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ABSTRACT

The College Bound (CB) Program, funded under Title I of the 1965 Elementary Secondary Education Act, was designed to improve the reading and arithmetic skills and raise the academic level of students from poverty areas of the city and help them gain admission to college. During the academic year 1972-73 the program was conducted at 32 high schools in New York City and enrolled approximately 11.000 students. The major components of the program were intensive guidance services, small class size, tutoring, family assistant services, double reading and math periods, and cultural events. In addition, the Program sponsored conferences where students could meet professional people from a variety of fields. This evaluation undertook to investigate the implementation and effectiveness of the formal objectives outlined in the program proposal. Data on student achievement on standardized tests of reading and mathematics, attendance, grade point averages, as well as admission to college and receipt of financial aid on the part of senior students, were collected. Additionally, student attitudes and motivations were assessed through self-report questionnaires and staff perceptions of the CB program were measured via mailed-in questionnaires and extensive structured interviews of teachers, guidance counselors, and coordinators. While data analysis focussed on determining whether the program met its formal objectives, supplementary analyses were performed which provide richer detail on the success of the various program components. (Author/JM)

Function Number: 09-39609

AN EVAULATION OF THE

COLLEGE BOUND PROGRAM

ESEA TITLE I PROGRAM

An evaluation of a New York City school district educational project funded under Title I of the Elementary and Secondary Education Act of 1965 (PL 89-10) performed under contract with the Board of Education of the City of New York for the 1972-1973 school year.

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July 31, 1973

Dr. Anthony J. Polemeni
Director (Acting;
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BOARD OF EDUCATION OF THE
CITY OF NEW YORK
110 Livingston Street
Brooklyn, New York 11201

Dear Dr. Polemeni:

In fulfillment of the agreement dated June 11, 1973 between the New York City Public Schools and the Center for Educational Research and Field Services, I am pleased to submit three hundred copies of the final report, An Evaluation of the College Bound Program.

The Bureau of Educational Research and the professional staff of the New York City Public Schools were most cooperative in providing data and facilitating the study in general. Although the objective of the team was to evaluate a project funded under ESEA Title I, this report goes beyond this goal. Explicit in this report are recommendations for modification and improvement of the program. Consequently, this report will serve its purpose best if it is studied and discussed by all who are concerned with education in New York City -- the Board of Education, professional staff, students, parents, lay leaders, and other citizens. To this end, the study team is prepared to assist with the presentation and interpretation of its report. In addition, the study team looks forward to our continued affiliation with the New York City Public Schools.

You may be sure that New York University and its School of Education will maintain a continuing interest in the schools of New York City.

Respectfully submitted,

Arnold Spinner

ARNOLD SPINNER
Director

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II. EXECUTIVE SUMMARY

The College Bound Program was "designed to improve the reading and arithmetic skills and raise the academic level of students from poverty areas of the city and help them gain admission to college." During the academic year 1972-73 the College Bound Program was conducted at thirty-two high schools in New York City and enrolled approximately 11,000 students. The major components of the program were intensive guidance services, small class size, tutoring, family assistant services, double reading and math periods, and cultural events.

The general purpose of the evaluation was to investigate the implementation and effectiveness of the program as described. Data on achievement in reading and math was collected via standardized tests for 100% of the population. Attitudes and opinions were assessed via extensive questionnaires and structured interviews.

To summarize the evaluation results and provide an overview of the findings, the attainment of the behavioral objectives are delineated here:

Objective 1: To determine whether upon conclusion of the program: 75% of 9th year students will have gained two months in reading and in arithmetic beyond what is normally anticipated for students with serious reading and arithmetic deficiencies;

This program objective was not met. Criterion grade equivalents (anticipated grade equivalents for each student plus two months growth) for the 9th grade were met by 46.9% of students on the Stanford reading subtests and 38.7% on the Stanford math subtests.

...whether 75% of 10th year students will have gained three months in reading and arithmetic beyond what is normally anticipated for students with serious reading and arithmetic deficiencies;

This program objective was not met. Criterion grade equivalents for the 10th grade were met by 44.6% and 41.2% of students on the Stanford reading and math subtests respectively, and by 42.9% and 39.7% of participants on the MAT reading and math subtests respectively.

...whether 75% of 11th year students will have gained three months in reading and arithmetic beyond what is normally anticipated for students with serious reading and arithmetic deficiencies:

This program objective was not met. Criterion grade equivalents for the 11th grade were met by 46.6% of participats on the MAT reading subtests and 35.1% of the College Bound population on the MAT math subtests.

...whether 75% of 12th year students will have gained three months in reading and arithmetic beyond what is normally anticipated for students with serious reading and arithmetic deficiencies.

This program objective was not met. Only 39.2% and 17.2% of 12th grade students met their criterion grade equivalents on the reading and math subtests respectively, on the MAT.

Objective 1a: To determine whether upon the conclusion of the program there is a statistically significant difference between actual post-test mathematics and reading scores and anticipated (without treatment) post-test scores, calculated according to the historical regression procedures suggested by the State Education Department.

This program objective was generally met and surpassed. For the ninth grade, differences between obtained and anticipated scores indicated improvement and were significant beyond the 99% level of confidence on 4 out of 5 of the subtests in the Stanford battery.

Scores of tenth grade participants whose improvement in academic achievement was assessed by the Stanford Achievement Test battery differed significantly at the 99.9% level of confidence from expected scores (computed by the State Education Department formula) on four out of five of the subtests. Scores of tenth grade students assessed by the MAT, differed significantly at the 99.9% level of confidence on three out of the four MAT subtests.

For the 11th grade, all differences between observed and anticipated scores (on the MAT) were positive; two of these were significant at the 99.9% level of confidence.

Differences between observed and anticipated post-test scores for the 12th grade were all significant at the 99.9% level of confidence, but in a negative direction.

Objective 2: To determine whether there is a major increase in the number of pupils completing college preparatory requirements and being admitted into college. More specifically it will be determined whether upon conclusion of the program at least 80% of the students will have completed the requirements for college acceptance (all of the requirements for an academic diploma) and whether at least 80% will have gained admission into college.

This objective was met and surpassed. Records for each 12th grade College Bound student were examined by their guidance counselors who reported that 98.1% of participants were admitted to college, although only 97.7% were expected to graduate. College admittance for many students may be contingent on high school graduation.

Objective 2a: There will be significantly higher proportion (.05 level) of College Bound graduates going on to college than the proportion of an equivalent sample of academic graduates going on to college, as indicated by a t-test for comparisons between proportions.

This objective was met and surpassed. Guidance reports indicated that 95.8% of the random sample of College Bound students were accepted to college as compared with 64.0% of an equivalent sample of "academic" students. These proportions were found to differ (t = 12.95) at the 99.9% level of confidence.

Objective 2b: There will be significantly higher proportion (.05 level) of College Bound graduates receiving financial aid than the proportion of an equivalent sample of academic graduates going on to college, as indicated by a t-test for comparisons between proportions.

This objective was met and surpassed. Of the sample of 519 College Bound participants, 41.4% were offered financial aid as compared with 10.8% of the equivalent sample of "academic" students. These differences were significant (t = 12.54) at the 99.9% level of confidence.

Objective 3: To determine whether there is improvement in the quality of academic work of pupils in the program. To determine whether upon conclusion of the program at least 75% of the students who enter 9th and 10th year with averages of 65 or below will obtain averages of 68 or better at the end of their first school year.

To determine whether upon conclusion of the program, at least 75% of the students who enter 9th and 10th year with averages between 65 and 75 will obtain averages of 78 or better at the end of their first school year.

It is also anticipated that 70% of the current seniors who come into the program with averages of 65 or below will achieve averages of 75 in their senior year and 70% of the seniors who come into the program with averages of 75 will achieve averages of 85 in their senior year.

This program objective was not met. Approximately 59.6% of students in the 9th grade with entering averages of 65.0 and below showed either no gains or regression in averages. Of the students entering the program in 10th grade, 43.9% of students with entering averages of 65.0 and below failed to show gains or regressed. Of the seniors who entered the program with averages of 75.0, the averages of 60.4% were

either not higher or declined.

Objective 3a: (according to the evaluation amendment) To determine whether there is a statistically significant increase at the .05 level in students' academic average in 1971-72 on the basis of an analysis of average class grades.

This evaluation objective was not met. The mean difference (between June 1972 and May 1973) of grade averages were negative for each grade, declining 3.1 grade points for the entire College Bound population.

Objective 4: To determine whether there is an improvement of attitudes toward education resulting in regular school and class attendance and punctuality.

This program objective was not met. Attendance rates declined over the course of the program year for each grade level. Differences were all significant at the 99.9% level of confidence. A further attempt was made to assess "improvement in attitudes toward education."

In light of the foregoing results, the following recommendations are offered:

1. The College Bound Program should be refunded for another year in light of the previous discussion and the recommendations that follow.
2. Since the College Bound Program appears to be meeting its objectives of improving basic academic skills and providing college preparation, the program should be re-implemented next year with the same scope and breadth that it enjoyed in the 1972-73 project year.

Specifically, those components which contribute to the

success of the program should be retained: small class size, double periods in reading and mathematics, availability of tutoring, cultural events, guidance and family assistant services.

3. It is strongly recommended that the intensity and continuity of guidance services be retained in light of their contribution to academic success and the facilitation of acceptance to college.

4. It is strongly recommended that the Family Assistant component be retained in view of their contribution to the amelioration of problems which impede learning.

5. It is recommended that College Bound coordinators be given a greater voice in the decision-making process as it concerns the selection of CB teachers, and in general be given an amount of authority commensurate with their responsibility and the expectations placed on them.

6. It is recommended that every effort be made to finalize the allocation of funding in a length of time previous to the start of the program that would allow for sufficient planning and preparation of the CB program for that year.

7. It is recommended that there be a greater degree of flexibility for students in selecting elective courses.

8. It is recommended that the recruitment procedure be re-examined and improved. The process of recruitment should be standardized with clearly defined guidelines specifying ways in which informa-

tion on students is to be organized and presented by feeder schools. There should be stipulations regarding which personnel in the feeder school make decisions about recommending potential CB students.

9. It is recommended that cultural activities and experiences not be reduced, but rather broadened. These pursuits do not have the immediate pay-off and face validity of strict academic programs, but their value in rounding out the educational experience and contributing to the personal and emotional growth of students cannot be refuted.

10. It is recommended that greater emphasis be placed by CB personnel on communicating with community leaders and organizations to insure that the community as a whole is aware of the College Bound Program and its value. General community recognition and support is a worthwhile goal for any program.

11. As per a previous recommendation, parent and pupil orientation should be planned so that it clearly and specifically explains what is being offered in the CB program, the nature of the work involved, and the general objectives of the program.

12. It is recommended that the procedure for selection of family assistants be studied so that specific criteria and requirements may be established for selection of these personnel.

13. It is recommended that there be greater student input into

the planning of cultural activities, the structuring of programs, and the selection of materials for use in the classroom.

14. It is recommended that an increased effort be made to encourage self-initiated communication among CB personnel across schools. This practice would result hopefully, in the sharing of ideas, innovative approaches, and solutions to problems.

III. PROGRAM DESCRIPTION

The College Bound Program of 1972-73 functioned as a major component of the instructional program in 32 of the public academic high schools of New York City and served almost 11,000 students: approximately 2,000 in grade nine, 3,000 in grade ten, 3,000 in grade eleven, and 3,000 in grade twelve.

Specifically, the program had four major objectives:

1. To improve the students' abilities to read and do mathematics. Upon conclusion of the Program, students were to score on grade level or above on a standardized test of reading and arithmetic.
2. To increase the number of pupils completing college preparatory requirements and being admitted into college. Upon conclusion of the Program, it was expected that the twelfth year students involved would have completed the requirements necessary for college acceptance and gained admission into college.
3. To improve the quality of academic work of pupils in the program. It was expected that the additional services provided for students in the Program would enable them to achieve greater academic success, e.g., students were expected to improve their academic averages by about 10 points.
4. To improve the students' attitudes toward education. It was expected that as a result of participation in the Program, students would develop more positive attitudes toward school,

which would be reflected in improved attendance and punctuality.

New entrants to the Program were selected in the Spring of 1972 by the College Bound staff of the high school to which incoming students had applied. At that time guidance counselors in the feeder schools were notified of the new guidelines for admission to the Program and were asked to recommend students for the Program. In addition, students and parents were informed about the Program through assemblies and by mail; and community organizations and other interested parties, including parents, were asked to recommend students for consideration. Then the Stanford Reading Comprehension and Arithmetic Tests were administered by College Bound personnel to all possible candidates. All students who scored below grade level, but by no more than 2.5 years, exhibited some potential for academic success as indicated by performance and counselor and teacher recommendations, had no serious history of chronic truancy or emotional disturbance, and attended schools designed to receive Title I services were given final consideration. Coordinators used these criteria plus final recommendations from guidance counselors and teachers and actual interviews with candidates to make the final choice of students for the Program.

Three major components of the College Bound Program were used to enable students of economically deprived backgrounds to enter college: extensive, innovative, and individualized instruction; field trips; and intensive and personal guidance.

All classes in the College Bound Program had enrollments of not

more than 22 students, made possible by allocating 4 extra teaching positions for every 100 students in the Program. Daily, double periods of English and mathematics were provided for those students who needed them. Many one-year courses were extended over three semesters to provide more complete instruction for the students. Individual tutorial services were provided by college students and capable high school students before, during, and after school for those College Bound pupils needing them. New courses in introductory physical science, Afro-American literature, Black and Hispanic history and culture, and decision-making were offered in an effort to more effectively meet the needs and interests of the students. Remedial courses in reading and mathematics were provided for those students with serious retardation in those areas. Extensive instruction in writing and in taking the Preliminary Scholastic Aptitude Test, the Scholastic Aptitude Test, and the Regents' examinations was given to all students. Special supplementary books, such as paperback novels and dictionaries, were purchased and given to each student in the Program. In addition, schools provided mini courses, cyclical scheduling, special materials, and additional training of teachers to make the instructional program as meaningful, complete, and individualized as possible.

The field trip component of the Program served three vital functions. It supplemented the classroom activities by giving the students classroom-related experiences--often recommended by teachers--such as seeing a Shakespearean plan or visiting a science museum. It broadened the students' background of experiences by providing trips to the theater,

ballet, concerts, sports events, historical cities, museums, institutes, and ethnic restaurants. And it promoted students' interest in and selection of colleges by taking students to a wide range of universities and colleges, both public and private, both in and out of the city. The budget, though limited, did provide for entrance fees, bus or carfare, and refreshments on those trips initiated. There was, however, considerable variation among the schools in the extent to which the coordinators encouraged students to suggest or initiate trips as well as to the extent to which they encouraged teachers to make requests for class-related trips. In addition, the Program sponsored conferences where students could meet professional people from a variety of fields in order to acquaint students with the opportunities in those fields and motivate them to acquire the necessary education to enter those professions.

Underscoring both the academic and field-trip aspects of the Program was perhaps the most important component--guidance. The Program provided one full-time counselor for every 100 students (107 counselors in all), who stayed with those students throughout the four-year duration of the Program, and one family assistant for every 70 students (138 family assistants in all), who made immediate visits to the home when students were in trouble and frequent visits even when they weren't. Thus, the College Bound Program was able to help almost all students in the Program to resolve those personal problems interfering with academic success. In most schools, the family assistant, working in close conjunction with one or two guidance counselors, was assigned to a specific group of students and continued to work with their families--often visiting them at night--

throughout the duration of the students' stay in the program. In addition to their work with the family assistants, the close liaison of the guidance counselors with the College Placement Office of the Central Office of the Program provided the information, contacts, and support necessary to enable students to select appropriate career goals and gain admission to and scholarship aid for desirable and appropriate colleges and universities.

Leadership for the Program in each school was provided by a coordinator (supported by one secretary), who worked closely with the guidance counselors, the family assistants, the College Bound teachers, the school administration, and the Central Office. Leadership at the Central Office was provided by the project director (responsible for the over-all planning and functioning of the program), an associate director (totally responsible for the financial accounting involved in the Program), a central guidance counselor (acting as liaison between the Central Office and the 107 school counselors), and the College Placement Office (consisting of a coordinator and three associates, who maintained liaison between the Program and the colleges).

To insure the effective functioning of the Program, frequent meetings were held among principals, coordinators, counselors, family assistants, and teachers. Parents of pupils in the Program met regularly with school personnel at each school to discuss the program and its progress. A College Bound Advisory Council, comprised of parents, students, and staff members, met regularly to review the budget and the proposal and offer suggestions related to the general thrust and specific components

of the program. Separate in-service training programs were provided for coordinators, counselors, family assistants, and teachers; and all coordinators, counselors, and family assistants met as separate groups with headquarters staff several times a year to discuss ideas, exchange experiences, and plan the Program activities.

IV. EVALUATION PROCEDURES

This evaluation undertook to investigate the implementation and effectiveness of the formal objectives outlined in the College Bound program Proposal. Data on student achievement on standardized tests of reading and mathematics, attendance, grade point averages, as well as admission to college and receipt of financial aid on the part of senior students, were collected. Additionally, student attitudes and motivations were assessed through self-report questionnaires and staff perceptions of the CB program were measured via mailed-in questionnaires and extensive structured interviews of teachers, guidance counselors, and coordinators. While data analysis focussed on determining whether the program met its formal objectives, supplementary analyses were performed which provide richer detail on the success of the various program components.

Evaluation Objectives

The following evaluation objectives stem directly from the behavioral objectives of the program:

Objective 1: To determine whether upon conclusion of the program 75% of 9th year students will have gained two months in reading and in arithmetic beyond what is normally anticipated for students with serious reading and arithmetic deficiencies;

...whether 75% of 10th year students will have gained three months in reading and arithmetic beyond what is normally anticipated for students with serious reading and arithmetic deficiencies;

...whether 75% of 11th year students will have gained three months in reading and arithmetic beyond what is normally anticipated for students with serious reading and arithmetic deficiencies;

...whether 75% of 12th year students will have gained

months in reading and arithmetic beyond what is normally anticipated for students with serious reading and arithmetic deficiencies.

According to an addendum to the above objective, dated 12 October, 1972, the reading and arithmetic data were to be further analyzed as follows:

Objective 1a: To determine whether upon the conclusion of the program there is a statistically significant difference between actual post-test mathematics and reading scores and anticipated (without treatment) post-test scores, calculated according to the historical regression procedures suggested by the State Education Department.

Objective 2: To determine whether there is a major increase in the number of pupils completing college preparatory requirements and being admitted to college. More specifically it will determine whether upon conclusion of the program, at least 80% of the students will have completed the requirements for college acceptance (all of the requirements for an academic diploma) and whether at least 80% will have gained admission into college.

Evaluation objective 2 dealing with academic graduation and admission to college, was amended by the State Education Department to read:

Objective 2a: There will be a significantly higher proportion of College Bound graduates going on to college than the proportion of an equivalent sample of academic graduates going on to college.

There will be a significantly higher proportion of College Bound graduates receiving financial aid than the proportion of an equivalent sample of academic graduates going on to college.

Objective 3: To determine whether there is improvement in the quality of academic work of pupils in the program. To determine whether upon conclusion of the program at least 75% of the students who enter 9th and 10th year with averages of 65 or below will obtain averages of 68 or better at the end of their first school year.

To determine whether upon conclusion of the program, at least 75% of the students who enter 9th and 10th year with averages between 65 and 75 will obtain averages of 78 or better at the end of their first school year.

It is also anticipated that 70% of the current seniors who come into the program with averages of 65 or below will achieve averages of 75 in their senior year and 70% of the seniors who come into the program with averages of 75 will achieve averages of 85 in their senior year.

Objective 3a: (according to the evaluation amendment) To determine whether there is a statistically significant increase at the .05 level in students' academic average in 1971-72 on the basis of an analysis of average class grades.

Objective 4: To determine whether there is an improvement of attitudes toward education resulting in regular school and class attendance and punctuality.

Evaluation Methods and Analysis

Standardized Testing. To measure student achievement in reading and arithmetic, the Stanford Achievement Test advanced level was administered to all 9th graders, and to all 10th graders who entered College Bound in the 10th grades. The Metropolitan Achievement Test High School level was administered to all 10th graders who entered College Bound in the 9th grade and to all 11th and 12th graders. The use of both tests reflects the phasing in of the Stanford test battery to the College Bound Program. Thus, all students for whom the 1972-73 project year was their first year in CBP received a Stanford test, while those who were continuing in the program took the MAT.

Due to the emphasis on reading and arithmetic in CBP, the entire test batteries were not administered. For the MAT, those sections administered included (1) Reading, (2) Mathematical Computations and Concepts, and (3) Mathematical Analysis and Problem-Solving. Of the Stanford battery, those subtests administered were (1) Advanced Paragraph Meaning (2) Arithmetic Computation, (3) Arithmetic Concepts, and (3) Arithmetic Applications.

Due to procedural delays in the selection of the evaluators of the 1972-73 College Bound Program, this year's program had been in operation for six months before pre-test measures of academic achievement were administered. Accordingly, an evaluation design modification required that

students' MAT scores from May, 1972 be used as a pre-test for those students who were continuing in the program and were, therefore, not routinely administered a test in Fall, 1972, in the course of their admission to the College Bound Program. All entering students were administered the Stanford Test in August or September, 1972, depending on whether they had attended CBP summer school. These tests, administered by the College Bound staff in each school, were used as pre-test measures for all entering students. All post-tests, alternate forms of the respective tests, were administered in May, 1973.

Because the Stanford advanced battery provides grade equivalent scores, the analysis of these data, in terms of the program's behavioral objectives, followed strictly the Bureau of Educational Research directives. Thus, for example, the historical regression analysis was performed purely in terms of grade equivalents, using the Fall, 1972 pre-test scores to represent students' achievement without program treatment. The publishers of the MAT High School Battery, however, do not provide grade equivalent norms; therefore, standard scores were used as units of achievement. This modification had several consequences for the data analysis, especially in regard to calculating the historical regression formula and assessing how many "grade equivalent months" more than anticipated students had grown. The issue of standard vs. grade equivalent scores was further affected by the fact that the procedures were not specified for analyzing test scores of students who had been in the program longer than the current 1972-73 year. The pre-test scores of these students did not represent their achievement without program treatment since, de-

pending on current grade level, they had been in the program 1, 2, or 3 years prior to taking the 1972 test. The actual pre-test for these students was therefore inappropriate as a referent for calculating anticipated growth without program treatment, according to the historical regression formula. To use the pre-test scores would have biased this analysis against them.

An important modification, executed to lend accuracy to the B.E.R. formula, was the collection of the standardized test scores of these students from the final semester of junior high or intermediate school immediately before they entered the College Bound Program. For those who entered CBP in the 9th grade, these were scores from the end of the 8th grade, while for those who entered CBP in the 10th grade, these were scores from the end of the 9th grade. Such scores represented more accurately their achievement before program participation. Recall that this was the case for all CBP students who were in 10th grade CBP during 1972-73 and had entered CBP in 9th grade, and for all students currently in CBP 11th and 12th grades.

The scores collected for these students via permanent records maintained by CBP guidance counselors are referred to in this report as MAT "entering scores" to distinguish them from actual "pre-test" scores used for students taking the Stanford test. The "entering scores" were in grade equivalents on the Metropolitan Achievement Test advanced level. Consequently, this large segment of the student population had "entering scores" in grade equivalents on the MAT advanced level and actual post-test measures in standard scores on the MAT High School level. This

meant that the distribution of anticipated scores according to the B.E.R. formula, would have been in grade equivalents, while the distribution of actual post-test scores were standard scores. Unless certain provisions were made to reconcile the two distributions, a correlated t-test between the two would not have been meaningful.

The following procedure was adopted to enable the historical regression formula to handle these data:

(1) Obtain the "entering" grade equivalent on the MAT advanced level and subtract 1.0;

(2) Divide this figure by the number of months of total school experience (10 months per year) to arrive at the student's historical growth increment per month;

(3) Multiply the historical increment by the number of months in College Bound and add this figure to the "entering" grade equivalent score;

*(4) Convert this figure (the MAT advanced level predicted grade equivalent) to a standard score on the MAT advanced test, via publisher's tables;

*(5) Convert this MAT advanced standard score, via publisher's tables, to a standard score on the MAT High School level (thus arriving at the MAT High School predicted standard score);

(6) Test for significance of difference between the predicted standard score on the MAT High School and the actual obtained post-test score on the MAT High School level.

Those steps noted above with an asterisk (*) represent the additional steps interposed in the B.E.R. formula in order to apply it to post-test data in the form of standard scores. While this procedure allowed for a correlated t-test for significance of difference between predicted and observed scores, it did not permit an analysis assessing whether students had grown 2 or 3 months more than predicted. Growth in months refers to grade equivalent scores. Standard scores do not lend themselves to a discussion of normal months of growth. In order to measure the success of the behavioral objective that the 9th graders grow 2 months and the 10th, 11th and 12th graders grow 3 months more than anticipated, this criterion had to be built into the above formula. Therefore, for this analysis, step #3a was included in the above procedure which involved adding the criterion growth for each student (either .2 or .3 of a year) to the grade equivalent figure obtained in step #3a. For example, for a student in the 9th grade whose predicted score was 8.3, .2 (for 2 months growth) was added, yielding a criterion predicted score of 8.5; this predicted criterion score was then compared with his actual post-test score. That is, the appropriate criterion for each student was added in grade equivalent form before conversion to standard scores. Any student whose difference score (between criterion predicted and observed post-test) was greater than zero surpassed this behavioral objective; that is, grew the appropriate number of months more than anticipated.

Due to the complexity of the above two analyses, an additional analysis was performed using actual pre and actual post-test, 1972-73

scores. This analysis, essentially, measured growth in achievement for this project year alone, regardless of historical performance.

Non-Standardized Measures. While academic achievement was measured primarily by performance on standardized tests, the College Bound proposal called for additional achievement data in the form of academic grade point averages. Grade point averages for June, 1972 and May, 1973 were collected for all participating students.

Attendance records at the beginning and end of the program year, were maintained for all students. Intended as measures of attitudes towards school, according to the evaluation design, days absent and days late were recorded for the periods October 2-30, 1972 and March 19-April 13, 1973.

In order to evaluate the special achievements of senior College Bound students, data was collected for a 100% sample of seniors on completion of academic requirements for college, acceptances to college, and offers of financial aid. Additionally, random sampling techniques were used to select a sample of College Bound seniors who were then pair-matched with students in a control population. Those students sampled in each school (with a senior class) were pair-matched on college acceptance averages. Comparison were made of acceptances to College and offers of financial aid for the treatment and control populations.

Attitudes. Through the conduct of structured interviews and the administration and mailing of questionnaires, the attitudes of College Bound participants and staff were extensively assessed. Each of the 32 coordinators was interviewed at length by one of the co-directors of the evaluation or by an evaluation consultant. Coordinators were encouraged

to describe fully the operation of the College Bound Program in their school, to discuss their perceptions of the program, and to offer relevant suggestions and recommendations. Interviews were also conducted with three teachers and at least one guidance counselor in every school to ascertain their perceptions of the students in the program and of the program itself. Family Assistants were interviewed whenever their schedules permitted a meeting with an evaluation staff member at the high school.

Additionally, questionnaires assessing opinions and calling for appraisal of College Bound Program components and operations, were mailed to a sample of 20 CB teachers in each school and to a 100% sample of guidance counselors. A student questionnaire was administered by research assistants on the evaluation staff to a sample of three classes in each school. The questionnaire attempted to assess students' attitudes toward school and learning, their perceptions of College Bound, as well as their motivations and aspirations.

Instruments and Data Collection

All of the measures of student performance were collected via a "pupil profile" sheet devised by the evaluation staff. The sheet was designed so that all the data for a given student could be recorded on it. Each counselor received approximately 100 profiles, one for each of his students, on which to indicate demographic and attendance data, grade point averages, standardized test scores, and data on graduation, college acceptance, and financial aid where appropriate. The pupil profiles were returned to the evaluation team by May 30, 1973 in order to permit ade-

quate time for data processing for the large College Bound population.

All of the questionnaires, for counselors, teachers, family assistants, and students, were designed by the evaluation staff. They included both multiple-choice and open-ended questions, allowing respondents to express their opinions and assessments of a number of topics related to the operation of the College Bound Program. The structured interview schedules, also designed by the evaluation staff, asked respondents to expand upon many of the topics covered in the questionnaires. The coordinator interview was the most extensive since it was the primary vehicle for coordinators to amplify their concerns.

Both the conduct of interviews and the administration of student questionnaires proceeded throughout the operation of the program. These were completed by June 1, 1973 and all mailed-in questionnaires used in the analysis were received by June 15, 1973. All of these data, concerning comments, criticisms, explanations and suggestions provided a broader perspective on the value and success of the College Bound Program. The instruments may be found in Appendix B.

Evaluation Staff

The co-directors of the evaluation headed a large staff who actively participated in evaluation procedures. A full-time coordinator and two full-time research associates assisted in the planning, organization, formulation of instruments, data analysis, and drafting of the final report. Two evaluation consultants, both with Ph.D.s in the field of education, participated in planning and writing, as well as in the conduct of interviews with key College Bound personnel. Additionally, a staff of

nine research assistants made visits to schools to conduct interviews, administer questionnaires, and collect data on the control population. They were also chiefly responsible for initial data tabulation. A computer consultant performed the extensive data-processing, with the assistance of two key punch operators.

V. RESULTS

Fulfillment of Program Objectives

Objective 1: To determine whether upon conclusion of the program: 75% of 9th year students will have gained two months in reading and in arithmetic beyond what is normally anticipated for students with serious reading and arithmetic deficiencies;

This program objective was not met. Criterion grade equivalents (anticipated grade equivalents for each student plus two months growth) for the 9th grade were met by 46.9% of students on the Stanford reading subtests and 38.7% on the Stanford math subtests.

...whether 75% of 10th year students will have gained three months in reading and arithmetic beyond what is normally anticipated for students with serious reading and arithmetic deficiencies;

This program objective was not met. Criterion grade equivalents for the 10th grade were met by 44.6% and 41.2% of students on the Stanford reading and math subtests respectively, and by 42.9% and 39.7% of participants on the MAT reading and math subtests respectively.

...whether 75% of 11th year students will have gained three months in reading and arithmetic beyond what is normally anticipated for students with serious reading and arithmetic deficiencies;

This program objective was not met. Criterion grade equivalents for the 11th grade were met by 46.6% of participants on the MAT reading subtests and 35.1% of the College Bound population on the MAT math subtests.

...whether 75% of 12th year students will have gained three months in reading and arithmetic beyond what is normally anticipated for students with serious reading and arithmetic deficiencies.

This program objective was not met. Only 39.2% and 17.2% of 12th grade students met their criterion grade equivalents on the reading and math subtests respectively, of the MAT.

Objective 1a: To determine whether upon the conclusion of the program there is a statistically significant difference between actual post-test mathematics and reading scores and anticipated (without treatment) post-test scores, calculated according to the historical regression procedures suggested by the State Education Department.

This program objective was generally met and surpassed. For the ninth grade, differences between obtained and anticipated scores indicated improvement and were significant beyond the 99% level of confidence on 4 out of 5 of the subtests in the Stanford battery.

Scores of tenth grade participants whose improvement in academic achievement was assessed by the Stanford Achievement Test battery differed significantly at the 99.9% level of confidence from expected scores (computed by the State Education Department formula) on four out of five of the subtests. Scores of tenth grade students assessed by the MAT, differed significantly at the 99.9% level of confidence on three out of the four MAT subtests.

For the 11th grade, all differences between observed and anticipated scores (on the MAT) were positive; two of these were significant at the 99.9% level of confidence.

Differences between observed and anticipated post-test scores for the 12th grade were all significant at the 99.9% level of confidence, but in a negative direction.

Objective 2: To determine whether there is a major increase in the number of pupils completing college preparatory requirements and being admitted into college. More specifically it will be determined whether upon conclusion of the program at least 80% of the students will have completed the requirements for college acceptance (all of the requirements for an academic diploma) and whether at least 80% will have gained admission into college.

This objective was met and surpassed. Records for each 12th

grade College Bound student were examined by their guidance counselors who reported that 98.1% of participants were admitted to college, although only 97.7% were expected to graduate. College admittance for many students may be contingent on high school graduation.

Objective 2a: There will be significantly higher proportion (.05 level) of College Bound graduates going on to college than the proportion of an equivalent sample of academic graduates going on to college, as indicated by a t-test for comparisons between proportions.

This objective was met and surpassed. Guidance reports indicated that 95.8% of the random sample of College Bound students were accepted to college as compared with 64.0% of an equivalent sample of "academic" students. These proportions were found to differ (t = 12.95) at the 99.9% level of confidence.

Objective 2b: There will be significantly higher proportion (.05 level) of College Bound graduates receiving financial aid than the proportion of an equivalent sample of academic graduates going on to college, as indicated by a t-test for comparisons between proportions.

This objective was met and surpassed. Of the sample of 519 College Bound participants, 41.4% were offered financial aid as compared with 10.8% of the equivalent sample of "academic" students. These differences were significant (t = 12.54) at the 99.9% level of confidence.

Objective 3: To determine whether there is improvement in the quality of academic work of pupils in the program. To determine whether upon conclusion of the program at least 75% of the students who enter 9th and 10th year with averages of 65 or below will obtain averages of 68 or better at the end of their first school year.

To determine whether upon conclusion of the program, at least 75% of the students who enter 9th and 10th year with averages between 65 and 75 will obtain averages of 78 or better at the end of their first school year.

It is also anticipated that 70% of the current seniors who come into the program with averages of 65 or below will achieve averages of 75 in their senior year and 70% of the seniors who come into the program with averages of 75 will achieve averages of 85 in their senior year.

averages of 85 in their senior year.

This program objective was not met. Approximately 59.6% of students in the 9th grade with entering averages of 65.0 and below, showed either no gains or regression in averages. Of the students entering the program in the 10th grade, 43.9% of students with entering averages of 65.0 and below, failed to show gains, or regressed. Of the seniors who entered the program with averages of 75.0, the averages of 60.4% were either not higher or declined.

Objective 3a: (according to the evaluation amendment) To determine whether there is a statistically significant increase at the .05 level in students' academic average in 1971-72 on the basis of an analysis of average class grades.

This evaluation objective was not met. The mean difference (between June 1972 and May 1973) of grade averages were negative for each grade, declining 3.1 grade points for the entire College Bound population.

Objective 4: To determine whether there is an improvement of attitudes toward education resulting in regular school and class attendance and punctuality.

This program objective was not met. Attendance rates declined over the course of the program year for each grade level. Differences were all significant at the 99.9% level of confidence. A further attempt was made to assess "improvement in attitudes toward education."

Standardized Test Results

The major objective of the College Bound Program was directed at remediation deficiencies in reading and arithmetic skills of all participating students. The State Education Department provided a procedure, referred to as the historical regression analysis, by which to assess a given student's anticipated achievement in an academic year without program treatment. This procedure, which relies on the students history of academic growth to predict future performance, is outlined in detail in Section IV of this report.

Based on the historical regression procedure, a series of analyses were performed to determine whether there was a significant difference between students' anticipated achievement and their actual post-test scores. The analyses were performed for each grade for both reading and arithmetic scores. Tables 1.1 through 1.5 present these data, indicating a mean expected score (based on the historical regression formula), and a mean observed score (the mean of the actual post-test scores), and two-tailed tests of significance of difference for correlated group. It should be noted that the Stanford Achievement Tests are analyzed in terms of grade equivalents, while the Metropolitan Achievement Test is analyzed in standard scores.

In the ninth grade (see Table 1.1), significant differences in a positive direction were found between expected and observed scores for the reading test and two of the three Stanford arithmetic subtests. The average arithmetic and arithmetic computations scores showed negative differences, significant only for the computation subtest.

Table 1.2 presents the results for the 10th grade, Stanford testing, indicating significant differences in a positive direction for all subtests, except for Computations. The difference in mean arithmetic average scores (expected vs. observed) is also positively significant. The computations subtest shows negative difference, but not to a significant degree.

Differences between expected and observed scores on the MAT test, presented in Table 1.3, proved to be significant in a positive direction for the reading, arithmetic average, and one of the two mathematics subtests. While the Math Analysis and Problem-Solving subtest showed difference in a positive direction, it was not statistically significant. Generally, however, students in the 10th grade who took an MAT test, grew more than expected in all instances.

Students in the 11th grade were administered MAT tests, the results of which are presented in Table 1.4. Significant positive differences between expected and observed scores were achieved for the Math average scores and for the Math Computations and Concepts subtest. The data on the Reading and Math Analysis and Problem-Solving subtests show that students grew more than expected, but not significantly so.

The data for the 12th grade MAT testing is presented in Table 1.5. The historical regression results are least successful for this grade, in that the difference between mean expected and observed scores are significant in a negative direction in all cases. Students did not grow more than anticipated on any of the subtests. An examination of the means indicates that the mean observed scores are uniformly lower than the mean

TABLE 1.1

MEANS, STANDARD DEVIATIONS, AND TESTS OF SIGNIFICANCE

BETWEEN EXPECTED AND OBSERVED SCORES, GRADE 9

STANFORD ACHIEVEMENT TEST

TEST		Mean Score	S.D.	d.f. (N-1)	t	p
Stanford Reading: Advanced Paragraph Meaning	expected	7.23	2.42	1405	5.20	.001
	observed	7.53	1.85			
Stanford Arithmetic Average	expected	7.24	2.14	1331	- .43	n.s.
	observed	7.22	1.67			
Stanford Arithmetic Computation	expected	7.25	2.13	1369	-12.4	.001
	observed	6.55	1.98			
Stanford Arithmetic Concepts	expected	7.26	2.14	1363	8.35	.001
	observed	7.70	1.87			
Stanford Arithmetic Applications	expected	7.26	2.15	1359	2.81	.005
	observed	7.42	1.97			

TABLE 1.2

MEANS, STANDARD DEVIATIONS, AND TESTS OF SIGNIFICANCE

BETWEEN EXPECTED AND OBSERVED SCORES, GRADE 10

STANFORD ACHIEVEMENT TEST

TEST		Mean Score	S.D.	d.f. (N-1)	t	p
Stanford Reading: Advanced Paragraph Meaning	expected	7.81	3.10	827	8.24	.001
	observed	8.66	1.82			
Stanford Arithmetic Average	expected	7.56	2.94	760	6.35	.001
	observed	8.20	1.70			
Stanford Arithmetic Computations	expected	7.56	2.94	765	-1.24	n.s.
	observed	7.43	1.98			
Stanford Arithmetic Concepts	expected	7.56	2.94	767	11.87	.001
	observed	8.76	1.82			
Stanford Arithemetic Applications	expected	7.56	2.94	767	7.74	.001
	observed	8.39	2.06			

TABLE 1.3

MEANS, STANDARD DEVIATIONS, AND TESTS OF SIGNIFICANCE BETWEEN EXPECTED AND OBSERVED SCORES, GRADE 10 METROPOLITAN ACHIEVEMENT TEST

TEST		Mean Score	S.D.	d.f. (N-1)	t	p
MAT Reading	expected	42.71	17.55	1298	7.77	.001
	observed	46.26	10.54			
MAT Math Average	expected	37.96	32.95	904	3.16	.002
	observed	41.05	12.53			
MAT Math Computation and Concepts	expected	39.35	35.19	936	5.16	.001
	observed	44.73	13.09			
MAT Math Analysis and Problem-Solving	expected	36.23	31.31	907	1.01	n.s.
	observed	37.19	14.89			

TABLE 1.4

MEANS, STANDARD DEVIATIONS, AND TESTS OF SIGNIFICANCE BETWEEN EXPECTED AND OBSERVED SCORES, GRADE 11 METROPOLITAN ACHIEVEMENT TEST

TEST		Mean Score	S.D.	(N-1)	t	p
MAT Reading	expected	49.49	19.20	1821	1.10	n.s.
	observed	49.95	11.08			
MAT Math Average	expected	42.96	30.45	1376	4.24	.001
	observed	46.21	12.34			
MAT-Math Computations and Concepts	expected	44.79	32.10	1393	7.46	.001
	observed	50.84	12.43			
MAT-Math Analysis and Problem-Solving	expected	41.07	28.83	1391	0.42	n.s.
	observed	41.39	15.29			

TABLE 1.5

MEANS, STANDARD DEVIATIONS, AND TESTS OF SIGNIFICANCE

BETWEEN EXPECTED AND OBSERVED SCORES, GRADE 12

METROPOLITAN ACHIEVEMENT TEST

TEST		Mean Score	S.D.	d.f. (N-1)	t	p
MAT Reading	expected	57.33	17.98	1565	- 8.20	.001
	observed	54.09	11.23			
MAT-Math Average	expected	57.05	28.78	1163	- 8.98	.001
	observed	50.27	12.48			
MAT-Math Computations and Concepts	expected	59.74	30.19	1187	- 7.12	.001
	observed	54.11	12.19			
MAT-Math Analysis and Problem-Solving	expected	54.32	27.11	1184	-10.96	.001
	observed	46.21	15.27			

In addition to demonstrating significant difference between predicted and observed scores, students were to surpass a more stringent criterion. Upon conclusion of the program, 75% of entering ninth year students were expected to grow two months in reading and arithmetic beyond what was anticipated for them. Similarly, 75% of the students in each of the 10th, 11th, and 12th grades were to grow three months more than anticipated. These objectives go beyond those reflected in the previous analyses, by suggesting not only that the difference between predicted and observed scores be significant, but that the difference be of a given criterion magnitude. Because the criterion was different for each student, depending on his grade level and on whether he entered the program in the Fall or Spring semester, for this analysis the appropriate criterion was added to the anticipated score of each student to arrive at the student's individual criterion score. That is, each student then had a criterion predicted score which he had to surpass in order to be successful in terms of this behavioral objective. Therefore, subtracting the criterion score from the actual post-test score for each student, any student whose difference score was zero or greater achieved this objective.

Tables 1.6 through 1.10 present frequency distributions of the differences between criterion and observed scores. While they are provided for both reading and mathematics in all grades, it should be noted that the distributions of Stanford test difference scores are in grade equivalents (grades 9 and 10), those for the MAT are in standard scores (grades 10, 11, and 12). The method by which "months of growth", as a criterion, was built into analyses of standard scores may be found in Section IV of this report.

TABLE 1.6

FREQUENCY DISTRIBUTIONS OF DIFFERENCE BETWEEN CRITERION AND OBSERVED STANFORD READING AND MATH SCORES, GRADE 9

Grade Point Difference	Reading f	Reading %	Math f	Math %
7.0 - 7.9	12	.9	18	1.4
6.0 - 6.9	13	.9	11	.8
5.0 - 5.9	13	.9	8	.6
4.0 - 4.9	10	.7	4	.3
3.0 - 3.9	20	1.4	3	.2
2.0 - 2.9	69	4.9	19	1.4
1.0 - 1.9	185	13.3	132	9.9
.1 - .9	293	21.1	280	21.1
0.0	35	2.5	45	3.4
Less than 0.0	735	53.1	813	61.3
TOTAL N	1385		1327	

TABLE 1.7

FREQUENCY DISTRIBUTIONS OF DIFFERENCE BETWEEN CRITERION AND OBSERVED STANFORD READING AND MATH SCORES, GRADE 10

Grade Point Difference	Reading f	Reading %	Math f	Math %
7.0 - 7.9	8	1.0	14	1.9
6.0 - 6.9	7	.9	13	1.8
5.0 - 5.9	3	.4	6	.8
4.0 - 4.9	4	.5	2	.3
3.0 - 3.9	15	1.9	2	.3
2.0 - 2.9	44	5.7	18	2.5
1.0 - 1.9	92	11.9	72	9.9
.1 - .9	151	19.5	151	20.9
0.0	21	2.7	20	2.8
Less than 0.0	428	55.4	426	58.8
TOTAL N	773		724	

TABLE 1.8

FREQUENCY DISTRIBUTION OF DIFFERENCE BETWEEN CRITERION AND OBSERVED MAT READING AND MATH SCORES, GRADE 10

Standard Score Difference	Reading f	Reading %	Math f	Math %
80 - 99	3	.1	10	1.2
60 - 79	113	4.3	3	.3
40 - 59	222	8.4	13	1.4
20 - 39	78	3.0	72	8.2
1 - 19	683	25.6	240	27.5
0	46	1.7	90	10.1
Less than 0	1521	57.1	527	60.3
TOTAL N	2666		874	

The tables indicate that these objectives regarding criterion growth in reading and mathematics were not met in any grade. In all cases, at least 50% of the students showed differences of less than zero between criterion and observed scores. That is, their post-test scores were lower than the criterion.

Table 1.6 indicates frequency data for the ninth grade students, all of whom received a Stanford test. The cumulative percentage meeting or surpassing the objective in reading was 44.1 and in math 35.7. Neither of these figures meets the 75% objective.

In the 10th grade, both Stanfords and MATs were administered. Table 1.7 presents data for those students receiving the Stanford test. On the reading subtest, 55.4% of the students earned lower scores on the post-test than the criterion demanded. Only 44.5% surpassed the criterion on the reading test. The results are similar for the math test, in that 58.8% scored below criterion, while 41.2% scored at or above it.

Of those 10th grade students receiving a MAT test (see Table 1.8), 57.1% scored below criterion, while only 42.9% met or surpassed the criterion on the reading test. On the math test, 60.3% did not do as well as the criterion, while 39.7% did meet or beat the criterion.

Table 1.9 presents frequency data of difference between criterion and observed for the 11th grade, all of whom received a MAT test. On the reading test, 53.4% did not meet the criterion, while only 46.4 did. The data on the math test shows that 64.9% of 11th graders have difference scores of less than zero, that is, scored lower than criterion. The cumulative percentage of those meeting or surpassing the criterion was 35.1%.

TABLE 1.9

FREQUENCY DISTRIBUTIONS OF DIFFERENCE BETWEEN CRITERION AND OBSERVED MAT READING AND MATH SCORES, GRADE 11

Standard Score Difference	Reading f	Reading %	Math f	Math %
80 - 99	6	.1	15	1.1
60 - 79	165	7.5	2	.1
40 - 59	218	9.9	6	.4
20 - 39	73	3.3	57	4.3
1 - 10	522	23.6	367	27.1
0	43	2.0	25	1.9
Less Than 0	1177	53.4	870	64.9
TOTAL N	2204		1337	

Again, in the 12th grade, the objective that 75% of the students meet or beat the criterion was not achieved. Table 1.10 shows that on the MAT reading test, only 39.2% met or surpassed the criterion while 60.8% did not. On the MAT math test, 82.8% scored lower than criterion, while only 17.1% achieved or surpassed the objective.

Due in part to the difficulty with which students achieved success in terms of a criterion based on the historical regression analyses, additional analyses were performed to assess academic growth. Although not mandated by the behavioral objectives, an analysis of pre-post differences based on the 1972-73 achievement scores alone seemed appropriate. These analyses assess growth in standardized test score achievement in the current academic year without regard for the students' past histories of achievement.

Tables 1.11 through 1.15 present the means and standard deviations of actual pre (1972) and actual post (1973) test scores in reading and math for all grades. They also include tests of significance between differences for these data. Again, Stanford scores are grade equivalents while the MAT data are standard scores. An overview of the data presented in these tables reveals that, on the average, achievement in the current project year was very positive. There are only a few instances of regression or of positive growth that is not statistically significant.

Table 1.11 displays, for the ninth grade population, the mean pre and post Stanford scores with their associated t-tests for correlated means. All of the subtests, except one, show positive and significant ($p < .001$) growth from September, 1972 to May, 1973. The Arithmetic

TABLE 1.10

FREQUENCY DISTRIBUTIONS OF DIFFERENCE BETWEEN CRITERION AND OBSERVED MAT READING AND MATH SCORES, GRADE 12

Standard Score Difference	Reading f	Reading %	Math f	Math %
80 - 99	3	.2		
60 - 79	76	4.0		
40 - 59	115	6.2		
20 - 39	36	2.0	30	2.6
1 - 19	301	16.1	152	13.2
0	3	1.8	15	1.3
Less than 0	1303	60.8	950	82.8
TOTAL N	1867		1147	

Computations are associated with a negative t value (t = -6.53), indicating that students regressed from pre to post testing on this subtest. While the mean decrease is only .28 grade equivalents, the associated t value is significant due, in part, to the size of the population. For the other measures the mean growth in grade equivalents is .65 for reading, .39 for arithmetic average, .66 for arithmetic concepts, and .57 for arithmetic applications.

Pre-post data for those students in the 10th grade who received a Stanford test is presented in Table 1.12. Students appear to find the Stanford Arithmetic Computations the most difficult of the subtests since, consistent with previous analyses, that subtest is the only one which does not show growth. It can be seen from Table 1.12 that students regressed, on the average, .26 grade equivalents on the Computations section. The associated t value for the differences between correlated means (-4.29) is significant ($p < .001$). Positive and significant growth was demonstrated for all other subtests, including the arithmetic average measure. The reading subtest showed the largest mean difference (.75) grade equivalent (or three quarters of a year), a significant improvement ($t = 15.36$, $p < .001$).

The results of pre-post testing of students in the 10th grade who were administered an MAT may be found in Table 1.13. It may be seen, in this table and in the five that follow, that on the MAT test, the Math Analysis and Problem-Solving subtest shows least successful results. In Table 1.13 this subtest shows a negative t value (-.98) for the difference between pre and post means. The mean decrease is only .53 stand-

TABLE 1.11

MEANS, STANDARD DEVIATIONS, AND TESTS OF SIGNIFICANCE BETWEEN STANFORD PRE AND POST SCORES, READING AND MATH, GRADE 9

TEST		Mean Score	S.D.	d.f. (N-1)	t	p
Stanford Reading: Advanced Paragraph Meaning	pre	6.88	1.70	1405	16.83	.001
	post	7.53	1.85			
Stanford Arithmetic Average	pre	6.83	1.50	1331	11.72	.001
	post	7.22	1.67			
Stanford Arithmetic Computation	pre	6.83	1.50	1369	-6.53	.001
	post	6.55	1.98			
Stanford Arithmetic Concepts	pre	6.84	1.50	1363	22.79	.001
	post	7.70	1.87			
Stanford Arithmetic Applications	pre	6.85	1.51	1359	13.07	.001
	post	7.42	1.97			

TABLE 1.12

MEANS, STANDARD DEVIATIONS, AND TESTS OF SIGNIFICANCE BETWEEN STANFORD PRE AND POST SCORES, READING AND MATH, GRADE 10

TEST		Mean Score	S.D.	d.f. (N-1)	t	p
Stanford Reading: Advanced Paragraph Meaning	pre	7.91	1.84	827	15.36	.001
	post	8.66	1.82			
Stanford Arithmetic Average	pre	7.69	1.61	760	11.52	.001
	post	8.20	1.70			
Stanford Arithmetic Computations	pre	7.69	1.61	765	-4.29	.001
	post	7.43	1.98			
Stanford Arithmetic Concepts	pre	7.69	1.62	767	21.99	.001
	post	8.76	1.82			
Stanford Arithmetic Applications	pre	7.68	1.62	767	12.37	.001
	post	8.39	2.06			

TABLE 1.13

MEANS, STANDARD DEVIATIONS, AND TESTS OF SIGNIFICANCE

BETWEEN MAT PRE AND POST SCORES,

READING AND MATH, GRADE 10

TEST		Mean Score	S.D.	d.f. (N-1)	t	p
MAT Reading	pre	45.95	10.38	656	.45	n.s.
	post	46.12	10.69			
MAT Math Average	pre	37.36	10.59	611	7.92	.001
	post	40.60	12.00			
MAT-Math Computations and Concepts	pre	37.38	10.51	631	16.60	.001
	post	44.23	12.38			
MAT Math Analysis and Problem Solving	pre	37.34	10.59	614	- .98	n.s.
	post	36.81	14.66			

ard scores and the associated t is not significant. All other subtests show positive growth. On the reading subtest, students grew only .17 standard scores on the average, a difference which is not significant according to the t test for correlated means. Both the Math average and Math Computations and Concepts demonstrated positive and significant differences between pre and post test scores ($p < .001$). For the former, the mean growth was 3.24 standard scores; for the latter, 6.85 standard scores.

Table 1.14 presents data for the 11th grade testing. All students in this grade received an MAT test and the unit of achievement is the standard score. The reading subtest and two of the three math analyses show improvement. While not statistically significant, the pre-post reading scores show .36 standard scores growth. Significant at the .001 level, the Math average (mean difference = 4.59) and the Math Computations and Concepts (mean difference = 9.14) reflect definite improvements. Only the Math Analysis and Problem-Solving section shows regression with a decrease in means of .07 which was not significant.

The 12th grade pre-post MAT analyses are presented in Table 1.15. All sections show positive and significant ($p < .001$) growth, except for the Math Analysis and Problem Solving subtest. On the reading subtest, students grew an average of 1.42 standard scores. The growth on Math average was 3.23, and on Math Computations and Concepts, 7.04 standard scores. Only on the Math Analysis and Problem-Solving section did they show regression (mean difference = -.76), significant at the .05 level.

The foregoing analyses proved to be generally favorable and to

TABLE 1.14

MEANS, STANDARD DEVIATIONS, AND TESTS OF SIGNIFICANCE

BETWEEN MAT PRE AND POST SCORES,

READING AND MATH, GRADE 11

TEST		Mean Score	S.D.	d.f. (N-1)	t	p
MAT Reading	pre	49.40	10.74	1187	1.19	n.s.
	post	49.76	11.10			
MAT Math Average	pre	41.25	11.58	1069	14.51	.001
	post	45.84	12.68			
MAT-Math Computations and Concepts	pre	41.15	11.59	1083	27.00	.001
	post	50.29	12.83			
MAT-Math Analysis and Problem Solving	pre	41.21	11.66	1082	- .19	n.s.
	post	41.14	15.41			

TABLE 1.15

MEANS, STANDARD DEVIATIONS, AND TESTS OF SIGNIFICANCE

BETWEEN MAT PRE AND POST SCORES,

READING AND MATH, GRADE 12

TEST		Mean Score	S.D.	d.f. (N-1)	t	p
MAT Reading	pre	52.65	10.53	1313	5.04	.001
	post	54.07	11.28			
MAT-Math Average	pre	47.06	12.52	1197	11.12	.001
	post	50.29	12.57			
MAT-Math Computations and Concepts	pre	47.06	12.59	1225	23.15	.001
	post	54.10	12.62			
MAT-Math Analysis and Problem Solving	pre	47.08	12.51	1209	-2.10	.05
	post	46.32	15.11			

indicate that in the current academic year students tended to improve meaningfully in reading and mathematics. To provide a clearer picture of the extent of growth, frequency tables were generated which display students' absolute growth in each subject. These data, presented in Tables 1.16 through 1.20, indicate intervals of growth and the number and percentage of students falling in each interval.

TABLE 1.16

DISTRIBUTION OF DIFFERENCES BETWEEN PRE AND POST STANFORD SCORES, READING AND MATH, GRADE 9

Grade Equivalent Difference	Reading		Math	
	f	%	f	%
5.0 - 5.9	4	.3		
4.0 - 4.9	20	1.4	3	.2
3.0 - 3.9	54	3.8	13	1.0
2.0 - 2.9	166	11.8	102	7.6
1.0 - 1.9	332	23.6	289	21.7
.1 - .9	355	25.2	440	33.0
0.0	45	3.2	38	2.9
Less than 0.0	430	30.6	448	33.6
TOTAL N	1406		1333	

Table 1.16 presents the frequency data for the 9th grade Stanford pre-post testing. It can be seen that, of these students taking the reading subtest, 66.1% showed definite improvement. Only 3.2% showed no change, and 30.6% regressed. On the Math average measure, 63.5% improved while 36.5% did not. The means and standard deviations for these data may be found in Table 1.15.

The majority of students in the 10th grade who received a Stanford test (see Table 1.17) improved in both reading and mathematics from September, 1972 to May, 1973. On the reading subtest, 68.2% showed positive growth, while only 5.4% showed no change and 26.2% regressed; 65.3% of those taking the Math subtests made similar improvements, with only 2.9% remaining unchanged and 31.8% showing negative differences. Means and standard deviations for these data may be found in Table 1.12.

The data for students in the 10th grade who took an MAT test is presented in Table 1.18 in terms of standard scores; 47.5% of the students showed positive gain while 52.5% did not. Eleventh grade students fared better on the math test, since 63.1% demonstrated positive growth while only 36.9% did not. Measures of central tendency and variation for these data may be found in Table 1.13.

Table 1.19 presents reading and math data for the 11th grade MAT testing. Again, there was more, pre-post growth in math than in reading. While 70.6% of students demonstrated positive gain in math, only 47.9% showed growth in reading. Conversely, 44.9% of students were found to have negative differences and 7.2% to remain unchanged on the Reading subtest. On the math, only 27.9% showed regression, with 1.3% remaining the same.

TABLE 1.17

DISTRIBUTION OF DIFFERENCES BETWEEN PRE AND POST

STANFORD SCORES, READING AND MATH, GRADE 10

Grade Equivalent Difference	Reading f	Reading %	Math f	Math %
6.0 - 6.9	1	.1		
5.0 - 5.9	2	.2	1	.1
4.0 - 4.9	11	1.3	2	.3
3.0 - 3.9	49	5.9	19	8.4
2.0 - 2.9	98	11.8	64	8.4
1.0 - 1.9	177	21.4	180	23.6
.1 - .9	228	27.5	232	30.4
0.0	45	5.4	22	2.9
Less than 0.0	217	26.2	242	31.8
TOTAL N	828		762	

TABLE 1.18

DISTRIBUTION OF DIFFERENCES BETWEEN PRE AND POST MAT SCORES, READING AND MATH, GRADE 10

Standard Score Difference	Reading f	Reading %	Math f	Math %
30 - 39	2	.3	2	.3
20 - 29	12	1.8	33	5.4
10 - 19	94	14.3	134	21.9
1 - 9	204	31.1	217	35.5
0	58	8.8	10	1.6
Less than 0	287	43.7	216	35.3
TOTAL N	657		612	

TABLE 1.19

DISTRIBUTION OF DIFFERENCES BETWEEN PRE AND POST

MAT SCORES, READING AND MATH, GRADE 11

Standard Score Difference	Reading f	Reading %	Math f	Math %
50 - 59	1	.1		
40 - 49	1	.1	2	.2
30 - 39	10	.8	8	.6
20 - 29	24	2.0	71	6.6
10 - 19	151	12.7	238	22.2
1 - 9	382	32.2	439	41.0
0	85	7.2	14	1.3
Less than 0	534	44.9	298	27.9
TOTAL N	1188		1070	

The majority of the 12th grade sample, all of whom were administered an MAT, showed gain in both reading and math in pre-post analysis. Table 1.20 indicates that on the reading subtest 53.4% of the students improved while 7.7% showed no change and 39.0% regressed. On the math test, 63.0% made positive improvement while 37.0% did not. Means and standard deviations for these data may be found in Table 1.15.

TABLE 1.20

DISTRIBUTION OF DIFFERENCES BETWEEN PRE AND POST MAT SCORES, READING AND MATH, GRADE 12

Standard Score Difference	Reading f	Reading %	Math f	Math %
30 - 39	5	.4	8	.7
20 - 29	36	2.7	40	3.3
10 - 19	229	17.6	227	19.1
1 - 9	430	32.7	478	39.9
0	101	7.7	34	2.8
Less than 0	513	39.0	411	34.2
TOTAL N	1314		1198	

In summary, the analyses of academic growth in the current project year 1972-73 based on pre and post testing are quite positive. The large majority of students in the population as a whole showed gains in both reading and mathematics.

Grade Point Average Results

Improvement in the quality of academic work was measured by assessing grade point averages of all participating students. The objectives directed the determination of whether students' average class grades had significantly increased from 1971-72 to 1972-73, and whether students had improved an absolute number of grade points during that period. For example, in 9th and 10th grades, 75% of students entering with averages of 65 or below should have obtained 68 or better at the end of the school year.

Grade point averages were collected for all students from June, 1972 and from May, 1973. It should be noted that for 9th grade students, the June, 1972 averages were those obtained at the end of junior high school. These may or may not be comparable with high school average grades.

Table 2.1 presents grade point average statistics for 1972 and 1973 for the total population and for the population broken down by grade. The data indicate that, in all cases, the average grades decreased. In every grade, the mean grade point average in June, 1972 was between 75.0 and 80.0. In May, 1973, the range had dropped to between 73.0 and 75.5 The variability was limited, since all standard deviations are less than 1.

Table 2.2 indicates the mean difference in grade point averages for the total population and for each grade. In each case, the mean difference is in a negative direction with a fractional standard deviation. The mean decrease is highest in the ninth grade, perhaps reflecting the fact that it was more difficult for students to achieve high grades in high school than in junior high school. Accordingly, the mean decrease is less

TABLE 2.1

MEANS AND STANDARD DEVIATIONS OF GRADE POINT AVERAGES, JUNE, 1972 AND MAY, 1973, GRADES 9-12

		June, 1972		May, 1973	
	N	$\bar{X}$	S.D.	$\bar{X}$	S.D.
Total Population	8049	76.9	.83	73.8	.91
9th	838	79.7	.76	73.2	.96
10th	2720	77.8	.84	73.4	.92
11th	2316	75.5	.82	73.2	.88
12th	2175	76.2	.81	75.1	.91

TABLE 2.2

MEAN GROWTH IN GRADE POINT AVERAGE, 1972-73, GRADES 9-12

	N	$\bar{X}$	S.D.
Total Population	8049	-3.1	.79
9th	838	-6.4	.89
10th	2720	-4.4	.81
11th	2316	-2.4	.70
12th	2175	-1.1	.77

in each successive grade. In the 12th grade, the decrease is only 1.1 grade points, on the average. These data may suggest that CBP students with serious difficulties in reading and arithmetic are struggling with increasingly difficult academic material as they advance in grade level. The effect of the College Bound Program, then, could be seen as assisting in the remediation of these difficulties and as stemmimg the regression they have normally experienced.

The evaluation design called for analyses of grades for students obtaining averages of (1) 65 or below (for 9th and 10th grades), (2) between 65 and 75 (for 9th and 10th grades), and (3) 75 exactly (for seniors only) in 1971-72. The expectation was that 70-75% would grow to (1) 68 or better, (2) 78 or better, and (3) 85 or better, respectively. It should be noted that there was no evaluation objective prescribed for grade point averages in the 11th grade.

Preliminary analyses suggested that none of these objectives were met. Partial data is presented in Table 2.3 to substantiate this assessment. As can be seen in Table 2.3, only in the 10th grade was any gain at all made in grade point averages. The improvement of an average of less than 1 full grade point did not, however, meet the objective. Frequency distributions were generated for these data and are presented, in attenuated form, in Table 2.4.

The data in Table 2.4 show that for the 9th and 12th grade samples approximately 60% of students showed either no growth or regression in grade point average. In the 10th grade, 43.9% of the students demonstrated no positive growth. It is clear that, while moderate percentages of stu-

TABLE 2.3

MEAN GROWTH IN GRADE POINT AVERAGE, 1972-1973, FOR A RESTRICTED SAMPLE OF STUDENTS, GRADES 9, 10, AND 12

Grade	Entering 1972	N	$\bar{X}$ Difference 1972-1973	SD
9th	65.0 or below	52	-3.33	1.26
10th	65.0 or below	223	.99	1.01
12th	75.0	106	-1.81	.75

TABLE 2.4

FREQUENCY DISTRIBUTIONS OF GROWTH IN GRADE POINT AVERAGE FOR A RESTRICTED SAMPLE OF STUDENTS, GRADES 9, 10, AND 12

Grade Points Growth	9th Grade Entering 65.0 and Below		10th Grade Entering 65.0 and Below		12th Grade Entering 75.0	
	f	%	f	%	f	%
21 - 25	2	3.8	4	1.8		
16 - 20	2	3.8	9	4.0		
11 - 15	5	9.7	18	8.1	3	2.8
6 - 10	9	17.3	50	22.4	13	12.3
1 - 5	5	9.6	44	19.8	26	24.5
0	2	3.8	14	5.2	11	10.4
Below 0	27	55.8	84	38.7	53	50.0
TOTAL	52		223		106	

dents in each grade (who entered with the prescribed scores) improved appreciably, the percentages do not meet the 70-75% objective.

In the course of collecting data for this objective, several counselors suggested that the May, 1973 grading period (i.e., the "second third" marks), was characterized by incentive grading on the part of many teachers. That is, teacher-assigned grades are generally lower in the marking period immediately before final grading. In light of this information, grade point averages were collected from February, 1973 for a small number of students.

Table 2.5 shows the mean grade point averages achieved in February, 1973 for a small sample in the 11th and 12th grades compared with the averages in May, 1973 for the rest of the students in those grades. Relative to the initial mean grade point average in June, 1972 for each group, grade point averages were higher in February, 1973 than in May, 1973. Accordingly, the mean difference is less negative in February than in May (-2.5 compared with -.7 in the 11th grade and -2.1 compared with -1.0 in the 12th grade). Clearly the sample sizes are very disparate since only a few counselors submitted February grades. However, this analysis suggests that if the directive had been to collect grade point averages from February rather than May for the entire population, more positive results may have been achieved.

TABLE 2.5

COMPARISONS OF MEANS AND STANDARD DEVIATIONS

OF GRADE POINT AVERAGES IN FEBRUARY, 1972

AND MAY, 1973, GRADES 11 AND 12

Grade	N	June 1972		February 1973		May 1973		$\bar{X}$ Difference
		$\bar{X}$	SD	$\bar{X}$	SD	$\bar{X}$	SD	
11th	142	77.9	.65	77.2	.71			- .7
	2169	75.4	.83			72.9	.88	-2.5
12th	172	78.3	.73	76.2	.85			-2.1
	2003	76.0	.82			75.0	.91	-1.0

Attendance and Punctuality Results

The expectation that, as a result of participating in the program, students would develop more positive attitudes towards school and their academic future was built into a behavioral objective regarding attendance and punctuality. The objective specified that improvement of educational attitudes would result in regular school and class attendance and punctuality.

The number of days absent and late for every student were recorded by CBP guidance counselors for the periods October 2-30, 1972 and March 19-April 13, 1973. The dates selected for analysis represent intervals of normal school activities near the beginning and end of the academic year. In order to avoid the special circumstances attending the first and last months of the program (organization, special entrance testing, class changes, trips, post-testing, Regents examinations, etc.) the recommended dates were thus modified.

As suggested in the evaluation design, a test of significance of difference between correlated means was performed on these data. Table 3.1 indicates the mean number of days absent in the October and March-April time periods for students at each grade level (N=9771). The table shows that for each grade there was a statistically significant increase in number of days absent from October, 1972 to April, 1973.

Similarly, Table 3.2 presents the mean number of days late for each grade during these periods. The students (N=7202) showed a statistically significant increase in days late in every grade, except the 12th. The 12th grade students also increased in mean numbers of days late, but

TABLE 3.1

MEANS, STANDARD DEVIATIONS, AND TESTS OF SIGNIFICANCE FOR DAYS ABSENT, OCTOBER, 1972 AND APRIL, 1973, GRADES 9-12

Grade	October, 1972		April, 1973		d.f. (N-1)	t	p
	X	S.D.	X	S.D.			
9th	1.4803	3.033	2.0466	3.395	2079	- 7.29	.001
10th	1.4083	2.241	1.9439	2.860	2921	-10.09	.001
11th	1.4148	2.959	1.9104	2.846	2545	- 7.52	.001
12th	1.6433	2.229	2.4040	2.853	2222	-12.48	.001

not to a significant degree. It should be noted, in connection with both Tables 3.1 and 3.2, that the actual changes in mean number of days late and absent are, in all cases, only fractions of a day. The mean change, for both attendance and punctuality, in every grade, was less than one day.

Because high attendance and punctuality records are a requisite for continued participation in College Bound, students were often dropped from the program for not meeting this criterion. Accordingly, additional analyses were performed which separate the population into two groups, those dropped from the program in the course of the academic year and those continuing in

TABLE 3.2

MEANS, STANDARD DEVIATIONS, AND TESTS OF SIGNIFICANCE FOR DAYS LATE, OCTOBER, 1972 AND APRIL, 1973, GRADES 9-12

Grade	October, 1972		April, 1973		d.f. (N-1)	t	p
	X	S.D.	X	S.D.			
9th	1.1581	2.750	1.3712	3.418	1979	-3.21	.001
10th	.9038	2.003	1.2684	2.580	2582	-8.02	.001
11th	.9706	2.648	1.2047	2.465	2515	-4.26	.001
12th	1.0358	2.012	1.0608	2.112	2122	- .56	n.s.

the program. The data on mean days absent for these two groups, presented in Table 3.3, indicate that those students dropped from the program showed higher mean absence than those continuing. In the October interval the mean difference was 2.8 days and in the March-April interval, 4.3 days. Thus, those students who remained in the program showed less initial absence and smaller increase in absenteeism compared with those whose program participation was terminated. The poorer attendance records of the dropped students are indicated in the analyses in Tables 3.1 and 3.2, thereby contributing to the significance of increase in absenteeism.

TABLE 3.3

MEANS AND STANDARD DEVIATIONS FOR DAYS ABSENT, OCTOBER, 1972 AND APRIL, 1973, IN TERMS OF PROGRAM ATTRITION

	Days Absent October, 1972			Days Absent April, 1973		
	N	$\bar{X}$	S.D.	N	$\bar{X}$	S.D.
Total Population	9827	1.46	2.82	9780	2.08	3.03
Still in Program	9448	1.45	2.65	9633	2.02	2.91
Dropped from Program	376	4.25	4.88	145	6.36	6.38

Table 3.4 presents a similar analysis of days late in October and March-April for both continuing and dropped students. While the results show fewer days late, on the average, for continuing students, the differences are not as clear as those reflected in the previous analysis of days absent.

In order to avoid the implication that attendance and punctuality are unrelated behaviors, an analysis was performed which reflects days present and on time for students in each grade. The mean number of days present and on time, displayed in Table 3.5 is based, for each student,

TABLE 3.4

MEANS, AND STANDARD DEVIATIONS FOR DAYS LATE, OCTOBER, 1972 AND APRIL, 1973, IN TERMS OF PROGRAM ATTRITION

	Days Late October, 1972			Days Late April, 1973		
	N	$\bar{X}$	S.D.	N	$\bar{X}$	S.D.
Total Population	9387	1.0	2.4	9336	1.2	2.7
Still in Program	9025	1.0	2.4	9207	1.2	2.7
Dropped from Program	359	1.4	2.5	127	1.5	2.7

on subtracting from 20 the number of days absent and the number of days late. The table indicates results similar to previous analyses in reflecting a decrease in mean days present and on time for each grade. Again, the decrease is minimal.

It should be reiterated that high attendance and punctuality records are criteria for both acceptance and continuation in the College Bound program. These requirements leave little room for improvement in either behavior. The minor fluctuations, even in a negative direction, reflected in these data should not be considered crucial. This is especially true, since approved absences (those for which a student brings

TABLE 3.5

MEANS, STANDARD DEVIATIONS, AND TESTS OF SIGNIFICANCE FOR DAYS ABSENT AND ON TIME, OCTOBER, 1972 AND APRIL, 1973, GRADES 9-12

Grade	October, 1972		April, 1973		d.f. (N-1)	t	p
	X	S.D.	X	S.D.			
9th	17.3340	4.053	16.5400	5.017	1975	- 8.32	.001
10th	17.7096	3.147	16.8528	3.931	2675	-12.45	.001
11th	17.6620	4.265	16.9197	4.066	2514	- 8.48	.001
12th	17.3512	3.201	16.6200	3.731	2120	- 9.51	.001

a medical note, parental excuse, etc) are included nevertheless as absences. The small magnitude of absolute change (less than one full day in all cases) is rendered statistically significant by virtue of the large population analyzed. Analyses which bear on changes of attitudes towards school and learning, from the perspective of student, teacher, and guidance counselor questionnaires, are presented in a later section.

Graduation, Admission to College and Financial Aid

Completion of College Preparatory Requirements. Two factors may be seen as affecting fulfillment of College Bound program objectives with regard to an increased proportion of students "completing college preparatory requirements" as a result of program participation. The first of these is program attrition; the second is graduation from high school.

The data in Table 4.1 indicate that the College Bound Program has considerable holding power. Guidance counselors' reports indicate that 92.8% of students were still in the program as compared with 7.1% who had been dropped.

TABLE 4.1

HOLDING POWER OF THE COLLEGE BOUND PROGRAM

	frequency	%
Student still in program	9766	92.8
Student dropped from program	749	7.1
	N=10515	99.9%

Table 4.2 details the causes of College Bound Program attrition over the course of the 1972-1973 school year. The data indicate that the most frequent causes of discontinuation of participation were transfers from the school in which the program was operative. Transfers

accounted for 38.8% of those no longer in the College Bound Program. 22.9% of terminations were attributed to academic failure; 11.3% were dropped because of poor attendance. The parents of only 9.2% of those students no longer in the program initiated the termination of their child's participation.

TABLE 4.2

CAUSES OF ATTRITION IN PROGRAM PARTICIPATION

Reason Dropped	frequency	%
Academic Failure	162	22.9
Poor Attendance	80	11.3
Behavior Problems	9	1.3
Multiple Problems	36	5.1
Parents' Request	65	9.2
Transfer	274	38.8
Other	81	11.4
TOTAL	707	100.0%

Turning to Table 4.3, it is apparent that the overwhelming majority of participating seniors were expected to graduate from high school. Guidance counselors reported that 97.7% of College Bound seniors were expected to graduate.

TABLE 4.3

ANTICIPATED GRADUATION FROM HIGH SCHOOL

Response	frequency	%
Expected to graduate	2226	97.7
Not expected to graduate	52	2.3
TOTAL	N=2278	100.0%

Admission to College. The advent of the open admissions policy of the City University of New York has increased the difficulty of evaluating the implications of data showing only the proportions of various students "going on to college". The cause of a "higher proportion of College Bound graduates going on to college" could be attributed to a variety of factors (e.g., college admissions could be increased by participants' increased interest in attending college, higher academic achievement, special arrangements with colleges, higher prestige of the College Bound Program as compared with the regular high school academic program, or, all of the above factors could be operative).

To elucidate the parameters of college admissions data it has been useful to distinguish between those colleges whose admissions policies retain a fully competitive element, those where this competitive element has been restricted, and those where it has been eliminated entirely. These same distinctions differentiate both policies with regard to awards of fi-

nancial aid (e.g., random assignment vs. academic merit), and the types of aid available (e.g., SEEK).

The frequency data on college admissions presented in Table 4.4 are categorized according to type of college and reflect all acceptances received (i.e., some students were admitted to more than one college). It is important to note in connection with these data that constraints placed on the evaluation required that they be collected at an early date (relative to the time the more competitive colleges inform applicants of their admission and awards of financial aid). Accordingly, frequencies of those admitted to college could be expected to be spuriously low and biased in favor of those types of colleges where the competitive element in admissions and awards of financial aid has been restricted or eliminated.

TABLE 4.4

PARTICIPANTS' GAINING ADMISSION TO COLLEGE

Type of College	frequency	%
CUNY (2 year)	394	17.3%
CUNY (4 year)	1734	76.0%
Other colleges	1217	53.3%
Not accepted	44	1.9%
TOTAL N = 2280	TOTAL ACCEPTANCES = 3389	

Guidance counselors reported that 53.5% of graduating College Bound seniors have been offered financial aid for college. These data are presented in Table 4.5.

TABLE 4.5

AWARDS OF FINANCIAL AID TO COLLEGE BOUND PARTICIPANTS

Response	frequency	%
Awarded aid	1109	53.5
No financial aid	962	46.5
TOTAL	N=2071	100.0%

The College Bound population in each of the 32 schools in which the program was operative was randomly sampled for purposes of comparison with "an equivalent sample of academic graduates". Those selected were pair-matched with members of the "academic" group on the basis of College Acceptance Average. This procedure serves to control variability in academic achievement and intelligence (to the extent that the two are associated). Therefore differences between the two populations reflect College Bound Program administrative and guidance facilitation of college admittance, rather than the increased academic achievement of the College Bound group.

Summary data for the two samples of 519 students are presented in Table 4.6.

TABLE 4.6

COLLEGE ADMITTANCE AND FINANCIAL AID

Status	College Bound		"Academic"	
	f	%	f	%
Accepted to college	497	95.8	332	64.0
Accepted to non-CUNY college	226	43.5	58	11.2
Offered aid at non-CUNY college	151	29.1	22	4.2
Accepted at CUNY 4-year college	199	38.3	160	30.8
Accepted at CUNY 2-year college	72	13.9	119	22.9
Offered aid at CUNY	64	12.3	34	6.6
Not accepted at any college	22	4.2	187	36.0

These data were examined by means of a statistic designed to test differences between proportions. The statistical analyses of the data on admission to college are presented in Table 4.7.

Analysis 1: An addendum to the College Bound Evaluation Design, 1972-1973 requires that differential proportions of students going on to college (of both the College Bound and non-College Bound groups) be evaluated by means of a t-test for comparisons between proportions. 95.8% of the sampled College Bound students were accepted to college as compared with 64.0% of the "academic" students. These proportions were found to differ ($t = 12.95$) at the 99% level of confidence. However, due to the open admissions policies

TABLE 4.7

INTERGROUP COMPARISONS OF COLLEGE ADMISSION

Analysis No.	Comparison	College Bound n_1	%	"Academic" n_2	%	t	p
1	Accepted to College	519	95.8	519	64.0	12.95	.001
2	Accepted at non-CUNY college	519	43.5	519	11.2	13.24	.001
3	Accepted at CUNY 4-year college	271	81.9	519	42.0	4.16	.001
4	Accepted at non-CUNY & CUNY 4-year	519	81.9	519	42.0	15.11	.001

of the City University of New York, the implications of this difference are obscured. That is, it is difficult from this comparison to credit College Bound administrative contacts with colleges or the prestige of the program for the higher admissions of program participants, because differences in acceptances could have been accounted for solely by the College Bound group's higher interest in going to college. If anyone who wants to go to college is able to do so under the "open admissions" policy, such higher interest in going to college could be expected to be directly reflected in increased college admissions.

Analysis 2: The proportions of students accepted at colleges with fully competitive admissions policies (non-CUNY schools) were examined to eliminate the ambiguity (with regard to CUNY's "open admissions" policy) of the required analysis (No. 1). Differences were again tested by means of a t-test for comparisons between proportions and again the null hypothesis was rejected at the $\alpha = .01$ level. Thus, Analysis 2 permits the inference that differences between groups on the variable at hand, are attributable to causes other than, though certainly not exclusive of, interest in attending college and/or academic achievement (controlled through the pair-matched sampling procedure).

Analysis 3: Within the CUNY system, colleges are characterized by differerential competitiveness. The "open enrollment" policy provides for guaranteed admission to some college in the CUNY system (not any particular college); as such the four year colleges in the system retain a somewhat greater competitive element in their admission policies than do the two year or Community Colleges. Analysis 3 compares between groups

the proportion of those admitted to and planning to attend CUNY schools who were accepted at four year colleges. Of the College Bound sample, 271 participants were admitted to the CUNY system, as compared with 279 of the "academic" group. 73.4% of those College Bound students admitted to and planning to attend the CUNY system, were accepted to a CUNY four-year college. The corresponding proportion for the "academic" sample was 57.3%. These proportions were found to differ ($t = 4.16$) at the $\alpha = .001$ level. One could conclude from the above that College Bound students tend to be accepted more frequently at the more competitive colleges within the CUNY system, as compared with an equivalent sample of "academic" students.

Analysis 4: The relative proportions of students who were admitted to colleges whose admissions policies retained some competitive element (i.e., non-CUNY and CUNY four year colleges) were compared in Analysis 4 for the two samples at hand. As could be expected from previous analyses, these proportions were significantly different ($t = 15.11$) at $\alpha = .001$. College Bound students appear to be able to gain admission to more highly competitive colleges more easily than can non-College Bound students.

Analysis 5: Table 4.8 presents tests for significance on inter-group comparisons of awards of financial aid. An addendum to the Evaluation Design for the 1972-1973 Title I College Bound Program requires that Analysis 5 be performed. The objective and requisite method of analysis is as follows: "There will be a significantly higher proportion of College Bound graduates receiving financial aid than the proportion of an equivalent sample of academic graduates going on to college, as indicated by a

TABLE 4.8

INTERGROUP COMPARISONS OF AWARDS OF FINANCIAL AID

Analysis No.	Comparison	College Bound n_1	%	"Academic" n_2	%	t	p
5	Awarded financial aid	519	41.4	519	10.8	12.54	.001
6	Awarded financial aid at non-CUNY school	226	66.8	58	37.9	4.13	.001
7	Awarded CUNY aid	271	23.6	279	12.3	3.77	.001

t-test for comparisons between proportions." It is important to note, in connection with this analysis, that more than half of the students in each sample have been admitted by CUNY colleges, some of which assign aid on a random basis for students meeting eligibility criteria. 41.4% of the College Bound participants sampled received financial aid; only 10.8% of the equivalent sample of "academic" graduates were awarded aid. These differences were significant ($t = 12.54$) at $\alpha = .001$, but they reflect differential college acceptance rates, intergroup differences in the proportion of students in each sample who were accepted at schools where financial aid is randomly assigned, and perhaps differences in the proportion of students who meet CUNY aid eligibility criteria.

Analysis 6: In order to evaluate the effectiveness of those program activities leading to awards of financial aid to participants (other than those resulting in higher academic achievement) the data for those students admitted to non-CUNY colleges were examined for differences between groups. 66.8% of the 226 College Bound graduates who were admitted to non-CUNY schools were awarded financial aid; 37.9% of the 58 "academic" students who were admitted to non-CUNY schools received aid. Differences between the proportions were significant ($t = 4.13$) at $\alpha = .001$. Apparently College Bound Program activities other than those resulting in higher academic achievement have an appreciable enhancing effect on participants' receipt of financial aid.

Analysis 7: The proportions of those students (accepted at and planning to attend CUNY schools) who were awarded financial aid were examined for differences between the groups. As indicated in Table 4.6

and again in Table 4.7, the proportion of those academic students admitted to the CUNY system at two year colleges (42.7%), is greater than the comparable proportion for the College Bound group (26.6%). Aid is awarded on a random basis at two year CUNY colleges. Accordingly differences between groups could have been accounted for by the lower frequencies of aid received by those students attending CUNY two year colleges. 23.6% of the College Bound group admitted to CUNY schools received aid as compared with 12.3% of the "academic" sample. These differences were significant ($t = 3.77$) at $\alpha = .001$.

Attitudes of Program Participants and Staff

Coordinator Interview

Each of the thirty-two coordinators of the College Bound Program was interviewed individually by the evaluators. The interviews varied in duration, but averaged about an hour and a half. Although the questioning followed a structured interview format (see Appendix B), each coordinator was allowed considerable leeway in describing the operation of the College Bound Program in his or her school.

Innovative approaches and special programs. Reflecting the effort to improve academic performance, CB coordinators report using a number of innovative approaches in the College Bound Program. Double periods which allow review of relevant skills and presentation of supplementary materials, preparatory or pre- courses, the extension of courses ordinarily offered in two semesters over three semesters, and the introduction of new syllabi have all been utilized "in order, so far as possible, to insure for success rather than to try to undo failure." The pressure for achievement, along with special features of the College Bound Program such as small class size, have been conducive to an emphasis on the development of teaching methods which maximize learning.

According to the coordinators the first priority of the CB program has been improving basic reading comprehension. Many coordinators reported using the Human Resources Laboratory particularly for those students who were furthest below grade level. Other reading labs, skill building books, and a variety of supplementary reading materials were also advocated by the coordinators. Paperback books, including novels and such basic reference books as dictionaries, which the student could

keep, were found to be very effective in most CB programs. The second period of English was also used to build writing skills, introduce students to the humanities, and provide up to one period per week of group guidance. An added emphasis in the 11th grade was preparation for the PSAT and the SAT, and in the 12th grade preparation for the Regents' examinations. For students who passed the Regents' exams in January, several programs offered a semester of "college skills" including writing research papers and lecture note taking.

The double period in mathematics is newer and techniques to maximally exploit it are still being developed. Using the second period for homework or tutoring was reported to be less successful than giving students a second period of math skills.

There has been considerable flexibility in allowing different schools to adapt the form and content of the double English and mathematics periods to the needs of their students. A variety of approaches have emerged, with the more successful ones gradually being adopted by other schools. There is, as yet, no consensus among coordinators as to the best arrangement for scheduling the double English and double mathematics periods. Some coordinators have found "back-to-back" periods under a single teacher effective; others prefer separated periods with different teachers and a division of subject matter.

Although the remediation of basic skills in reading and arithmetic is considered paramount, many coordinators pointed out that double periods of both English and mathematics, as have been proposed for next year, will be not only virtually impossible to schedule, but will also

preclude taking electives. They suggested that it is essential to provide some flexibility for scheduling individual electives, especially in the last two years of high school. The College Bound Program is clearly academic in orientation, but the coordinators said it should not preclude opportunities for students to develop skills like typing which are useful in college, taking exploratory courses in subjects such as journalism, psychology, or nursing in which they may plan to major in college, and developing skills in the very arts to which the students are being exposed by the cultural events component of the College Bound Program.

Within the academic curriculum new syllabi have been introduced in non-Western civilizations, in Introductory Physical Science, in Afro-American history and literature, and in decision making, each of which was reported to be popular in several schools. A number of new courses and syllabi which were developed for or first tried in CB classes were extended to the entire high school after their effectiveness had been demonstrated. Examples include a semester of conversational pre-Spanish and a series of mini-courses in science. Coordinators reported a continuing demand for new syllabi and teaching materials beyond what the College Bound headquarters staff and individual teachers have thus far developed. However, although many teachers were reportedly seeking new approaches, other teachers continued to teach almost entirely from single, often outdated, textbooks. Teachers remain under departmental control, and it is only in cooperation with the department chairmen that changes in the curriculum have been made. Under the structure of the College Bound Program a certain number of teacher positions are allotted to a

school for the CB program. However, these positions are almost always divided among many teachers so that the typical teacher has only one or two College Bound classes. This structure makes it difficult for a coordinator to implement more effective teaching methods if there is any opposition.

Tutoring. The tutoring component was generally praised by the coordinators who used it to provide additional support in whatever subjects were most difficult for particular students. The tutors were college and high school students. The college students were hired individually or through an arrangement with their college. Some colleges also had volunteer tutoring programs which provided additional tutoring to CB students. The high school students were either CB students or members of the larger student population. Tutoring was conducted before, during, and after school and in the College Bound office, other school rooms, or even at the college which the tutors attended. Coordinators differed in their evaluations of the effectiveness of different types of tutors and tutoring situations. There was reported to be enough flexibility to make possible the type of tutoring program which was favored in each school.

Trips. The coordinator has the major responsibility for "organizing and implementing trips." Two types of trips were budgeted: visits to colleges and tickets for a variety of cultural activities including, the theatre, films, ballet, concerts, sports events, and exhibits at museums and scientific institutes. An effort was made to have students see different types of colleges including a city college, a state university, a

private college in the city, and a private college outside the city by the end of the 11th grade. The coordinators generally agreed that the college visits were extremely helpful in reifying the theretofore only secondary image the students had of the college careers to which they had committed themselves upon entering the CB program. The coordinators were also generally agreed that attendance at cultural events broadened the students' experience. Many coordinators stated that the most effective organization was to allow students to attend those events of greatest interest to them. There was considerable variation in the extent to which the coordinators encouraged students to suggest or initiate trips as well as in the extent to which they encouraged teachers to make requests for class-related trips. Trips organized by teachers related more closely to the curriculum and allowed greater preparation and follow-up, but also conflicted with the conduct of other classes. It should be noted that the funds for trips in the academic year 1972-73 were reportedly cut approximately 50% from the previous year and were not available until December, thus limiting considerably the number and timing of trips this year.

Student Population of the College Bound Program. Asked to describe any special characteristics of College Bound students, coordinators reported that CB students often participate more actively in student government, school activities, and athletics. Although sometimes reported to be perceived as cliquish or spoiled by other students and by some teachers, CB students were seen by coordinators as consistently better motivated and more oriented to long term college and career goals than comparable

students in the rest of the high school. Coordinators indicated that fewer CB students than comparable students have dropped out of school. They also reported that attendance has been consistently higher among College Bound students than in the rest of the school, even in high schools which have attendance rates over 80%. It should be noted, of course, that good attendance is a criterion for entrance to the program and that each daily absence is reported to the student's home.

The academic and economic status of CB students relative to those of other students in the high school appear to be major variables in the acceptance and functioning of the program. The program is reported to have greater support in neighborhood schools in poverty areas where few students otherwise go on to college. There is reported to be resistance to the program from lower-middle class families who can barely afford to send their children to college, but who are ineligible for the CB program. Several coordinators have tried very hard to maintain an integrated program in their school, but despite their efforts, there is a tendency for income and academic selection criteria to create de facto segregation in the CB program in some schools.

Guidance counseling. The coordinators described three features which have distinguished guidance counseling in the College Bound Program from guidance counseling in the mainstream of most of the high schools studied: the small ratio of students per counselor, the omnibus delivery of guidance services, and the long duration of the counselor-student relationship. Each of these features was favorably assessed by the coordinators. Whereas College Bound guidance counselors were assigned only 100 students, guid-

ance counselors in the rest of the high school were reportedly assigned upwards of 300-400 students. Whereas the CB guidance counselor was responsible for personal counseling, college and career advising, grade level course assignment, disciplinary action, and attendance supervision, these functions were generally split among various personnel in the mainstream of most high schools. A few high schools were reportedly changing over to omnibus guidance services, at least in part as a result of the beneficial results demonstrated in the College Bound Program. The coordinators explained that the contact established with a guidance counselor when the student enters the CB program is maintained through the student's three or four high school years thereby increasing the intensity of the bond between the student and his counselor. Especially for students with family problems, the strong adult role model provided by the guidance counselor is reported by the coordinators to be a major factor in the success of the CB students. In most high schools students came freely and frequently to the offices of the guidance counselors. The coordinators reported that a teacher who has a problem with a CB student has rapid access to his or her guidance counselor and that such class-related problems are usually solved more easily and quickly than if the student is not in the CB program. The influence of the guidance counselors was reported to be decidedly instrumental in making it possible for CB students to succeed academically. As one coordinator put it, "There couldn't be a College Bound Program if there weren't a 100 to 1 ratio. If there is one thing that could not be done without, it is the counselor."

Selection of incoming College Bound students, 1973. In previous years up to 25% of the incoming students could score on or above grade level in reading and mathematics, whereas in the selection of incmoing students for Fall, 1973 only students who score below grade level are eligible for the program. The coordinators were virtually unanimous in their criticism of the new guidelines. The reasons for preferring the former guidelines varied. Some coordinators feared that the new guidelines will substantially lower the calibre of the students who are accepted into the program. They feared that it will be increasingly difficult, as well as inappropriate, to prepare such students for college. They remarked that under the new guidelines and with the increased emphasis on remediation, College Bound will be a misnomer. Other coordinators noted that while the majority of the CB students have always been below grade level, the relatively few students who are above grade level have served as examples, stimulating other students to greater achievement. They anticipated that this leavening effect will be lost under the new guidelines. Still other coordinators did not expect that the actual capabilities of students recruited under the new guidelines will differ significantly, but feared that the perception of the CB program by teachers and other school personnel will be negatively affected. This they predicted will make it harder to recruit highly motivated students, and many neighborhood high schools were reported to depend on the CB program to attract and hold the better student who would otherwise go to open enrollment high schools. The new guidelines were also expected to lower teachers' expectations for CB students, negatively affect the quality of teaching in CB classes, and finally result in

lower expectations and less positive self concepts on the part of the CB students.

The coordinators' most common complaints about the selection process were the unreliability of past (pre-1973) reading and arithmetic scores provided by the feeder schools, the inadequacy of information on emotional and behavior problems provided by the guidance counselors in the feeder schools, and the difficulties of dealing with many feeder schools. Reading and arithmetic scores on the M.A.T. administered by the junior high school were used previously to determine eligibility. These scores were found to be inflated, possibly from familiarity with the test, and otherwise unreliable. The introduction this year of the Stanford test, with which the students were less familiar, and which was administered by College Bound personnel is expected to increase the reliability of reading and arithmetic scores.

Coordinators who relied on the written high school applications and recommendations for information about prospective students generally criticized the reports prepared by guidance counselors in the feeder schools as failing to report significant information on behavior problems. There appears to be an understandable reluctance on the part of the feeder school counselors to record emotional or behavior problems on the official application which is part of a student's permanent record. Coordinators who had established personal contacts with guidance counselors or other personnel in the feeder schools reported that they can generally get valid information verbally. Interviewing each applicant individually is another method for obtaining information beyond the written application

which was generally reported to be satisfactory, if time consuming, by those counselors who used it.

Family Assistants. According to the coordinators, the family assistant works in close conjunction with one or two guidance counselors. He or she is assigned to a specific set of students and continues to work with their families throughout the students' years in the CB program. The extent to which the role of the family assistant has been professionalized varied considerably, with coordinators expressing the greatest satisfaction with the work of the family assistants in those schools in which there has been a concerted effort to professionalize their role. As one coordinator said, "To treat them as messenger girls is ineffective and unprofessional."

Family assistants were generally required to maintain flexible schedules, seeing many families during evening hours. They were reported to be most effective when they lived and were known in the students' neighborhoods and when they spent enough time in the schools to be regular members of the CB staff. The family assistants were generally given the responsibility for calling students' homes after each absence and often helped the guidance counselors with clerical work. Most schools had at least one Spanish-speaking family assistant, but the proportion of Spanish-speaking students and families appeared to be higher than the proportion of family assistants who speak Spanish. Most coordinators praised the provision for college courses for family assistants. The sharp budget cut in the provision for car fare for family assistants making home visits was criticized by several coordinators.

Parent and community participation. Most coordinators reported that they sent a parent representative to the Citywide Advisory Council. However, the local Councils of Parents were almost totally inoperative. There was reported to be considerable opposition from the high school principals to having a separate parent organization other than the schoolwide Parents' Association. In many cases, the parents of College Bound students were reported to be disproportionately active in the Parents' Association. Coordinators reported that parent meetings called by the CB staff for particular purposes were well attended in most schools. Parents were consistently reported to be positively disposed towards the CB program and to be helpful in times of crisis, as in the recent letter-writing campaign to restore CB funds. There appeared to be very few schools, however, where parental participation has been actively sought in the operation of the program. For example, there was no indication that a recommendation by the Citywide Advisory Council to involve parents in the selection process was being heeded.

The community, like the parents, was said to be favorably disposed toward the College Bound Program. However, only a few coordinators reported that they received recommendations from community organizations on prospective students or otherwise actually involved the community in the CB program. The extent of parent and community involvement appeared to be greater in neighborhood schools than in non-bounded high schools.

Problems in running the College Bound Program. In discussing their problems in implementing the CB program, the coordinators frequently focused on conflicts in their role. Although he or she is held respons-

ible for the success or failure of the program, the coordinator has no authority over the teaching of CB classes. Unlike an assistant principal or a department chairman, with whom some coordinators compared their responsibilities, the CB coordinator has only the power of persuasion to implement the program. When relationships with the principal, department chairmen, guidance department and most teachers are good, the coordinators are relieved. However, several reported that it is the good will of these administrators, and perhaps their own skill in human relations, rather than the structure of the program which has produced favorable situations. Coordinators suggested that the appropriate relationship of such special programs as College Bound to the total school bureaucracy was a subject requiring further study. Many coordinators requested the authority to select the teachers for CB classes although a few questioned the desirability of creating a situation in which all the "good" teachers would be recruited into a single program. Although most coordinators were grateful for the cooperation of the principal and department chairmen, a few mentioned persistent problems with them in selecting teachers, scheduling students, getting classrooms, office space, etc. Some coordinators mentioned persistent jealousy by teachers and students not in the program that so much was being done for the relatively few in the program.

Liaison with College Bound Program headquarters and the College Placement Office. The staff at the College Bound headquarters was described by the coordinators as very helpful, cooperative, supportive, and hard-working. However, there were a few complaints about the deluge

of paperwork and red tape. Financial checks were reported to be good. The coordinators found the coordinators workshop, as it evolved into an exchange of solutions to problems in particular schools, to be helpful. In general, the CB headquarters was described as handling the day-to-day problems effectively and pleasantly. The main criticism of the CB headquarters, voiced by a few coordinators, was that it lacked the leadership to generate public support, lobby effectively for funding, and render administrative clout in the educational and governmental bureaucracies.

Recommendations. Finally, in summarizing their interviews the recommendations made by the largest number of coordinators were as follows:

1) The coordinators should be assigned authority commensurate with their responsibility. Specifically, the coordinators should have additional authority in selecting College Bound teachers.

2) The College Bound Program should be retained in its present form rather than being attenuated. Specifically, small class size, guidance counseling, and the services of the family assistants were each reported to be essential to the basic functioning of the College Bound Program.

3) The selection guidelines should be set so as to include some students who score on or above grade level on reading and arithmetic tests.

4) There should be more flexibility for students in selecting elective courses.

Guidance Counselor Questionnaire and Interview

A 21 item questionnaire was designed to obtain counselors' judgments as to (1) the effectiveness of the program, (2) the areas in which particular problems were evident, and (3) the rankings of the relative importance of the several components which comprised the CB program. While there were some questions on the questionnaire which allowed the respondent to make open-ended responses, the questionnaire was for the most part in a short answer format. Of the total population of 105 counselors involved in the CB program, 95 returned the completed questionnaire.

Because of the inevitable structure introduced by the short-answer questionnaire, a sample of 50 counselors was given an open-ended interview. This sample, while not random because of the constraints imposed by scheduling, did represent approximately equal numbers of counselors from each grade level. The counselors interviewed were encouraged to express fully their thoughts and feelings about the CB program. For purposes of presentation, the questionnaire data will be the primary reference point for this report, while relevant interview data will be cited either to confirm or in some cases to contradict the questionnaire data. Both the questionnaire and interview format may be found in Appendix B.

Counselors. In the questionnaire the counselors were asked about the position they had held before joining the CB program, how long they had been a counselor in the program, and the number and level of students they worked with in the program. Before participating in the CB program, 49.5% of the counselors were general or mainstream counselors in the high schools, 21% were teachers, 18% were grade supervisors, and the remainder were involved in coordinator or part time counselor roles. The mean time

they had been involved in the CB program was 2.76 years, with a modal time of 1 year. The average number of students assigned to each counselor was 100.4 students, with over 75% of the counselors in the questionnaire sample having between 90 and 110 students. The questionnaire data indicated that the counselors were almost equally distributed between the four grades, with a few more in the 10th year than in the other three. Sixty percent of the counselors reported that they had counseled the same set of students the previous year.

Group vs. Individual Counseling. The majority of the counselors (51%) met with students in groups once a week to discuss college and career plans, with another 30% meeting 2-3 times a month. Many of the counselors (58%) also held group counseling sessions to deal with students' personal problems. The distribution of responses to the question, "What percentage of your students have you been able to counsel individually and in groups?" is presented in Table 6.1. These data indicate a tendency toward preferences of indivividual as opposed to group counseling although it is obvious that both techniques are frequently employed.

Counseling Activities and Conditions. In Table 6.2 the questionnaire sample is distributed according to the percentage of time spent on various guidance counseling activities in the course of the school year. It should be noted that in this table and in several that follow, the entire sample is distributed over the several levels of one category (e.g., over percent of time spent on one activity) and then the entire sample is again distributed over the levels of a second category (e.g., over percent of time spent on the second activity), and so on. Thus the sums of row or

TABLE 6.1

INDIVIDUAL VS. GROUP COUNSELING

% of Students Counselled	Individual Counseling		Group Counseling	
	Frequency	%	Frequency	%
1- 20%	0	0	5	5.4
20- 40%	0	0	4	4.3
41- 60%	4	4.5	1	1.1
61- 80%	6	6.7	11	12.0
81-100%	79	88.8	71	77.2
TOTAL	N=89	100.0	92	100.0

column frequencies can be greater than the sample size, and the summed percentages can add to more than 100%. As Table 6.2 indicates, the counselors reported spending the most time on direct guidance functions (college placement, career guidance, counseling for personal problems of students), with the supervision of family workers and record keeping occupying less time, and recruitment occupying the least time.

In response to the question, "How adequate are the working conditions and physical facilities for counseling?", nearly a third of the respondents to the questionnaire (32.5%) described the conditions as "minimally adequate" or "not at all adequate", while 28% said the conditions were

TABLE 6.2

TIME SPENT ON VARIOUS GUIDANCE ACTIVITIES

% of Time	RECORDS		RECRUITMENT		COLLEGE PLACEMENT		GUIDANCE		SUPERVISION	
	Frequency	%	Frequency	%	Frequency	%	Frequency	%	Frequency	%
1- 20%	68	77.3	85	98.8	24	28.9	23	26.1	72	82.8
21- 40%	18	20.4	1	1.2	37	44.6	39	44.3	14	16.1
41- 60%	2	2.3	0	0	21	25.3	15	17.1	0	0
61- 80%	0	0	0	0	1	1.2	10	11.4	1	1.1
81-100%	0	0	0	0	0	0	1	1.1	0	0
TOTAL	88	100.0	86	100.0	83	100.0	88	100.0	87	100.0

"moderately adequate" and 39.5% said they were "quite adequate" or "very adequate".

Ranking of CB Components. Table 6.3 indicates the relative importance of several components of the CB program to the counselors. These components represent specifically funded areas of the CB program which are not typically stressed in mainstream programs and the counseling that accompanies them. These data indicate that personal counseling was considered to be of greatest importance by the largest percentage of counselors, followed closely by small class size and college counseling. Family visits, tutoring, and double English and mathematics classes were of intermediate importance, and trips were considered least important relative to the other components, although 81.5% of the sample did consider trips of at least moderate importance. The 50 counselors interviewed were unanimous in their agreement that the major difference between counseling in the mainstream and in the CB program was that in CB they had a smaller case load (mainstream high school counselors are responsible for about 400 students as compared to the 100.4 average for CB counselors) and that they were with the same set of students from freshman through senior years.

The Data from Table 6.3 are supported by responses to a follow-up item, "Now, please indicate which of the above components you would rank as most important." The rankings are presented in Table 6.4. "Personal counseling" was ranked first by the greatest number of respondents (46.2%) and the data generally indicate that personal counseling, college counseling and small class size were considered the most important components of the CB program.

TABLE 6.3

RELATIVE IMPORTANCE OF CB PROGRAM COMPONENTS

COMPONENT	NOT AT ALL IMPORTANT		MINIMALLY IMPORTANT		MODERATELY IMPORTANT		QUITE IMPORTANT		VERY IMPORTANT	
	Frequency	%	Frequency	%	Frequency	%	Frequency	%	Frequency	%
Small Class Size	0	0	0	0	3	3.3	14	15.2	75	81.5
College Counseling	0	0	3	3.3	4	4.4	19	20.9	65	71.4
Personal Counseling	0	0	0	0	1	1.1	15	16.1	77	82.8
Tutoring	2	2.2	5	5.4	28	30.1	28	30.1	30	32.3
Trips	2	2.2	15	16.1	30	32.3	33	35.5	13	14.0
Family Visits	0	0	6	6.5	22	23.9	28	30.4	36	39.1
Double English & Math	3	3.4	9	10.3	18	20.7	33	37.9	24	27.6

TABLE 6.4

RANKING OF CB COMPONENTS

COMPONENT	RANKED FIRST		RANKED SECOND		RANKED THIRD	
	Frequency	%	Frequency	%	Frequency	%
Small Class Size	29	31.2	25	27.2	23	25.6
College Counseling	13	14.0	24	26.1	15	16.7
Personal Counseling	43	46.2	24	26.1	16	17.8
Tutoring	2	2.2	5	5.4	4	4.4
Trips	0	0	2	2.2	5	5.6
Family Visits	1	1.1	7	7.6	18	20.0
Double English and Math	5	5.4	5	5.4	9	10.0
TOTAL	93					

Student Problems and Attitudes. Table 6.5 indicates the frequency with which various problems were encountered by the counselors. Again, it should be reiterated that columns and rows in the table can sum to frequencies greater than the sample size of the questionnaire, for the reasons presented above. The most frequently encountered problems (those identified as occurring "often" or "very often") were learning problems (83% of the

TABLE 6.5

PROBLEMS OF STUDENTS

PROBLEMS	VERY SELDOM SELDOM Frequency	%	OCCASIONALLY Frequency	%	OFTEN/VERY OFTEN Frequency	%
Learning	3	3.2	12	12.9	78	83.9
Discipl/ Behav.	26	28.0	48	51.6	19	20.4
Home/ Family	1	1.1	25	26.9	67	72.0
Truancy	20	22.0	35	38.5	36	39.6
Emotional	60	63.9	30	31.9	4	4.3

sample), and home/family problems (72%). Discipline problems were cited as occurring "occasionally" by 51% of the sample, while the frequency of emotional problems was reported to be "seldom" or "very seldom" by 63.9% of the sample. For the sample of 50 counselors given the open-ended interview, 90% said that home/family problems were the most frequently encountered. Among specific problems mentioned with some frequency were (1) parent-child conflicts, (2) financial problems, and (3) broken families.

Two questions on the questionnaire probed the effect of the CB program on students' academic attitudes and self image. There was unanimous agreement that the CB program had a positive effect on academic attitudes of the students involved and all but one of the counselors felt there was also a

positive effect on the students' self image. From the interview data however, it became clear that the CB program was perhaps influencing attitudes of students outside as well as within the program. Twelve counselors reported that some mainstream students felt that CB students were given more attention than mainstream students, particularly in the area of college admission.

Coordination: Staff, Recruitment, and Parents. On the questionnaire the counselors were asked to rate the coordination and cooperation of the CB staff with the guidance office in the school, and the effectiveness of the process of recruitment of students to the CB program. These data, presented in Table 6.6, indicate that most of the counselors thought that staff relations were good and that the recruitment process was adequate.

TABLE 6.6

COOPERATION AMONG STAFF AND EFFECTIVENESS OF RECRUITMENT

	COOPERATION AMONG STAFF		EFFECTIVENESS OF RECRUITMENT	
RATING	Frequency	%	Frequency	%
Very Poor	1	1.1	1	1.1
Poor	4	4.3	16	18.4
Adequate	15	16.0	33	37.9
Good	34	36.2	29	33.3
Very Good	40	42.6	8	9.2

It should be noted that there were 16 counselors who were critical of the recruitment process, judging it to be "poor". The interview data provided more detail pertaining to recruitment procedures. Counselors explained that one technique was the arrangement of luncheons, teas, or special meetings in the junior high school feeder schools. More frequently the CB coordinator would simply visit the feeder school and explain the CB program to the junior high counselors, returning later to conduct testing in reading and mathematics. On the questionnaire, opinion was almost evenly divided as to whether the recruitment process had improved from the previous year (21% said yes, 20% said no, 49% said they didn't know, and 10% did not respond). All of the counselors interviewed indicated that better information from the feeder schools was necessary for the improvement of the recruitment process. Several suggested that individual interviews with each applicant would be helpful in making the final selection.

In the questionnaire, counselors were asked to evaluate how well they thought the parents of participating students were informed about the CB program. Opinion varied, but over 90% of the sample felt that parents were at least adequately informed, while slightly less than 10% felt that the parents were poorly or very poorly informed. Again, the interview data provided more detail about the communications made with parents. Where there were language problems, the neighborhoods from which the CB students came were divided so that a family assistant speaking the language of the parents was assigned to the appropriate parents. Many counselors interviewed felt that the family assistants were, as a liaison between

school and home, the most valuable part of the College Bound program. One counselor said, "If we did not have the family assistant going into the home, then the College Bound program would simply not work."

Ranking of Values. As a summary question to the questionnaire, the counselors were asked to rank a set of values relevant to the educational process. The question was designed to provide information about attitudes of the counselors themselves toward counseling. These data are provided in Table 6.7.

TABLE 6.7

COUNSELORS' RATINGS OF VALUES

	ORDER OF IMPORTANCE									
	FIRST		SECOND		THIRD		FOURTH		FIFTH	
VALUE	Freq	%	Freq	%	Freq	%	Freq	%	Freq	%
Academic Skills	21	23.1	1	1.1	9	9.9	61	67.0	2	2.2
Respect for Authority	26	28.6	5	5.5	25	27.5	17	18.7	20	22.0
Getting Along With Others	21	23.1	10	11.0	26	28.6	9	9.9	24	26.4
Self Identity	23	25.3	18	19.8	27	29.7	4	4.4	17	18.7
Creativity	0	0	57	62.6	4	4.4	0	0	28	30.8

Teacher Questionnaire and Interview

A short-answer questionnaire was distributed to a sample of 20 teachers in each participating high school. It was returned by 350, or well over 50% of the teachers. The questionnaire was designed to give teachers the opportunity to describe the differences between CB and non-CB classes, evaluate the CB program, and make recommendations for the future.

In addition, since teacher viewpoint is clearly important, it was decided to conduct teacher interviews so that a smaller sample of teachers would be able to discuss the program in greater detail. Such interviews, which lasted from one to two hours, were conducted with 96 CB teachers. The interview data, presented generally illustrate, but occasionally contradict, the questionnaire results. Both instruments may be found in Appendix B.

As reflected in Table 7.1, approximately half the teachers had one to two years experience in the CB program, while the rest had taught in the program from three to nine years. The mean length of program experience was 2.8 years. Three-quarters of both the interview and the questionnaire respondents taught part-time in the CB program and part-time in the regular high school program. In fact, 88% of the questionnaire respondents taught only one or two CB classes; the remaining 12% taught from three to five CB classes. More than half of the teachers had requested CB classes while some had been assigned CB classes by the head of their department. The overwhelming majority of teachers taught in the main building of the high school rather than in an annex. Most

TABLE 7.1

TEACHERS' LENGTH OF PROGRAM PARTICIPATION

Years in CBP	Frequency	%
1	121	29.9
2	82	20.2
3	71	17.5
4	56	13.8
5	43	10.6
6	23	5.7
7	6	1.5
8	2	.5
9	1	.2
TOTAL	405	

$\bar{X}$ = 2.8

SD = 1.70

of the teachers were teaching within their area of specialization, or were teaching in closely related subjects.

The teachers were given the opportunity to assess the quality and quantity of instructional materials. These data, as reported on the questionnaire, are presented in Table 7.2. The table shows that over 70% of the teachers rated the amount of materials as "adequate" or "good",

TABLE 7.2

TEACHERS' JUDGMENTS OF QUALITY AND QUANTITY OF INSTRUCTIONAL MATERIALS

Judgment	Amount of Material		Quality of Material	
	f	%	f	%
Very poor	5	1.3	2	.5
Poor	22	5.7	17	4.3
Adequate	142	36.6	133	33.8
Good	144	37.1	172	43.8
Very Good	75	19.3	69	17.6
	N = 388		N = 393	

while 19% said the amount was "very good." Similarly, over 75% indicated that the quality was "adequate" or "good", 17% said it was "very good." It should be noted that, in interviews, teachers suggested that instructional materials were not necessarily more readily available to CB classes than to other classes in the mainstream high school programs.

Teachers assessed the importance of seven CB program components in two ways on the questionnaire. Table 7.3 indicates ratings of each component from "not at all" to "very" important, while Table 7.4 presents teachers' choices of the three most important components. Small class size was rated "very important" by 73% of the sample as can be seen in

TABLE 7.3

TEACHERS' RATING OF PROGRAM COMPONENTS

		Small Class Size	College Counseling	Personal Counseling	Tutoring	Trips (Cultural Activities)	Family Visits	Double Eng/Math Periods
Not at all Important	f	3	1	1	3	17	6	11
	%	.7	.02	.02	.8	4.4	1.7	3.2
Minimally Important	f	8	12	6	16	77	30	27
	%	2.0	3.16	1.5	4.2	20.1	8.6	7.8
Moderately Important	f	18	63	44	93	113	75	51
	%	4.5	16.6	11.3	24.2	29.4	21.4	14.8
Quite Important	f	79	122	121	125	107	115	104
	%	19.7	32.2	31.2	32.6	27.9	32.8	30.1
Very Important	f	292	181	216	147	70	124	152
	%	73.0	47.7	55.7	38.3	18.2	35.4	44.1
TOTAL		400	379	388	384	384	350	345

TABLE 7.4

TEACHERS' RANKINGS OF PROGRAM COMPONENTS

Component	First Choice f	First Choice %	Second Choice f	Second Choice %	Third Choice f	Third Choice %
Small Class Size	257	66.1	50	13.4	33	9.2
College Counseling	14	3.6	39	10.5	50	13.9
Personal Counseling	56	14.4	110	29.5	81	22.5
Tutoring	11	2.8	72	19.3	56	15.6
Cultural Activities	2	.5	19	5.1	35	9.7
Family Visits	4	1.0	28	7.5	56	15.6
Double English/Math	45	11.6	55	14.7	49	13.6
TOTAL	389		373		360	

Table 7.3. Similarly, Table 7.4 shows that it was the component listed as primary in importance by the large majority (66%) of the teachers. College and personal counseling were also very positively assessed, since the majority of teachers rated them as "quite" or "very" important. However, personal counseling was ranked higher than college counseling in Table 7.4 In Table 7.3, family visits, tutoring, and double periods of English and

TABLE 7.5

TYPE AND FREQUENCY OF PROBLEMS ENCOUNTERED

IN CB PROGRAM

		Learning Problems	Disciplinary and Behavior Problems	Home and Family Problems	Truancy and Lateness Problems	Serious Emotional Disturbances
Very Seldom	f	17	114	58	95	218
	%	4.2	28.5	15.7	23.9	55.1
Seldom	f	37	105	78	81	87
	%	9.2	26.2	21.1	20.4	22.0
Occasionally	f	178	118	157	147	74
	%	44.3	29.5	42.5	37.0	18.7
Often	f	122	46	54	55	15
	%	30.3	11.5	14.6	13.9	3.8
Frequently	f	48	17	22	19	2
	%	11.9	4.2	6.0	4.8	.5
TOTAL		402	400	369	397	396

Math were considered of moderately high importance in and of themselves. But, relative to small class size and counseling they were seen as less important (see Table 7.4). Trips (or cultural activities) were rated as moderately important in Table 7.3, and very few teachers considered this component as one of the most valuable in the CB program (see Table 7.4).

The interviews were useful in determining teachers' perceptions of the differences between the CB and mainstream high school programs. It was reiterated by an overwhelming majority that small class size was a crucial difference which permitted in CBP more individualized teaching methods as well as increased capacity to observe the progress of each student. The fact that tutoring was generally available only to CB students was suggested by 90% of the teachers, most of whom noted that the tutoring was a valuable asset of the CBP. Many teachers cited the fact that CB guidance counselors could follow, with relative ease, the academic and/or personal growth of CB students. This was attributed to the small case-load of CB as compared with mainstream counselors. It was therefore much easier in the CBP to quickly discover problems and to facilitate aid to students. Also cited as an advantage of the CBP was the provision for trips or cultural excursions. However, when asked on the questionnaire whether teachers had, in fact, taken students on field trips, 65.4% said no. Describing differences in CB students themselves, teachers cited stronger goal orientation and markedly lower truancy and cutting behavior in CB classes.

Teachers were asked to indicate how frequently they encountered certain kinds of problems among students in CBP. As indicated in Table 7.5,

none of the listed problem areas were encountered with great frequency, although learning problems were noted as occurring more often than others. Home and family problems as well as truancy and lateness problems were cited as occurring "occasionally" by approximately 40% of the questionnaire sample. Serious emotional disturbances seldom appeared. The teacher interview revealed a common problem not listed on the fixed-response questionnaire. Teachers reported the tendency of CB students to form what appear to be "cliques" within the school, citing this as a problem. This was believed to be an inescapable function of homogeneous CB classes and the special privileges and advantages designed for CB students.

Asked to assess the coordination and cooperation among CBP staff, 35% of the teachers indicated on the questionnaire that it was "very good". As can be seen in Table 7.6, another 35% rated the coordination as "good". Only 8.9% felt it was "poor" or "very poor". The interview revealed that since the overwhelming majority of teachers were only part-time in CBP, it was difficult to discuss CB intra-staff feelings. The only report of cohesive staff relations among CB teachers came from those schools which provided an annex for all or part of the CB program. Only 8 of the 32 participating schools had annexes. In fact, however, 81 teachers interviewed felt that the tenor of relations between CB teachers and guidance counselors was excellent, with teachers meeting with counselors with some frequency. Only 7 teachers felt that there was little or no feedback from counselors and further indicated that they interacted too infrequently.

TABLE 7.6

TEACHERS' JUDGMENTS OF COORDINATION AND COOPERATION AMONG COLLEGE BOUND STAFF

Judgment	f	%
Very Poor	11	2.8
Poor	24	6.1
Adequate	78	19.9
Good	140	35.8
Very Good	138	35.3
	N = 391	

When questioned as to the ability of CB students to fit into the overall program of the high school, 63 of the 96 interviewed teachers responded positively. Many indicated, as supportive evidence, the incidence of CB students who were serving as school leaders, holding elected offices and participating in leadership capacities in extra-curricular activities. Thirteen teachers were noncommittal on this question and twenty replied that there was a great deal of resentment directed toward the CB student due to the advantages provided by the CB program.

On the questionnaire, participating teachers were asked whether they believed the recruitment techniques and the criteria for selection were effective in reaching those students best qualified for the College

Bound program. Almost three quarters of the respondents agreed that the procedures did fulfill this purpose. In addition, 83% of these teachers felt that, once selected for the program, the students received adequate orientation to the College Bound program.

Seventy-nine per cent of the teachers questioned were of the opinion that CB students had been appropriately placed in particular levels of instruction in the program. Moreover, the majority believed that the CB program had had positive effects on students' academic attitudes. In response to the question, "Do you think that participating in the CB program has positive effects on the student's self-image?", over 93% of the teachers agreed that this was, in fact, so. A critical question directed teachers to assess whether the CB program did adequately prepare the student for college. Twenty-six percent of the teachers agreed that the program did achieve this goal. Finally, Table 7.7 shows the teachers' ratings of the relative success of the program this year. The table suggests that most teachers believed the program to be moderately or quite successful, while a very small number thought the program was not successful at all. In interviews, 98% of the teachers felt that the CB program was the only federally-funded program that was, in fact, a success.

Teachers were generally enthusiastic about the CB program, and their recommendations reflected their basic approval of the CB program as it exists. Ninety-four teachers felt that the program should continue with the same guidelines as were operational this year. Additionally, 52 teachers felt that the program was so successful that it should be expanded, if possible, to the entire school. Several teachers suggested

TABLE 7.7

TEACHERS' JUDGMENTS OF PROGRAM EFFECTIVENESS

Judgment	f	%
Not at all successful	5	1.3
Minimally successful	21	5.5
Moderately successful	121	31.5
Quite successful	167	43.5
Very successful	70	18.2
	N = 384	

more rigorous screening of potential CB students. They indicated a desire to see the applications of students with emotional problems and/or students not interested in college rejected. Ten teachers suggested continuance of the summer program, suggesting that the summer program did, in fact, better equip the CB student for the program in the Fall. Eighty teachers suggested broader funding, citing budgetary cutbacks as the reason for fewer special projects, books and trips. Finally, 15 teachers recommended that the 12th year CB students be allowed to take more electives.

Family Assistant Interview

By providing a link between home and school, family assistants clearly serve an important function in the College Bound Program. For this reason an attempt was made to interview a small sample of Family Assistants. Since the job of the FA is performed, for the most part, away from the school, only 14 family assistants were available to be interviewed.

The length of time that the FAs had worked in the CBP varied from one to six years. Half of the FAs interviewed had held positions outside the school in unrelated areas (e.g., clerical, IBM key punch, housewives) and had been referred to the program through outside sources (community centers, Social Service Offices, agencies, etc.). The other half had worked in their school in another capacity and had been selected for CB on the basis of their prior experience.

When asked about the main responsibilities of the FA in the CB program, the overwhelming majority saw themselves as liaisons between the home and the CBP. The primary focus of their work is the dissemination of information about the program to the families of CB students. Seventy per cent also mentioned their role in helping families with problems as a major aspect of their work. In relation to this, a number of FAs mentioned their ongoing contact with referral agencies and community organizations. Specific family related problems included those stemming from broken homes, unemployment, poor and overcrowded housing, and confusion over various bureaucratic forms, such as medical forms. Five FAs felt that one important aspect of their job was the investigation of truancy and class-

cutting reports on CB students. They felt that truancy was a major problem in the first year of the program, and that one function of the FA was to report unusual absence or class cutting to the family.

The FAs were asked for their impression of the attitude of the non-CB school community to the CB program: 86% felt that a great deal of resentment towards CB students was felt by both teachers and non-CB students. According to the FAs, most non-CB students were resentful of the advantages of extra time and attention that the CB student enjoyed in the program, and many teachers regard CB students as "coddled".

When questioned about the nature of relationships within the CB staff, 64% described the atmosphere as excellent. They felt that those involved in the CB program functioned as a well-organized team, without strong animosities and with only minor conflicts. All the FAs reported spending one or two days per week in the school doing clerical functions connected with their job. The remaining days were spent in the field, visiting homes of CB students or performing other tasks related to CB students or their families. The FAs met at least once a week for a staff conference with the counselor who supervises them, and most reported daily phone contact with counselors as well.

In school districts with several languages, FAs are assigned to families on the basis of shared language. The FAs visit each of their assigned CB families at least once a year. If problems, whether related to school or home, exist in a particular family, the number of visits is increased. FAs reported being aware of the rapport necessary between themselves and the families they serve, and indicated that they would

ask to be removed from a case in the event that they felt that another FA could have more success.

Several questions were asked about the differences between the CB program and the regular high school program. Almost all the FAs cited the small class size and individual attention. A majority mentioned the advantages of trips, availability of books, cultural events and tutoring which mainstream students do not enjoy.

The FAs felt that the CB program is highly successful and were disturbed at the prospect of possible alterations in the guidelines. The overwhelming majority recommended that the program be expanded rather than curtailed in the future.

Student Questionnaire

Attitudes toward education. Among the selection criteria outlined in the CB program proposal is the requirement that students "must have no serious history of chronic truancy or emotional disturbance". As implemented this became in effect a requirement that selected students have high attendance rates. Accordingly, the expectation that program participation "will develop more positive attitudes toward school which will be reflected in improved attendance and punctuality" may well be inappropriate, and of little use as an index of attitude change.

In an attempt to evaluate this program objective by an alternate method, a student questionnaire was devised and administered to 1285 students in 96 randomly selected classes from all 32 schools in which the College Bound Program was operative. The distribution of the participant sample by assigned grade level may be found in Table 9.0. The questionnaire format called for both open-ended and fixed responses and was intended to tap participants' perceptions of school, the College Bound Program as a whole, and the individual components of the program (e.g., guidance). The time constraints placed on the evaluation prohibited utilization of pre- and post-treatment measures of attitude and all but self-report indices of attitude change. The questionnaire itself may be found in Appendix B. Questionnaires were administered to selected classes in all 32 schools by members of the College Bound Evaluation Team on their visits to these schools.

Table 9.1 indicates that only 1.3% of respondents do not plan to attend college, suggesting that the program maintains high interest in

TABLE 9.0

DISTRIBUTION OF PARTICIPANT SAMPLE BY ASSIGNED GRADE LEVEL

Assigned Grade	Frequency	%
9	201	19.8
10	320	31.4
11	289	28.4
12	208	20.4
	1285	100.0%

going to college on the part of participants; 90.5% of respondents stated that they planned to attend college and 8.2% indicated that they were not sure.

College Bound students were asked to compare their academic preparation with that of students taking the regular high school academic curriculum. These data are presented in Table 9.2; 64.9% of respondents indicated that they felt better prepared academically. While more reliable indices of actual academic preparation were used and are presented in the section on Academic Achievement, these data do provide support for the notion that program participation increases the students' self-confidence, a factor to which many respondents attributed (in a free response format) the improvement of their attitudes toward themselves, school, and their ability to do schoolwork. Only 15.4% of the students sampled felt that they were not

better prepared than the students in the academic curriculum.

TABLE 9.1

PROGRAM PARTICIPANTS' PLANS FOR COLLEGE

	Frequency	%
Plans to attend	1162	90.5
Does not plan to attend	17	1.3
Not sure	105	8.2
TOTAL	1284	100.0%

TABLE 9.2

STUDENTS' APPRAISAL OF THEIR ACADEMIC PREPARATION
(compared with the regular academic H.S. program)

	Frequency	%
Better prepared academically	829	64.9
Not better prepared academically	197	15.4
Not sure	251	19.7
TOTAL	1277	100.0%

The data in Table 9.3 show that 61.7% of College Bound respondents think that it will be easier for them to go to college than students taking the academic curriculum, whereas only 20.1% do not feel it will be easier for them to go to college. Thus, the general feeling of College Bound students seems to be that the program facilitates their admission to college. These data are corroborated by responses to open-ended questions presented in Table 9.23.

TABLE 9.3

PERCEPTIONS OF PROGRAM FACILITATION OF COLLEGE ADMITTANCE
(compared with the regular academic H.S. program)

	Frequency	%
It will be easier to go to college	789	61.7
It will not be easier to go to college	256	20.1
Not sure	233	18.2
TOTAL	1278	100.0%

An even larger proportion of the sample (81.9%) see the College Bound Program as providing more assistance in applying to college than the academic program. Those disagreeing with this view represent only 6.8% of the sample at hand. These data are tabulated in Table 9.4.

TABLE 9.4

PERCEPTIONS OF PROGRAM ASSISTANCE IN APPLYING TO COLLEGE
(compared with the regular academic H.S. program)

	Frequency	%
More help applying	1039	81.9
No more help applying	86	6.8
Not sure	144	11.3
TOTAL	1269	100.0%

Students were asked to assess how well they would be prepared to do college work after they graduated from the College Bound Program (on a five point scale ranging from "not at all prepared" to "very well prepared." The data for this assessment are presented in Table 9.5. It can be seen from the mean score for the sample at hand that the program's performance in preparing participants for college is seen in a strongly positive light. Only 57 of the 1285 students sampled, or 4.5%, gave a negative assessment in this regard. Student responses to open-ended questions (see Table 9.23) lend support to this finding.

Table 9.6 shows participants' perceptions of incoming students' understanding of program selection criteria; 39.7% of respondents did not feel that incoming students had an understanding of why they had been selected for the College Bound Program, as compared with 35.7% who felt that incoming students did understand why they had been selected. These data

suggest, as do those in Table 9.7, that efforts to disseminate information about the College Bound Program to prospective applicants in the feeder schools are not fully effective and should be expanded or improved.

TABLE 9.5

PROGRAM PARTICIPANTS' ASSESSMENT OF THEIR PREPARATION FOR COLLEGE

	Frequency	%
Not at all prepared	14	1.1
Not very prepared	43	3.4
Somewhat prepared	335	26.2
Pretty well prepared	732	57.2
Very well prepared	155	12.1
TOTAL	1279	100.0%

Mean = 3.759

Standard Deviation = 0.747

Program participants were asked to evaluate the accuracy of incoming students' expectations of the program. The pattern of responses in Table 9.7 supports the conclusion reached in connection with the data presented in Table 9.6; 48.1% indicated that incoming students did not know what to expect from the College Bound Program, as compared with 26.7% who felt that incoming students know what to expect. An expanded orientation program

for incoming students might give students both a better idea of what to expect and facilitate their adjustment to the unique requirements of the College Bound Program.

TABLE 9.6

INCOMING STUDENTS' UNDERSTANDING OF PROGRAM SELECTION CRITERIA

	Frequency	%
Understand why they have been selected	457	35.7
Do not understand why they have been selected	508	39.7
Not sure	313	24.6
TOTAL	1278	100.0%

TABLE 9.7

ACCURACY OF INCOMING STUDENTS' EXPECTATIONS OF THE PROGRAM

	Frequency	%
Know what to expect	340	26.7
Do not know what to expect	611	48.1
Not sure	321	25.2
TOTAL	1272	100.0%

The data in Table 9.8 show that guidance counselors play the dominant role in introducing students in the feeder schools to the College Bound Program. 60% of the students indicated that the guidance counselor introduced them to the program; another 18.5% designated a teacher as the person from whom they first heard about the program.

TABLE 9.8

STUDENTS' INTRODUCTION TO THE PROGRAM

	Frequency	%
Teacher	234	18.5
Parent	48	3.8
Guidance counselor	760	60.0
Friend	101	8.0
Other	123	9.7
TOTAL	1266	100.0%

The College Bound Program has a more rigorous schedule and is generally more demanding of students than the regular high school programs. Accordingly, it is important that students want to participate in the program and therefore presumably will bear the additional burdens of such participation. Table 9.9 indicates the desirability of program participation. When asked whether they would rather be in the College Bound Program than

the regular academic high school program, 76% of the sample responded affirmatively as compared with only 9.8% who indicated that they would not rather be in the program.

TABLE 9.9

DESIRABILITY OF PROGRAM PARTICIPATION

	Frequency	%
Would rather be in program	967	76.0
Would not rather be in program	124	9.8
Not sure	181	14.2
TOTAL	1272	100.0%

Experiential Remediation. The 1972-1973 project proposal cites the "limited experiential background" of poverty impact area pupils as a contributing factor to their "lack of motivation and poor academic performance." An integral part of the College Bound Program is the program of cultural excursions which attempts to mitigate the effects of such experiential deficiencies. Table 9.10 details the frequencies of participation in cultural excursions; 67.5% of the sample participated in one or more trips. Of the remaining 32.5% who did not participate a number spontaneously indicated that trips had been offered but that they had not chosen to go. The mean number of trips for those choosing to participate

in this component of the College Bound Program is 2.60.

TABLE 9.10

FREQUENCY OF PARTICIPATION IN CULTURAL EXCURSIONS

	No. of Trips	Frequency	%	$\bar{X}$
Went on trips	1	235	18.4	
	2	205	16.0	
	3	139	10.9	
	4	74	5.8	
	5	55	4.3	
	6	23	1.8	
	7	9	.7	
	8	7	.5	
	9	8	.6	
Went but Number of trips not indicated		108	8.5	
Total Participating		863	67.5	2.60
Went on no trips		414	32.5	0.00
TOTAL		1277	100.0%	1.92

Individual Remedial Instruction. The data from a series of questions probing the manner in which the program of individual remedial instruction

operated are presented in Tables 9.11 through 9.14. The first of these tables indicates that 30.5% of those sampled received tutoring.

TABLE 9.11

PARTICIPATION IN INDIVIDUAL REMEDIAL INSTRUCTION

	Frequency	%
Receives tutoring	385	30.5
Does not receive tutoring	878	69.5
TOTAL	1263	100.0%

Table 9.12 shows the distribution of tutoring by subject matter; 69.8% of the 385 students indicating they participated in this component received tutoring in Math. These data and those presented in Table 9.15 show that, as it operated in most schools, the CBP employed the medium of the tutoring session to remedy deficiencies in math, and an expanded group instruction format to remedy deficiencies in English. As indicated in Table 9.12 only 2.3% of those tutored reported received instruction in English. The flexibility of the individual instruction program is elucidated by the substantial number of students receiving tutoring in language and science.

Table 9.13 details the number of hours spent each week in tutoring sessions by those participating in this element of the program. A mean

of 2.67 hours per week was spent in individual instruction by recipients.

TABLE 9.12

DISTRIBUTION OF INDIVIDUAL REMEDIAL INSTRUCTION BY SUBJECT MATTER

	Frequency	%
English	9	2.3
Math	268	69.8
Science	41	10.6
Language	63	16.3
Social Studies	4	1.0
TOTAL	385	100.0%

Students were asked to assess the effectiveness of their tutoring. Presented in Table 9.14, these data indicate that this component of the College Bound Program is widely accredited by participants with having a positive effect on academic performance.

In summary, the individual remedial instruction received by nearly a third of those sampled gives the College Bound Program the crucial flexibility necessary to provide assistance in a variety of subject areas according to students' particular needs.

Expanded Basic Skills Instruction. Table 9.15 details student participation in expanded basic skills instruction. This element of the

TABLE 9.13

WEEKLY TIME SPENT BY RECIPIENTS IN TUTORING SESSIONS

Number of Hours	Frequency	%
1	115	34.1
2	75	22.3
3	53	15.7
4	39	11.6
5	37	11.0
6	7	2.1
7	1	.3
8	4	1.2
9	6	1.7
TOTAL	337	100.0%

Mean = 2.671

Standard Deviation = 1.791

program featured a double period of instruction in the traditional classroom setting. Though the 1972-1973 College Bound Proposal calls for instruction in this format in both English and Math, as implemented in most schools, only English instructional assistance was rendered to participants in this medium. Only 2.5% of those sampled reported receiving

TABLE 9.14

RECIPIENTS' ASSESSMENT OF TUTORING EFFECTIVENESS

	Frequency	%
Has helped	314	81.8
Has not helped	28	7.3
Not sure	42	10.9
TOTAL	384	100.0%

TABLE 9.15

PARTICIPATION IN EXPANDED BASIC SKILLS INSTRUCTION

	Frequency	%
Receives double period in English	855	67.2
Receives double period in Math	24	1.9
Both	7	.6
No double period	386	30.3
TOTAL	1272	100.0%

double periods of Math as compared with 67.8% who received double periods in English and 30.3% who reported receiving no double periods.

Guidance Services. Program participants were asked to assess the the adequacy of the time and attention they received from their guidance counselor. The data in Table 9.16 show that 76.1% of those sampled indicated that their guidance counselors gave them enough time and attention as compared with only 13.2% who reported that the guidance counselor did not.

TABLE 9.16

STUDENTS' ASSESSMENT OF ADEQUACY OF GUIDANCE COUNSELOR SERVICES

	Frequency	%
Enough time and attention	967	76.1
Not enough time and attention	168	13.2
Not sure	136	10.7
TOTAL	1271	100.0%

Respondents were asked how many times over the last year they had seen their guidance counselor. Table 9.17 indicates that while only 2.8% reported that they had never seen their guidance counselor, nearly a third (32.6%) of the sample claimed they had seen their guidance counselors more than ten times.

TABLE 9.17

FREQUENCY OF GUIDANCE SESSIONS

	Frequency	%
Never	36	2.8
1 - 5 times	531	41.6
5 - 10 times	294	23.0
More than 10 times	416	32.6
TOTAL	1277	100.0%

Family assistants working out of the guidance office allow the College Bound Program to extend guidance services into the home where necessary; they act as a liaison between home and school. The data in Table 9.18 detail the frequency of family assistant visits to the home. The homes of 52.9% of those sampled were visited by a family assistant at least once. Many responses to these questions with an open-ended format, indicated that the family assistant frequently called families on the telephone, even if the home was not actually visited.

Participants Perceptions of the College Bound Program. Students were asked to choose, from a list of six descriptive terms, those which describe how the College Bound classroom atmosphere usually makes them feel. Respondents' choices are presented in Table 9.19; 68.7% of the entire sample (N = 1284) characterized their feelings in the classroom as

"interested". Instructions for this item permitted more than one response, therefore the indicated proportions pertain only to the sample size and do not sum to 100%.

TABLE 9.18

FREQUENCY OF FAMILY ASSISTANT VISITS TO HOMES

	No. of Visits	Frequency	%
Family assistant visited	1	415	
	2	144	
	3	46	
	4	16	
	5	9	
	6	2	
	7	0	
	8	1	
	9	0	
	10	1	
	11	0	
	12	2	
	13	1	
Visited but Number of times not indicated		41	
Total Visited		678	52.9
Family Assistant did not visit		556	43.4
Not sure		48	3.7
TOTAL		1282	100.0%

TABLE 9.19

SELF-REPORTS ON EFFECTS OF CLASSROOM ATMOSPHERE

Feeling Reported	Frequency	%
Scared	23	1.8
Nervous	105	8.2
Happy	365	28.4
Sleepy	293	22.9
Interested	881	68.7
Bored	462	40.2
Other	178	15.5
	N = 1284	

The sample was asked to list the three best and the three worst things about the College Bound Program in a free-response style format. Responses were coded into 48 categories and frequencies, for each of these were tabulated. A substantial number of the sample did not respond to one or both of these items (e.g., only 868 of the sample of 1285 students listed even one "worst" thing about the program). Few of the students gave all of the six responses called for by these questionnaire items. Percentages were tabulated for each category on the basis of the proportion of the total sample giving that particular response. The obtained proportions are large in view of the unstructured

nature of the responses called for.

The response categories are merely presented in Tables 9.20 and 9.21, while some of the implications of the responses are presented in the text. To a large extent, however, it is up to the reader to draw inferences from the categories. It should be noted that, in some cases, it is difficult to draw distinctions between categories and that some categories can be subsumed under others. Students responded on different levels of discourse. For example, many students cited "more attention" as one of the best things about the program, others cited "tutoring". Clearly, tutoring is one mechanism by which the program renders individual attention to students, and accordingly, may be the referent of both responses. It is important to bear in mind the above characteristics of the unstructured response format in interpreting the summary data presented below.

Students most frequently cited the extra attention, help, and guidance offered by the program. Participants also listed smaller classes and tutoring which may be seen as factors contributing to the greater attention they received. Other responses may be seen as specific outcomes of "more attention" such as "get to know staff members better", and "learn better/more". The pattern of responses indicated that the College Bound Program was seen by its participants as creating a more cohesive group. Students cited both greater opportunities for getting to know the other students in the program, and a better chance to get to know and like the program staff. Other comments suggested that a "friendly atmosphere" characterized by "less trouble" (disruptive behavior) from students made

TABLE 9.20

PARTICIPANTS' PERCEPTIONS OF POSITIVE ASPECTS OF THE PROGRAM

	Frequency	%
"more attention, help, and guidance"	590	45.9
"smaller classes"	588	45.8
"trips"	454	35.3
"help in preparation for college"	233	18.1
"get into college easier/help choosing colleges"	194	15.1
"get to know staff members better"	127	9.9
"student associates in the program"	108	8.4
"tutoring"	88	6.8
"learn better/more"	86	6.7

the program like "one big family" providing "moral support" resulting in "learning more."

Respondents frequently addressed themselves to their prospective college experience; an attempt was made when categorizing these data to distinguish between responses suggesting that the College Bound Program better prepared students for college and those indicating that the program enabled them to "get into college easier." Each of these categories had a relatively high frequency.

As could be expected, trips were regarded with some enthusiasm as one

of the best things about the College Bound Program.

Other responses (not presented in tabular form) indicated that students liked CBP financial aid in connection with fees for College Board Examinations, in connection with fees for their applications for college, and free books distributed in the course of their program participation. Some response patterns suggested the notion that the program gives participants a "sense of importance" because of what are perceived as "special privileges" received by members of the College Bound group.

It is important to note in examining the data presented in Table 9.21 that college Bound Program's implementation was to some extent unique in each school. As such, many of the criticisms of students are only applicable to the program as implemented in individual schools and not to the program as a whole.

When asked "What are the three worst things about the College Bound Program?", the most frequent responses indicated that the double periods were too long and as a consequence, boring. While about 20% of the entire sample gave this response, this figure could be inflated to reflect the fact that only two thirds of the sample reported receiving double periods. Three of the categories attempted to draw rather fine and perhaps academic distinctions between reports that the program was "too strict, gave students too much attention, and never let students alone," responses indicating that "too much studying, work, and effort is required," and suggestions that the College Bound staff "expect too much and place students under too much pressure". In all, nearly 40% of the sample gave a response in one of these categories. Many students objected to family assistant

TABLE 9.21

PARTICIPANTS' PERCEPTIONS OF NEGATIVE ASPECTS OF THE PROGRAM

Category	Frequency	%
"classes too long, boring/double periods"	290	22.5
"too strict, too much attention, never leave you alone"	176	13.7
"too much studying, work, or effort required"	.62	12.6
"expect too much, too much pressure"	160	12.5
"separation from other students in the school"	144	11.2
"subjects not liked, electives not included"	139	10.8
"starts too early, ends too late"	72	5.6

visits to the home and still more to the calls of family assistants to the home investigating the student's absence. Many students also indicated that they felt the program "starts too early or ends too late," a possible factor in punctuality problems.

A large number of students objected to their "separation from the other students in the school." It may be pointed out in this regard that many students who listed "separation" as one of the worst things about the program cited the very mechanisms of that separation as the "best things about the CBP." The emergence of the College Bound population as a "separate" group appears to have different consequences for students in

different schools. Some students reported being the object of the hostility of students in the regular high school curricula because they received "special privileges" in the course of their program participation and were regarded as an elite group. Others attributed such hostility to the contempt of the regular high school population for participants in what was seen in the school as an essentially remedial program. Some of the responses suggested in this regard that in operating as a remedial program in the school the CBP served to effectively segregate the predominantly Black and Spanish-speaking population in the College Bound Program from the predominantly white population in the regular high school curricula. These students objected to not being allowed to socialize with whites in the school. Some participants objected to the College Bound lunch schedule in their school, not only because it forced them to eat lunch in mid-morning, but because it prevented lunchtime socialization with the other students in the school.

A number of students indicated their dislike of the subjects they were forced to take and specifically to the fact that they were not permitted to take occupationally-oriented electives (e.g., typing). Others suggested that the College Bound Program does not prepare students for a job, indicating fears that they would be unable to secure employment in the event that they were unable to go to college or in the event that they wished to work while attending.

Self-Reports of Attitude Change attributable to CBP Participation. Students were asked to indicate if the College Bound Program had changed the way they felt about themselves. Responses, presented in Table 9.22

TABLE 9.22

PARTICIPANTS' ATTITUDES TOWARD THEMSELVES

	Frequency	%
"I feel better about myself"	438	39.2
"I feel the same about myself"	632	56.6
"I feel worse about myself"	46	4.2
TOTAL	1116	100.0%

showed that 484 participants, or 43.4%, indicated that their attitudes had changed. Those indicating change in attitude were asked to explain in a free-response format how their feelings about themselves had changed; 39.2% of respondents indicated that they felt better about themselves as compared with 4.2% who felt worse about themselves. Of those indicating attitude change in a positive direction, many said that the College Bound Program developed a sense of self-confidence and a feeling that "I can get ahead in school if only I try." Also cited was the higher cohesiveness of the College Bound group which students saw as leading to increased class participation and interest in class activities through feeling more at ease in class and having greater confidence that their contribution would be accepted. Still other respondents felt that the CBP had called to their attention what the future holds for them and showed them how to move in the direction of "getting ahead." Some felt the CBP gave them a sense

of importance and a sense of responsibility to "live up to their potential." Another type of response suggested that the program gave them a sense of hope or security about themselves and what the future holds for them, hope that they could "become something."

Of those indicating they felt worse about themselves, a number cited a lower feeling of independence because program participants are "not allowed to make their own decisions." Other explanations of negative change dealt with largely individual problems and are beyond the scope of this inquiry.

Participants were asked if the College Bound Program had changed the way they think about school. These data, presented in Table 9.23 indicate that 409 respondents, or 37.2% reported attitude change.

TABLE 9.23

PARTICIPANTS' ATTITUDES TOWARD SCHOOL

	Frequency	%
"I feel better about school"	349	31.8
"I feel the same about school"	690	62.8
"I feel worse about school"	60	5.4
TOTAL	1099	100.0%

Those indicating change in attitude were asked to report how their thinking about school had changed; 31.8% of respondents indicated they felt better about school as compared with 5.4% who indicated they felt worse. Of those indicating positive attitude change, many reported that the College Bound Program "tells you why it is important to you to be a good student." Others said that individual attention made learning easier which resulted in increased interest in school, making learning more "fun." Some responses suggested that the greater cohesiveness of the College Bound group, characterized by more close friendships, led to increased attendance because of the desire of participants to be with their friends.

Those reporting negative attitude change toward school cited the "pressures and problems" of program participation, complaining about the increased supervision in the program.

Respondents were asked if the College Bound Program had changed how they feel about their ability to do school work. Table 9.24 shows that 544 or 49.6% of the sample reported attitude change. While no systematic response patterns emerged from those few who indicated they felt worse about their ability to do school work, the opposite was the case for those indicating positive attitude change. Typical of the response category with the highest frequency was the report of one student: "I feel I have great abilities and can do whatever I want if I only try." Others reported that the program pointed out to them that it is necessary to exert effort in school and why it is necessary to do so. Again in response to this question students cited the individual attention offered by the program:

"Teachers made sure you understand so you feel better about the work." Finally, many indicated that the program had developed in them a: "need to get ahead."

TABLE 9.24

PARTICIPANTS' ATTITUDES TOWARD THEIR ABILITY TO DO SCHOOL WORK

	Frequency	%
"I feel better about my ability to do school work"	495	45.1
"I feel the same about my ability to do school work"	553	50.4
"I feel worse about my ability to do school work"	50	4.5
TOTAL	1098	100.0%

VI. DISCUSSION

The overall judgment by the evaluation team is that the College Bound Program is a successful and valuable program. Concurring with the very positive assessments by school personnel, and participating students, the evaluation team was favorably impressed with the structure and implementation of the program. Several components mandated by the College Bound guidelines appear to have contributed significantly to the conspicuous accomplishment of the program. Small class size, expanded counseling services, tutoring, double periods of reading and mathematics, and family assistant services were essential in this regard.

The effects of limiting class size, offering tutoring, and providing the academic concentration inherent in double periods appear to have accounted, in large part, for the demonstrated gains in reading and mathematics skills. Despite the difficulties in documenting the association among these factors, it is clear from the evaluation analyses, that the College Bound students for the most part performed significantly better than anticipated. To facilitate the academic growth of students with serious deficiencies in reading and mathematics is no small task. The College Bound Program appears to be accomplishing its goal of promoting the achievement of these students and of increasing their chances of continuing their education at the college level.

The availability of tutoring is frequently cited by students and faculty as an advantage of the College Bound Program, providing additional support in whatever subject is most difficult for a particular student.

A variety of arrangements for tutoring have been made using tutors from local colleges as well as advanced high school students. It is recommended that the current level of tutoring be continued and that the present flexibility in selecting tutors to meet local needs be continued.

Teachers and guidance counselors alike maintained that the provisions of the College Bound Program in terms of staff-student ratio and in terms of innovative structure have allowed the students far more opportunities than they would have had without program treatment. This was corroborated by the students themselves who uniformly reported that they would prefer to be in College Bound than in the mainstream high school program. Students enjoyed what they termed the special privileges of the program, although occasionally complaining about the work load. The special attention and focus on achievement by College Bound staff is sometimes felt by students to be considerable pressure, but the students provide vivid reports of the degree to which they feel that this encouragement has helped them. It is clear that the program demands more from these students than other academic programs, especially in light of the long school day which in many cases begins early and/or ends late, but that many students willingly accept this obligation. It is suggested that orientation programs for the students, as applicant and as newcomer, be intensified in order to ensure that students are well-aware of the responsibilities that they are adopting upon entrance. It is especially important that it be emphasized repeatedly that the program does not guarantee entrance into college upon completion of the twelfth grade. Apparently, many students and parents are prey to this erroneous assump-

tion.

While it is important that students be prepared for the added work load of the College Bound Program, it is also necessary to provide some flexibility for scheduling individual electives, especially in the last two years of high school. The College Bound Program is clearly academic in orientation, but it should not preclude opportunities for students to develop skills like typing which are useful in college; to take exploratory courses in subjects such as journalism, psychology, or nursing in which students may plan to major in college; and to develop skills in the very arts to which these students are being exposed by the cultural events component of the College Bound Program. It is recommended that there be flexibility in allowing elective courses after a student has reached specified norms in reading and arithmetic. Additional flexibility in allowing elective can be achieved by permitting College Bound students to schedule more than the normal number of periods per day.

Up to the present time, the College Bound student has been characterized as "better motivated" and "college oriented" and the prophecy has been self-fulfilling. Improving attitudes towards school and learning has been a primary focus; but improving self-image and self-confidence is no less important. Grouping 300 or 400 students from a high school into a set known as College Bound with further subsets of 100 students in each grade who share the same guidance counselor and are in the same academic classes together creates an esprit de corps which is uncommon in high schools today. With college acceptance as a common goal, these students provide peer support in a milieu which would otherwise not

be expected to emphasize academic achievement. The contributions of such grouping to positive self identity through peer support should be recognized. It is suggested that the use of the word "remedial" in course titles and other practices which might suggest that the College Bound student is less successful than mainstream students be reviewed in order that they not undermine the strong personal goal orientation of the students.

Acceptance into college is considered paramount by the program staff. Guidance facilities and services were the crucial component in this regard. Guidance counselors were seen to be highly instrumental in creating an atmosphere in which each student's growth, both academic and social and emotional, was considered in a comprehensive fashion. The intensity and continuity of guidance, which included following the same students through their high school career and meeting with them on a regular basis in guidance class and individually, has been highly successful in solving individual learning problems. Complementing this, the demands on the guidance counselors create in most counselors a strong sense of personal responsibility and willingness to work beyond formal job requirements.

The strong and continued orientation toward the goal of college admission differentiates the College Bound student from other high school students. Detailed guidance emphasis on potential careers, college selection, and procedures for gaining college admission provide the means for realizing this goal. The focus on the preparation of educationally deprived students for admission to and achievement in major colleges and

universities has been central to the College Bound Program. High rates of admission, successful adaptation to college and low attrition during the first years of college have been demonstrated by the College Placement Office.

The Family Assistant component was also seen as making an important contribution to the students' ability to progress academically. In most schools, the family assistant, working in close conjunction with one or two guidance counselors, provided an effective link between the school and the family. To the extent that the role of the family assistant was professionalized, he or she also provided a liaison with the community. The work of the family assistant with the individual families for whom he or she was responsible served to ameliorate any problems students were having that stemmed from the home environment. Family assistants maintained contact with the families until problems were resolved. To the extent that personal problems interfere with academic achievement and to the extent that family assistants provided valuable aid in relieving these difficulties, they were considered by the evaluation staff as integral to the College Bound Program.

Access to the cultural life of the city has also been an important component of the College Bound Program. Familiarity with the various arts contributes to the breadth of experience and knowledge necessary to become an educated person. Trips initiated by students and teachers involved academic preparation and follow-up and appeared to generate personal involvement in learning.

It seems important also to cite the administrative staff at the

Central Office of the College Bound Program. The central staff appeared to be extremely conscientious in maintaining communication with the school coordinators and ensuring that the program guidelines be implemented. In addition, they provided a valuable source of information, coordination and direction to all College Bound key personnel, as well as to the evaluation staff.

The College Bound Program was assessed by the evaluation staff as constituting an admirable effort in the direction of increasing the academic achievement, potential, and opportunities of a significant number of students. While the thrust of this evaluation is clearly positive, several recommendations are offered which might improve or facilitate the implementation of the College Bound Program.

VII. RECOMMENDATIONS

1. The College Bound Program should be refunded for another year in light of the previous discussion and the recommendations that follow.
2. Since the College Bound Program appears to be meeting its objectives of improving basic academic skills and providing college preparation, the program should be re-implemented next year with the same scope and breadth that it enjoyed in the 1972-73 project year.
3. It is strongly recommended that the intensity and continuity of guidance services be retained in light of their contribution to academic success and the facilitation of acceptance to college.
4. It is strongly recommended that the Family Assistant component be retained in view of their contribution to the amelioration of problems which impede learning.
5. It is recommended that College Bound coordinators be given a greater voice in the decision-making process as it concerns the selection of CB teachers, and in general be given an amount of authority commensurate with their responsibility and the expectation placed on them.
6. It is recommended that every effort be made to finalize the allocation of funding in a length of time previous to the start of the program that would allow for sufficient planning

and preparation of the CB program for that year.

7. It is recommended that there be a greater degree of flexibility for students in selecting elective courses.

8. It is recommended that the recruitment procedure be re-examined and improved. The process of recruitment should be standardized with clearly defined guidelines specifying ways in which information on students is to be organized and presented by feeder schools. There should be stipulations regarding which personnel in the feeder school make decisions about recommending potential CB students.

9. It is recommended that cultural activities and experiences not be reduced, but rather broadened. These pursuits do not have the immediate pay-off and face validity of strict academic programs, but their value in rounding out the educational experience and contributing to the personal and emotional growth of students cannot be refuted.

10. It is recommended that greater emphasis be placed by CB personnel on communicating with community leaders and organizations to insure that the community as a whole is aware of the College Bound Program and its value. General community recognition and support is a worthwhile goal for any program.

11. As per a previous recommendation, parent and pupil orientation should be planned so that it clearly and specifically explains what is being offered in the CB program, the nature of the work involved, and the general objective of the program.

12. It is recommended that the procedure for selection of family assistants be studied so that specific criteria and requirements may be established for selection of these personnel.
13. It is recommended that there be greater student input into the planning of cultural activities, the structuring of programs, and the selection of materials for use in the classroom.
14. It is recommended that an increased effort be made to encourage self-initiated communication among CB personnel across schools. This practice would result, hopefully, in the sharing of ideas, innovative approaches, and solutions to problems.

APPENDIX A

List of Participating High Schools

List of Participating High Schools

Adlai E. Stevenson High School
Andrew Jackson High School
Bay Ridge High School
Benjamin Franklin High School
Boys High School
Bushwick High School
Carnarsie High School
Charles Evans Hughes High School
Curtis High School
DeWitt Clinton High School
Eastern District High School
Evander Childs High School
Franklin K. Lane High School
George Washington High School
George Wingate High School
Grover Cleveland High School
Haaren High School
James Monroe High School
John Bowne High School
John Jay High School
John F. Kennedy High School
Julia Richman High School
Long Island City High School
Louis Brandeis High School
Midwood High School
Morris High School
Prospect Heights High School
Samuel J. Tilden High School
South Shore High School
Walton High School
Washington Irving High School
William H. Taft High School

APPENDIX B

Instruments

COLLEGE BOUND EVALUATION 1972-73
PUPIL PROFILE

PUPIL'S NAME _____ (last) _____ (first)

SCHOOL _____ OFFICIAL GRADE _____

ETHNIC ORIGIN _____ SEX (M or F) _____

Is the student eligible for school lunch? yes____ no____

In what grade did the student enter the program? _____
In what semester? Sept ____ Feb____ Summer____

Is the student still in the program? yes____ no____
If no, why was he/she dropped? _____

FOR SENIORS ONLY:
Is the student expected to graduate? yes____ no____
Check those schools to which student has been accepted: CUNY 2 yr____ CUNY 4 yr____
OTHER COLLEGE____ NONE ____

Has student been offered financial aid? yes____ no____

ENTERING ACHIEVEMENT TEST SCORES:
(Report JHS 8th grade June scores in grade equivalents)
Aver. Reading Score _____
Aver. Math Score _____

ANNUAL GRADE POINT AVERAGES
(Based on 5 academic subjects, using closest occurring report card ratings)
June 1972 _____
May 1973 _____

ATTENDANCE AND PUNCTUALITY
October 2 - 30, 1972 (inclusive)
No. Days Absent _____
No. Days Late _____

March 19 - April 13, 1973 (inclusive)
No. Days Absent _____
No. Days Late _____

1972 ACHIEVEMENT TEST SCORES
Please indicate test and form.
(Note: For summer students, use Stanford August form W scores, if available)

TEST: (check one) Stanford_____ MAT _____

FORM: (check one) W _____ X _____ BM _____ AM____

MONTH OF TEST: (check one) May ____ July____ Aug____ Oct____

(Note: Report scores in grade equivalents)
Aver. Reading Score _____
Aver. Math Score _____

COLLEGE BOUND EVALUATION
COORDINATOR INTERVIEW

SCHOOL _____ COORDINATOR _____

INTERVIEWER _____ DATE _____

1. What innovative approaches and special programs are unique to the College Bound Program in this high school?

curriculum innovations
reading/math labs or clinics
individual instruction
tutoring
programmed materials
team teaching
ESL
mini-courses/workshops
instructional materials

2. How are trips selected and arranged?

choice of destination
relevance to curriculum
preparation
student selection
financing

3. How would you describe the student population of the College Bound Program in this high school?

demographically
personal/social adjustment
motiviation and attitudes
drop outs
attendence
participation in student activities

4. How are the various functions of the guidance component divided among the guidance counselors in this school?

student recruitment
student selection
college counseling
coordination of family assistants
individual and group counseling
types of student problems

5. What is the process of selecting incoming students to the College Bound Program affect this high school?

number of applicants
community participation
selection criteria
liason with feeder schools

6. How is the family assistant component of the College Bound Program implemented in this school?

hours
place of work
coordination with guidance
types of problems
improvements

7. What kind of contact do you have with the parents of students in the College Bound Program in this high school?

parent-family worker
parent meetings
CB Council of Parents
(in this school)

8. How is the College Bound Program perceived by members of this <u>community</u>?
   - image
   - community relations
   - organizational support
   - publicity

9. Have you had any <u>unusual problems</u> in running the College Bound Program?
   - staff relations
   - organizational mechanics
   - relations: CBP to rest of school
   - part-time teachers
   - coordination of roles

10. What kinds of liason do you maintain with College Bound Program headquarters and the College Placement Office?

program evaluation
in-service training

11. What is the ongoing process of planning for the College Bound Program in this school?

data collection
feedback
staff participation
indicators of success

12. In summary, what recommendations would you make for the College Bound Program?

COLLEGE BOUND EVALUATION 1972-73

GUIDANCE COUNSELOR QUESTIONNAIRE

NAME: _____ SCHOOL: _____

1. How long have you held your position as a guidance counselor in the College Bound Program? _____ years

2. Before joining the College Bound Program, what position did you hold? _____

3. How many students have been assigned to you this year? _____

   3a. What grade do you counsel? _____

   3b. Did you counsel the same students last year? yes____ no____

4. How often do you meet with students in groups for college and career guidance?

   a. once a week _____

   b. 2 or 3 times a month _____

   c. once a month _____

   d. less than once a month _____

5. Do you do group counseling for personal problems? yes____ no____

   5a. If yes, to what extent? (Explain)

6. What percentage of your students have you been able to counsel individually and in groups?

Individually		Group
_____	less than 20%	_____
_____	20% to 40%	_____
_____	40% to 60%	_____
_____	60% to 80%	_____
_____	80% to 100%	_____

7. What percentage of your time do you spend on each of the following guidance activities over the course of the school year?

a. Record Keeping _____

b. Student Recruitment and Selection _____

c. College Placement and Career Guidance _____

d. Guidance on Personal and Home Problems _____

e. Family Worker Supervision _____

8. How adequate are the working conditions and physical facilities for counseling?

a. Not at all adequate _____

b. Minimally adequate _____

c. Moderately adequate _____

d. Quite adequate _____

e. Very adequate _____

9. How helpful are the following parts of the CB program to the participating students?

USE THE KEY
1 = not at all important
2 = minimally important
3 = moderately important
4 = quite important
5 = very important

a. Small class size _____

b. College counseling _____

c. Personal counseling _____

d. Tutoring _____

e. Trips (cultural activities) _____

f. Family visits _____

g. Double Eng/Math periods _____

10. Now, please indicate which of the above components you would rank as most important.

1. _____

2. _____

3. _____

11. How frequently do you encounter the following kinds of problems among students in the CB program?

USE THE KEY
1 = very seldom
2 = seldom
3 = occasionally
4 = often
5 = very often

a. learning problems _____

b. disciplinary and behavior problems _____

c. home and family problems _____

d. truancy and lateness problems _____

e. serious emotional disturbances _____

12. Do you feel that participation in the CB program has a positive effect on students' academic attitudes? yes____ no____

13. Do you feel that participation in the CB program has a positive effect on students' self image? yes____ no____

14. How would you rate the coordination and cooperation of the CB staff with the guidance component?

very poor _____

poor _____

adequate _____

good _____

very good _____

15. What is your opinion of the effectiveness of the process of recruitment of students to the CB program?

very poor _____

poor _____

adequate _____

good _____

very good _____

16. Do you feel that the recruitment process is better than it was last year? yes_____ no_____ don't know_____

17. Do you feel that students receive adequate orientation to the CB program before entering? yes_____ no_____

17a. If no, explain.

18. How well informed are parents of participating students about the CB program?

a. very poorly informed _____

b. poorly informed _____

c. adequately informed _____

d. quite well informed _____

e. very well informed _____

19. In your opinion, how successful has the CB program been this year?

a. not at all successful _____

b. minimally successful _____

c. moderately successful _____

d. quite successful _____

e. very successful _____

20. Rank the following values in order of their importance to you. Put a 1 beside the value that is most imoortant, 2 beside the one that is next in importance, and so on.

academic skills _____

respect for authority _____

getting along with others _____

self identity _____

creativity _____

21. We welcome any further comments or suggestions that you might wish to make. If more space is needed, please write on back.

COLLEGE BOUND EVALUATION

COUNSELOR INTERVIEW 1972-1973

1. How long have you held your position as a guidance counselor in the College Bound Program?
   What was your provious position?

2. What do you see as the major differences between counseling in the regular high school program and the College Bound Program?
   Facilities, staff
   student/counselor ratio
   paperwork
   type of students
   Philosophy of what guidance program should be
   group or in dividual counseling emphasized

3. In your work with students in the College Bound Program, what kinds of guidance problems do you most frequently encounter?

4. How is the work of the family workers coordinated with that of the guidance counselors? What are the strengths and weaknesses of the family assistance component of the College Bound Program in this high school?

5. How is college counseling implemented in this school?
   What happens each year
   type of colleges emphasized
   college selection
   effect of open enrollment

6. What recruitment techniques are used to inform students and counselors in the feeder schools about the College Bound Program?

7. What is the process of selecting students for the College Bound Program?
   Formal applications
   selection committee
   criteria for accectance
   adequacy of information
   from feeder schools
   improvements

8. Under what circumstances is a student dropped from the College Bound Program?

procedures
Number dropped
when dropped

9. What is the tenor of the relationship among the CBP staff?

information exchange
feedback
animosities ?

10. How does the College Bound Program fit into the overall program of this high school?

tenor of relations
students/staff

11. In your opinion, what are the major values of the program to a student?

relative contribution
of components

12. Are the components of the College Bound Program relevant to the particular needs of this high school and its students?

    which components most relevant?
    which least?

13. In summary, what do you see as the major strengths and weaknesses of the College Bound Program?

COLLEGE BOUND EVALUATION

TEACHER QUESTIONNAIRE

NAME: _____ SCHOOL: _____

SUBJECT: _____ DATE: _____

1. How long have you been a teacher in the CB program? _____ years

2. Are you full or part-time in the CB program? _____

   2a. If part-time, how many CB classes do you teach? _____

3. Do you feel that the recruitment techniques and the criteria for selection enable your school to reach those students best suited for the CB program ? yes_____ no_____

4. Do you use special books or instructional materials in your CB classes that are not available to your other classes? yes_____ no _____

5. In your CB classes, the amount and quality of instructional materials is:
   USE THE KEY
   1 = very poor
   2 = poor
   3 = adequate
   4 = good
   5 = very good

   amount _____

   quality _____

6. Do you have educational assistants who help you in your CB classes? yes _____ no _____

7. Are tutors available to CB students in your school? yes____ no____ don't know_____

8. Have you taken CB students on field trips? yes____ no____

   8a. If yes, how many? _____

9. In your opinion, has placement of CB students into particular levels of instruction been appropriate? yes____ no____

10. Do you feel that students who complete the CB program are adequately prepared for college? yes____ no____

    10a. If no, in what ways should they be better prepared? (Explain)

11. How would you rate the coordination and cooperation among members of the CB staff?

very poor _____

poor _____

adequate _____

good _____

very good _____

12. Do you feel that students receive adequate orientation to the CB program before entering? yes___ no___

12a. If no, explain.

13. Do you think that participating in the CB program has positive effects on student academic attitudes? yes___ no___

14. Do you think that participating in the CB program has positive effects on students' self image? yes___ no___

15. How helpful are the following parts of the CB program to participating students?

USE THE KEY
1 = not at all important
2 = minimally important
3 = moderately important
4 = quite important
5 = very important

a. small class size _____

b. college counseling _____

c. personal counseling _____

d. tutoring _____

e. trips (cultural activities) _____

f. family visits _____

g. double Eng/Math periods _____

16. Now, please indicate which of the above components you would rank as most important.

1. _____

2. _____

3. _____

17. Do you teach in an annex? yes____ no _____

17a. How would you rate the working conditions and physical facilities for CB classes?

worse than non-CB _____

same as non-CB _____

better than non-CB _____

18. How frequently do you encounter the following kinds of problems among students in the CB program?

USE THE KEY
1 = very seldom
2 = seldom
3 = occasionally
4 = often
5 = very often

a. learning problems _____

b. disciplinary and behavior problems _____

c. home and family problems _____

d. truancy and lateness problems _____

e. serious emotional disturbances _____

19. In your opinion, how successful has the CB program been this year?

not at all successful _____

minimally successful _____

moderately successful _____

quite successful _____

very successful _____

20. Rank the following values in order of their importance to you. Put a 1 beside the value that is most important, 2 beside the one that is next in importance, and so on.

academic skills _____

respect for authority _____

getting along with others _____

self identity _____

creativity _____

21. We welcome any further comments or suggestions that you might wish to make. (Write on the back.)

COLLEGE BOUND EVALUATION

TEACHER INTERVIEW 1972-73

NAME _____ SCHOOL _____

SUBJECT _____ DATE _____

1. How long have you taught in the College Bound Program?
   How many College Bound classes are you teaching this semester?
   Are you teaching in your area of specialization?

2. How are teachers assigned to the College Bound Program in this school?

3. What do you see as the major differences between teaching in the regular high school program and the College Bound Program?

   facilities, staff
   student/teacher ratio
   paperwork
   type of students
   educational objectives
   teaching methods
   instructional materials

4. What kinds of problems do you most frequently encounter in teaching College Bound students?

5. What is the tenor of the relationship among College Bound staff?
   information exchange
   feedback
   difficulties/ animosities

6. How does the College Bound Program fit into the overall program of this high school?
   tenor of relations
   students/ staff

7. What recommendations would you make for the College Bound Program?

FAMILY ASSISTANT INTERVIEW
COLLEGE BOUND EVALUATION

NAME _____ SCHOOL _____

INTERVIEWER _____ DATE _____

1. How long have you been a Family Assistant in the College Bound Program? Did you hold a position in the school prior to working in College Bound?

2. What is the process of <u>selection and preparation</u> of Family Assistants in the College Bound Program?

adequacy of training
in-service training

3. What do you see as the <u>primary responsibilities</u> of the Family Assistants in your high school?

students
parents --home visits, agency referrals
community

4. In your work with students and their families what kinds of problems do you encounter most frequently?

5. How do you think that those not connected with the College Bound Program feel the program?

non-CBP students
rest of high school staff
community

6. What kinds of relationships are there among the College Bound staff?

feedback
information exchange
animosities

7. Specifically, how is your work coordinated with that of the guidance counselors?

hours/place of work
staff meetings
assignment of children

8. What do you see as the major differences between the College Bound Program and the rest of the high school?

facilities, staff
type of students

9. In summary, what recommendations would you make for the Family Assistant component of the College Bound Program, as well as the program in general?

COLLEGE BOUND EVALUATION
STUDENT QUESTIONNAIRE

NAME _____ SCHOOL _____

CLASS AND GRADE _____ DATE _____

1. Do you plan to go to college? yes _____ no _____ not sure _____

2. Do you feel that it will be easier for you to go to college than an academic student who is not in the College Bound Program? yes _____ no _____ not sure _____

3. Do you feel that you are better prepared academically than an academic student who is not in College Bound? yes _____ no _____ not sure _____

4. Do you think that you get more help in applying to college than an academic student who is not in College Bound? yes _____ no _____ not sure _____

5. Do you feel that you will be prepared to do college work after you graduate from the College Bound Program? (check one)

not at all prepared _____

not very prepared _____

somewhat prepared _____

pretty well prepared _____

very well prepared _____

6. Do you think that incoming students understand why they have been selected for the College Bound Program? yes _____ no _____ not sure _____

7. Do you think that incoming students know what to expect from the College Bound Program? yes _____ no _____ not sure _____

8. How did you find out about the College Bound Program? (check one)

a. teacher _____

b. parent _____

c. guidance counselor _____

d. friend _____

e. other _____

9. Would you rather be in the College Bound Program than in the regular academic high school program?

yes _____ no _____ not sure _____

10. Have you been on any trips (such as to see a play or visit a museum) this year?

yes _____ no _____

a. If yes, how many trips?

_____

11. Do you receive tutoring in any subject?

yes _____ no _____

a. If yes, in what subject(s)?

_____

b. How many hours a week are you tutored?

_____

c. Has this tutoring helped you ?

yes _____ no _____ not sure _____

12. Do you have a double period each day in English or math?

yes _____ no _____

a. If yes, in which?

English _____ Math _____

13. Does your guidance counselor give you as much time and attention as you need?

yes _____ no _____ not sure _____

14. In addition to regular guidance classes, how many times have you seen your guidance counselor in the last year?

a. never _____

b. 1 - 5 times _____

c. 5 - 10 times _____

d. more than 10 times _____

15. Has anyone from the guidance office, such as the family assistant, visited your home this year?

yes _____ no _____ not sure _____

a. If yes, how many times?

_____

16. How does the classroom atmosphere usually make you feel? (check as many as you want)

a. scared _____

b. nervous _____

c. happy _____

d. sleepy _____

e. interested _____

f. bored _____

g. other (what?) _____

17. What are the best things about being in the College Bound Program?

(1) _____

(2) _____

(3) _____

18. What are the worst things about being in the College Bound Program?

(1) _____

(2) _____

(3) _____

19. RANK the following values in order of their importance to you. Put a 1 beside the value that is most important to you, put a 2 beside the value that is next in importance, and so on. Use each number only ONCE.

academic skills _____

respect for authority _____

getting along with others _____

self identity _____

creativity _____

20. Has being in the College Bound Program changed the way you feel about yourself? (check one)

I feel better about myself _____

I feel the same about myself _____

I feel worse about myself _____

a. If your feelings about yourself have changed, tell us how: _____

_____

_____

_____

21. Has being in the College Bound Program changed the way you think about school?

I feel better about school _____

I feel the same about school _____

I feel worse about school _____

a. If your feelings about school have changed, tell us how: _____

_____

_____

_____

22. Has being in the College Bound Program changed how you feel about your ability to do school work?

I feel better about my ability to do school work _____

I feel the same about my ability to do school work _____

I feel worse about my ability to do school work _____

a. If you feel differently about your ability to do school work, tell us how:

_____

_____

_____

23. Please use this space to tell us anything else about the College Bound Program that you think we should know, and make any recommendations for change that you would like to suggest.

APPENDIX C

Mailed-In Report

Section III

The University of the State of New York
THE STATE EDUCATION DEPARTMENT
Bureau of Urban and Community Programs Evaluation
Albany, New York 12224

PROJECT EVALUATION SURVEY FOR CATEGORICALLY AIDED EDUCATION PROJECTS
MAILED INFORMATION FORM (MIR)

SECTION III

Due Date: July 2*/

School District Code: C C G 0 7 8

SED Project Number: 0 0 0 0 0 0 7 3 0 0 8

BE Function Number (NYC Only): 0 9 3 9 6 0 9

Name and title of person completing questionnaire	Telephone Number
Dr. Eric Brown, Project Director	598-7020 (area code)

39. Date questionnaire was completed ___/___/___ (mo. day yr.)

40. Source of project funds: (Check)

Title I	X	Title III	
Title I (PL89-313)		Title VI B (PL91-230)	
Title I (PL89-750)		Urban Education	
Migrant		School Community Interaction Umbrella Program	
Neglected and Delinquent			

*/ July 2 for "regular school year" projects; for "summer only" projects, September 1; for ESEA Title I "year long" projects, September 1; for Urban Education "year long" projects, July 2.

41. Were any of the original objectives modified since the completion of Section II? Yes [ ] No [X]

If yes, were the modifications approved by the State Education Department? Yes [ ] No [ ]

42. If any proposed activities were modified in implementing the project, since the completion of Section II, please give an explanation below:

43. In the table below, list each major component/activity of the project (by code). The proposals call for specific target populations. Indicate the methods, after economic and/or educational deprivation criteria were applied, by which participants were selected for each. (Check all which apply; attach additional sheet, if necessary.)

Component Code	Activity Code	Method of Selection (check)							
		Other (Specify Below)*	Standardized Tests	Class Grades	Referral by Guidance Couns.	Interviews	Voluntary Enrollment	Diagnostic Test	Other (Specify Below)**
65415	704, 705				X	X			
65416	704, 705				X	X			
61215	706, 707 708, 710		X	X	X				
61216	720, 722		X	X	X				
60915	708, 710 711, 720		X	X	X				
60916	721		X	X	X				
61515	706, 707			X	X				
61516	720, 722			X	X				

To be continued on following page:

*Other (Specify Component/Activity Codes) _____

_____

**Other (Specify Component/Activity Codes) _____

_____

44. In the table below indicate the adequacy of facilities and materials for all components of this project in all locations.

	Status	Facilities				Materials			
		Yes	No	If no		Yes	No	If no	
				Percent	Number			Percent	Number
A	Were they available in all locations	✓				✓			
B	Were they adequate in number in all locations	✓				✓			
C	Were they appropriate in all locations	✓				✓			

If in 44 A, B, or C the answer was no, list the component (s) below (by code) and briefly describe the nature and location of the inadequacy. (Attach additional sheet if necessary.)

Component Code	Nature of Inadequacy
______	______
	______
______	______
	______
______	______
	______
______	______
	______
______	______
	______
______	______
	______
______	______
	______

43. In the table below, list each major component/activity of the project (by code). The proposals call for specific target populations. Indicate the methods, after economic and/or educational deprivation criteria were applied, by which participants were selected for each. (Check all which apply; attach additional sheet, if necessary.)

Component Code	Activity Code	Method of Selection (check)							
		Other (Specify Below)*	Standardized Tests	Class Grades	Referral by Guidance Couns.	Interviews	Voluntary Enrollment	Diagnostic Test	Other (Specify Below)**
61015	707, 719			X	X				
61016	720, 722			X	X				
61115	706, 707 708, 720			X	X				
61116	708, 720 722			X	X				
65115	704, 718		X		X				
65116	704, 718				X				
60815	706, 707 719, 720		X		X				
60816	721		X		X				

*Other (Specify Component/Activity Codes) _____

_____

**Other (Specify Component/Activity Codes) _____

_____

Use Table 45A for treatment/Control or Covariance Designs.

Note: Stanford: grade equivalents
M.A.T: standard scores

45A. Standardized Test Results

In the table below, please enter the requested information about the tests used to evaluate the effectiveness of major project component/activities in achieving desired objectives. If there was only one testing period report the mean scores (grade equivalents) in the column "actual posttest." Attach additional sheets if necessary. Before completing this question, read all footnotes.

Component Code	Activity Code	Objective Code	Test Used (MAT, CAT, etc.)	Form	Level	Total N 1/	2/ Group ID	Sample Size	Sample 3/ Y	Sample 3/ N	Pretest Date	Pretest 4/ Mean	Actual Posttest Date	Actual Posttest 4/ Mean	Statistical Data 5/ df	Stat Test Used	Stat Test Obtained Value 6/	Specify Level of Significance Obtained (e.g. $p \leq .05$; $\leq .01$
60815	706, 707, 719-21	801, 809	Stanford Reading	x,y	adv.	1406	Gr.9	1406	x		9/72	6.88	5/73	7.53	1405	t	16.83	.001
60915	708, 710-11, 720-21	801, 804, 808	Stanford Math	x,y	adv.	1332	Gr.9	1332	x		9/72	6.83	5/73	7.22	1331	t	11.72	.001
60816	706-07, 719-21	801, 809	Stanford Reading	x,y	adv.	828	Gr.10	828	x		9/72	7.91	5/73	8.66	827	t	15.36	.001
60916	708, 710-11, 720-21	801, 804, 808	Stanford Math	x,y	adv.	761	Gr.10	761	x		9/72	7.69	5/73	8.20	760	t	11.52	.001

1/Total N (total number). Indicate the total number of participants in the component.
2/Group I.D. (group identification). Indicate group, e.g. grade 5; grade 3 control; grade 3 treatment (a control group consists of students selected at the same time that treatment participants were selected and who essentially have the same characteristics as the treatment group. The control group does not take part in the compensatory activity, whereas the treatment group does.)
3/Y/N (yes/no) Is sample representative of universe? Check Y (yes) or N (no).
4/Mean. Use grade equivalents unless unavailable from publisher's norms. Specify type of mean used.
5/d.f. (degrees of freedom). Indicate degrees of freedom used in analysis.
6/Test used and value (e.g., t=3.85, F=4.17, etc.). Scores for the same individuals should be included in pre and posttest calculations.

CONTINUED ON NEXT PAGE

Use Table 45A for treatment/Control or Covariance Designs

Note: M.A.T. standard scores

45A. Standardized Test Results

In the table below, please enter the requested information about the tests used to evaluate the effectiveness of major project component/activities in achieving desired objectives. If there was only one testing period report the mean scores (grade equivalents) in the column "actual posttest." Attach additional sheets if necessary. Before completing this question, read all footnotes.

Component Code	Activity Code	Objective Code	Test Used (MAT, CAT, etc.)	Form	Level	Total N 1/	2/ Group ID	Sample Size	Sample 3/ Y	Sample 3/ N	Pretest Date	Pretest 4/ Mean	Actual Posttest Date	Actual Posttest 4/ Mean	Statistical Data 5/ df	Stat Test Used	Stat Test Obtained Value 6/	Specify Level of Significance Obtained (e.g. $p \leq .05$; $\leq .01$
60816	706-07, 719-21	801, 809	M.A.T. Reading	am, bm	H.S.	657	Gr.10	657	x		6/72	45.9	5/73	46.1	656	t	.45	NS
60916	708, 710-11, 720-21	801, 804, 808	M.A.T. Math	am, bm	H.S.	612	Gr.10	612	x		6/72	37.3	5/73	40.6	611	t	7.92	.001
60816	706-07, 719-21	801, 809	M.A.T. Reading	am, bm	H.S.	1188	Gr.11	1188	x		6/72	49.4	5/73	49.7	1187	t	1.19	NS
60916	708, 710-11, 720-21	801, 804, 808	M.A.T. Math	am, bm	H.S.	1070	Gr.11	1070	x		6/72	41.2	5/73	45.8	1069	t	14.51	.001

1/Total N (total number). Indicate the total number of participants in the component.

2/Group I.D. (group identification). Indicate group, e.g. grade 5; grade 3 control; grade 3 treatment (a control group consists of students selected at the same time that treatment participants were selected and who essentially have the same characteristics as the treatment group. The control group does not take part in the compensatory activity, whereas the treatment group does.)

3/Y/N (yes/no) Is sample representative of universe? Check Y (yes) or N (no).

4/Mean. Use grade equivalents unless unavailable from publisher's norms. Specify type of mean used.

5/d.f. (degrees of freedom). Indicate degrees of freedom used in analysis.

6/Test used and value (e.g., t=3.85, F=4.17, etc.). Scores for the same individuals should be included in pre and posttest calculations.

CONTINUED ON NEXT PAGE

Use Table 45A for treatment/Control or Covariance Designs.

Note: M.A.T. standard scores

45A. Standardized Test Results

In the table below, please enter the requested information about the tests used to evaluate the effectiveness of major project component/activities in achieving desired objectives. If there was only one testing period report the mean scores (grade equivalents) in the column "actual posttest." Attach additional sheets if necessary. Before completing this question, read all footnotes.

Component Code	Activity Code	Objective Code	Test Used (MAT, CAT, etc.)	Form	Level	Total N[1]	2/ Group ID	Sample Size	Sample Y[3]	Sample N[3]	Pretest Date	Pretest 4/ Mean	Actual Posttest Date	Actual Posttest 4/ Mean	Statistical Data 5/ df	Stat Test Used	Stat Test Obtained Value[6]	Specify Level of Significance Obtained (e.g. $p \leq .05$; $\leq .01$
60816	706-07, 719-21	801, 809	M.A.T. Reading	am, bm	H.S.	1314	Gr.12	1314	x		6/72	52.6	5/73	54.0	1313	t	5.04	.001
60916	708, 710-11, 720-21	801, 804, 808	M.A.T. Math	am, bm	H.S.	1198	Gr.12	1198	x		6/72	47.0	5/73	50.2	1197	t	11.12	.001

1/Total N (total number). Indicate the total number of participants in the component.

2/Group I.D. (group identification). Indicate group, e.g. grade 5; grade 3 control; grade 3 treatment (a control group consists of students selected at the same time that treatment participants were selected and who essentially have the same characteristics as the treatment group. The control group does not take part in the compensatory activity, whereas the treatment group does.)

3/Y/N (yes/no) Is sample representative of universe? Check Y (yes) or N (no).

4/Mean. Use grade equivalents unless unavailable from publisher's norms. Specify type of mean used.

5/d.f. (degrees of freedom). Indicate degrees of freedom used in analysis.

6/Test used and value (e.g., t=3.85, F=4.17, etc.). Scores for the same individuals should be included in pre and posttest calculations.

Use Table 45B for Historical Regression Design

note: Stanford test: grade equivalents
M.A.T test: standard scores

45B. Standardized Test Results

In the table below, please enter the requested information about the tests used to evaluate the effectiveness of major project components/activities in achieving desired objectives. Attach additional sheets if necessary. Before completing this question, read all footnotes.

Component Code	Activity Code	Objective Code	Test Used (MAT, CAT, etc.)	Form	Level	Total N[1]	Group ID[2]	Sample Size	Sample Y[3]	Sample N[3]	Pretest Date	Pretest Mean[4]	Predicted Posttest Mean[4][5]	Actual Posttest Date	Actual Posttest Mean[4]	Statistical Data[6] df[7]	Stat Test Used[8]	Stat Test Obtained Value[8]	Specify Level of Significance Obtained (e.g. $p \leq .05$; $\leq .01$
0815	706,7, 719-21	801, 809	Stanford Reading	x,y	adv.	1406	Gr. 9	1406	x		9/72	6.88	7.23	5/73	7.53	1405	t	5.20	.001
0915	708,10, 711,720,1	801, 804,808	Stanford Math	x,y	adv.	1332	Gr. 9	1332	x		9/72	6.83	7.24	5/73	7.22	1331	t	- .43	NS
0816	706,7, 719-21	801, 809	Stanford Reading	x,y	adv.	828	Gr. 10	828	x		9/72	7.91	7.81	5/73	8.66	827	t	8.24	.001
0916	708,10, 711,720,1	801, 804,808	Stanford Math	x,y	adv.	761	Gr. 10	761	x		9/72	7.69	7.56	5/73	8.20	760	t	6.35	.001
0816	706,7, 719-21	801, 809	M.A.T. Reading	am, bm	H.S	1299	Gr. 10	1299	x		6/71	45.9	42.71	5/73	46.2	1298	t	7.77	.001
0916	708,10, 711,720,1	801, 804,808	M.A.T Math	am, bm	H.S.	905	Gr. 10	905	x		6/71	37.3	37.96	5/73	41.0	904	t	3.16	.002

CONTINUED ON ATTACHED PAGE.....

[1]Total N (total number). Indicate the total number of participants in the component.

[2]Group I.D. (group identification). Indicate group, e.g. grade 5; grade 3 control; grade 3 treatment (a control group consists of students selected at the same time that treatment participants were selected and who essentially have the same characteristics as the treatment group. The control group does not take part in the compensatory activity, whereas the treatment group does.)

[3]Y/N (yes/no) Is sample representative of universe? Check Y (yes) or N (no).

[4]Mean. Use grade equivalents unless unavailable from publisher's norms. Specify type of mean used.

[5]Predicted posttest. Use only for correlated samples using "historical" regression procedure.

[6]Statistical data. Use test of significance for actual posttest v. predicted posttest where correlated samples are used.

[7]d.f. (degrees of freedom). Indicate degrees of freedom used in analysis.

[8]Test used and value (e.g., t=3.85, F=4.17, etc.). Scores for the same individuals should be included in pre and posttest calculations.

Use Table 45B for Historical Regression Design

Note: MAT: standard scores

45B. Standardized Test Results

In the table below, please enter the requested information about the tests used to evaluate the effectiveness of major project components/activities in achieving desired objectives. Attach additional sheets if necessary. Before completing this question, read all footnotes.

m-nent de	Activity Code	Objective Code	Test Used (MAT, CAT, etc.)	Form	Level	Total N[1]	2/ Group ID	Sample Size	Sample 3/ Y	Sample 3/ N	Pretest Date	Pretest 4/ Mean	5/ Predicted Posttest Mean 4/	Actual Posttest Date	Actual Posttest 4/ Mean	Statistical Data[6] 7/ df	Stat Test Used	Stat Test Obtained Value	Specify Level of Significance Obtained (e.g. p≤.05; ≤.01
50816	706,7, 719-21	801, 809	M.A.T. Reading	am, bm	H.S.	1822	Gr. 11	1822	X		6/70	49.40	49.49	5/73	49.9	1821	t	1.10	NS
50916	708,10 711,720	801, 804,808	M.A.T. Math	am, bm	H.S.	1377	Gr. 11	1377	X		6/70	41.25	42.96	5/73	46.2	1376	t	4.24	.001
50816	706,7, 719-21	801, 809	M.A.T. Reading	am, bm	H.S.	1566	Gr. 12	1566	X		6/69	52.65	57.33	5/73	54.0	1565	t	-8.20	.001
50916	708,10 711,720	801, 804,808	M.A.T. Math	am, bm	H.S.	1164	Gr. 12	1164	X		6/69	47.06	57.05	5/73	50.2	1163	t	-8.98	.001

[1]Total N (total number). Indicate the total number of participants in the component.
[2]Group I.D. (group identification). Indicate group, e.g. grade 5; grade 3 control; grade 3 treatment (a control group consists of students selected at the same time that treatment participants were selected and who essentially have the same characteristics as the treatment group. The control group does not take part in the compensatory activity, whereas the treatment group does.)
[3]Y/N (yes/no) Is sample representative of universe? Check Y (yes) or N (no).
[4]Mean. Use grade equivalents unless unavailable from publisher's norms. Specify type of mean used.
[5]Predicted posttest. Use only for correlated samples using "historical" regression procedure.
[6]Statistical data. Use test of significance for actual posttest v. predicted posttest where correlated samples are used.
[7]d.f. (degrees of freedom). Indicate degrees of freedom used in analysis.
[8]Test used and value (e.g., t=3.85, F=4.17, etc.). Scores for the same individuals should be included in pre and posttest calculations.

Measures of growth other than Standardized Tests

45C. This question is designed to elicit the attainment of approved objectives not normally associated with measurement by norm referenced standardized achievement tests. Such objectives usually deal with behavior that is indirectly observed, especially in the affective domain. For example, a reduction in truancy, a positive change in attitude toward learning, a reduction in disruptive behavior, an improved attitude toward self (as indicated by repeated interviews), etc., are frequently held to be prerequisite to the shift toward increased academic achievement by disadvantaged learners. Where your approved measurement devices do not lend themselves to reporting on tables 45A or B, use anv combination of items and report on separate pages. Attach additional pages if necessary.

Component Code [609-612,] 615 Activity Code [706,707,] 719, ~~720~~, 722 Objective Code [801,804] 806, 811

Brief Description Grade Point Averages were recorded for all students from June 1972 and May 1973. During this period, g.p.a scores declined an average of 3.1 for the total population, although the difference scores vary within each grade (See final report).

Number of cases observed: 8,049 students

Number of cases in treatment: approximately 11,000.

Pretreatment index of behavior (Specify scale used):

Criterion of success: Improvement in quality of academic work

Was objective fully met? Yes [ ] No [x] If yes, by what criteria do you know?

Comments: Guddance counselors indicated that the May 1973 grading period, selected for recording, is an official period. Teachers tend to mark lower in this grading period, as an added incentive to students to work harder for their final grades. Thus, results may be spuriously low.

45C. This question is designed to elicit the attainment of approved objectives not normally associated with measurement by norm referenced standardized achievement tests. Such objectives usually deal with behavior that is indirectly observed, especially in the affective domain. For example, a reduction in truancy, a positive change in attitude toward learning, a reduction in disruptive behavior, an improved attitude toward self (as indicated by repeated interviews), etc., are frequently held to be prerequisite to the shift toward increased academic achievement by disadvantaged learners. Where your approved measurement devices do not lend themselves to reporting on tables 45A or B, use any combination of items and report on separate pages. Attach additional pages if necessary.

Component Code [651] Activity Code [718] Objective Code [821]

Brief Description Attendance data were collected for the entire population in October 1972 and May 1973; Days absent and days late were expected to decrease from October to May, as an indication of improved attitudes towards school.

Number of cases observed: Absent data: N = 9770 Late data: N=9202

Number of cases in treatment: approximately 11,000

Pretreatment index of behavior (Specify scale used): Both attendance and lateness scores regressed in all grades. It should be noted however, that a criterion for acceptance into the program is that students have good attendance records. Consequently, there was very little room for improvement. In fact, students were absent only 1 or 2 days per month on the average (depending on grade level), and the minor fluctuations around this average (even in a negative direction) should not be considered crucial.

Criterion of success: improvement

Was objective fully met? Yes [ ] No [X] If yes, by what criteria do you know?

Comments: Because of the inappropriateness of this objective to the structure of the College Bound Program, data on attitudes towards school were collected via questionnaires and interviews. These data, presented in the final report, concur that attitudes in fact did improve.

Measures of growth other than Standardized Tests

45C. This question is designed to elicit the attainment of approved objectives not normally associated with measurement by norm referenced standardized achievement tests. Such objectives usually deal with behavior that is indirectly observed, especially in the affective domain. For example, a reduction in truancy, a positive change in attitude toward learning, a reduction in disruptive behavior, an improved attitude toward self (as indicated by repeated interviews), etc., are frequently held to be prerequisite to the shift toward increased academic achievement by disadvantaged learners. Where your approved measurement devices do not lend themselves to reporting on tables 45A or B, use any combination of items and report on separate pages. Attach additional pages if necessary.

Component Code [654] Activity Code [704,705] Objective Code [801, 805-811]

Brief Description Guidance Activities: Of the 105 guidance counselors in the College Bound Program, 95 returned questionnaires, recording their opinions about the program. A large portion of the counselors were also interviewd. These data serve to supplement student self-reports of improved attitudes towards school, as well as teacher reports on the same topic.

Number of cases observed: 95

Number of cases in treatment: 105

Pretreatment index of behavior (Specify scale used): Counselors were asked if they felt that the program had positive effects on students self-image and attitudes towards school. The majority agreed that it did. Both teachers and students, on questionnaires, agreed with this assessment. Teachers, further, cited the guidance component of the program (1 counselor per 100 students) as a crucial factor in this improvement.

Criterion of success: Improvement in attitudes towards school, self-image.

Was objective fully met? Yes [ ] No [ ] If yes, by what criteria do you know?

Comments: These data, from students, teachers, and guidance counselors, would appear to be more valid than attendance data in reflecting attitudes towards school. Late funding this year precluded an actual pre-post evaluation in this domain. Such an analysis is reccomended for next year.

APPENDIX D

Evaluation Staff

Evaluation Staff

Co-Directors:	Dr. Eric Brown, Ph.D. Psycholinguistics New York University
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	Eric Jonassen, Ph.D. Candidate, Research and Social Psychology, New York University
Computer Consultant:	Bert Holland New York University
Research Assistants:	James Ramsay Sandra Simon Peter Rodman Joan Kaminski Jean Weiss Bernard Carragher Michael Pelzig Sharon Murray Joan Melnick Susan Cuscuna
Keypunch Operators:	Liora Schmelkin Hadar Pedhazur
Typist:	Roxanna Blenman