

Three Snapshots: The State of American Public Education in 1890s, 1940s, & 1990s
In spite of enormous annual education budget....

Snapshot 1: 1890s

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THE PRESENT AND FUTURE

who acquiesce too contentedly in our present condition. But it would be only to expect from American young men what is not only expected but obtained from young men in every other country with which we should not deem it insulting to be compared in ability or in quickness of intellect. It is a notorious and discreditable fact, but still a fact which needs to be proclaimed afresh even to the Phi Beta Kappa, that our students now come to college at the age of nineteen with no more knowledge than an English, French, German, or Swiss boy has at seventeen, and—what is more discreditable still—with no more than our own New England boy had at seventeen fifty or sixty years ago. One of the greatest of the many great services which the President of the University has rendered to the cause of education is the complete demonstration which he has given, not only of these facts, but also of their causes. No one can examine the tables in which President Eliot has compared in parallel columns the studies of a French Lycée and a Boston public school, without seeing at once that the unpleasant truth is rather depreciated than exaggerated. The French boy of fifteen is pursuing the same studies with our boys of seventeen or eighteen. It is obvious that by bad management *some-where* the American boy is defrauded of at least two years of his time at school. Though the amount of the loss is more conspicuous when we come to the higher schools, the real waste of time seems to be effected chiefly in schools of the lower grades, where the skill sometimes shown in spreading the elements of learning *thin* would

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be laughable were it not pathetic. The time often wasted on such matters as percentage, interest, and compound numbers is simply incredible. I cannot go into details here; but I will mention that in the time which our boy generally gives to Arithmetic alone a French boy learns Arithmetic, Plane Geometry, and Algebra. The greater part of this loss is not to be charged to bad teaching. If it were, the remedy would be comparatively simple. A far greater share is due to bad systems, which are imposed on the teachers by standing rules, and often compel a good teacher to waste nearly as much time as a poor one. The pernicious custom of keeping brighter pupils back until the dull and the lazy can be expected to reach a given point is almost enough to account for the whole trouble. Classes in our schools often have an amount of work given them for a year which any bright boy or girl can do in three months, while there is no regular provision by which those who can do it in less time shall as a matter of course go on to other work. Another evil, one peculiar to this country, but a most unnecessary one, is the constant interruption of study by calls of society and by a thousand other distractions which in other countries would never be allowed to break in upon study in school. Here study is charged with all sorts of harm of which it is wholly innocent; and hours of school time are shortened and vacations are lengthened, under the delusion that pupils are overworked who have no conception of what real work means. Whatever may be the causes, the appalling fact remains, that our pupils, when they leave school, are *two years behind those of the same age in other countries.*

Snapshot 2: 1940s

cost what uncertainty in education means. The armed forces were compelled to lower their standards in recruiting an adequate personnel with a sufficient knowledge of mathematics, including arithmetic. Colleges had to provide introductory training in elementary mathematics for students who wished to study chemistry and physics. From one end of the country to the other came reports that students do not have a knowledge of their nation's history, because the subject had been displaced by the social studies and discussions of controversial issues. Geography has never had an assured place in the high school curriculum, so that it is not surprising that a knowledge of that subject was found inadequate. And when the ideals of democracy and the meaning of the democratic form of government had to face the greatest challenge in their history, it was discovered that the schools had done little or nothing to impart a knowledge of them to several generations of pupils in the schools; manifestos and creeds on democracy had to be drafted; and books and methods had to be improvised hurriedly to make up for the time that had been lost. Book titles

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THE lamentable ignorance of college students concerning American historical events, as revealed by the study made a few years ago by the Committee on American History in Schools and Colleges, stirred up quite a furor for a while and brought forth scores of articles of explanation and defense. The more recent survey of schools by Benjamin Fine of *The New York*

rang the changes on the word "democracy" just as in the previous decade they had been rung on "education for change."

On two points—on faith in education and on the provision of equality of educational opportunity—there is, as there always has been in the history of the United States, almost complete unanimity. And yet the 1940 census revealed that ten million citizens over twenty-five years of age had had only four grades of education or less, while the number of men rejected on account of functional illiteracy—inability to follow written instructions—under the Selective Service Act was enough to make up ten army divisions. In a country which has devoted as much attention to health instruction and physical education both in and out of school as the United States the number of men rejected from service in the armed forces for physical reasons could have filled fifteen combat divisions. In a country which annually spends more for education than any other country in the world teachers have left schools in such numbers that it was doubtful at the beginning of the school year 1942-43 whether many

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1940s

Times once again produced quite a shock to parents and to some school administrators. Editor Fine concluded: "Our schools were not bombed as were the European schools. But nearly two years after the end of the war they are being wrecked just as surely as though they had been blasted by heavy bombers."

Snapshot 3: 1990s

National Assessment of Educational Progress

The National Assessment of Educational Progress (NAEP) provides one of the few indicators of how well American students achieve. These tests are not intended to give specific information about the nation's more capable students. However, the results show that very few students perform at NAEP's highest level—a level that is not very demanding. NAEP considers the advanced level to be what is needed for college-level performance.

NAEP tests have found that the percentage of high school seniors performing at the level needed for college work is far lower than the percentage who enroll in college. For example, 58 percent of students who graduated from high school in 1988 enrolled in 2- and 4-year colleges, but

- Only 7 percent of 17-year-olds could solve multi-step mathematics problems such as finding percentages, a skill that does not require advanced algebra or calculus (1990);
- Less than 5 percent of 17-year-olds could interpret historical data at a level that is expected for college work;
- Only 6 percent of 17-year-olds tested in civics could answer questions such as who in the federal government has the power to tax;
- Only 9 percent of 17-year-olds knew enough science to

infer basic relationships and draw conclusions using detailed scientific knowledge (1990);

- Only 1 in 100 high school seniors chose to write a coherent response of more than one paragraph to an essay question (1990); and
- Only 7 percent of high school seniors could read at the advanced level (1990).

The results of the NAEP tests suggest that the curriculum offered throughout the nation fails to prepare most students to operate at advanced intellectual levels. As Al Shanker, president of the American Federation of Teachers, points out, even the questions at the highest levels of these tests "do not require knowing Dickens or Shakespeare or calculus or difficult concepts in history or science. They require the kinds of skills people who have completed high school need in order to find their way in the world."

Low academic expectations in American elementary and secondary schools go on to create problems when top students enroll in college. Many of these students must struggle to keep up with the demands of their courses, and, in some cases, they drop out of college or avoid tough classes because of insufficient preparation. Colleges and universities may respond both by providing more remedial instruction and by lowering their academic standards.

*Sample NAEP Math Question:
Advanced Level*

Suppose you have 10 coins and have at least one each of a quarter, a dime, a nickel, and a penny. What is the LEAST amount of money you could have?

- a. 41 cents*
- b. 47 cents*
- c. 50 cents*
- d. 82 cents*

19830s

The Findings of the National Commission on Excellence in Education in 1983

Indicators of the Risk

The educational dimensions of the risk before us have been amply documented in testimony received by the Commission. For example:

- International comparisons of student achievement, completed a decade ago, reveal that on 19 academic tests American students were never first or second and, in comparison with other industrialized nations, were last seven times.
- Some 23 million American adults are functionally illiterate by the simplest tests of everyday reading, writing, and comprehension.
- About 13 percent 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 percent.
- Average achievement of high school students on most standardized tests is now lower than 26 years ago when Sputnik was launched.
- Over half the population of gifted students do not match their tested ability with comparable achievement in school.
- 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.
- College Board achievement tests also reveal consistent declines in recent years in such subjects as physics and English.
- Both the number and proportion of students demonstrating superior achievement on the SATs (i.e., those with scores of 650 or higher) have also dramatically declined.
- Many 17-year-olds do not possess the "higher order" intellectual skills we should expect of them. Nearly 40 percent cannot draw inferences from written material; only one-fifth can write a persuasive essay; and only one-third can solve a mathematics problem requiring several steps.
- 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.
- Between 1975 and 1980, remedial mathematics courses in public 4-year colleges increased by 72 percent and now constitute one-quarter of all mathematics courses taught in those institutions.
- Average tested achievement of students graduating from college is also lower.
- 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. The Department of the Navy, for example, reported to the Commission that one-quarter of its recent recruits cannot read at the ninth grade level, the minimum needed simply to understand written safety instructions. Without remedial work they cannot even begin, much less complete, the sophisticated training essential in much of the modern military.