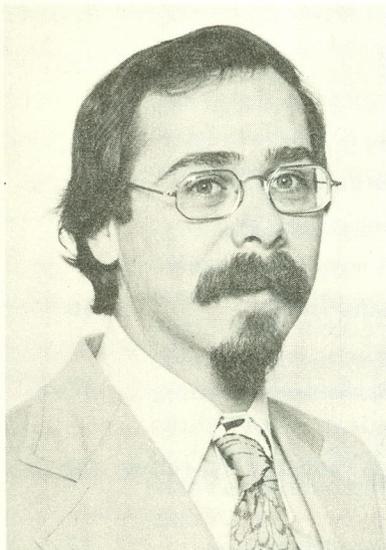


The question is: why have SAT scores continually declined since 1963 and why did last year show the greatest dip ever?

## the decline and fall of the SAT scores

by Walter M. Mathews



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NEW YORK (SEPT. 6, 1975)—AN ANNOUNCEMENT CAME FROM NEW YORK TODAY THAT THE ACADEMIC "STOCK MARKET" HAD ALL BUT CRASHED: ON THE "BIG BOARD" SAT SCORES DROPPED MORE THAN EVER BEFORE AND CONTINUED A TWELVE-YEAR DECLINE TO A NEW LOW; LOSERS OUTPACED GAINERS AND VOLUME WAS CONSTANT AT ONE MILLION STUDENTS TESTED.

THE LONG-TERM FORECAST IS GRIM. THE SHORT-TERM FORECAST INCLUDES PROFIT-TAKING FOR CRITICS OF EDUCATION. THERE ARE RUMORS ON SEVENTH AVENUE THAT THE REGULATING AGENCY WILL SOON APPOINT A BLUE-RIBBON PANEL OF OUTSIDE EXPERTS TO EXPLAIN THE DECLINE.

At the turn of the century<sup>1</sup> a meeting was held at Columbia University which was the first organized "attempt to introduce law and order into an educational anarchy which toward the close of the nineteenth century had become exasperating, indeed intolerable, to schoolmasters."<sup>2</sup> That was the organizational meeting of the College Entrance Examination Board (CEEB), which on June 17, 1901 tested 973 candidates at 69 testing centers.<sup>3</sup>

Today, seventy-five years later, we are in the midst of an educational anomaly: Scholastic Aptitude Test (SAT) scores of college-bound high school seniors have dropped sharply this year to the lowest level in two decades.

The SAT is a measure of basic reasoning abilities in two areas: verbal and mathematical. It provides a separate score for each of these areas in a range from 200 to 800, and was designed to supplement the school record and other information about the student in assessing his or her competence for college work.<sup>4</sup>

Records of the average test scores on the test have been kept since 1957 (see Table 1) and indicate that the scores reached a peak in 1963. Since then there has been a steady decline which averaged three points a year in the average mathematical score.

The SAT, which was begun in 1926, was administered to one-third of the 3 million 1975 graduating seniors in high schools in the United States, with about one-sixth of the high school juniors taking it—primarily as practice. In toto, about two-thirds of new students in college each year have taken the SAT.<sup>5</sup>

Last year's averages show a ten-point drop in the average verbal score and an eight-point drop in the average mathematical score—almost four times the average drop of the previous decade.

**Table 1**  
Average SAT Scores for  
College-Bound High School Graduates

School year	Verbal Score	Mathematical Score
1956-57	473	496
1957-58	472	496
1958-59	475	498
1959-60	477	498
1960-61	474	495
1961-62	473	498
1962-63	476	502
1963-64	475	498
1964-65	473	496
1965-66	471	496
1966-67	468	492
1967-68	466	492
1968-69	463	493
1969-70	460	488
1970-71	455	488
1971-72	453	484
1972-73	445	481
1973-74	444	480
1974-75	434	472

Note: Averages for 1957 to 1966 are estimates. Range of score scale is 200 to 800.

**Table 2**  
Average ACT Scores for  
College-Bound High School Graduates

School Year	Composite Score
1964-65	19.9
1965-66	20.0
1966-67	19.4
1967-68	19.0
1968-69	19.4
1969-70	19.5
1970-71	18.9
1971-72	18.8
1972-73	18.9
1973-74	18.7

Note: Range for score scales is 1 to 36.

Educational Testing Service (ETS), which builds and conducts the SAT for the College Board has had thirty years of steady growth as the nation's gatekeeper on academic performance. With a near monopoly over standardized testing, it is the IBM of standardized testing. Aside from the SAT, ETS has developed tests to help evaluate auto mechanics, dentists, furniture warehousemen, real estate agents and spies, among others. Recently ETS has attracted the cognizance of Ralph Nader, the consumer advocate.

It should be noted that the American College Testing Program, which is based in Iowa City, Iowa, provides an alter-

native to the SAT. It is called the ACT and in addition to a verbal and mathematics test, also includes tests in natural science and social science. The use of the ACT is popular at colleges in the midwest. Some colleges accept ACT or SAT scores. The ACT score scale ranges from 1 to 36. Table 2 shows that scores on this test also have been declining over the past twenty years.

#### A Closer Look

In the past nine years the average verbal score on the SAT has dropped 32 points and the average mathematical score has dropped 20 points. Until the 1975 testing, the decline had had a steady gradual slope.

The drops were not across the board slippages, but rather changes at the extremes of the score scales. In the verbal test this past year the number of students who attained superior scores (i.e. scored 600 or more) was down 20% compared to last year; the number in the poor score category (under 400) increased by 8% over 1974. Correspondingly in the mathematical test 8% fewer students had a superior score and 13% more students had a poor score.<sup>6</sup>

On the average, men outperformed women by six verbal points and 46 mathematical points. The scores of women dropped more than those of men in both sections: eleven vs. ten verbal points and ten vs. six mathematical points. On the verbal test this is a consistent pattern since 1968, but it is a trend reversal in the mathematics test. This test administration, however, was the first where more women than men took the test.<sup>7</sup>

An interesting change noted by the College Board is that students who took the test for the second time did not improve their scores as much as in the past. Twenty years ago "repeaters" typically gained 35 points. Ten years ago they gained about 20 points.<sup>8</sup> Now the increase is only 15 points—and may not be worth the \$6.50 fee to take the three-hour test an extra time.

Now not only "schoolmasters" are exasperated, but so is the College Board. Many reasons have been suggested to explain these findings, but as Sam A. McCandless, Director of the Admissions Testing Program of the Board said, "We don't know the reasons for it. I cannot think of any single explanation that does not seem implausible, or at least unlikely, given some of the data available."<sup>9</sup>

So on October 28, 1975 the College Board appointed a blue-ribbon panel to study the big skid in the SAT scores.<sup>10</sup> The charge given to the external advisory board was that they will review the issues and hypotheses already advanced to explain the decline in SAT scores, suggest other hypotheses, and recommend additional research that should be conducted, including the further examination of issues on a psychometric and statistical nature.<sup>11</sup>

It is curious to note that as standardized test scores plummet, high school and college grades have risen.

On a self-report questionnaire that was given to a sample of the testees, only 15% reported receiving less than a B grade in high school English; 36% claimed less than a B grade in mathematics.<sup>12</sup> (And a study showed that the self-reported student grades were highly accurate.<sup>13</sup>)

### The Question

The question is why have SAT scores continually declined since 1963, and why did last year show the greatest dip ever?

### The Test Variable

The first place to look seems to be at the test itself: maybe it is more difficult than in past years, or maybe the content of the test is not in harmony with what is going on in the schools.

The first theory was quickly dismissed by the College Board when they said the test has, in fact, been made easier over the years.<sup>14</sup> By means of a detailed program for pretesting and item analysis they assess the difficulty and discriminating power of the items, select items of appropriate statistical characteristics and exert a significant degree of control over the statistical properties of the test forms.<sup>15</sup>

In addition, sections of old tests were given to 1975 high school seniors, for instance, and they did not do as well as the original takers.<sup>16</sup> (Ah! But could that indicate a change in the population of college-bound test takers? More on this later.)

Representatives of the College Board said they have been studying and analyzing the declining scores for the past few years and they are convinced the slump is not the result of technicalities in the test.<sup>17</sup> Sidney Marland, previously U.S. Commissioner of Education and currently the CEEB President, said, "Clearly, the psychometric qualities are under continual scrutiny and quality control by the Board and by our colleagues at Educational Testing Service. Our research efforts to date convince us that there is *nothing basically wrong with the way the test is constructed, administered, evaluated, and scored.*"<sup>18</sup>

Well, what about the possibility that the emphases of the test are no longer relevant to high school?

The College Board admits that because of its involvement in the important process of transition from high school to college, it is in an unusually strategic position to exert a significant influence on American secondary school education since many secondary schools tend to gear their curriculum to what they expect will appear on the SAT.<sup>19</sup> The Board goes on to say "If, on the one hand, Board tests fail to keep abreast of new trends in curriculum, then the Board is considered derelict in its responsibility to represent what some will consider to be the best in American secondary education."<sup>20</sup>

On the basis of a 1974 survey at a sample of 30 colleges which had participated in at least four previous validity studies in the past eleven years, the College Board found no evidence of a decline in the validity of the SAT as a predictor of academic performance in college.<sup>21</sup>

Well, is it possible to continue to be a strong predictor of success in college and still be out of touch with the preparatory program in the secondary schools?

Maybe the *school* variable is the important one.

### The School Variable

Over the past dozen years the school may have shifted its emphases away from those of the SAT—shifts that the College Board did not respond to. Several possible school changes have been suggested as contributory to the decline of the SAT scores (and this is where everybody's "favorite innovation" is dragged out):

—Students are losing their computational skills because of the new math.

—Students have been harmed by participation in non-abandoned experimental programs.

—There is a lack of rich writing experiences in school.

—There is a dialectical tolerance by high school teachers who were trained in the new linguistics.

—There is more competition for students' time in school with vocational skills, lifetime sports, clubs and activities.

—There is a lack of discipline and rigor in school.

These are not mutually exclusive, nor are they *all* the reasons that have been proposed, but they give the flavor of the attack against the schools. They can be characterized by the charges of an increase in prestige for non-verbal skills in school, and a lessened concern among educators for the three Rs; they can be grossly categorized as being indications of shifts in high school curricula from the traditional to the innovative due to societal changes.

Aha! Maybe there lies the cause: society.

### The Societal Variable

There is evidence that the relative importance of the various communication modes within our society is shifting. Social invitations, acceptances and "thank you's," for example, seem to be more commonly expressed on the telephone rather than in writing.

We are becoming more visually, orally and aurally oriented; in fact, non-verbal skills seem to be getting increased prestige. As a society we seem to want to see, hear and talk about things more than we want to read and write about them. Most Americans lack rich writing experiences, but have extended daily television experiences.

If this emphasis away from the reflective experiences of reading and writing is tied to the greater dependence upon preprogrammed products, activities and electrical gadgets which take further available time from possible reading or other mentally stimulating endeavors, the result could easily be seen as dulled mental faculties. That is an attractive argument, but it fails to explain the sudden drop of the SAT scores this past administration.

Another possible explanation from the societal domain is the changing mix of students who are applying to college and taking the SAT. Marland stated the argument well and gave a response:

"Some say that progress toward the national goal of equalizing opportunity for postsecondary study has brought more educationally disadvantaged students into the pool. Because these students tend to generate scores toward the lower end of the scale, their scores function to bring down the average. This explanation seems plausible until it is pointed out that the changes in the numbers of such students are still small relative to the total populations tested and that there has also been a concomitant reduction in the scores in the *upper* ranges—over 600—so in truth the depression of the averages is a function of *both more lower scores and fewer higher ones.*"<sup>22</sup>

In the recent SAT administration, 13% of the testees categorized themselves as members of an ethnic minority.<sup>23</sup>

In one research project where the tests were administered to students who did not plan to go to college, the analysis showed that the decline is characteristic of the general high school population, not simply those planning to go to college.<sup>24</sup>

A slight modification of this argument of changing mix might allow us to consider the possibility that since there is less competition to get into college now, the motivation of the SAT-sitter is decreased, and he does not do as well. This is a plausible but untested hypothesis, which at best would only be contributory to an explanation.

Parental permissiveness and therefore societal and teacher permissiveness is an ever-present explanation for most of the ills of society. This too might have a bearing on the SAT slip.

### Conclusion

This article has examined some of the current thinking, but failed to find an acceptable explanation for the decline in the SAT scores. Further consideration and research is needed. Help may be available from the visually-oriented branch of mathematics known as topology: Rene Thom of the Paris Institute for Higher Scientific Studies claims that an emerging theory which he calls "catastrophe theory" might help to explain discontinuous social processes.<sup>25</sup> If so, the decline of the SAT scores could be one application.

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