a college major nor minor in their main assignment fields.[26] |
| Too many teachers are being drawn from the bottom quarter of graduating high school and college students. | SAT scores of prospective education majors rose from 807 in 1980 to 850 in 1992. However, they still trailed the national average for all students by 49 points.[27] |
| Individual teachers have little influence in such critical professional decisions as, for example, textbook selection. | In 1990, 34% of teachers reported they had control over selecting textbooks, 36% reported control in selecting course content and topics, and 35% reported control in disciplining students.[28] |
| The average salary after 12 years of teaching is only $17,000 per year. | The average public school teacher salary in 1996-97 was $38,509 (in 1996 dollars), up 12% in real terms from 1983.[29] |

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*by*
*Dave DeSchryver of The Center for Education Reform,*
*Mike Petrilli of the Hudson Institute, and*
*Sarah Youssef of The Heritage Foundation.*

## Notes

[1] These are direct quotations from *A Nation at Risk* (Washington, DC: National Commission on Excellence in Education, 1983).
[2] Precisely comparable data was not always available.
[3] *Pursuing Excellence: A Study of US Twelfth-Grade Mathematics and Science Achievement in International Context* (Washington, DC: US Department of Education, National Center for Education Statistics, February 1998).
[4] *1992 National Adult Literacy Study* (Washington, DC: US Department of Education, National Center for Education Statistics, 1993).
[5] Ibid.
[6] *NAEP 1994 Trends in Academic Progress* (Washington, DC: US Department of Education, National Center for Education Statistics, 1996).
[7] *Digest of Education Statistics 1997* (Washington, DC: US Department of Education, National Center for Education Statistics, 1997).
[8] Diane Ravitch, "Brookings Policy Brief: Student Performance Today" (Washington, DC: The Brookings Institution, 1997).
[9] *NAEP 1994 Trends in Academic Progress.*
[10] David W. Breneman, "Remediation in Higher Education: Its Extent and Cost," in *Brookings Papers on Education Policy 1998* (Washington, DC: The Brookings Institution, 1998).
[11] *Education and Training for America's Future* (Washington, DC: National Association of Manufacturers, January 1998).
[12] *Pursuing Excellence.*
[13] *The 1994 High School Transcript Study* (Washington, DC: US Department of Education, National Center for Education Statistics, 1997).
[14] Ibid.
[15] Ravitch, "Student Performance Today."
[16] *Digest of Education Statistics 1997.*
[17] *Clearinghouse Notes*, "Minimum High School Graduation Requirements" (Denver: Education Commission of the States, 1996).
[18] *Prisoners of Time* (Washington, DC: National Education Commission on Time and Learning, 1994).
[19] *Quality Counts 1998* (Washington, DC: Editorial Projects in Education, 1998).
[20] Sandra Stotsky, *State English/ Language Arts Standards* (Washington, DC: Fordham Foundation, 1997), David Warren Saxe, *State History Standards* (Washington, DC: Fordham Foundation, February 1998), Susan Munroe and Terry Smith, *State Geography Standards* (Washington, DC: Fordham Foundation, February 1998), Ralph Raimi and Lawrence Braden, *State Mathematics Standards* (Washington, DC: Fordham Foundation, March 1998), Lawrence Lerner, *State Science Standards* (Washington, DC: Fordham Foundation, March 1998).
[21] *Education in the States and Nations 1991* (Washington, DC: US Department of Education, National Center for Education Statistics, 1993).
[22] *Prisoners of Time.*
[23] *Reality Check* (New York: Public Agenda, January 1998).
[24] *America's Teachers: Profile of a Profession, 1993-1994* (Washington, DC: US Department of Education, National Center for Education Statistics, July 1997).
[25] Richard M. Ingersoll, *Schools and Staffing Survey: Teacher Supply, Teacher Qualifications, and Teacher Turnover, 1990-91* (Washington, DC: US Department of Education, National Center for Education Statistics, 1995).
[26] *America's Teachers: Profile of a Profession, 1993-1994.*
[27] Dale Ballou and Michael Podgursky, *Teacher Pay and Teacher Quality* (Kalamazoo, MI: Upjohn Institute for Employment Research, 1997).
[28] *Digest of Education Statistics 1997.*
[29] Ibid.