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ABSTRACT

The fourteen tables in this report give a broad picture of Connecticut's college-bound high school seniors in the class of 1984. Data is presented on student characteristics, Scholastic Aptitude Test (SAT) and other test scores, high school records, and college plans. For the purpose of comparison, each table contains statistics from previous years, and some tables include national data. Among the significant findings are the following: The Connecticut SAT verbal average of 436 was ten points above the 1983-84 national average and three points above the previous year's average for Connecticut. On the SAT verbal, Connecticut males averaged 443 and females 430 (the greatest difference between the male and female average in the past ten years). The mean SAT mathematical score for males was 490 and, for females, 447. These differences between scores of males and females were also evident nationally. The mean grade point average was 2.96 for females and 2.82 for males (both were below the national average). With the exception of female participation rates in athletics, the 1983-84 participation rates of Connecticut students in high school activities generally declined from the levels of five and ten years ago. The intended area of college study has shifted from the arts and humanities, the biological sciences, and the social sciences toward business, commerce and communications, and the physical sciences. Finally, the percent of female students intending to study education has dropped from 13% ten years ago to 6.8% and the percent of male students intending to study education declined from 4% to 1.7%. Among students intending to study education, average SAT scores were lower than the state average of all students. (KH)

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## CONTENTS

Preface	v
Highlights	vii
Student Characteristics	1
Test Scores	3
High School Record	10
College Plans	14

### Figures

Figure 1. Scholastic Aptitude Test Verbal Scores	4
Figure 2. Scholastic Aptitude Test Mathematical Scores	5
Figure 3. Combined SAT Scores of Connecticut Students by Intended Area of Study	17

### Tables

Table 1. Characteristics of 12th Grade Students in Connecticut	1
Table 2. Characteristics of Connecticut Students Taking the Scholastic Aptitude Test	2
Table 3. Scholastic Aptitude Test Verbal Scores	3
Table 4. Scholastic Aptitude Test Mathematical Scores	4
Table 5. Percent of Students Scoring 600 and Above on the Scholastic Aptitude Test	6
Table 6. Test of Standard Written English	7
Table 7. Selected Achievement Test Scores	8
Table 8. High School Grade Point Average (GPA)	10
Table 9. Mean Years of Study by Subject Area	11
Table 10. Percent of College-Bound Seniors in Honors Courses	12
Table 11. High School Activities	13
Table 12. Degree-Level Goals	14
Table 13. Intended Area of Study	15
Table 14. Average SAT Scores of Connecticut Students Intending to Study Education	16

## PREFACE

This is the tenth annual report prepared by the Bureau of Research, Planning and Evaluation to analyze the Scholastic Aptitude Test scores of Connecticut's college-bound seniors. This is the fourth report that, in addition to test scores, comprehensively presents students' characteristics, their high school record and their college plans.

This report is based upon the most recent responses of 1983-84 public and nonpublic school seniors who participated in the College Board's Admissions Testing Program at any time during high school. Thus, students who participated in the program in May of their junior year and in October of their senior year have only the October results reported, while students who participated only in May of their junior year have these scores included. Connecticut students are those attending school in Connecticut or, if a school code is not reported on the questionnaire, those with a Connecticut mailing address.

The Admissions Testing Program consists of the verbal and mathematical sections of the Scholastic Aptitude Test (SAT), and Test of Standard Written English (TSWE), fourteen optional achievement tests, and the Student Descriptive Questionnaire.

The Scholastic Aptitude Test, probably the most familiar component of the Admissions Testing Program, consists of a two-and-one-half hour, multiple-choice test of verbal and mathematical reasoning. It is intended to supplement high school grades in the college admissions process. The tests, whose scores range from 200-800 points, are constructed so that scores will be comparable from form to form, administration to administration, and year to year.

The Test of Standard Written English is a thirty-minute multiple-choice examination of ability to recognize standard written English. It was developed in 1974-75 to help colleges place students in freshman English courses. Scores are placed upon a 20 to 80 point scale, but because the test is to be used as a diagnostic instrument, the highest reported score is 60+.

A student may take up to three one-hour multiple-choice achievement tests per session. These are designed to measure knowledge and its application in English comprehension, literature, American history and social studies, European history and world culture, mathematics (levels 1 and 2), French, German, Hebrew, Latin, Spanish, biology, chemistry, and physics.

The Student Descriptive Questionnaire contains questions on a student's background, school record, extracurricular activities, and college plans. It gives colleges a broader picture of a student than do test scores alone. In 1984, 88.4% of Connecticut students responded to at least one item on the questionnaire.

The students in this report are called college-bound seniors. They are students whose intent to attend college is indicated by their taking the SAT. Last year the College Board reported that 30,659 Connecticut seniors in the class of 1983 took the SAT. Information from the Connecticut State Department of Education's Graduate Follow-Up Report indicates that 31,187 of the 1983 graduates of the local public, vocational-technical and nonpublic schools were pursuing post-high school study, and 27,334 of these graduates were attending two- or four-year colleges.

The primary purpose of this report is to highlight the information on college-bound seniors presented to the State Department of Education by The College Board. The Department of Education's Bureau of Research, Planning and Evaluation has a file of statewide data from 1971-72 to date and welcomes inquiries.

## HIGHLIGHTS

The statistical data on Connecticut's college-bound seniors indicates how their academic performance and future aspirations compare with their peers nationwide. Although the report on the data contains no extrapolations, per se, it does provide users with the means to draw some conclusions about future trends.

The Student Descriptive Questionnaire, for example, queries college-bound seniors on their intended areas of study. Their answers give some indication of the future supply of engineers, biologists, teachers, and other professionals four years from now when, it can be assumed, the majority of these students will graduate from college.

A summary and analysis of the College Board's findings follow.

- 29,669 students, 64.7% of all twelfth graders in Connecticut, took a Scholastic Aptitude Test (see Table 1). The College Board reported that Connecticut had the highest participation rate in the nation.
- The percentage of minority students among college-bound seniors has risen from 7.0% to 10.0% in the past ten years (see Table 2).
- The Connecticut SAT verbal average of 436 was ten points above the 1983-84 national average and three points above last year's state average. In the past ten years, the state average declined 16 points and the national average declined 18 points (see Table 3 and Figure 1).
- On the SAT verbal, Connecticut males averaged 443 and females 430 in 1983-84. The difference between the male and female average, also evident nationally, was the largest in the past ten years (see Table 3).

- The Connecticut average SAT mathematical score of 468 was three points above last year's state average, but three points below the current national average. In the past ten years the state average declined 12 points and the national average nine points (see Table 4 and Figure 2).
- In 1983-84, the mean SAT mathematical score of Connecticut males was 490, and that of females was 447. This difference of 43 points was evident in the national scores also (see Table 4).
- 8.6% of Connecticut students scored 600 and above on the verbal SAT as did 16.2% on the mathematical SAT. These represent increases of 0.8 and 1.0 percentage points over the prior year, respectively. The percentage scoring over 600 on the mathematical SAT was the largest since 1973-74 (see Table 5).
- The Connecticut average of 43.3 (on a scale of 20-80) on the Test of Standard Written English (TSWE) was 0.3 points above last year and 0.7 percentage points above the 1983-84 national average (see Table 6).
- Connecticut female students averaged 44.1 on the 1983-84 TSWE, 1.6 points higher than the males. In 1974-75 the female average was 2.4 points higher than the males (see Table 6).
- About one in three Connecticut students who take the SAT take the achievement tests; nationwide, the figure is almost one in five. The verbal SAT of this subgroup of Connecticut students was two points above, and the mathematical SAT 13 points below, the comparable national average. Connecticut students equaled students in the nation in English Composition but were below the national average on the American History, Mathematics Level I, Biology, Chemistry, and Spanish Achievement Tests (see Table 7).
- The reported grade point average (GPA) of college-bound seniors peaked in 1975-76. The Connecticut average GPA in 1983-84 was 2.96 for females and 2.82 for males. These were .13 and .16 percentage points below the national averages, respectively. In 1983-84, 6.4% of males and 3.7% of females in Connecticut reported a GPA below C, or 2.0. Nationwide, the figures were 5.0% and 3.2%, respectively (see Table 8).
- Connecticut college-bound seniors reported taking more courses in mathematics, English, foreign languages, and the sciences, and fewer courses in social studies than did students nationally (see Table 9).
- Females have taken fewer mathematics courses than males. However, the difference between males and females in the average number of mathematics courses taken has narrowed in the past ten years (see Table 9).



- Currently in the state, men take 2.5 years of foreign languages and women take 2.9 years. These averages are about one semester more than students nationally, and are above the numbers reported five years ago, but below the levels of ten years ago (see Table 9).
- The percentage of college-bound Connecticut students in honors courses in 1983-84 ranged from 11.4% for males in foreign languages to 19.4% for females in English. A greater percentage of Connecticut college-bound seniors took honors courses in all subjects except English and mathematics than did students nationwide (see Table 10).
- With the exception of female participation in athletics, the 1983-84 participation rates of Connecticut students in high school activities generally declined from the levels of five and ten years ago (see Table 11).
- The number of female students intending to secure a professional degree has increased in the past ten years and is approaching parity with males (see Table 12).
- The intended area of college study has shifted from the arts and humanities, the biological sciences, and the social sciences toward business, commerce and communications, and the physical sciences. Particularly notable was the increased interest of females in business and, within the past year, a switch in their interest from computer science to the social sciences (see Table 13).
- The percent of Connecticut female students intending to study education dropped from 13% ten years ago to 6.8% in 1983-84 (up 0.5 percentage points over last year), and the percentage of males declined from 4% to 1.7% during the same period (see Table 13).
- The verbal SAT score of 401 for those Connecticut students intending to study education was 35 points lower than the state average of all students. Their mathematical SAT average of 416 was 52 points below the overall state average. In the past year, both averages of those intending to study education increased more than the overall state averages (see Table 14 and Figure 3).

## STUDENT CHARACTERISTICS

The Connecticut test scores from the Admissions Testing Program (ATP) are more meaningful when compared with prior years' data and national data. This underscores the importance of knowing how the characteristics of the Connecticut students participating in the ATP change from year to year and how they compare to students nationally.

The number of twelfth graders in the local public, state vocational-technical schools and in the nonpublic schools was 45,839 in 1983-84. This was almost 2,500 fewer than the prior year, more than 6,000 below the 1977-78 peak, and the lowest number in the past ten years. The percentage of students in the public schools (83.4% in 1983-84) has declined for eight consecutive years and now is 3.1 percentage points below the 1975-76 peak (see Table 1).

Table 1

### Characteristics of 12th Grade Students in Connecticut

School Year	Number of 12th Graders	Percent in Public Schools	Number Taking SAT Exams	Percent of 12th Graders Taking SAT
1983-84	45,839	83.4%	29,669	64.7%
1982-83	48,327	83.9%	30,659	63.4%
1981-82	49,923	84.8%	31,962	64.0%
1980-81	50,031	84.9%	32,196	64.4%
1979-80	49,405	85.1%	31,734	64.2%
1978-79	51,671	85.5%	32,285	62.5%
1977-78	51,863	85.8%	31,567	60.9%
1976-77	51,848	85.9%	31,834	61.4%
1975-76	51,570	86.5%	32,967	63.9%
1974-75	51,602	86.1%	33,189	64.3%
1973-74	50,202	85.7%	32,002	63.7%

In 1983-84, 64.7% of Connecticut's twelfth graders took the SAT, the highest percentage of seniors taking the SAT in the past ten years. The College Board has reported that Connecticut has the highest participation rate in the country. Nationwide, an estimated 3% of high school graduates take the SAT. Since a general assumption in interpreting these scores is that the greater the percentage of students taking the test, the lower the average score, the Connecticut scores might be predicted to fall below the national average. Yet in many cases, Connecticut scores are actually higher than the national average and most are higher than would be expected.



Table 2 shows the characteristics of the Connecticut seniors who took the SAT for the years 1973-74 through 1983-84. The 29,669 taking the SAT was the smallest number in the past ten years, about 1,000 fewer than last year and about 3,500 below the 1974-75 peak. The percentage of female college-bound seniors rose gradually from 50.6% in 1974-75 to 52.5% in 1981-82 and declined slightly to 51.9% in 1983-84. Nationally, 51.8% of the test takers in 1983-84 were female. The percentage of Connecticut students reporting that they attended public schools declined from 79.8% in 1974-75 to 74.9% in 1983-84. (This information was not available before 1974-75.) Nationally, 80.2% of the college-bound seniors of 1983-84 reported attending public schools.

Table 2

Characteristics of Connecticut Students  
Taking the Scholastic Aptitude Test

School Year	Number Taking SAT	Percent Female	Estimated Percent Public	Estimated Percent Minority	Estimated Median Family Income
1983-84	29,669	51.9%	74.9%	10.0%	\$33,000
1982-83	30,659	52.2%	75.3%	9.4%	\$31,300
1981-82	31,962	52.5%	76.8%	9.3%	\$28,700
1980-81	32,196	52.1%	77.1%	9.0%	\$25,200
1979-80	31,734	52.0%	78.6%	8.8%	\$22,900
1978-79	32,285	51.9%	78.3%	8.4%	\$21,400
1977-78	31,567	52.2%	78.4%	8.1%	\$19,700
1976-77	31,834	52.0%	78.7%	7.5%	\$17,900
1975-76	32,967	50.9%	79.7%	7.1%	\$17,000
1974-75	33,189	50.6%	79.8%	6.7%	\$15,975
1973-74	32,002	50.8%	NA	7.0%	NA

In the past ten years, the percentage of minority college-bound students in Connecticut has risen from 7.0% to 10.0%. Nationwide, 20.5% of the 1983-84 college-bound students were minorities, as were 13.9% of the twelfth-grade students in Connecticut's public schools in the fall of 1983. The median family income of \$33,000 reported by Connecticut college-bound seniors in 1983-84 was \$2,600 above the current national average of \$30,400.

Thus, the 1983-84 Connecticut college-bound senior class had about the same percentage of females, fewer minorities, fewer public school students, and was wealthier than the national group. How these factors affect the comparison of Connecticut scores with those of the nation is a matter of conjecture.

## TEST SCORES

Table 3 and Figure 1 contain the average SAT verbal scores for male and female students in Connecticut and in the nation for the past ten years. The 1983-84 Connecticut average of 436 was three points above the last year's and ten points above the current national average. The ten point difference in scores between Connecticut and national students was the largest of the past ten years. This was the third consecutive year the Connecticut average has increased.

Table 3

### Scholastic Aptitude Test Verbal Scores

Academic Year	Males		Females		Total	
	CT	Nation	CT	Nation	CT	Nation
1983-84	443	433	430	420	436	426
1982-83	437	430	429	420	433	425
1981-82	437	431	428	421	432	426
1980-81	436	430	424	418	430	424
1979-80	434	428	428	420	431	424
1978-79	437	431	434	423	435	427
1977-78	441	433	435	425	438	429
1976-77	437	431	436	427	437	429
1975-76	440	433	438	430	439	431
1974-75	443	437	440	431	442	434
1973-74	454	447	450	442	452	444

Males outscored females on the verbal SAT both in Connecticut and in the nation. In 1983-84, the male average was 13 points higher than the female average in both Connecticut and in the nation. This large difference has occurred in recent years. Prior to 1977-78, the typical gap was three to four points.

The downward trend of the verbal SAT has leveled off. The national average increase of one point placed it two points above the 1979-80 and 1980-81 low. In Connecticut, the state average was six points above the 1980-81 low. Nevertheless, the Connecticut average of 436 was 16 points below the level of ten years ago, while the national average of 426 was 18 points below its level of ten years ago.

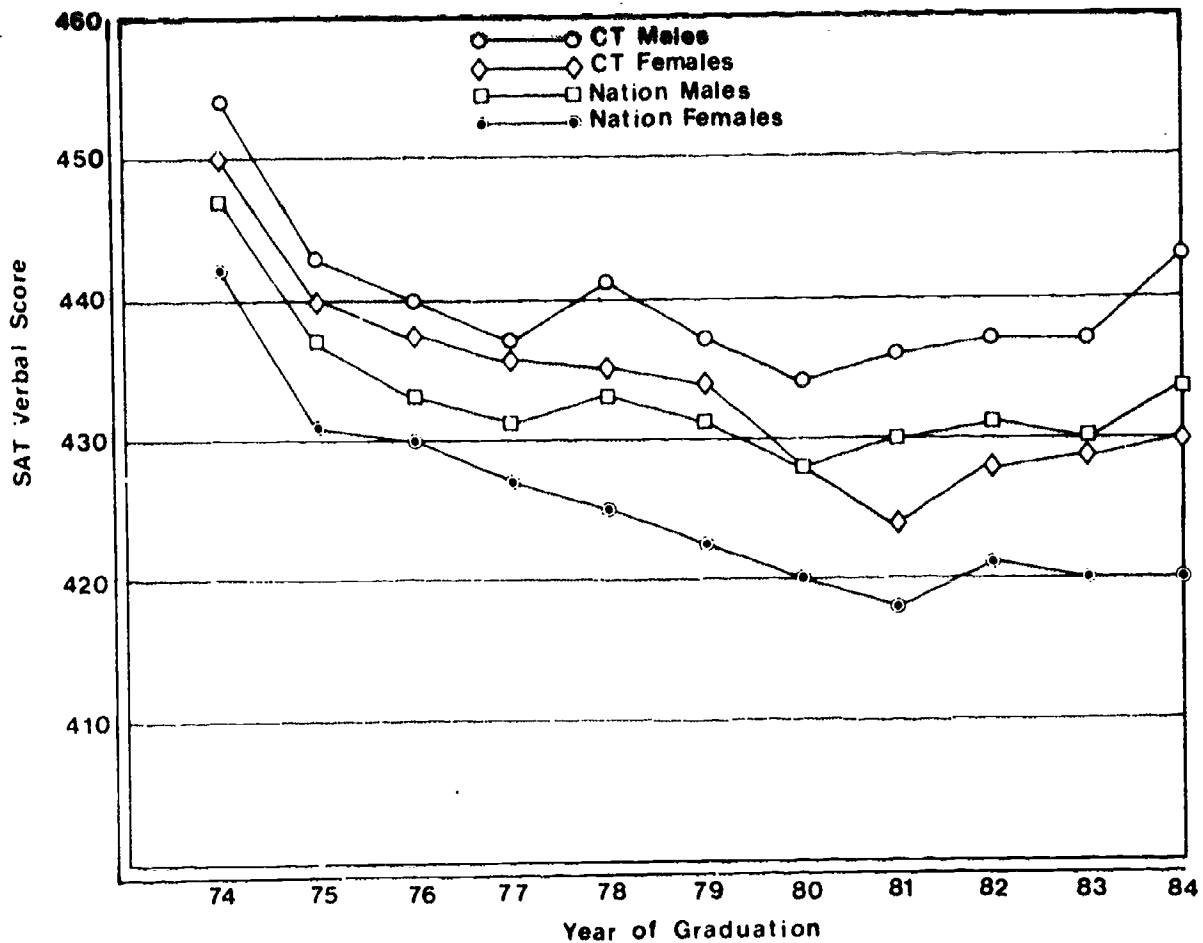


Figure 1.  
Scholastic Aptitude Test Verbal Scores

Table 4 and Figure 2 present the SAT mathematical scores for male and female students in Connecticut and in the nation from 1973-74 to 1983-84. The Connecticut average of 468 in 1983-84 was three points above the prior year, but remained three points below the national average for the fourth consecutive year. In the past ten years, the state's average has varied from one point above to three points below the national average.

Table 4

Scholastic Aptitude Test  
Mathematical Scores

Academic Year	Males		Females		Total	
	CT	Nation	CT	Nation	CT	Nation
1983-84	490	495	447	449	468	471
1982-83	489	493	443	445	465	468
1981-82	490	493	440	443	464	467
1980-81	488	492	439	443	463	466
1979-80	487	491	446	443	466	466
1978-79	488	493	443	443	465	467
1977-78	493	494	447	444	469	468
1976-77	494	497	445	445	468	470
1975-76	498	497	449	446	473	472
1974-75	492	495	450	449	471	472
1973-74	499	501	462	459	480	480

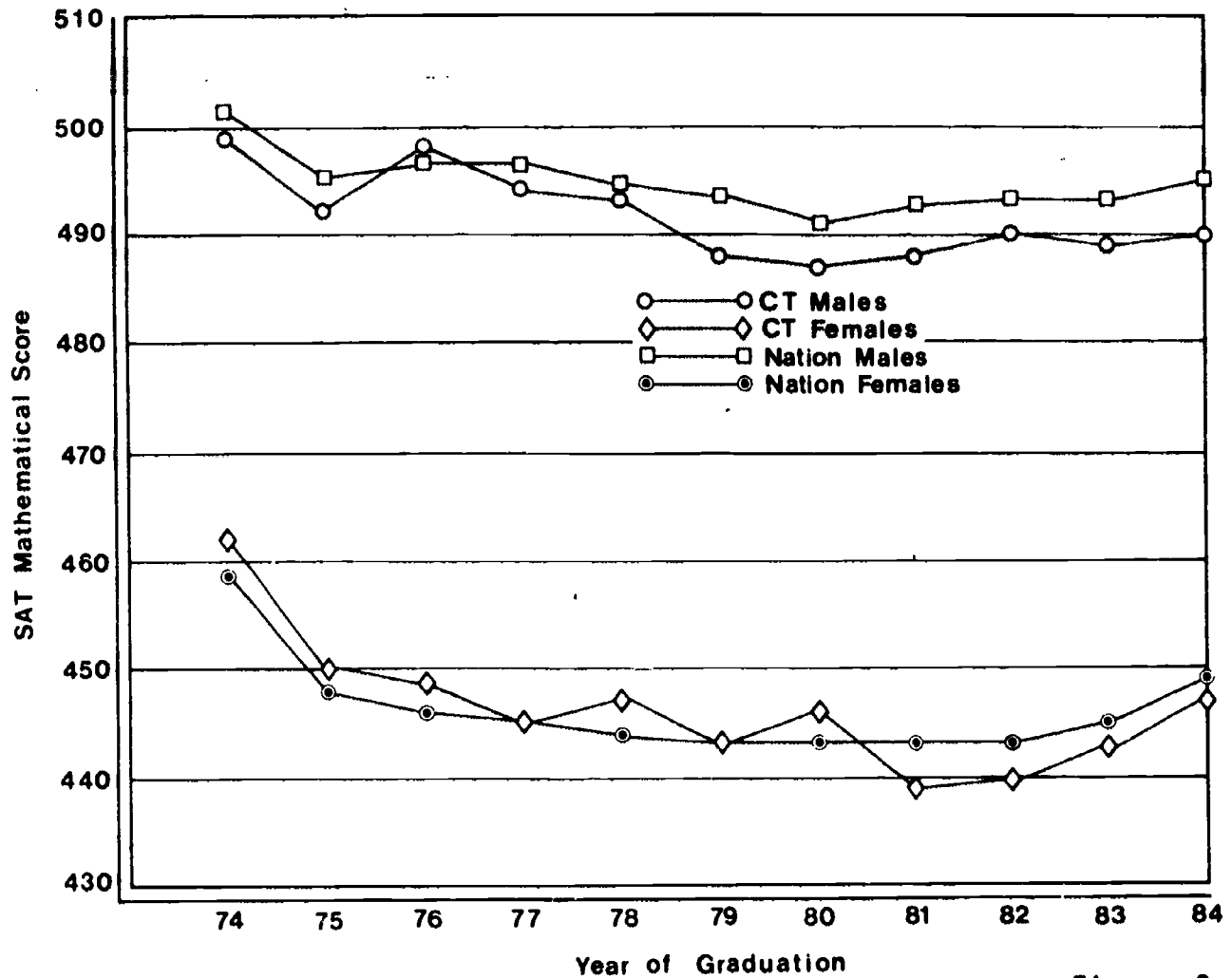


Figure 2  
Scholastic Aptitude Test  
Mathematical Scores

Although the increase in the total mathematical SAT score can be attributed to the improved performance of women, there was a 43 point gap between the average of Connecticut male and female students in 1983-84. In the past ten years, this differential has ranged from 37 to 50 points. The male average of 490 was one point above last year and three points above the 1979-80 low. The female average of 447 was up four points from last year and now is eight points above the 1980-81 low.

The decline in the mathematical SAT average appears to have leveled off. The Connecticut and national averages have increased in the past three years, and both are currently five points above their respective 1980-81 lows. However, in the past ten years, Connecticut scores have fallen by twelve points from 480 to 468 while national scores have fallen by nine points from 480 to 471.

Table 5 presents the percentage of students in Connecticut and the nation who scored 600 and above on the verbal or mathematical SAT over the past ten years. On the verbal SAT, 2,537 Connecticut students (8.6% of SAT takers) scored 600 and above in 1983-84. This was 1.3 percentage points above the national average and 0.8 percentage points above last year's state level. Ten years ago, 10.8% of SAT takers scored 600 and above on the verbal portion. On the mathematical SAT, 4,802 Connecticut students (16.2% of the SAT takers) scored 600 and above in 1983-84. This was 1.0 percentage points above last year and the second highest level in the past ten years. The current level is 0.5 percentage points below the national level, one of the smallest differences observed in the past ten years.

Table 5

Percent of Students Scoring 600 and Above  
on the Scholastic Aptitude Test

Academic Year	Verbal		Mathematical	
	CT	Nation	CT	Nation
1983-84	8.6%	7.3%	16.2%	16.7%
1982-83	7.8%	6.9%	15.2%	15.9%
1981-82	7.8%	7.1%	14.6%	15.3%
1980-81	7.3%	7.0%	13.4%	14.4%
1979-80	7.9%	7.2%	14.8%	15.1%
1978-79	8.5%	7.7%	14.3%	15.0%
1977-78	8.6%	7.9%	15.0%	15.8%
1976-77	8.5%	8.0%	15.0%	16.1%
1975-76	9.0%	8.2%	15.9%	16.3%
1974-75	8.3%	7.9%	14.3%	15.6%
1973-74	10.8%	10.0%	16.6%	17.2%

Table 6 contains the average score on the Test of Standard Written English for male and female students in Connecticut and in the nation from its inception in 1974-75 to 1983-84. The Connecticut average has increased for two consecutive years after seven years of decline. The average of 43.3 (on a scale of 20 to 80) was 0.3 points above the prior year, and remained 0.7 points above the national average. The national average of 42.6 was also up 0.3 points above the prior year. Females have outperformed males on this test, but the difference in the average score has narrowed. In Connecticut this difference was 1.6 points, and in the nation it was 1.4 points in 1983-84. In Connecticut the difference has been as high as 2.4 points (1974-75) and as low as 1.3 points (1981-82).

Table 6

## Test of Standard Written English Scores

Academic Year	Males		Females		Total	
	CT	Nation	CT	Nation	CT	Nation
1983-84	42.5	41.9	44.1	43.3	43.3	42.6
1982-83	42.1	41.6	43.7	43.0	43.0	42.3
1981-82	41.8	41.7	43.1	42.8	42.5	42.3
1980-81	41.9	41.5	43.3	42.9	42.6	42.2
1979-80	42.3	41.7	43.7	43.0	43.0	42.4
1978-79	42.3	41.8	44.2	43.2	43.3	42.5
1977-78	42.8	42.0	44.6	43.5	43.7	42.8
1976-77	42.9	42.2	44.5	43.7	43.8	42.9
1975-76	42.9	42.1	44.9	44.0	43.9	43.1
1974-75	43.0	42.2	45.4	44.3	44.2	43.2

Table 7 contains a ten-year summary of the scores and percent of students in Connecticut and in the nation taking the six achievement tests selected most frequently by Connecticut students in 1983-84. In Connecticut, 10,340 students (34.9% of SAT takers) took at least one achievement test in 1983-84; last year 33.6% of Connecticut SAT takers took at least one achievement test. Nationwide the figure was 20.6%. In 1983-84, in both Connecticut and the nation, the four tests chosen most often were English Composition, Mathematics Level 1, American History, and Biology. In Connecticut these were followed by Spanish and Chemistry, while in the nation Mathematics Level 2 was ranked fifth and Chemistry sixth. The major change in these rankings in Connecticut was the drop of French from fourth in 1971-72 to seventh currently and the switch of Spanish from sixth to fifth in 1983-84.

Of those students taking at least one achievement test, Connecticut seniors scored slightly better than those in the nation on the verbal SAT but worse than students in the nation on the mathematical SAT. For these Connecticut students, the average verbal SAT of 514 was two points above the national average and seven points above last year's state average. The Connecticut mathematical SAT average of 556 was 13 points below the national average and eight points above last year's state average for this group. The verbal and mathematical SAT scores of Connecticut students taking at least one achievement test are, respectively, 78 and 88 points above the overall current state averages.

The English Composition Achievement test was taken by 33.0% of Connecticut SAT takers and 19.0% of SAT takers in the nation. These Connecticut students had an average verbal SAT score of 516, while those in the nation had an average of 515. Thus, the two groups are roughly comparable in verbal ability. The Connecticut average on the English Composition Achievement Test remained at 518 in 1983-84, equaling the national average. The 1983-84 state average equaled the state average computed over the past ten years.



**Table 7**

**Selected Achievement Test Scores**

Academic Year	Connecticut		Nation		Connecticut		Nation	
	Percent Taking	Mean Score	Percent Taking	Mean Score	Percent Taking	Mean Score	Percent Taking	Mean Score
<b>English Composition</b>					<b>Mathematics Level 1</b>			
1983-84	33.0%	518	19.0%	518	27.6%	535	15.2%	542
1982-83	32.4%	518	18.4%	518	27.0%	537	14.8%	543
1981-82	31.4%	521	18.3%	520	25.8%	539	14.7%	545
1980-81	32.2%	511	18.4%	512	25.8%	534	14.7%	539
1979-80	33.2%	517	18.6%	518	26.3%	525	14.7%	536
1978-79	33.2%	512	18.9%	514	26.4%	527	14.7%	537
1977-78	34.9%	514	19.7%	512	27.5%	532	14.8%	541
1976-77	33.8%	511	20.5%	516	25.5%	540	15.3%	547
1975-76	33.5%	536	21.3%	532	24.8%	542	15.8%	546
1974-75	33.1%	516	21.3%	515	25.1%	540	15.9%	545
1973-74	34.6%	519	23.2%	517	26.1%	541	17.5%	545
<b>American History</b>					<b>Biology</b>			
1983-84	7.5%	514	4.5%	521	6.8%	532	4.5%	550
1982-83	7.5%	514	4.5%	516	7.4%	524	4.4%	544
1981-82	8.0%	521	5.6%	511	6.8%	529	4.1%	548
1980-81	7.9%	514	5.5%	508	7.3%	522	4.1%	546
1979-80	8.4%	509	5.6%	501	7.9%	525	4.1%	551
1978-79	9.2%	483	5.8%	480	7.8%	528	4.3%	547
1977-78	9.2%	508	6.1%	496	8.3%	528	4.8%	544
1976-77	9.3%	499	6.4%	492	7.3%	530	4.6%	543
1975-76	8.2%	501	6.4%	493	7.2%	540	4.6%	543
1974-75	7.9%	506	6.4%	494	6.6%	533	4.7%	544
1973-74	8.4%	511	7.2%	498	6.7%	537	4.7%	545
<b>Chemistry</b>					<b>Spanish</b>			
1983-84	6.3%	562	3.8%	573	6.4%	511	2.8%	528
1982-83	6.8%	555	3.7%	569	6.0%	510	2.6%	533
1981-82	6.3%	557	3.5%	575	5.6%	516	2.6%	531
1980-81	6.3%	556	3.5%	571	5.7%	515	2.5%	529
1979-80	6.0%	551	3.5%	573	4.7%	512	2.5%	524
1978-79	5.9%	551	3.4%	575	5.4%	524	2.4%	542
1977-78	6.0%	553	3.5%	577	5.0%	534	2.5%	544
1976-77	6.0%	540	3.6%	574	4.9%	521	2.5%	535
1975-76	5.2%	542	3.4%	567	4.4%	534	2.6%	547
1974-75	4.9%	549	3.3%	569	4.6%	533	NA	NA
1973-74	5.4%	562	3.7%	581	4.7%	550	2.8%	560

The difference between the Connecticut and national average on the Mathematics I Achievement Test was consistent with the difference in the mathematical SAT of the students who took this achievement test. In 1983-84 the Connecticut mean score on the Mathematics Achievement Test (535) was seven points below the national average, while the mathematical SAT score of this Connecticut group was six points below the comparable national average. The Connecticut average was two points below last year's but ten points above the 1979-80 low. In the state, 27.6% of the college-bound seniors took this achievement test, the highest percentage in the past ten years. Nationwide, 15.2% of college-bound students took this achievement test.

The average score of Connecticut students on the American History Achievement Test was below the national average for the second time in the past ten years. The Connecticut score of 514 in 1983-84 was seven points below the national average, but was 7.4 points above the Connecticut average over the past ten previous administrations. In the past ten years, the percentage of college-bound seniors taking the test has declined, both in Connecticut and in the nation. In 1983-84, 7.6% of the state's college-bound seniors took this test, compared to a high of 9.3% in 1976-77. Nationwide, 4.5% of the college-bound seniors took this test. The combined SAT score (the sum of the verbal and mathematical tests) of the Connecticut students taking the American History Achievement Test was nine points below the comparable national group.

That the Connecticut average on the Biology Achievement Test would be lower than the national average was not unexpected since this group of Connecticut students had a lower combined SAT score than students nationwide (1094 versus 1110) and a greater percentage of Connecticut students took this test compared to students nationwide (6.8% versus 4.5%). The Connecticut average on the Biology Achievement Test of 532 was up eight points over last year's state average, about two points above the state average over the past ten administrations, but eighteen points below the 1983-84 national average.

The Connecticut average of 562 on the Chemistry Achievement Test equaled the high of the past ten years (1973-74), was seven points above last year's average, but was eleven points below the national average. In the previous ten years the Connecticut average has ranged from 14 to 34 points below the national average. The Connecticut students who took this achievement test had a combined SAT of 1162, which was eight points below the comparable national average. In Connecticut, 6.3% of the college-bound seniors took the Chemistry Achievement Test compared to 3.8% nationally.

Even though the Connecticut students who took the Spanish Achievement Test had a combined SAT score ten points above the national group, their average on this achievement test was 17 points below the national average. The Connecticut average of 511 was up one point over last year's state average, but 14 points below the state average of the past ten years. In Connecticut, 6.4% of the college-bound seniors took the Spanish Achievement Test, the highest percentage ever recorded. Nationwide, 2.8% of the college-bound seniors took this test.

## HIGH SCHOOL RECORD

The SAT, TSWE and Achievement Test scores present only a partial picture of the Connecticut college-bound seniors. To expand this picture, these students' grade point averages, course work, honor course participation and high school activities are presented in the next four tables.

Table 8 presents ten years of data on the self-reported grade point average (GPA) and percentage of grades below C (2.0) for male and female college-bound seniors in Connecticut and the nation. These self-reported grade point averages for all college-bound students peaked in 1975-76. In 1983-84, the GPA for Connecticut males was 2.82 and that for females 2.96 (on a scale where A=4, B=3, ..., F=0). In 1983-84, 6.4% of the college-bound males in Connecticut reported a GPA below 2.0 (a C average) as did 3.7% of the females. Generally these percentages were above the levels of the past decade. Comparable figures for the nation were 5.0% for males and 3.2% for females, indicating that the student group taking the test nationally had an average GPA higher than the student group taking the test in Connecticut.

Table 8

### High School Grade Point Average (GPA)

Academic Year	Connecticut				Nation			
	Males		Females		Males		Females	
	GPA	Percent Below C	GPA	Percent Below C	GPA	Percent Below C	GPA	Percent Below C
1983-84	2.82	6.4%	2.96	3.7%	2.98	5.0%	3.09	3.2%
1982-83	2.84	5.9%	2.98	3.4%	3.00	4.6%	3.11	3.0%
1981-82	2.84	6.4%	2.97	3.7%	3.00	4.6%	3.11	3.0%
1980-81	2.84	6.5%	2.98	3.5%	3.00	4.6%	3.11	3.0%
1979-80	2.84	6.3%	3.00	3.6%	3.00	4.6%	3.12	2.9%
1978-79	2.86	5.6%	3.02	2.8%	3.01	4.4%	3.13	2.7%
1977-78	2.89	5.4%	3.05	2.9%	3.03	4.2%	3.15	2.6%
1976-77	2.91	5.3%	3.05	2.6%	3.05	3.9%	3.17	2.3%
1975-76	2.91	5.0%	3.07	2.6%	3.05	3.7%	3.18	2.1%
1974-75	2.87	5.5%	3.05	2.7%	3.01	4.3%	3.16	2.3%
1973-74	2.83	7.2%	3.03	3.1%	2.98	5.1%	3.14	2.6%

Table 9 compares the current mean number of years of study in English, mathematics, foreign languages, biological sciences, physical sciences and social studies for male and female college-bound students in Connecticut and the nation with the levels of five and ten years ago. Connecticut college-bound seniors reported taking more courses, with the exception of social studies, than did students nationwide in each of the years examined. The notable changes in the pattern of courses taken were the increase in the number of mathematics courses taken by students (females especially) in the past five years, the decline and then slight rebound in the number of foreign language courses taken over the past ten years in Connecticut, and the increase in the number of physical science courses taken in the past ten years. Females are now taking the equivalent of 1/2 semester more of mathematics and physical sciences and males 1/2 semester more of physical sciences than each did ten years ago.

Table 9

Mean Years of Study  
by Subject Area

<u>Course</u>		<u>1973-74</u>		<u>1978-79</u>		<u>1983-84</u>	
		<u>CT</u>	<u>Nation</u>	<u>CT</u>	<u>Nation</u>	<u>CT</u>	<u>Nation</u>
English	Males	4.01	3.94	4.01	3.94	4.01	3.97
	Females	4.03	3.97	4.07	3.99	4.06	4.02
Mathematics	Males	3.66	3.53	3.73	3.62	3.86	3.78
	Females	3.30	3.13	3.43	3.27	3.64	3.54
Foreign Languages	Males	2.69	2.19	2.45	2.03	2.50	2.08
	Females	3.06	2.54	2.85	2.32	2.90	2.38
Biological Sciences	Males	1.45	1.40	1.41	1.39	1.39	1.38
	Females	1.53	1.41	1.49	1.41	1.46	1.42
Physical Sciences	Males	1.77	1.77	2.04	1.98	2.08	2.05
	Females	1.35	1.36	1.63	1.56	1.72	1.69
Social Studies	Males	3.04	3.35	3.04	3.24	3.11	3.26
	Females	2.87	3.19	2.88	3.17	2.97	3.22

Table 10 compares the current percentage of male and female college-bound seniors in honors courses in Connecticut and in the nation with the percentage five and ten years ago. In 1983-84, the percentage of Connecticut students in honors courses was greater than the national percentage for foreign languages, the sciences and social studies, but below the national percentage in English and mathematics. More females were enrolled in English and foreign language honors courses while more males were enrolled in mathematics and physical science honors courses. Compared to five and ten years ago, the percentage of male and female students in honors courses in Connecticut and in the nation has increased in all areas.

Table 10

Percent of College-Bound Seniors  
in Honors Courses

		1973-74		1978-79		1983-84	
		CT	Nation	CT	Nation	CT	Nation
English	Male	11.0	11.0	11.8	13.1	14.9	17.4
	Female	15.0	15.0	15.0	15.7	19.4	21.6
Mathematics	Male	17.0	16.0	15.5	16.3	17.6	18.7
	Female	15.0	13.0	12.7	12.9	14.9	16.3
Foreign Languages	Male	9.0	7.0	9.2	6.9	11.4	8.5
	Female	11.0	8.0	12.0	7.7	15.2	9.6
Biological Sciences	Male	12.0	10.0	10.6	9.8	13.4	12.2
	Female	11.0	9.0	10.4	9.1	13.8	12.1
Physical Sciences	Male	13.0	10.0	12.0	11.1	15.6	13.8
	Female	11.0	8.0	9.8	8.6	13.3	11.7
Social Studies	Male	10.0	8.0	10.4	9.0	13.7	12.4
	Female	10.0	8.0	10.6	8.6	14.5	12.6

Table 11 compares the current percentage of Connecticut male and female college-bound seniors involved in high school activities with the percentages five and ten years ago. The percentage participation refers to those students who participate in at least one activity, not the participation of college-bound students in general. In the past ten years the percentage of SAT takers responding to this question has improved from 66.1% to 77.7% for males and from 74.2% to 84.8% for females. In the past ten years the only areas showing increased participation were athletics and art, music or dance. In the past five years, a period in which male participation in athletics was stable at around 83%, female participation increased from 60.5% to 64.8%. Females have had higher participation rates than males in all activities except athletics for the past ten years.

Table 11

High School Activities

<u>Activity</u>	<u>Sex</u>	<u>1973-74</u>	<u>1978-79</u>	<u>1983-84</u>
Athletics, including Intramural & Community	Male	80.0	82.7	82.8
	Female	58.0	60.5	64.8
Ethnic Organizations	Male	7.0	4.8	5.2
	Female	9.0	7.1	7.0
Journalism, Debating, Dramatics	Male	24.0	21.1	21.8
	Female	35.0	31.7	30.2
Art, Music or Dance*	Male	24.0	30.1	30.5
	Female	39.0	52.5	50.3
Departmental or Pre-professional Clubs	Male	9.0	7.3	8.1
	Female	20.0	12.3	10.5
Religious Organizations	Male	31.0	28.0	28.1
	Female	43.0	35.7	34.4
Social or Community Clubs	Male	40.0	34.7	37.1
	Female	56.0	48.7	50.4
Student Government	Male	23.0	17.5	18.0
	Female	30.0	26.9	26.7

\*In 1973-74 this included band, orchestra and chorus only.



## COLLEGE PLANS

The Student Descriptive Questionnaire section on college plans includes questions about degree-level goals, intended areas of study, plans for special assistance, advanced placement plans, housing preferences and planned extracurricular activities. The first two areas are analyzed in this report.

Table 12 presents the current degree-level goals of male and female Connecticut college-bound seniors and those of five and ten years ago. In 1983-84, 7.0% of these students planned to obtain either a two year or Associate's degree, 34.2% a Bachelor's degree, 25.9% a Master's degree, 13.8% a professional degree, and 19.1% were undecided. In the past ten years the major shifts have been an 8.9 percentage point drop in the percentage undecided, a 6.2 percentage point increase in the percent citing a BA or BS degree, a 5.9 percentage point increase in the percentage citing MA or MS degree as a goal, and a 2.0 percentage point decline in the percentage citing two year program or Associate's degree. While the percentage with a professional degree as a goal has declined only modestly,

Table 12

### Degree-Level Goals

Goal	Sex	Percentage of Students		
		1973-74	1978-79	1983-84
Two Year Training Program	Male	5.0	4.4	4.5
	Female	8.0	4.3	3.1
	Total	6.0	4.3	3.8
Associate in Arts Degree	Male	1.0	1.8	2.0
	Female	4.0	5.3	4.3
	Total	3.0	3.7	3.2
BA or BS Degree	Male	25.0	32.4	33.7
	Female	30.0	33.6	34.7
	Total	28.0	33.0	34.2
MA or MS Degree	Male	20.0	24.8	27.2
	Female	21.0	21.9	24.8
	Total	20.0	23.2	25.9
MD, Ph.D., Other Professional Degree	Male	20.0	14.4	14.2
	Female	11.0	11.2	13.4
	Total	15.0	12.7	13.8
Undecided	Male	29.0	22.2	18.4
	Female	27.0	23.7	19.7
	Total	28.0	23.1	19.1

the composition of that group has changed markedly. Ten years ago, 20.0% of the males and 11.0% of the females cited this area as their goal. Currently the percentage is 14.2% and 13.4%, respectively. With these changes, the distributions of the responses of male and female students are more alike now than five or ten years ago.

Table 13 presents the percentage of male and female college-bound seniors in Connecticut planning to enter six global areas of study for 1983-84 and for five and ten years ago. The arts and humanities area includes architecture, art, the languages, music, philosophy, religion, and theater. The biological sciences category includes agriculture, biology, forestry, nursing, therapy, premedical, and similar areas of concentration. The physical sciences area includes computer science, engineering, mathematics, chemistry, geology, and physics. The social science area includes education, ethnic studies, geography, history, home economics, library science, military science, psychology and similar courses.

Table 13

	Intended Area of Study					
	1973-74		1978-79		1983-84	
	Male	Female	Male	Female	Male	Female
Arts & Humanities	11.0	16.0	9.8	15.9	9.3	12.3
Biological Sciences	20.0	33.0	15.8	26.5	11.2	22.6
Business, Commerce & Communications	17.0	9.0	24.0	20.8	25.1	26.0
Physical Sciences	18.0	3.0	26.4	5.7	34.0	10.7
Computer Science	1.0	0.0	4.5	2.3	11.1	6.0
Engineering	9.0	0.0	17.0	1.5	19.1	2.5
Mathematics	3.0	2.0	1.6	1.0	1.3	1.4
Social Science	20.0	29.0	15.8	24.5	13.5	21.9
Education	4.0	13.0	3.1	9.5	1.7	6.8
Misc. and Undecided	14.0	9.0	8.2	6.5	6.9	6.5

In the past ten years there has been a distinct shift in the intended area of study from the arts and humanities, the biological sciences and the social sciences to business and commerce and the physical sciences. In the past year, however, the percentage of females intending to enter computer science dropped, while the percentage intending to enter the social sciences increased. The percentage of females intending to enter business and commerce increased from 9.0% in 1973-74 to 26.0% in 1983-84, while the percentage of males increased from 17.0% to 25.1% in the same period. The percentage of males intending to enter the physical sciences increased from

18.0% in 1973-74 to 34.0% in 1983-84. In this traditionally male area the percentage of females increased from 3.0% to 10.7% in this period. Within the physical science area, computer science and engineering experienced significant growth over the ten-year period, but mathematics had a slight decline.

Of particular interest to educators is the number of seniors intending to enter education. This is a useful predictor of the supply of teachers available four years later. In the past ten years, the percentage of students planning to study education has decreased sharply. Ten years ago, 4% of the males and 13% of the females intended to enter this area. By 1982-83, the percentages had dropped to 1.8% for males and 6.3% for females. In 1983-84, the percentage of males continued to drop (to 1.7%) but the percentage of females increased to 6.8%.

Table 14 presents data on the average SAT scores for Connecticut high school seniors intending to study education and Figure 3 compares these to other intended areas of study. These data have been reported by the College Board since 1977-78. The categories within education cited by the most students were child development, physical education, elementary education, and education of the mentally retarded.

Table 14

Average SAT Scores of Connecticut Students Intending to Study Education

Year	Percent of Students	Estimated Number of Students	SAT Verbal	SAT Math
1983-84	4.4	1,300	401	416
1982-83	4.2	1,290	395	409
1981-82	4.5	1,390	395	408
1980-81	5.7	1,780	396	418
1979-80	6.1	1,870	391	419
1978-79	6.5	2,070	402	422
1977-78	7.1	2,190	403	422

Both the verbal and mathematical SAT averages of those intending to study education increased more in 1983-84 than the three point increases in the respective overall state averages. Prior to this year, however, they decreased faster than the state averages. After declining from 403 to 395 between 1977-78 and 1981-82, the average verbal SAT scores of those intending to study education remained unchanged in 1982-83 and jumped six points in 1983-84. The SAT mathematical average jumped seven points in 1983-84 after rising one point last year. This average, however, fell 14 points between 1977-78 and 1981-82.

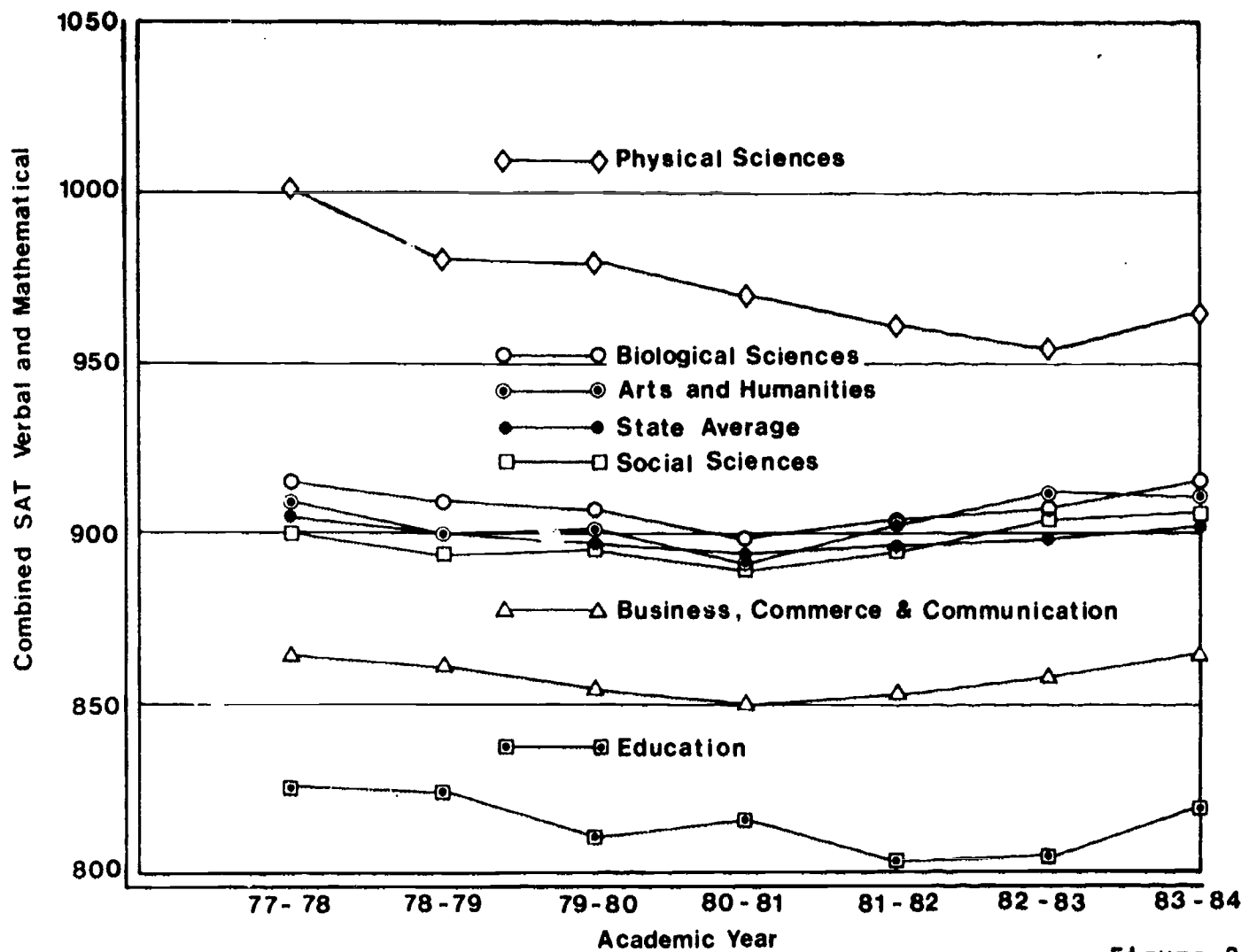


Figure 3  
Combined SAT scores of Connecticut Students  
by Intended Area of Study

Recall from Table 13 that students' intended areas of study have changed over the past five years. The combined verbal and mathematical SAT score for each intended area of study has changed also. Between 1977-78 and 1983-84 the combined SAT average in Connecticut declined 14 points to a low of 893 in 1980-81, followed by an eleven point increase. In that period the combined SAT score of those intending to study education fell 21 points to a low of 803 in 1981-82 followed by a 14 point increase--13 of which occurred in the past year. The only area experiencing a greater decline was the physical sciences, where the combined SAT average fell from 1001 to 962 as more people were attracted to this area. While the combined SAT score of those intending to enter education still is lower than all of the other general intended areas of study, the average of these students had the greatest increase in the past year. While the SAT scores of those who eventually become teachers are greater than those reported here, it is clear that the teaching profession is not currently attractive to the best and brightest high school students. Connecticut intends to attract superior students into teaching with the scholarship loan program established by Public Act 84-513. Starting with the class of 1985, this program will offer to students with high SAT scores and with an interest in teaching, up to \$20,000 in scholarship loans over four years. These loans will be forgiven after these students have taught for five years in Connecticut schools.

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