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ABSTRACT

Educational Options Programs are special (New York City) high school programs centered around various career areas. Students must apply to these high schools or programs to attend. During 1987-88, the admissions policy was revised to increase program access. The revised policy mandated that half of each entering class (9th and 10th graders) would be randomly selected by computer, and the other half selected by the school. Reading requirements were also altered. The Office of Research, Evaluation, and Assessment (OREA) conducted a study examining the continuing progress in 1988-89 of the Educational Options students first admitted under the revised admissions policy during their second year of high school. This report reviews the achievement of randomly assigned and school-selected students, noting patterns continuing from the first to the second program year. The report also presents results of a survey that sampled the attitudes of school personnel administering the Educational Options programs. Findings showed that dropout rates for both student groups were well below the citywide average. Transfer rates were higher than dropout rates for both groups. Selected students maintained higher attendance and mathematics achievement rates than did the random group. Considerable variations in achievement patterns were observed across the city. Options program staff's initial apprehensions regarding randomly assigned students' performance were generally not supported by the data. An appendix with data tables is included. (MLH)

OREA Report

A STUDY OF THE IMPACT OF THE REVISED EDUCATIONAL OPTIONS ADMISSIONS POLICY, 1988-89

September 1990

New York City Public Schools

Joseph A. Fernandez
Chancellor

NEW YORK CITY BOARD OF EDUCATION

DIVISION OF STRATEGIC PLANNING/RESEARCH & DEVELOPMENT

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Executive Director

8/90

A SUMMARY OF THE REPORT

The admissions policy of the Educational Options programs, revised in 1987-88, mandated that 50 percent of each entering class be randomly selected and 50 percent selected by the Educational Options programs themselves. It also stipulated that in each entering class, 16 percent of the students were to be reading above grade level, 16 percent below grade level, and 68 percent at grade level on the New York city Reading Test.

The Office of Research, Evaluation, and Assessment (OREA) conducted a study which examined the continued progress in 1988-89 of the Educational Options students first admitted under the revised admissions policy during their second year of high school. This report reviews the achievement of randomly-assigned and school-selected students, noting patterns which have continued from the first to the second program year. In addition, the report presents the results of a survey which sampled the attitudes of school personnel administering the Educational Options programs. This survey investigated issues regarding the implementation of the revised admissions policy as well as staff perceptions of the policy's impact on their school and programs.

FINDINGS

- Dropout rates were low for both randomly-assigned and school-selected students (3.6 and 1.6 percent, respectively). Both rates were well below the citywide average.

- Random students were slightly (two percentage points) more likely than selected students to move away from New York City, or transfer to another New York City high school.

- Rates of transfer were higher than dropouts: 9.6 percent and 7.5 percent of the ninth-grade general education random and selected students, respectively, transferred to another New York City public high school.

- Prior to participating in an Educational Options program, the selected students had higher attendance rates and mathematics achievement than did the random group. These differences persisted unchanged through the second program year.

- No meaningful differences in average D.R.P. mid-instructional scores were found between the random and selected groups prior to program admission; this pattern continued through the first and second program years.

- No meaningful differences were found between the groups in the percentage of students entitled to bilingual/E.S.L. services, or the percentages of students passing writing, science, and history Regents Competency Tests.

- Students' overall ability to comprehend text as measured by D.R.P. mid-instructional scores rose for all groups tested (except for tenth-grade holdovers) from spring 1986 (prior to program entry) through spring 1989.

- During each program year, the selected students earned an average of about one credit more than the random group. Over the two-year study period, the selected students accumulated about two credits more than their randomly assigned counterparts.

- Group differences in the numbers of credits earned were also reflected in differences in promotion/retention rates of program students. Among the ninth graders, selected students were promoted to the next grade at a higher rate than were randomly-assigned students. However, a substantial proportion of both random and selected students were not promoted from the ninth grade to the tenth.

- Considerable variations in achievement patterns were observed across Educational Options schools citywide.

- Initial apprehensions of some Educational Options program staff regarding the effects of the entrance of randomly-assigned students into their programs were not, for the most part, supported by the data.

- The continued progress and persistence in school of randomly assigned students suggests that the admission policy's objective of increasing equity in access to Educational Options programs is being attained.

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OREA would like to extend special thanks to Lawrence Edwards, Jacqueline Charity, and Robert Klein of the Division of High Schools for supporting our inquiry into the long-term outcomes of the Educational Options admissions policy and clarifying the complexities of New York City's high school admissions process.

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INTRODUCTION

Educational Options programs are special high school programs, each centered around one of a wide variety of career areas. There are nine total Educational Options high schools, in addition to many Educational Options programs within zoned high schools. Students must apply to these high schools or programs in order to attend. The Educational Options admissions policy was revised during the 1987-88 academic year by the Division of High Schools. Its intent was to increase access to special high school programs for students who might otherwise have been denied admission because they did not meet entry criteria.

The revised Educational Options admissions policy mandated that half of each entering class (ninth and tenth graders) would be randomly selected by computer ("randomly-assigned"), with the other half selected by the school ("school-selected"). Additional constraints altered the original admissions policy in which 50 percent of the students accepted were to be reading at grade level, 25 percent above grade level, and 25 percent below grade level.[1] The revised policy required that 16 percent of each group of students (randomly-assigned and school-selected) in the entering class be composed of pupils reading above or

[1] "At grade level" was defined as having a reading score on the Degrees of Reading Power test between the twenty-fifth and seventy-fifth percentiles.

below grade level and 68 percent on or about grade level.

Previous Findings. Several preliminary reports on the Educational Options policy have been prepared by the Office of Research, Evaluation, and Assessment (OREA). The first of these reports, issued in December 1987 (four months after the initiation of the policy), indicated that prior to entry into the program, the school-selected students showed slightly better performance than the randomly-assigned students on a number of performance measures. A higher percentage of school-selected (69 percent) than randomly-assigned students (62 percent) were reading at or above grade level prior to their admission into an Educational Options program in 1987. Also, the selected students had, on average, slightly higher junior high school class grades and school attendance rates than those of the random students. These data provided baseline information for comparing the progress of these cohorts through their high school years. Given these initial differences, the central issue of the ongoing evaluation became whether the randomly-assigned students could maintain progress toward successful completion of their programs relative to that of the school-selected group.

The most recent OREA report, summarizing the entire 1987-88 academic year, compared certain characteristics and areas of academic achievement of school-selected and randomly-assigned students during their first year in an Educational Options school or program. It also examined the implementation of the

16-68-16 distribution policy in its first year of operation.

In several areas, no differences or only slight differences between the two groups of students were found. For example, the report indicated no demonstrable differences in terms of the rates at which students left the New York City public school system, entitlement to bilingual/ESL services, reading achievement and average age. However, in other areas school-selected students continued to do slightly better than randomly-assigned students. Baseline differences between selected and randomly-assigned students on measures of mathematics achievement continued, with selected students scoring somewhat higher than random students on mathematics tests. Selected students also earned an average of over one credit more than did their randomly-assigned counterparts. Selected students also had higher attendance rates than did their random counterparts, maintaining baseline differences. The 1987-88 report also found that, of programs admitting 50 or more students, 70 percent deviated from the 16-68-16 rule of distribution to a statistically significant degree. Low reading-achievers were sometimes over-represented, with a concomitant underrepresentation in numbers of average reading-achievers. The reasons for these deviations from the 16-68-16 distribution were not investigated in the 1987-88 report.

Current Report. The current report examines the continued progress in 1988-89 of the Educational Options students during their second year of high school. It compares randomly-assigned

and school-selected students on the following dimensions:

- percentage of each group who left the school system or transferred to another school;
- mean credits earned;
- percentage entitled to bilingual services;
- reading and math achievement; and
- attendance.

Any patterns which have continued from the 1987-88 to 1988-89 academic years are also noted.

In addition to analyzing and summarizing quantitative student data, this report presents and discusses the results of a survey of a sample of school personnel administering Educational Options programs. The interviews sought feedback regarding attitudes toward the revised admissions policy, how the schools/programs implemented the selection process, and the perceived impact of the new admissions policy on the program/school. This section of the report also discusses explanations for student distributions that varied from the mandated 16-68-16 distribution.

This study provides a context in which to understand the continued functioning of both the randomly-assigned and school-selected students in their first and second years of high school. It also examines trends which may be significant for understanding the long-term outcomes of the admissions policy.

METHODS

Data for the evaluation of the Educational Options admissions policy were drawn from two sources. Information for the 1987-88 school year was supplied by the Educational Testing Service (E.T.S.), which performs the data management functions for the high school admissions process. An E.T.S. computer tape containing a roster of all students accepted by the specialized high school programs for 1987-88 (including all school-selected and randomly-assigned students) was matched to the High School Database. This database, developed and maintained as a joint project by OREA's High School Evaluation Unit and School and Policy Analysis Section, contains achievement, attendance, and enrollment information for all New York City public high schools. Information from the 1987-88 E.T.S. computer file was updated for the 1988-89 school year by using data from the High School Database.

The data for general education students were analyzed by students' entering grade (ninth or tenth), and by whether students were randomly assigned or school selected. In each table in this report, "grade 9" refers to the cohort of students who were in ninth grade in 1987-88, and "grade 10" refers to those students in the tenth grade in that year; these labels do not reflect the status of students in the 1988-89 school year. There were also students in special education who were admitted to the specialized high school programs. Data for special education students were analyzed separately by selection

category and grade. Special education students were categorized as ninth or tenth graders, depending on their grade designation prior to entering an Educational Options program.

In some cases, comparable citywide data are provided for the purposes of comparing students in the Educational Options programs with students citywide. However, in many cases comparable data do not exist, and therefore are not included.

FINDINGS: STUDENT DATA

The status of students participating in the Educational Options programs in 1988-89 is presented in Table 1. These data were taken from the admissions/discharge codes recorded in the High School Database as of spring, 1989. Percentages of randomly-assigned and school-selected students changing schools, leaving the city, or dropping out were compared. In general education, approximately 84 percent of selected students and 79 percent of random students were continuing in the same school. A slightly greater percentage of random than selected students transferred to a new school within the New York City School system, while similar percentages of random and selected students transferred to private or parochial schools, or moved out of New York City.

The percentage of dropouts was slightly higher for randomly-assigned than selected students in both cohorts. Although the number of dropouts in the random group (178 or 3.6 percent) was more than double the number of dropouts in the selected group (63 or 1.6 percent) in the grade 9 cohort, these

TABLE 1

Status of Participating Students in
General and Special Education
Educational Options Programs, as of Spring 1989

	Grade 9				Grade 10			
	Random		Selected		Random		Selected	
	N	%	N	%	N	%	N	%
General Education								
Continuing in school[1]	3927	78.9	3378	83.8	2327	78.8	2096	82.8
Graduates	9	.2	1	.02	12	.4	16	.6
Dropouts	178	3.6	63	1.6	150	5.1	85	3.4
Left N.Y.C.	210	4.2	152	3.7	122	4.1	96	3.8
Change to new school in system	479	9.6	304	7.5	252	8.5	177	7.0
Change to private school	35	.7	29	.7	10	.3	16	.6
Pending[2]	73	1.5	73	1.8	40	1.3	31	1.2
Other[3]	36	.7	5	.1	18	.6	5	.2
Re-admission	32	.6	24	.6	22	.7	9	.4
Special Education								
Continuing in school	285	75.0	280	80.5	172	72.3	139	77.2
Graduates	1	.3	0	0.0	1	.4	1	.6
Dropouts	23	6.1	23	6.6	29	12.2	18	10.2
Left N.Y.C.	19	5.0	12	3.4	10	4.2	2	1.1
Change to new school in system	34	9.0	25	7.2	14	5.9	15	8.3
Change to private school	3	.8	0	0.0	1	.4	0	0.0
Pending	4	1.1	6	1.7	6	2.5	4	2.2
Other	5	1.3	1	.3	5	2.1	1	.6
Re-admission	2	.5	1	.3	0	0.0	0	0.0

[1] This includes students who might be in another program in the same school.

[2] 'Pending' refers to those students whose status is not clarified.

[3] 'Other' may include students who are in an institution, have received an "annotated" diploma or certificate, or have enrolled in Outreach Centers, N.Y.C. Public Evening High School, or a full-time GED program outside the N.Y.C. Public School system.

numbers still represent only a small proportion of the total number of students in each group. It should also be noted that the dropout rates for both random and selected students in general education Educational Options programs were substantially lower than that (5.4 percent to 7.0 percent) for citywide cohorts at the same stage of their high school careers.[2]

In special education, between 77 and 80 percent of selected students and 72-76 percent of random students were continuing in the same school. Among special education students, rates of transferring schools and dropouts in the tenth grade cohort were slightly above the pattern in general education citywide. Dropout rates were similar for randomly-assigned and selected special education ninth grade students and were marginally higher than that for their program peers in general education.

Student promotions from one grade to another are presented in Table 2. To derive an indicator of promotion, student grade codes from the New York City Public Schools Test History File for the first program year (1987-88) were cross-tabulated with grade codes for the second program year (1988-89). Those students whose grade codes had increased from one year to the next were considered to have been promoted. While these calculations are not based on official grade promotion records for each student, they are our best estimate of students' progress.

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[2]OREA Cohort Report, 1987-88.

TABLE 2

Cross-tabulations of Student Grade in First and Second Program Years
General and Special Education Students
Educational Options Programs, 1988-89

		Grade in 2nd Program Year (1988-89)									
	Total N	Grade 9		Grade 10		Grade 11		Grade 12		Special Education*	
Grade in 1st Program Year (1987-88)		N	%	N	%	N	%	N	%	N	%
General Education											
Grade 9											
Random	4510	1261	28.0	2919	64.7	120	2.6	2	.0	48	1.1
Selected	3771	738	19.6	2820	74.8	124	3.3	4	.1	17	.4
Grade 10											
Random	2616	-	-	683	26.1	1761	67.3	37	1.4	12	.4
Selected	2303	-	-	459	19.9	1751	76.0	31	1.3	9	.4

Note: 286 random students and 194 selected students lacked a biofile grade code in their first program year (1987-88); only 30 of the random students and 12 of the selected students were still missing a grade code in their second program year (1988-89). Shaded areas indicate expected promotion.

* Students who had a special education grade code in the biofile prior to entering an educational options program are not reported here because their grade designations did not change during the study period. Only students who had an initial grade code and were subsequently placed in a special education program are reported here.

Differences between the two groups of students were evident in promotion/retention rates, with selected students being promoted at a somewhat greater rate than random students. In 1988-89, 64.7 percent of the randomly-assigned general education students and 74.8 percent of the selected students were promoted from the ninth to the tenth grade, as compared with a citywide promotion rate of 69.0 percent. A fairly substantial percentage of students in both groups were retained in the same grade (19.6 percent for selected and 28.0 percent for random), and a small number in both groups apparently skipped from ninth to eleventh grade.

Similar promotion patterns are evident for students who were in tenth grade in their first program year (1987-88). However, the difference between percentages of random and selected students who were not promoted narrowed from 8.4 percentage points for ninth graders to 6.2 percentage points for tenth graders, with fewer random students being retained. Promotion rates for random program students (67.3 percent) were nearly equivalent to citywide promotion rates from tenth to eleventh grade (67.6 percent), and the promotion rates for selected program students were somewhat higher (76.0 percent).

Table 3 presents the distribution of entitled bilingual students in 1988-89. Percentages of entitled students in each cohort and category are compared. The rates of entitlement ranged from five to more than eight percent among general education students, and were somewhat higher for selected than

TABLE 3

Bilingual Entitlement
General and Special Education Students
Educational Options Programs, 1988-89

	N	Percent*
General Education		
Grade 9		
Random	214	5.4
Selected	222	6.5
Grade 10		
Random	123	5.2
Selected	179	8.5
Special Education		
Grade 9		
Random	32	11.2
Selected	54	19.2
Grade 10		
Random	29	16.9
Selected	24	17.3

* Based on all students continuing in school in 1988-89, in addition to students who were re-admitted (see Table 1).

for randomly-assigned students. Both rates were below the overall citywide percentage (10.3 percent). A greater percentage of special education students were entitled, with rates ranging from 11 to 19 percent--somewhat higher than the citywide pattern. Again, selected students were entitled at a higher rate than were random students. This may be attributable to schools targeting special programs for LEP students, and selecting students specifically to fill these program openings--something the random assignment process could not have taken into account. Rates of bilingual entitlement generally increased from the first to the second program years for both random and selected students. Whether this was due to students being assessed after admissions or to different data reporting practices cannot be determined.

Attendance data for the first (1987-88) and second (1988-89) program years for general education students are presented in Table 4. Mean attendance rates for random and selected students in each cohort were calculated. Reflecting patterns observed in earlier studies, the overall average attendance of the selected students in both grades was about four percentage points higher than the overall average attendance among the random students. The highest difference (five percentage points) was found in the second program year (1988-89) for the ninth grade group. The attendance of both ninth grade groups decreased about three percentage points from the first to the second program year. The attendance of the tenth grade group

TABLE 4

Average Attendance For
General Education Students in
Educational Options Programs, 1987-89

	Selected			Random		
	N	Mean	SD	N	Mean	SD
General Education						
Grade 9 Cohort						
1st program year (1987-1988)	3741	89.4	14.8	4537	85.1	17.8
2nd program year (1988-1989)	3539	86.8	17.9	4105	82.1	20.4
Grade 10 Cohort						
1st program year (1987-1988)	2338	89.6	14.1	2676	85.4	17.3
2nd program year (1988-1989)	2194	88.4	15.0	2432	85.2	17.4

was more stable, showing little change across the two years. The difference in attendance rates between the random and selected groups did not increase from the baseline difference between the groups.

The average attendance rates of the full cohorts mask considerable diversity among the Educational Options schools (outcome data for these schools appear in appendix A). While in some schools there were somewhat large differences in average attendance rates between random and selected students, in others the differences were minimal.

Table 5 presents group mean reading scores in mid-instructional units[3] on the Degrees of Reading Power (DRP) for 1986-1989 in both general education and special education. As the mean mid-instructional DRP score is equivalent to the level of difficulty of specific reading passages, students can be observed to show an increase in reading ability across the study period. The only exception to this pattern is indicated for tenth grade students with 1989 DRP scores. The students in this category represent only those students who were held back; most tenth grade students in 1989 took the Regents Competency Test (RCT) in reading. The relatively low mean scores for tenth graders in 1989 reflects this limited population only and should

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[3]Since the DRP's distribution of Normal Curve Equivalents is truncated at the 78th N.C.E., examination of the average N.C.E.s might have resulted in a misleading picture of achievement. A "mid-instructional unit score" indicates the level of text a student can understand with a moderate degree of instructional support.

TABLE 5

Degrees of Reading Power Scores, 1986-1989
Mean Mid-Instructional Scores
General and Special Education Students
Educational Options Programs

	2 yrs. before program: 1986			1 yr. before program: 1987			1st program year: 1988			2nd program year: 1989		
	DRP Unit Score[1]			DRP Unit Score			DRP Unit Score			DRP Unit Score		
	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N
General Education												
Grade 9												
Random	60.8	10.6	4191	65.0	10.3	4294	67.9	11.9	3993	73.1	12.7	3307
Selected	62.9	11.1	3195	66.9	10.8	3286	70.0	12.1	3396	75.5	12.7	3003
Grade 10												
Random	66.2	10.9	2818	72.2	12.6	2832	72.9	12.6	2437	70.9	12.4	361
Selected	67.0	12.2	2324	73.6	13.8	2401	74.0	13.7	2185	71.4	12.5	237
Special Education												
Grade 9												
Random	48.2	10.7	360	52.3	11.1	351	52.5	11.5	250	56.2	11.4	177
Selected	43.8	8.6	328	49.6	10.4	323	49.6	9.2	252	52.1	10.5	183
Grade 10												
Random	51.8	10.8	228	55.7	10.9	220	55.9	10.3	159	55.2	13.4	12
Selected	47.5	9.7	177	52.3	9.4	171	52.0	9.6	127	50.5	9.9	17

[1] DRP units are an absolute (rather than relative) index of achievement. The mid-instructional unit score indicates the level of text the student can understand with a moderate degree of instructional support. Therefore, students' scores tend to increase over time, as their reading ability improves.

not be compared with scores from the previous years. For this particular group of tenth graders, there is very little difference between the scores for randomly-assigned and selected students.

Among ninth and tenth grade general education students, the mean mid-instructional DRP scores of selected students were very slightly (approximately two mid-instructional units or less) higher than those of randomly-assigned students across all four years. The pattern of differences in mean DRP scores between the two groups of special education students was the reverse of that observed among general education pupils. The average scores of the randomly-assigned students were slightly higher than those of selected students in both ninth and tenth grades across all four years, perhaps reflecting the higher percentage of LEP students in the selected group.

Reading scores are reported in a slightly different form in Table 6. This table presents mean mid-instructional scores for both the random and selected groups. This table reports students who have been grouped into categories of "low", "average" and "high" reading scores based on their pre-admission reading scores.[4] In general, Table 6 corroborates the findings

[4] "Low", "average", and "high" categories are based on DRP mid-instructional scores from 7th grade for the 9th grade cohort, and 8th grade for the 10th grade cohort. For the 9th grade cohort, "low" is defined as a mid-instructional score in the 1-29 percentile range; "average" is in the 30-80 percentile range, and "high" is a percentile score of 81 or more. For the 10th grade cohort, "low" is defined as a score in the 1-34 percentile range; "average" is in the 35-84 percentile range, and "high" is a percentile score of 85 or more.

TABLE 6

Degrees of Reading Power Scores, 1986-1989
Mean Mid-Instructional Scores
General Education Students by Category
Educational Options Programs

	2 yrs. before program: 1986			1 yr. before program: 1987			1st program year: 1988			2nd program year: 1989		
	DRP Unit Score			DRP Unit Score			DRP Unit Score			DRP Unit Score		
	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N
General Education												
Grade 9 Cohort												
Random												
Low	43.3	5.6	334	52.8	8.3	306	54.1	8.1	228	58.9	8.6	171
Average	58.9	6.2	3132	63.5	7.1	2994	65.6	8.6	2483	70.1	9.8	2030
High	77.3	6.2	725	78.6	8.2	703	82.6	9.4	626	88.2	8.4	540
Selected												
Low	43.1	5.8	263	52.8	8.3	236	53.5	8.3	179	58.1	8.2	146
Average	60.5	6.4	2190	65.3	7.2	2083	67.7	8.6	1879	72.9	10.1	1641
High	77.2	6.4	742	78.5	8.4	722	82.4	9.0	648	87.8	8.5	571
Grade 10 Cohort												
Random												
Low	48.7	6.0	298	57.4	7.5	274	57.1	8.5	214	58.6	7.7	53
Average	64.9	6.0	2081	71.0	9.5	2001	72.0	9.7	1688	72.3	10.2	242
High	83.9	6.6	439	89.6	8.6	426	88.4	8.3	391	85.4	13.8	29
Selected												
Low	47.2	7.1	323	56.5	8.0	303	56.7	9.0	258	60.3	9.1	38
Average	66.5	6.1	1595	73.4	10.2	1547	74.5	9.8	1380	73.1	9.9	148
High	84.7	6.6	406	91.0	6.6	397	90.1	7.9	354	90.2	7.1	20

from Table 5. All groups in the ninth grade cohort demonstrate improvements in mean scores from 1986 through 1989. Mean scores for tenth graders also generally improved from 1986 through 1989, with several scattered declines in both the random and selected student groups. The large increases in mean scores for students in the "low" category between 1986 and 1987 are due to regression toward the mean, a statistical "rebound" which occurs when students are selected for a program on the basis of low or high test scores. Comparisons between the randomly-assigned and selected students indicate that for the most part, the scores of selected and random students were very closely matched in each category. Within each category, there was no difference in growth rates between the two groups of students.

Mathematics competency test data are presented in the top part of Table 7. The information in this table represents the numbers of students attempting and passing RCT's and Regents Exams in mathematics as of spring, 1989. Students must pass at least one of these to be eligible for high school graduation. The numbers in this table reflect only the most advanced test each student has passed. (If a student has passed the RCT, Sequence I and Sequence II examinations, he or she is recorded only as having passed the Sequence II examination).

A greater percentage of school-selected than random students passed one of the more advanced mathematics tests (Sequence I, II, or III) in both the ninth and tenth grade cohort groups, while more randomly-assigned than selected

TABLE 7

Students Attempting and Passing Regents Competency Tests and
Regents Tests in Mathematics
as of Spring 1989
General Education Students
Educational Options Programs

	Never Attempted Math Test		Never Passed Math Test		Passed Mathematics RCT Only		Passed Mathematics Sequence I Regents		Passed Mathematics Sequence II Regents		Passed Mathematics Sequence III Regents	
	N	%	N	%	N	%	N	%	N	%	N	%
Grade 9 Cohort												
Random	959	21.8	660	15.0	1899	43.2	408	9.3	373	8.5	94	2.1
Selected	546	14.7	430	11.5	1541	41.4	506	13.6	547	14.7	155	4.2
Grade 10 Cohort												
Random	105	4.1	315	12.3	1291	50.4	296	11.6	318	12.4	235	9.2
Selected	42	1.8	189	8.3	898	39.5	367	16.2	404	17.8	371	16.3

	Passed RCT Reading		Passed RCT Writing		Passed RCT Science		Passed RCT History	
	N	%	N	%	N	%	N	%
Grade 9 Cohort								
Random	40	.9	2	.04	502	11.1	7	.2
Selected	46	1.2	1	.03	422	11.2	8	.2
Grade 10 Cohort								
Random	1536	58.2	7	.3	65	2.5	435	16.5
Selected	1461	63.2	0	-	30	1.3	438	18.9

Note: These data were also analyzed for special education students, but the minimal numbers of students taking these exams did not warrant reporting.

students passed the RCT, which is the most basic of the mathematics achievement tests. Clearly, a greater proportion of selected students attained higher levels in mathematics testing than did randomly-assigned students.

This pattern of a higher number of selected students passing the higher level mathematics tests and more random students passing the more basic test parallels the pre-program achievement patterns of both groups. (In 1987, 48.3 percent of the selected students and 34.2 percent of the random students scored at the 50th percentile or higher on the mathematics Metropolitan Achievement Test.[5] More students in the ninth grade cohort never attempted a mathematics test than attempted and never passed a test, indicating that many students do not take a test unless they are felt to be ready for it. However, in the tenth grade cohort, most random and selected students had attempted a mathematics test by their second program year, and more students had passed such a test. This reflects the pressure of meeting graduation requirements for these students, most of whom were in eleventh grade in 1989.

Percentages of students attempting and passing RCTs in reading, writing, science and history are presented in the lower part of Table 7. The percentages of students passing these tests was nearly equivalent for school-selected and randomly-assigned students, with one exception. A somewhat higher

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[5]Educational Options Admissions Policy Study, OREA, September, 1988.

percentage of selected than random students passed the reading RCT.

Information regarding the number of credits earned is presented in Table 8. Included are average credits earned by random and selected students during the first and second program years (1987-88 and 1988-89), as well as the mean number of credits earned over the two years (based only on students for whom this information was available for all semesters). For general education students, the mean number of credits earned remained stable over the two program years for both the randomly-assigned and selected groups. Students in the tenth grade cohort earned a greater average number of credits over the two years than those in the ninth grade cohort. Selected ninth and tenth graders earned approximately one credit more than randomly-assigned students each year, and the cumulative two-year difference in mean credits earned was nearly two and a half credits (the equivalent of half a semester) for the ninth-grade group. The difference between the two groups was smaller for the tenth grade cohort, with selected students earning an average of less than two credits more over the two years than random students.

Randomly-assigned program students in ninth grade cohort earned fewer credits, on average, than the ninth grade cohort of students citywide for both 1987-88 and 1988-89, while selected program students earned more credits. However, from the first (1987-88) to the second (1988-89) program year, the average

TABLE 8

Credits Earned Towards Graduation
General and Special Education Students
Educational Options Programs, 1987-89

	Selected			Random		
	N	Mean	SD	N	Mean	SD
General Education						
Grade 9 Cohort						
1st program year (1987-1988)	3495	9.0	3.7	4253	7.6	4.0
2nd program year (1988-1989)	2919	9.0	4.1	3371	7.7	4.3
2 year Total*	2701	18.4	7.0	3170	16.0	7.4
Grade 10 Cohort						
1st program year (1987-1988)	2186	9.2	3.7	2561	8.2	3.9
2nd program year (1988-1989)	1851	9.6	4.0	2117	8.7	4.1
2 year Total	1721	19.3	6.9	2002	17.6	7.0
Special Education						
Grade 9 Cohort						
1st program year (1987-1988)	301	8.1	4.0	320	7.6	4.1
2nd program year (1988-1989)	251	7.8	4.2	234	6.7	4.2
2 year Total	240	16.8	7.1	222	15.2	7.2
Grade 10 Cohort						
1st program year (1987-1988)	158	8.0	3.8	187	7.5	4.0
2nd program year (1988-1989)	119	8.1	3.8	131	7.7	4.0
2 year Total	113	17.3	6.3	121	16.4	6.8

* Two year total means tend to be higher than the sum of the means reported for individual years since students with data for all semesters tend to be more academically stable.

number of credits earned by students citywide decreased slightly (from 8.8 to 8.4 credits), while the average number of credits earned by random program students remained approximately the same (from 7.6 to 7.7 credits). Students in the tenth grade cohort, both in the program and citywide, showed improvements in the average number of credits earned over the two program years, with randomly-assigned program students showing the greatest increase in average earned credits from one year to the next. The average credits earned by tenth-grade random students over the two program years (17.6) were somewhat lower than those earned by students citywide (19.3), while selected students had the same two-year average as students citywide.

Overall, special education students in Educational Options schools accumulated slightly fewer credits than did their general education counterparts. Randomly-assigned special education students earned marginally fewer credits than did selected students.

It should be noted that there was considerable variation in average credits earned by random and selected students among the Educational Options schools (see the appendix for additional information). In some schools there were large differences between random and selected students, while in others the differences were negligible.

Table 9 presents the mean number of credits earned by general education students in each of three reading achievement categories (refer to Table 6 for an explanation of the

TABLE 9

Mean Credits Earned
General Education Students by Category
Educational Options Programs, 1987-89

	1st program year (1987 - 1988)			2nd program year (1988 - 1989)			Two Year Total		
	Mean	SD	N	Mean	SD	N	Mean	SD	N
Grade 9 Cohort									
Random									
Low	6.0	4.0	255	6.3	4.0	185	13.5	7.0	176
Average	7.3	4.0	2687	7.2	4.3	2154	15.2	7.3	2062
High	9.3	3.7	579	9.4	4.0	526	19.0	6.8	443
Selected									
Low	7.2	4.1	208	6.9	4.2	153	15.1	7.3	143
Average	8.7	3.7	1930	8.7	4.1	1622	17.9	6.9	1547
High	9.8	3.3	579	10.0	4.0	539	19.8	6.7	441
Grade 10 Cohort									
Random									
Low	6.7	3.9	235	7.3	4.4	184	14.8	7.4	175
Average	8.1	3.8	1767	8.6	4.0	1466	17.4	6.8	1387
High	9.8	3.6	388	10.0	3.9	343	20.1	6.9	323
Selected									
Low	8.2	3.9	255	8.6	4.4	223	17.6	7.4	204
Average	9.2	3.6	1372	9.6	4.0	1166	19.3	6.8	1092
High	9.8	3.5	360	10.4	3.9	289	20.7	6.6	275

categories). Selected students in both the ninth and tenth grade cohorts earned more credits, on average, than random students across all three categories. In the ninth grade group, the greatest difference between the random and selected students in average credits earned was evident for students in the "average" reading achievement level and smallest for students in the highest level. Among the tenth grade group, the greatest difference in mean credits earned by selected and random students occurred at the lowest reading level. The average number of credits earned did not vary considerably from the first to the second program years. For both random and selected students, those in the highest reading category earned the most credits. There was considerable variation within both the random and selected groups; the two-year differences in numbers of credits earned by low versus high reading achievers within each group of students ranged from three credits (for selected students in the tenth grade cohort) to 5.5 credits (for random students in the grade 9 cohort). In both the ninth and tenth grade cohorts, there was somewhat greater variability in average credits earned among random students than selected students.

FINDINGS: STAFF INTERVIEWS

In May, 1989, interviews were conducted with individuals from 17 schools representing 21 Educational Options programs to determine how the new policy had been implemented and was perceived to have served the schools and the programs. The interviews, which were conducted by phone, focused on the

admissions process, difficulties with meeting the targeted student distribution quota, the expected versus actual impacts of the new admissions policy on attendance and student achievement, and the availability of special support services for randomly-assigned students. Most respondents (14 of 17) were assistant principals: seven for pupil personnel services guidance, one each for admissions, business education programs and social studies, and four unspecified. Also included in the sample were one principal, one guidance counselor and one program director.

Selection Criteria. When describing the most important criteria used for selecting applicants for the Educational Options programs, all respondents named either one of two criteria: the student's selection of the program as his/her first choice, or the student's record of attendance. Twelve of the 17 respondents cited both criteria. Other factors cited as being important to the selection process were grades (7), standardized test scores (6), proximity of school to student's home (3), and previous success in school (1). Respondents described those criteria as good indicators of student interest in the program, in school, or in education in general (10) or as good predictors of students' ability or performance (7).

Several factors were cited as creating difficulties in selecting students for the Educational Options programs: many similarly-qualified students (3), students with high test scores/low grades (3), maintaining a 16-68-16 distribution (2), and students with high grades/weak attendance (2).

Student Distribution. Meeting the 16-68-16 reading achievement distribution among entering students was perceived as a difficulty for many programs. Most respondents cited the nature of the selection pool (7) or the selection procedure itself (5) as impediments to meeting the targeted distribution. Examples of problems caused by the nature of the selection pool were too few above-average or below-average readers in the applicant group. The most frequently cited problem ascribed to the selection procedure itself was that students who were accepted by the school to conform to the 16-68-16 distribution often elected to attend other programs, resulting in a different final distribution of students attending each program.

Expected and Perceived Impact of the Admissions Policy on Programs. Some respondents (8) expected their schools to be negatively affected by the new admissions policy. Many (5) of these respondents reported that their concerns were confirmed, especially when attendance and student achievement were perceived to have suffered and special support services were not available for the low-scoring readers in the programs.

Others (4) expected no change, or a positive impact from the new admissions policy. Among this group, there were reports

of both positive and negative actual impacts on the programs. Those who reported that special support services were available to the increased numbers of below-average readers were more likely to have expected no change or positive change as a result of the new admissions policy.

The admissions policy was most frequently (6) criticized for diminishing program quality by introducing increased numbers of below-average readers through the random-assignment process. Concern was expressed regarding how students who were below-average in reading were faring in the programs and the impact of a "demanding program" on the performance and morale of these students. One respondent noted that the program now accepted more at-risk students--students who were put at further risk by being enrolled in a program that was too difficult for them to handle academically.

The random-assignment process was described as generating more below-average readers who were not well-served by the program and who might, because of failing courses and low morale, return to zoned schools, or might take more time to graduate.

Support Services. Some special support services had been designed for at-risk students. While nine schools reportedly offered no special services for their expected increased numbers of low-scoring readers, others reported various types of support designed to help students who were expected to be more at risk. These supports included additional guidance counselors and

paraprofessionals, parent outreach meetings, students placed in "the houses"*, attendance monitoring, existing dropout prevention programs extended to randomly-assigned students, increased numbers of remedial courses, and school personnel (counselor, coordinator and family assistant) meeting with students before the beginning of the year.

CONCLUSIONS AND RECOMMENDATIONS

This ongoing study has been designed to determine whether equity of access to specialized high school programs is being served without hampering program quality. Our analyses have revealed that most differences between the selected and random groups of students were continuations of discrepancies observed prior to entry into the Educational Options programs, with no widening of the performance gap. Longitudinally, random students have accrued credits at a slower rate than selected students, resulting in random students falling slightly behind selected students in advancing toward graduation. However, most Educational Options students, whether random or selected, are remaining in school and progressing toward graduation, albeit at somewhat different rates.

Some Educational Options staff were initially somewhat apprehensive about the effects of the entrance of "lower quality" students into their programs. These fears, for the

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* "Houses" are subgroupings of students within a high school which are designed to nurture students, structure their experiences, and provide them with closer relations with staff and students.

most part, have not been supported by the data presented in this report.

On the average, in no areas are randomly-assigned students falling markedly behind selected students. Overall, the data suggest that the goal of equity of access to specialized high school programs is being met successfully.

At the same time, there is clearly a wide range in student performance, both in the school-selected and randomly-assigned groups, as well as across the Educational Options schools and programs. It may be useful for educators at the central and school level to examine the outcomes presented for each school in the appendix, considering their implications for instructional design, staff development, and student support services.

Continued examination of the academic progress of the 1987-88 cohorts will be useful for identifying any widening of baseline differences between the selected and random groups of students. This monitoring will also provide continuing information on these students as they move towards graduation.

APPENDIX

Supplementary Data for Educational Options High Schools
General Education Students
1987-89

August Martin High School

	Grade 9						Grade 10					
	Random			Selected			Random			Selected		
	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N
DRP[1] 1986+	62.8	9.9	140	64.9	9.1	164	68.0	10.3	58	66.1	9.7	55
DRP 1987+	67.4	9.1	144	68.0	9.2	163	73.3	12.4	55	72.4	11.8	57
DRP 1988	67.1	11.5	138	69.2	10.0	171	72.7	12.3	50	72.9	11.9	52
DRP 1989	71.9	12.1	125	74.7	11.7	154	75.3	9.3	3	58.3	11.5	4
Attendance 1987-88	92.5	10.1	149	92.5	12.2	182	92.8	11.9	55	93.0	14.5	55
Attendance 1988-89	87.9	16.8	134	87.7	18.6	171	87.9	16.0	47	91.0	16.2	52
Attendance (2 year)	89.9	13.3	134	90.1	14.3	167	91.0	11.9	47	92.1	14.8	51
Credits 1987-88	7.9	3.2	152	8.7	2.8	185	8.2	3.4	56	9.4	2.6	54
Credits 1988-89	7.9	4.0	105	8.6	3.9	121	7.4	4.5	27	8.5	3.9	28
Credits (2 year)	15.4	6.3	105	17.1	5.9	119	14.3	7.2	27	17.1	5.7	26
Age as of 8/1/88	15.5	.6	162	15.4	.5	197	16.4	.9	60	16.1	.7	57

	Random		Selected		Random		Selected	
	Percent	N	Percent	N	Percent	N	Percent	N
Gender								
Female	42.9	70	43.2	85	41.7	25	42.1	24
Male	57.1	93	56.8	112	58.3	35	57.9	33
Bilingual Eligibility	1.8	3	1.5	3	3.3	2	1.8	1
Discharges from NYC Schools	9.8	16	6.6	13	13.3	8	5.3	3

[1]In mid-instructional units.
+Pre-program scores

Supplementary Data for Educational Options High Schools
General Education Students
1987-89

Clara Barton High School

	Grade 9						Grade 10					
	Random			Selected			Random			Selected		
	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N
DRP[1] 1986+	59.7	10.0	132	63.6	11.2	75	64.0	9.6	118	63.3	10.2	91
DRP 1987+	64.1	8.0	128	66.2	11.1	83	70.4	11.8	118	71.3	12.1	90
DRP 1988	65.3	10.5	132	66.0	12.9	95	72.3	12.7	107	72.3	12.3	88
DRP 1989	71.3	11.7	112	74.4	12.8	85	68.1	20.0	8	73.7	6.7	3
Attendance 1987-88	88.5	12.9	145	94.9	6.5	98	87.3	14.2	123	93.6	6.5	91
Attendance 1988-89	89.0	14.5	128	93.7	11.4	96	84.9	20.0	112	91.4	12.3	90
Attendance (2 year)	89.7	11.2	127	94.3	8.7	93	86.7	14.9	112	92.5	8.5	90
Credits 1987-88	9.2	4.2	132	11.5	3.1	78	9.2	4.0	79	10.2	3.5	36
Credits 1988-89	10.3	5.1	119	12.4	3.9	90	9.5	4.9	101	10.3	4.2	84
Credits (2 year)	19.3	8.2	107	23.7	6.6	71	18.3	7.3	64	17.4	7.5	30
Age as of 8/1/88	15.5	.7	161	15.5	.6	107	16.4	.7	129	16.4	.7	95

	Random		Selected		Random		Selected	
	Percent	N	Percent	N	Percent	N	Percent	N
Gender								
Female	93.8	151	86.9	93	89.2	115	86.3	82
Male	6.21	10	13.1	14	10.9	14	13.7	13
Bilingual Eligibility	3.7	6	15.0	16	4.7	6	1.1	1
Discharges from NYC Schools	12.6	19	6.6	7	10.9	14	3.2	3

[1]In mid-instructional units.
+Pre-program scores

Supplementary Data for Educational Options High Schools
General Education Students
1987-89

Edward R. Murrow High School

	Grade 9						Grade 10					
	Random			Selected			Random			Selected		
	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N
DRP[1] 1986+	66.1	12.1	200	67.7	12.4	215	69.0	13.3	81	73.3	11.1	109
DRP 1987+	70.9	11.7	211	71.6	11.5	228	75.4	14.3	80	81.1	11.9	114
DRP 1988	75.5	12.8	256	76.1	12.3	272	77.4	13.7	75	82.4	11.3	110
DRP 1989	80.3	13.1	234	81.5	11.7	253	69.0	10.5	8	79.5	4.9	2
Attendance 1987-88	90.1	10.5	273	92.9	7.2	280	87.3	13.4	83	92.7	6.9	112
Attendance 1988-89	86.3	15.0	254	89.3	11.6	270	85.9	15.1	66	91.0	7.6	106
Attendance (2 year)	88.5	11.2	253	91.3	8.5	269	87.8	11.3	66	92.2	6.4	105
Credits 1987-88	7.5	1.1	276	7.6	1.1	283	7.2	.6	84	7.3	.6	115
Credits 1988-89	10.0	3.0	13	7.6	3.6	9	9.7	3.0	5	7.0	4.2	2
Credits (2 year)	17.3	3.4	12	15.1	3.2	9	16.5	3.5	5	13.3	5.7	2
Age as of 8/1/88	15.4	.6	289	15.3	.5	294	16.5	.8	87	16.1	.6	120

	Random		Selected		Random		Selected	
	Percent	N	Percent	N	Percent	N	Percent	N
Gender								
Female	54.7	158	61.6	181	58.6	51	65.8	79
Male	45.3	131	38.4	113	41.4	36	34.2	41
Bilingual Eligibility	1.7	5	1.4	4	5.8	5	.8	1
Discharges from NYC Schools	7.3	21	4.8	14	10.3	9	6.7	8

[1]In mid-instructional units.
+Pre-program scores

Supplementary Data for Educational Options High Schools
General Education Students
1987-89

Murry Bergtraum High School

	Grade 9						Grade 10					
	Random			Selected			Random			Selected		
	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N
DRP[1] 1986+	63.4	10.1	142	65.4	10.9	134	67.8	11.9	125	69.1	10.9	100
DRP 1987+	67.5	9.6	150	68.9	10.5	129	74.0	12.3	125	74.5	12.3	102
DRP 1988	69.8	10.8	153	71.9	11.0	154	74.3	12.5	113	75.7	12.0	99
DRP 1989	74.1	12.2	128	76.7	11.4	146	73.1	13.9	29	74.2	14.5	14
Attendance 1987-88	86.6	15.3	167	91.4	13.7	162	84.2	21.7	129	95.3	5.7	100
Attendance 1988-89	78.1	23.8	155	87.7	18.8	158	82.9	21.0	112	93.4	10.1	97
Attendance (2 year)	83.4	16.8	155	89.9	13.9	158	86.3	15.7	111	94.5	7.3	96
Credits 1987-88	8.5	4.1	152	10.8	3.4	141	9.6	4.4	125	12.2	2.4	98
Credits 1988-89	7.2	4.8	147	10.5	4.1	152	9.5	4.5	100	11.8	3.2	92
Credits (2 year)	15.9	7.9	135	21.1	7.1	133	20.5	6.7	100	24.1	4.8	91
Age as of 8/1/88	15.5	.6	173	15.5	.6	167	16.3	.7	136	16.4	.8	105

	Random		Selected		Random		Selected	
	Percent	N	Percent	N	Percent	N	Percent	N
Gender								
Female	74.6	129	75.4	126	75.0	102	73.6	78
Male	25.4	44	24.6	41	25.0	34	26.4	28
Bilingual Eligibility	2.3	4	3.6	6	1.5	2	5.7	6
Discharges from NYC Schools	5.8	10	3.6	6	14.7	20	6.6	7

[1]In mid-instructional units.
+Pre-program scores

Supplementary Data for Educational Options High Schools
General Education Students
1987-89

High School of Telecommunications Arts

	Grade 9						Grade 10					
	Random			Selected			Random			Selected		
	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N
DRP[1] 1986+	61.5	10.3	64	64.8	10.8	52	68.0	9.5	36	66.9	15.6	21
DRP 1987+	65.7	8.6	63	70.0	11.2	54	74.9	12.5	35	79.6	15.2	18
DRP 1988	69.6	12.3	83	72.5	12.3	71	74.8	12.1	33	72.3	16.8	24
DRP 1989	75.9	10.5	65	77.5	12.2	66	63.0	-	1	-	-	0
Attendance 1987-88	90.4	10.8	88	93.8	8.8	73	92.2	6.3	34	94.0	3.5	25
Attendance 1988-89	85.6	18.8	81	93.6	10.1	68	89.5	13.9	29	91.8	8.9	23
Attendance (2 year)	88.5	12.2	80	94.2	7.7	68	91.1	9.4	29	92.9	5.4	23
Credits 1987-88	8.9	3.5	88	9.9	3.3	69	10.2	3.1	34	11.8	1.4	25
Credits 1988-89	8.7	4.4	77	10.6	3.4	65	9.9	3.0	29	10.6	2.9	23
Credits (2 year)	18.0	7.0	76	20.6	5.7	61	20.5	4.9	29	22.3	3.3	23
Age as of 8/1/88	15.6	.7	94	15.5	.7	75	16.4	.8	38	16.1	.6	26

	Random		Selected		Random		Selected	
	Percent	N	Percent	N	Percent	N	Percent	N
Gender								
Female	30.5	29	42.7	32	39.5	15	53.9	14
Male	69.5	66	57.3	43	60.5	23	46.1	12
Bilingual Eligibility	2.1	2	5.3	4	5.3	2	15.4	4
Discharges from NYC Schools	9.5	9	6.7	5	15.8	6	7.7	2

[1]In mid-instructional units
+Pre-program scores

Supplementary Data for Educational Options High Schools
General Education Students
1987-89

John Dewey High School

	Grade 9						Grade 10					
	Random			Selected			Random			Selected		
	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N
DRP[1] 1986+	65.0	9.0	156	64.2	12.5	100	70.4	11.6	196	71.0	12.8	177
DRP 1987+	69.4	9.7	158	68.0	12.3	109	77.3	13.4	206	76.5	14.2	182
DRP 1988	73.8	11.4	181	72.2	13.4	129	78.3	12.7	186	77.0	14.1	180
DRP 1989	78.5	11.4	151	79.2	12.1	94	79.8	13.4	9	68.9	16.0	9
Attendance 1987-88	90.9	11.9	194	92.2	10.9	139	90.7	10.9	202	92.2	8.9	184
Attendance 1988-89	89.7	11.9	183	91.2	9.8	128	90.6	10.7	192	92.2	8.6	169
Attendance (2 year)	90.9	9.5	181	92.0	9.2	128	91.3	8.3	189	92.9	6.6	166
Credits 1987-88	5.5	2.6	188	5.6	2.3	134	5.2	2.4	198	5.3	2.2	171
Credits 1988-89	5.7	3.1	178	5.8	3.1	128	5.4	3.0	186	5.8	2.7	158
Credits (2 year)	11.3	4.8	168	11.4	4.8	123	10.7	4.8	181	11.3	3.8	144
Age as of 8/1/88	15.3	.6	199	15.4	.6	142	16.3	.7	210	16.3	.8	196

	Random		Selected		Random		Selected	
	Percent	N	Percent	N	Percent	N	Percent	N
Gender								
Female	60.8	121	64.3	92	69.5	146	63.8	125
Male	39.2	78	35.7	51	30.5	64	36.2	71
Bilingual Eligibility	0	0	2.1	3	.5	1	1.0	2
Discharges from NYC Schools	3.0	6	5.6	8	4.3	9	7.7	15

[1]In mid-instructional units.
+Pre-program scores

Supplementary Data for Educational Options High Schools
General Education Students
1987-89

Norman Thomas High School

	Grade 9						Grade 10					
	Random			Selected			Random			Selected		
	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N
DRP[1] 1986+	61.3	10.1	130	62.8	11.4	144	66.0	11.7	137	63.9	14.5	157
DRP 1987+	65.7	10.4	133	67.5	9.1	144	72.2	12.6	137	70.8	14.5	159
DRP 1988	68.2	10.5	133	70.0	10.9	155	71.2	12.4	129	70.7	14.7	147
DRP 1989	73.5	11.6	99	74.1	11.6	138	72.5	11.3	42	76.1	12.7	28
Attendance 1987-88	85.1	17.9	140	88.9	12.9	166	83.5	17.1	137	89.0	14.5	155
Attendance 1988-89	81.3	14.3	131	85.4	12.7	155	84.1	12.6	123	88.6	11.7	150
Attendance (2 year)	84.2	12.8	124	87.6	11.3	154	85.4	11.1	120	89.5	11.2	145
Credits 1987-88	7.4	3.9	140	8.9	3.1	160	8.3	3.7	130	9.9	3.2	145
Credits 1988-89	9.0	4.0	105	9.3	3.9	155	9.5	3.6	112	11.0	3.4	136
Credits (2 year)	17.4	7.0	103	18.7	6.1	134	18.4	6.6	107	21.6	5.4	127
Age as of 8/1/88	15.7	.7	154	15.4	.6	170	16.5	.7	145	16.4	.7	168

	Random		Selected		Random		Selected	
	Percent	N	Percent	N	Percent	N	Percent	N
Gender								
Female	71.4	110	79.0	135	75.9	110	75.0	126
Male	28.6	44	21.0	36	24.1	35	25.0	42
Bilingual Eligibility	5.2	8	1.8	3	2.1	3	11.9	20
Discharges from NYC Schools	9.7	15	4.1	7	7.6	11	5.9	10

[1]In mid-instructional units.
+Pre-program scores

Supplementary Data for Educational Options High Schools
General Education Students
1987-89

Paul Robeson High School

	Grade 9						Grade 10					
	Random			Selected			Random			Selected		
	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N
DRP[1] 1986+	61.1	9.7	101	64.2	9.7	83	68.6	12.4	15	73.6	12.1	16
DRP 1987+	66.0	9.6	102	65.6	9.9	87	75.7	11.2	15	78.1	14.2	16
DRP 1988	69.1	11.2	89	68.5	13.1	88	72.1	12.2	18	82.3	13.8	15
DRP 1989	75.2	12.2	76	74.3	11.7	82	77.4	11.5	5	-	-	0
Attendance 1987-88	87.4	15.6	107	91.2	11.6	101	88.0	12.9	19	93.4	5.2	16
Attendance 1988-89	83.4	18.3	86	88.3	16.1	92	87.9	12.1	17	86.6	15.6	14
Attendance (2 year)	86.9	13.9	84	90.1	11.6	91	88.4	11.3	16	89.9	9.9	14
Credits 1987-88	8.1	3.6	99	10.1	2.8	94	7.6	4.1	20	10.3	2.3	15
Credits 1988-89	9.4	3.6	79	10.0	3.3	86	9.0	3.8	14	9.8	3.5	13
Credits (2 year)	18.3	6.3	73	20.1	5.7	82	17.2	7.3	14	20.8	4.2	13
Age as of 8/1/88	15.7	.8	113	15.4	.6	105	16.0	.8	20	16.1	.8	17

	Random		Selected		Random		Selected	
	Percent	N	Percent	N	Percent	N	Percent	N
Gender								
Female	44.3	50	60.0	63	40.0	8	29.4	5
Male	55.7	63	40.0	42	60.0	12	70.6	12
Bilingual Eligibility	1.8	2	3.8	4	-	0	-	0
Discharges from NYC Schools	6.2	7	2.9	3	10.0	2	-	0

[1]In mid-instructional units.
+Pre-program scores

Appendix 16

END

U.S. Dept. of Education

Office of Education
Research and
Improvement (OERI)

ERIC

Date Filmed

March 29, 1991