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AUTHOR Crain, Robert L.; And Others
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ABSTRACT

A long-term study of the effects of school desegregation, based on the tracing of students initially involved in a 1966 desegregation plan, is reported on in this document. The students, who were from Hartford, Connecticut, and were nearly all Black, were traced from their first desegregation in elementary school until after high school graduation. It is concluded that, compared with similar minority students who attended segregated Hartford city schools: male participants were more likely to graduate from high school (the effect on females was weaker); (2) male, but not female, participants completed more years of colleg; (3) male, but not female, participants perceived less discrimination in college and in other areas of adult life in Hartford; (4) male, though not female, participants have experienced less difficulty with the police and have gotton into fewer fights as adults; (5) participants have closer social contact with Whites as adults, are more likely to live in desegregated housing, and had more friends in college (the colleges were always predominantly White); and (6) female participants were less likely to have a child before 18. The last four conclusions serve to explain to some degree the positive effects of desegregation on educational attainment. (Author/RDN)

A LONGITUDINAL STUDY OF A METROPOLITAN VOLUNTARY DESEGREGATION PLAN

Robert L. Crain, Jennifer A. Hawes,
Randi L. Miller, Janet R. Pelchert

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EXECUTIVE SUMMARY

This study reports on a long-term study of the effects of racial desegregation of schools, based on the tracing of students initially involved in a 1966 desegregation plan. This is the first study ever done which follows a group of desegregated students from their first desegregation in elementary school until after high school graduation. The study has the advantage of being based on a randomized experiment. In 1966 a randomly selected group of students, nearly all Black, but with a few Americans of Puerto Rican and West Indian heritage, living in low-income areas in Hartford, Connecticut were offered the opportunity to attend virtually all-white suburban schools. In later years more students volunteered for the program, some having been randomly sampled and others not. In our research we identified control groups for these various sets of desegregated students and traced the students to the present, when all had finished their secondary schooling. Some 700 parents and/or students were located and interviewed with a telephone survey.

The analysis drew six conclusions:

1. Male participants were more likely to graduate from high school. This is probably true for females as well, but the effect on females is weaker.
2. Male participants completed more years of college. (This is not true for females.)
3. Male participants perceive less discrimination in college and in other areas of adult life in Hartford (not true for females).
4. Male participants have experienced less difficulty with the Police and gotten into fewer fights as adults (not true for females).
5. Participants have closer social contact with whites as adults, are more likely to live in desegregated housing, and had more friends in college (which were always predominantly white schools).

6. Female participants were less likely to have a child before age 18.

We think these six conclusions fit together, and that the last four conclusions serve to some degree to explain the positive effects of desegregation on educational attainment. If desegregated male students are less likely to see themselves as being victimized by white-run institutions and less likely to have troubles with the police, they should be less likely to drop out of high school. Desegregated female students, by postponing childbirth, are also more likely to finish high school. All the four year colleges in Connecticut are predominately white; so the fact that desegregated students are more comfortable around whites should decrease their chances of dropping out of college.

The students attended all white suburban schools, often with only a token number of desegregated black students present and often with a teaching staff which was entirely white. The dropout rate for the program was quite high, probably reflecting a combination of black discomfort at a racially threatening situation plus the inability of white school staff to deal adequately with the prejudice of their white students and with black students who were emotionally and academically unprepared for desegregation. More women than men remained in the program through graduation; approximately half of all the students participating in the program dropped out and returned to segregated schools in Hartford. Those who did remain gave very positive evaluations of their school experiences. In the view of the alumni of the desegregated program, the most important benefit of desegregation was the opportunity to learn to relate to white students.

We interviewed 69 black high school students who were presently enrolled in 5 of the suburban schools. It was clear from these interviews that racial issues remain important to this day, even though most of the students give very positive evaluations of their schools in many respects. Male students seem to have a more comfortable situation in desegregated suburban schools than do female students.

The fact that black females who attended desegregated sub schools are not more likely to complete more years of college suggests that there may be problems with the social structure and the counseling that surrounds black females in suburban high schools. We think that this is a serious problem which merits the attention of policy makers in Hartford and other cities as well.

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I. INTRODUCTION AND RESEARCH METHODOLOGY

Any study of the impact of school desegregation must go well beyond the simple notion that the difference between segregated and desegregated schools is simply a matter of school quality. Most of the effects that we have located in this study seem to have nothing to do with the actual quality of school as conventionally defined. The important thing about the segregated school is that it has students of only one race; any change in textbooks, the training of teachers, the facilities provided, the cleanliness of the building is essentially beside the point. Any theory which is to be useful must focus on the social psychological and social structural differences between segregation and desegregation. Segregation is simply the allocation of physical space on the basis of ethnicity. This leads to four types of consequences:

1. By limiting intergroup contact, segregation encourages stereotyping and prejudice.
2. Segregation, by separating two groups, discourages interethnic friendship and encourages ethnic conflict.
3. Segregation carries symbolic meanings which affect minority attitudes about their position vis-a-vis the majority.
4. Segregation permits resources to be distributed inequitably.

Only the fourth of these mechanism touches on school quality differences between segregated and desegregated schools, and even here the most important educational resource is the ability, attitudes, and behavior of the other students in the room, a resource strongly affected by segregation but not usually thought of as part of school quality. To the extent that research focuses on structural and psychological factors which differ between men and women--and there are many factors that do differ between the sexes--than the research must be sensitive to the psychology of sex differences. In the study we report here most of the effects of desegregation seems to be different for minority men and for minority women.

In the last 20 years our understanding of what evaluation research should be like has grown and research approaches which seemed self-evidently correct twenty years ago now seem obsolete. Initially, research focused almost exclusively on short-term outcomes of desegregation, only on black students, and used mostly non-experimental designs. Today, evaluation researchers would argue for studies which considered all the direct and indirect effects of a program on all its clients--in this case meaning research on long-term outcomes, on white and non-black minorities in addition to blacks and on the effects of desegregation on the school as an institution and the school district as a community.[1] They would also argue that non-experimental designs are biased, and that randomized experiments are usable in more situations than was previously believed.

Most research on desegregation has focused on short-term outcomes, especially achievement test scores. There seems to be an emerging consensus that black test scores rise after desegregation, (Crain and Mahard 1978, 1983),[2] but we do not know what value to put on this. Performance on standardized tests should be viewed as an intermediate outcome; high scores should be valued only if they genuinely reflect a superior education and can be shown to lead to a happier or more successful adult life. Research focused on student attitudes measured by psychological scales is also limited by our lack of knowledge about the relationship between scores on measures of concepts such as self-

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[1] The search for the societal impact of desegregation has been limited, with the exception of research on withdrawal of white students from the public schools after desegregation (Rossell and Hawlye, 1982), which is of course only one aspect. There has been limited research on the impact of school desegregation on local political outcomes (Rossell, 1975) and more recently research on the impact of school desegregation on desegregation of residential areas (Pearch, 1980; Crain and Farley, 1984), but this research barely scratches the surface of an important topic. There is almost no research on the impact of school desegregation on the black community and its politics, despite the fact that so much of the civil rights movement seems to have been inspired by the *Brown* decision.

[2] Test scores of blacks in the U.S. rose markedly during the 1968-1978 decade, erasing about one third of the gap between whites and blacks (Burton and Jones, 1982). Presumably this reflects the benefits of both compensatory education and desegregation.

esteem or control of environment and the actual behavior of students, and the inability to relate those measures to behavioral outcomes, especially in adult life. Much of the psychological research has concluded that school desegregation has had very little positive effect on blacks because positive effects do not show with any consistency on measures of psychological variables administered to children (See Gerard, 1983). Recent reviews of the research on the effects of desegregation on racial attitudes (Maconahay, 1978) and on self-concept (Epps, 1978; St. John, 1975) are inconclusive.

There is however, an encouraging new development: there have been a series of research studies which focus on the impact of school desegregation on the adult behavior of graduates of desegregated schools, and which show considerable agreement. The most important of these are studies of the perpetuation of segregation--the way in which segregated schooling leads to segregated behavior in adulthood. For example, graduates of segregated elementary and secondary schools tend to attend segregated colleges (Braddock, 1980; Braddock and McPartland, 1982); when they attend desegregated colleges, they get lower grades (Braddock and Dawkins, 1981) and are less likely to graduate (Crain and Weisman, 1972; Crain, 1970; Crain and Mahard, 1978).

Research has also shown that black graduates of segregated schools tend to have segregated associations in later life (Braddock and McPartland, 1983; Crain and Weisman, 1972). It has been argued that this segregation in adulthood prevents blacks from using social networks to obtain better employment (Crain, 1970; McPartland and Braddock 1981). Some research on desegregated black students indicates that they set their aspirations higher (Dawkins, 1983) but this does not appear consistently in all studies. There is more consistency in the finding that their aspirations are more coherently related to their skills and educational background (Hoelter 1982; Wilson, 1979; Falk, 1978; Gable, Thompson and Iwanicki, 1982). Research has also shown that black graduates of segregated schools are more likely to find themselves in segregated employment--working with black coworkers and uncomfortable when they are placed under a white supervisor (Braddock, 1983; Braddock and McPartland, 1983). Taken together, these findings suggest that desegregation in public schools should lead to a payoff in higher

incomes for blacks, but there is too little research in this area (Crain, 1970).

Many of the studies cited here show sex interactions. Dawkins found male mobility aspirations affected more strongly by desegregation. Crain (1971) found a a stronger effect of desegregation on male educational attainment. Black males in desegregated colleges are less likely to obtain their degree on time than males in segregated schools; the effect of college segregation is much weaker for females (Braddock and McPartland, 1984). Braddock (1983) and Braddock and McPartland (1984) both find that desegregation has a stronger effect on male income.

The methodology of evaluation has also changed radically in the past two decades. Researchers have become more aware of biases in analyses and have developed more sophisticated methods of dealing with bias. Two decades ago, simple longitudinal pre-test/post-test designs were state of the art; today there are many references pointing out potential biases (an often cited one is Cook and Campbell, 1979) and frequent calls for randomized experiments.

The research reported here is part of this new wave of studies on long-term effects. It looks not at test scores, but at years of schooling completed, difficulties with police, teen pregnancy, and attitudes and relations with whites.

THE RESEARCH METHOD: OVERVIEW

Our research is designed to take advantage of an early experimental evaluation of desegregation. Eighteen years ago in 1966 a group of students were desegregated in early elementary school using a randomized experimental design -- two groups were selected randomly, one to attend desegregated schools, the other to remain in segregated schools. The students were nearly all American Blacks; a few were of Puerto Rican or West Indian ancestry. (A small number of whites were dropped from our research.) Because nearly all the subjects were black, we will usually refer to the subjects as blacks rather than minority. An experiment of course provides for the near-perfect comparison of a treatment group of students to a control group. Since both groups are sampled randomly, any differences which occur are either effects of desegregation or else

sampling errors estimatable with statistical models. The main goal of this research is to simply follow up on that original 1966 study, locating the students after they had time to graduate from high school to see what differences in their young adult lives can be attributed to desegregation.

The desegregation plan -- Project Concern in Hartford, CT, -- selected a random sample of students from four inner-city elementary schools and permitted them to transfer to suburban schools while a second random sample was preserved as a control group. Unfortunately, the original sample sizes were too small, and we therefore supplemented the sample by including all students who were desegregated in that program in 1968 through 1971. Most of these students were randomly sampled, but a control group did not exist and we attempted to construct a control group based on the same random sampling scheme as was used to select Project Concern participants in 1968 and 1969. We also found that some students entered the program as volunteers, with the self-selection bias that that implies; we located a group of students who attempted to volunteer for the program in 1968 and used them as a control group for comparison to the volunteers. Thus, we have three substudies; a 1966 experimental design, supplemented by a second 1968-69 experimental design, supplemented by a third study of voluntary desegregation with a comparison control group. We searched school records and undertook a very large tracing effort to locate these various groups of students in 1983. There are a number of problems: the 1966 experiment's records are partly missing, the control group we randomly selected for comparison to the students randomly sampled in 1968 had lower family income that it should, considerable attrition occurred and a number of students could not be located. All three substudies are biased by attrition. Despite these problems we are convinced that this is the strongest research design available in the United States today for a study of the long-term effects of desegregation.

The 1966 Experiment Substudy

Project Concern began in 1966, when, at the request of the State Department of Education, five suburban school districts agreed to accept 266 minority students from low income schools in Hartford. The students were selected from the four elementary schools which had the largest number of Title-I eligible students. The sending area superficially resembles other big city low income areas; it is totally segregated with much rental housing and subsidized housing.

The project was viewed as a demonstration, with the decision to continue based on an evaluation done at the end of 2 years. Two random samples of students were selected, one to attend suburban schools and a second as a control group. The Hartford public schools chose to select entire classrooms to be sent to the suburbs because this would have the least impact on the sending school. In addition, it wanted to make use of the teachers who would otherwise be displaced by the removal of these students, and therefore decided that the 12 teachers who would be displaced by the program would be loaned to the suburban schools to provide additional support for the transferring students. A meeting of community leaders was held and a lottery was used to select 12 "treatment" and 12 "control" classrooms from the four minority schools which had been designated as sufficiently poor to merit Title I assistance. The classrooms ranged from entering kindergarten students through students beginning the 5th grade in the Fall of 1966.

In an experiment it is very important that as many of the students as possible who are selected for a particular treatment receive that treatment. If a large number of students had refused to attend suburban schools, the possibility of bias would make any results of the study of questionable value. For example, if those students who attended suburban schools were found to have higher test scores than students who remained in the city, one could easily argue that this was not because desegregation was helpful. Since only some of the randomly selected students when to the suburbs, it is possible that the ones who went were more highly motivated or came from stronger family backgrounds; their test scores would have been higher no matter what school they were in. However, if a random sample of students is selected and all or nearly

all of them agree to attend suburban schools, then one cannot argue that any difference between them and the control group is due to motivation, since both groups were selected by the same random sampling process. In order to encourage as many students as possible to agree to attend suburban schools a group of teacher's aides visited homes to persuade parents to enroll their children. This effort apparently was very successful, since only 12 of the 300 students were not signed up for the program. Twenty-two other students were dropped by random sampling in order to reduce the number to 266, the number of seats made available by the suburban schools. (This process is described in Mahan, 1968.)

The initial focus of the 1966-68 evaluation was on achievement test performance, so students were pretested upon entering the program in Fall 1966, with both intelligence and achievement tests and retested in the Spring and Fall of 1967 and finally in the Spring of 1968. Mahan found no important differences in the Spring 1967 testing of the two groups of students and found the Project Concern students to be noticeably ahead of the control group by Spring 1968. The difference was limited to those students who began desegregation in the lower grades. Students who entered the suburban schools in kindergarten or first grade showed considerably higher test performance than their control group. In contrast the students who began desegregation in the fourth and fifth grade showed relatively little gain and in some cases losses in achievement.

The 1968-1969 Experiment Substudy

We gathered data on every student who entered Project Concern in 1968, every student who entered in 1st grade or higher in 1969, and every student who entered in 2nd grade or higher in 1970 or 3rd grade or higher in 1971. We also dropped everyone born after 1963. All this was done to eliminate students who would be too young for a reasonable evaluation of post-high school outcomes in 1982. We divided these students into two groups, according to whether they could be treated as part of an experimental design or whether they had to be analyzed as non-experimental data.

The experimental design methodology was feasible for the first of these two groups because although the evaluation was dropped, the policy of random sampling students from the low income schools to attend Project Concern was continued. In 1968 and 1969, Project Concern staff visited the schools and rather than selecting entire classrooms selected a sample of entering kindergarten students and students entering the first, second, and third grades. Of students permitted to volunteer in 1968 and 1969, only about 50 percent did so. Letters were mailed to the parents of selected students and an effort was made to visit the parents in their home, but in many cases families were not home, would not answer the door or school district addresses were out of date.[3] Fortunately, Project Concern preserved all the records of the recruitment effort in 1968-69, including the names of all the students who could not be contacted or whose parents refused to enter them into the program after being asked. We used all students who had been selected, whether they agreed to go into the program or not, in order to preserve the randomness of the original selection. Of course, the trade-off is that the apparent effect of Project Concern is diluted by the presence in the treatment group of many subjects who did experience desegregation at all. We use this same logic in studying all the students who dropped out of Project Concern before finishing school (nearly half of all students dropped out of the program); we will preserve the randomness of the original assignment in parts of our analysis by retaining as "treatment" subjects student who refuses to enter the program as well as those who dropped out after entering. Cook and Campbell (1979) succinctly describe this method and its problems:

> Attrition from treatment but not from measurement: Some experiments are conducted to take advantage of established record-keeping or measurement framework which has been developed and is maintained independently of the experiment per se. For some investigators, court records provided a frame, while for others records about withholding tax provide the frame. The advantage of such archives is that, while a

[3] The acceptance rate was much lower in 1968-69 than in 1966 (and lower still in 1970, when only 25% of selected students volunteered). We do not know, but it seems likely that this was because the time and money invested in soliciting volunteers was reduced in the later years.

respondent may drop out of the experiment or even refuse to participate from the very beginning, he or she is still included in the measurement system, and so post-test data can be collected from him or her.

The growing emphasis upon volunteerism and informed consent in social experimentation will lead to an ever-increasing number of experiments that use randomized invitations to treatments rather than randomized assignment to treatments. This means that an experiment which is planned to have two groups will have at least three: those who are invited and accept the treatment; those who are invited but refuse the treatment and are hence uninvited; and those who are the intended controls. A widespread error in analysis is to compare the treated either with the controls, or with the invited-untreated, or with a pool of invited-untreateds and controls. Each of these strategies can obviously capitalize upon selection and result in pseudo-effects.

When a measurement framework exists, the selection problem can be dealt with in a conservative fashion by preserving the original assignment to treatments and including the units who were randomly invited but refused as though they had in fact been treated. This will inevitably lower the chances of inferring a treatment effect because some units are considered to have received the treatment but did not. However, when effects can be inferred from the analysis despite the conservative bias, conclusions about treatment effects are relatively easy to make.

The utility of the conservative analysis becomes apparent when comparing its consequences to those which result from the most frequent alternative quasi-experimental analysis. In this, all the units that receive treatment are compared to all those that do not. This usually leads to "creaming" whereby the most able persons, who are more likely to take up invitations to novel experiences, receive treatment. Since they are the ones who will look best after the treatment (even without treatment), such "creaming" will result in pseudo-effects in nearly all quasi-experimental analyses.

When we entered the files of the sending elementary schools and drew random samples of the students present in 1968 and 1969 who were not selected for Project Concern, we were unable to duplicate the sampling method used in 1968-69 for Project Concern. Compared to the students selected for Project Concern, the random sample we selected contained more students of lower socioeconomic status.

The Volunteer Substudy

In 1970 and 1971 the district sent letters to parents telling them that their child had been selected and encouraging them to participate but did not send staff to visit homes. About a quarter of the parents agreed to participate. Preserving the randomness of the original sample would have required adding three students who had never participated in Project Concern to each student who did, obviously making an effect of Project Concern difficult to detect. We decided not to do this, but to instead treat the randomly sampled 1970-71 students who entered the programs as volunteers.

We also found a number of other students for whom there was no record that they had been randomly sampled. In some cases they may have been randomly samples; but in other cases we are fairly sure that the student volunteered to enter the program. While there was no systematic effort to allow families to volunteer for the program there were occasional points when the number of students in the program was below target and an effort was made (for example by contacting a few classrooms of students in one particular school) to fill the quota. Some Hartford public schools had severe overcrowding problems and attempted to deal with these by encouraging students to participate in Project Concern. We combined these volunteer students with those students who were selected in 1970 and 1971; they are similar from the viewpoint of the research method in that neither could be considered randomly sampled. Fortunately, we had a ready made control group, since the Project Concern office had preserved a folder of telephone messages from parents who had called the program in 1968 and 1969 attempting to enroll their children in the project. Since there were usually no vacancies all of these parents were refused. However, they do constitute a reasonable control group to compare to the volunteers--if anything they probably are more motivated than the families who actually participated in Project Concern, since these families did not receive letters or any contact from the school to encourage them to volunteer for the program. We did, however, drop those attempted volunteers whose families were able to put them into desegregated schools by enrolling them in Catholic schools or by moving to the suburbs.

DATA COLLECTION METHODOLOGY

The total sample--every student who was offered a place in Project Concern in 1966-1971 plus appropriate control groups--was 2613, divided amongst the seven categories of the sample as shown in Table 1.1. We dropped the names of 139 students who were either nonexistant (duplicate names, for example) or ineligible for the study (white students, control

Table 1.1

DISPOSITION OF ORIGINAL PROJECT CONCERN SAMPLE

	1966 Experiment Substudy		1968-1969 Experiment Substudy			Volunteer Substudy		
	PC	Control	PC	Re-fusal	Con-trol	PC	Control	Total
Original listing	*270*	*305*	*351*	*340*	*878*	*347*	*281*	*2752*
Ineligible								
Extra Hispanics					35			35
Whites	3	5		6	6	3	2	25
Duplicate records	4	1		2	24	4	6	41
Special education			2	1	17	3	2	25
Too young							13	13
Total	*7*	*6*	*2*	*9*	*82*	*10*	*23*	*139*
Eligible sample	*263*	*299*	*329*	*331*	*796*	*337*	*258*	*2613*
Dropped from study								
Deceased	2			1	1	1	1	6
Institutionalized	12	7	5	3	17	3	2	49
Still in school		1	13	9	22	15	3	63
Moved from area	34	30	36	73	168	27	33	401
Moved to noncity schools							52	52
Total	*48*	*38*	*54*	*86*	*208*	*46*	*91*	*571*
Records lost	*6*	*49*	*5*	*29*	*17*	*10*	*16*	*132*
Sample used in study	*209*	*212*	*270*	*216*	*571*	*281*	*151*	*1910*

group students who would have been ineligible for Project Concern because they qualified for special education classes, some Hispanics dropped because the 1968-69 control group did not match its Project Concern comparison group ethnicly, and students who were too young to reach adulthood by the time our survey was to be done. Table 1.1 shows 562 students (263 + 299) in the 1966 experiment, 1456 (329 + 331 + 796) in the 1968-69 randomly sampled group and the control group we drew to match it and 595 (337 + 258) students in the volunteers-control group comparison.

Our first task was to locate the academic records for these students. Students who began their schooling in the North side neighborhoods of Hartford may have finished their education in the metropolitan area in any of thirty school systems--either because they were in Project Concern, because they attended Parochial or non-sectarian schools, or because their family moved to any of a number of suburbs. This meant that many student records would be divided, part in Hartford city schools and part in suburban schools. Although the Hartford public schools and the suburban schools invest a great deal of resources in an effort to preserve the transcripts and other academic records of their students, any school system with extremely high pupil mobility is plagued with serious record management problems. Despite this, (and with considerable help from the Hartford Public School administration) after approximately two-persons-years of effort we found the transcripts and at least partial academic records of approximately 95 percent of the students. Table 1.1 shows that we deleted from the study 401 students who moved out of the metropolitan area before they had time to complete school; 63 students who had not yet completed school; 6 students who had died and 49 who had been institutionalized in a custodial institution before reaching school leaving age. We also deleted 52 students who had been selected for the control group to match voluntarily desegregated Project Concern students who had themselves been able to move out of Hartford or transfer to private schools. Together these losses constitute 22 percent of the sample, which when added to the 5 percent of the records which we were unable to locate means that our final sample of located academic records was 1910, 73 percent of the original sample.

The next step in the process was to reduce the sample for the telephone survey from 1910 to 1261 to reduce survey costs. We did this by undersampling respondents who were graduates of central city schools and undersampling high school dropouts. Sampling probabilities ranged from certainty (for suburban graduates and suburban dropouts) down to 20 percent (for inner-city female high school dropouts). All the tables in this report are weighted so that the bias introduced by sampling is corrected. In order to reduce costs, we sample with certainty the families which had two or more children in the sample of 1910 (up to a maximum of four children per family). There were 357 "extra" siblings in the study. so that we only had to locate 904 families. Since tracing costs were the large portion of our survey costs, reducing the number of families lowered costs considerably.

The survey began by tracing respondents, using the last address known to the school system and telephone directory assistance. After these approaches were exhausted, we searched school records, looking for families who had younger children who were still in school. We also used motor vehicle records and tax records, but these yielded addresses without telephone numbers. We verified addresses with registered letters requesting respondents to call us collect, but only a few did so. When funds were finally exhausted, we had located addresses on a large portion of the sample--approximately 90 percent; however, we succeeded in obtaining telephone numbers of slightly less than 70 percent of the families, and completed interviews with only 59 percent of the parents and 52 percent of the students. We interviewed one parent (usually the mother) and then asked to speak to the students (or asked for his/her phone number if they lived away ffom home). Only 5 percent of the respondents were refusals once telephone contact was made. Response rates for each categozy of the design are shown in Table 1.2.

Table 1.2 shows a slight tendency for response rates to be higher among Project Concern alumni and their parents than among the alumni of the Control group. This combined with our decision to oversample students who completed their education in suburban schools, means that the treatment group is larger than the control group for both the 1966

Table 1.2

INTERVIEW COMPLETION RATES

	1966 Experiment Substudy		1968-1969 Experiment Substudy			Volunteer Substudy		
	PC	Control	PC	Re-fusal	Con-trol	PC	Control	Total
Records located	209	212	270	216	571	281	151	1910
Sampled	149	112	192	130	350	225	103	1261
Parent interview obtained	82	56	115	71	208	152	58	742
Percentage	*55*	*50*	*60*	*55*	*59*	*68*	*56*	*59*
Student interview obtained	75	46	104	68	184	139	45	661
Percentage	*50*	*41*	*54*	*52*	*53*	*62*	*44*	*52*

substudy and the substudy of voluntary students. However, since so many of the students assigned to Project Concern withdrew from the program and transferred back to Hartford City schools, the study still contains many more students who graduated from Hartford city schools than from suburban schools. Of the 1853 cases for whom we have significant data, 745 were initially assigned to Project Concern and slightly over half of these (385) finished their education in a Hartford city public school. Of the 1108 respondents who were never in a Project Concern school, 154 finished their education in non-city schools, mostly Parochial schools and public schools in those suburbs where black families moved in the 1970's. Survey response rates were higher for Project Concern participants than for members of the control group. We interviewed 60 percent of those students who finished their schooling in a Project Concern school, compared to only 52 percent of Project Concern dropouts and 48 percent of the Control group students who were always in Hartford public schools.

Because of the higher sampling rates and higher response rates for students who stayed in Project Concern, of the 660[4] completed students surveys almost exactly half of the respondents (132 + 186 = 318, or 48 percent) were initially assigned to Project Concern schools and over half of these finished their education in the suburbs, private schools or in the metropolitan area trade schools.

Assessing the Bias in the Research Design

If there were no differences in the family background of Project Concern students and the control group, we would be assured that the randomized experiment had been done successfully and also that the voluntary desegregation substudy would not suffer from the standard difficulties associated with adjustment pre-test differences. Unfortunately, the evidence, shown in Table 1.3, is that there are some important differences in the socioeconomic status of the families of Project Concern students and Control students. By far the most important differences are between the 1968-69 randomly sampled group and the control group which we randomly sampled, supposedly using the same techniques as had been used in 1968 and 1969. The data are presented in the center column of Table 1.3. For example, in the first row, the 4th column of the table shows that 38 percent of the randomly sampled students who entered Project Concern in 1968 and 1969 came from families that owned their own home when we surveyed them in 1982. In the 5th column we see that 39 percent of the families who refused to send their child to a Project Concern school after being randomly sampled now own their home. In contrast, the control group we selected shows only a 34 percent home ownership rate, a difference (in the 7th column) for the average of the two groups selected for treatment of 5 percent points. The 1968-69 Project Concern students and randomly sampled refusal families have fewer children, had mothers who were more likely to have a high school or better education, were more likely to own an encyclopedia, a typewriter and take a daily newspaper; and the students were more likely to report that when they were 14 they lived with both

[4] There are 661 completed student surveys; in one case we could not determine the last school the respondent attended.

Table 1.3

FAMILY BACKGROUND DIFFERENCES BETWEEN PROJECT CONCERN STUDENTS AND THE CONTROL GROUPS

Student Characteristics	1966 Experiment Substudy			1968-1969 Experiment Substudy				Volunteer Substudy		
	PC (%)	Control (%)	Difference	PC (%)	Refused (%)	Control (%)	Difference	PC (%)	Control (%)	Difference
Parents own home	44	43	(1)	38	39	34	(5)	36	48	(-12)
Family has 3 or fewer children	21	20	(1)	22	18	16	(4)	23	24	(-1)
Mother finished high school	59	49	(10)	53	54	40	(14)	61	49	(11)
Family has										
Encyclopedia	80	88	(-8)	81	75	67	(11)	84	76	(8)
Typewriter	56	39	(17)	59	60	35	(24)	58	45	(13)
Daily newspaper	87	86	(1)	88	88	75	(13)	86	71	(15)
In 2-parent nuclear household at age 14	36	48	(-12)	41	53	35	(12)	40	27	(13)
(Range of n's)	(73-78)	(42-57)		(93-117)	(64-69)	(179-204)		(131-152)	(45-59)	

their parents. It is encouraging to note that the differences between the Project Concern students and those who refused to enter the program are small.

We do not know why we were unable to reproduce the randomly sampled procedures used in 1968 and 1969. It is possible that in our sampling we included students who were to be retained in grade, or assigned either to special education or to classes for students who needed assistance with English.

There is a tendency for the students who entered Project Concern voluntarily to be of somewhat higher status than those families who attempted to volunteer their child for Project Concern, but were not successful. The Project Concern volunteers have mothers who are somewhat better educated and are more likely to have lived in two-parent households. On the other hand, the control group families are more likely to own their own home. The Project Concern volunteers are more likely to have an encyclopedia and typewriter at home and more likely to take a daily newspaper, but we are not sure that the typewriter item should be taken seriously. It seems to us very likely that children attending suburban schools are more likely to be pushed by the school into using a typewriter. Thus this is not an indicator of family background differences but is in fact an effect of the type of school they attend. The reason why we advance this hypothesis is that in the 1966 experiment there are few important differences between Project Concern and control students. In the first three columns of data in Table 1.3 shows no difference in family home-ownership number of siblings or in using a daily newspaper. The control group families are more likely to have two parents present and more likely to own an encyclopedia. The Project Concern families have better educated mothers. This pattern would suggest what there should be no important differences between the two groups and that the random sampling strategy (and our tracing of the students 15 years later) was relatively unbiased. Despite this, we find that the Project Concern children are 17 percentage points more likely to have a typewriter at home. We think typewriter ownership is an effect of attending suburban schools rather than a measure of family background differences.

These data seem to indicate that when we analyze the 1966 data we can assume a fairly good experimental design and no important background differences between the two groups. For both the voluntary substudy and the 1968-1969 experiment, we will have to assume sizeable background differences which will need to be controlled. In the analysis that follows we will use the social class factors, age and second grade achievement scores as control variables to try to minimize the difference between Project Concern and control group students.

There are some policy implications in these data as well. The data suggest that during the early days of Project Concern there was a class bias which could creep into the selection process at any time the strictist of random sampling techniques was weakened. This is entirely understandable: better educated and more highly motivated families will be more aggressive in seeking better educational opportunities for their children and more skilled in obtaining better schooling. It is also not clear that this is necessarily a bad thing. It may be that better organized and better educated minority families are the ones who benefit most for a program like Project Concern. Nevertheless, the risk of short-changing poor minority families in a program like this is real. We do not know whether the sort of biases that showed up for the 1968-71 period exists today, but we think that these data should serve as a warning to administrators and other desegregation programs which have a voluntary component.

II. RESULTS

The main finding of our study is that for male students, participation in Project Concern increases the chances of graduation from high school and increases the number of years of college they complete. Participation in Project Concern does increase women's high school graduation rates but has little effect on female years of college completed.

The most direct test of the desegregation-educational attainment relationship is to simply compare students who graduated from suburban schools with those whose schooling was entirely in the city. In Table 2.1, we summarize a series of regression equations in which desegregation experience is related to years of school completed in equations controlling on age, the students vocabulary scores in second grade and seven family background variables (presence of two parents in the home, number of siblings, home ownership, mother's educational attainment, and a scale built on the presense of an encyclopedia, a typewriter, and a daily newspaper in the home). In the regression equation, a dummy variable was constructed to distinguish those who attended Project Concern schools from those who did not. To keep the analysis simple we ignored for the present all students whose desegregation experience was mixed, either because the dropped out of Project Concern and returned to segregated city schools, or because they began in the city schools as a member of the control group but then transferred to desegregated schools, (either private schools, schools in the suburbs where their family had moved, or the metropolitan area vocational school).

The first five rows of Table 2.1 report data from 5 separate regression equations with five different dichotomous dependent variables, each for a different range of educational attainment. Thus the first line reports that net of various family variables the estimated proportion of students completing college is 7 percent for students who participated in Project Concern, and 4 percent for students who did not. The next four lines show the result from four other

Table 2.1

EDUCATIONAL ATTAINMENT AND PRESENT COLLEGE ATTENDANCE OF PROJECT CONCERN PARTICIPANTS, BY SEX

	Project Concern	Control Group
Males (in percentages)		
College graduate	7	4
2+ years of college	21[a]	12
1 year of college	15	12
High school graduate	42	38
Dropout	14[a]	34
Total	*99*	*100*
Mean years completed	*12.7*[a]	*12.0*
Percentage now in college	*30*	*15*
Females (in percentages)		
College graduate	6	3
2+ years of college	12	14
1 year of college	16	16
High school graduate	60[a]	42
Dropout	9[a]	25
Total	*103*	*100*
Mean years completed	*12.5*	*12.2*
Percentage now in college	*15*	*22*

NOTE: Controlling on family background, age, and test scores.

[a] $p < .05$.

equations, each focusing on a different level of educational attainment. For example, the second line is based on a regression using as a dependent variable a dummy variable which is scored 1 if and only if the student has completed either 2 or 3 years of college, with college graduates and students with less college than this both scored as 0. The end result is a table which is a simulated cross-tabulation, presumably looking exactly as a cross-tabulation would look if segregated and desegregated respondents were identical in their family background, age, and second grade test scores. Appendix A contains a full regression equation from which the fifth line of this table (the

high school dropout rate) was computed and shows the computation formula used to construct the numbers in Table 2.1.

The data indicate that the male Project Concern graduates have much higher levels of educational attainment. They are much less likely to drop out of high school, more likely to attend college and if they did attend college, considerably more likely to finish two or more years of schooling. In the lower part of the panel of male data we present the expected years of school completed, derived from a regression equation in which mean years of schooling is the dependent variable and family background, age and second grade scores are controlled. These data indicate that Project Concern students finishing in non-city schools have almost a year more schooling than those who always attended city schools.

Not only do Project Concern participants who finish their education in suburban schools have more years of school completed that the control group, the differences between the Project Concern students and the controls are continuing to increase. As the next row of the top panel of the table shows, 30 percent of male Project Concern students were in college at the time of our survey, compared to 15 percent of the control students. (The results again are net of age, second grade vocabulary school scores, and family background variables.) The educational advantage held by Project Concern alumni will be even greater in the future.

Table 2.1 shows a pattern in the male attainment figures. Project Concern participants are noticeably less likely to drop out of public school. However, of those who graduated from high school only slightly more Project Concern students than control students go on to college. Sixty six percent of control group students finished high school and 28 percent -- about 3/7 of the high school graduates -- went on to college. A much higher percentage of Project Concern male students (89 percent) finished high school but only 45 percent -- about half of the high school graduates -- went on to college. This suggests that the program does not so much affect college attendance rates directly, as it does so indirectly by lowering the high school drop out rate.

Among male college attendees, Project Concern graduates have an advantage: The control group is more likely to complete only one year of college than is the Project Concern group. Among control group students there are four students who have completed two or more years of college for every three student who have completed only one year. But among Project Concern graduates there are roughly 6 students who have completed two or more years of college for every 3 who have completed only one. Although we cannot be sure with the small sample size we have here, it looks as if the effects of Project Concern is to enable males to remain in school--either high school or college.

The table does not treat directly the important issue of self-selection. Presumably those students who entered Project Concern and stayed in the suburban schools are better students--with more committed families and perhaps with better scholastic ability. It is thus not surprising that those who remain in the suburbs have a greater number of years of school completed than those who left Project Concern. But this means that merely comparing those participants who stayed in the suburbs to those who were always in the city schools is misleading. The very low high school drop out rate of only 14 percent for students who completed their education in suburban schools is at least partly because many students who intended to drop out of high school did so by leaving Project Concern, returning to city schools and then dropping out from the city school.

This issue is addressed in detail in Appendix B of this report. In that appendix we conclude that Project Concern had a definite effect on the educational attainment of male students, which cannot be explained either in terms of differences in family background of students who did or did not enter the program, nor in terms of the unmeasurable differences which might cause self-selection bias in the data.

The conservative estimates, based on making allowance for self-selection bias, are that Project Concern has increased educational attainment by 0.3 to 0.4 years, and that the advantage of Project Concern alumni have will continue to grow because of their higher college attendance rates at the time of our survey. We estimate, very roughly, that the effect of desegregation using suburban schools is to

decrease the male high school drop out rate by about two-fifths (the decrease shown in Table 2.1 of three-fifths, from 34 percent to 14 percent, is exaggerated by self-selection). We also roughly estimate the number of male students who will eventually have two or more years of college is increased by desegregation by perhaps 50 percent. (Again, the estimates taken directly from Table 12, which show 75 percent more students with two years of college now, 28 percent compared to 16 percent, and 100 percent more students still in college, 30 percent compared to 15 percent, are also exaggerated by self-selection.)

Table 2.2 shows some other effects of participating in Project Concern: measures of perception of racism, difficulties with police, early childbearing, and contact with whites. The results are again derived from regression equations controlling on family background, age, and second grade achievement scores.

ATTITUDES ABOUT RACISM IN COLLEGE AND ELSEWHERE

College is a time of considerable pressure, both academic and psychological, on many students. Obviously the pressure is greater if one adds to the normal tensions the experience of being a minority group on campus. (In Connecticut, all the colleges and universities are largely white.) It may be that one reason why the college dropout rate is lower among Project Concern graduates is that they place a different affective interpretation upon their college experiences. They are considerably less likely to feel their college is racist. These results for males are given in the first two lines of Table 2.2. None of the graduates of a Project Concern high school say that they experienced discrimination in college, while 22 percent of control group members who attended college say they did. Whether this finding is a result of desegregated blacks understanding the amount of discrimination about them or segregated blacks overestimating the amount of discrimination is unanswerable with our data.

Perception of discrimination in college is correlated with perception of discrimination in other areas, and male Project Concern alumni score lower on a scale based on perceptions of discrimination by employers, downtown store clerks and white citizens generally in Hartford. The data in the third and fourth lines of Table 2.2. has been

Table 2.2

DELINQUENCY, PERCEIVED DISCRIMINATION, AND CONTACTS WITH WHITES OF PROJECT CONCERN PARTICIPANTS, BY SEX

	Project Concern	Control Group
Males		
Perceived college discrimination (%)		
Uncontrolled	0	22
Controlled	0[a]	22
Perceived discrimination generally (scale)		
Uncontrolled	.43	.51
Controlled	.42	.53
Police/violence (scale)		
Uncontrolled	.14	.33
Controlled	.17[a]	.32
Contact with whites (scale)		
Uncontrolled	.60	.45
Controlled	.62[a]	.45
Moved into white residential area (scale)		
Uncontrolled	.46	.39
Controlled	.49	.36
Had few friends in college (%)		
Controlled	19	31
Uncontrolled	24	34

Table 2.2 (continued)

	Project Concern	Control Group
Females		
Perceived college discrimination (%)		
Uncontrolled	12	14
Controlled	18	15
Perceived discrimination generally (scale)		
Uncontrolled	.50	.52
Controlled	.50	.49
Police/violence (scale)		
Uncontrolled	.06	.14
Controlled	.11	.12
Bore child before age 18 (%)		
Uncontrolled	8	29
Controlled	12	26
Contact with whites (scale)		
Uncontrolled	.47	.41
Controlled	.48	.40
Moved into white residential area (scale)		
Uncontrolled	.56	.41
Controlled	.61[a]	.38
Had few friends in college (%)		
Uncontrolled	18	37
Controlled	20	36

NOTE: Controlling on family background, age, and test scores.

[a] $r < .05$, one-tailed test.

transformed to a scale with a mean of 52, since on average 52 percent of the respondents perceived discrimination on any one question in this scale. The scale has a standard deviation of 50, which makes the differences interpretable as if they were the results from a single yes-no questions rather than from a scale. The results in Table 2.2 are the expected values taken from a regression equation controlling on family background, age and second grade test scores.

For women, there is no evident that attending a segregated school increase's one's perception of discrimination either in college or in Hartford generally.

Project Concern alumni and the control group alumni are in similar environments; we think it is the perception which differs, not the reality. But it is also true that Project Concern alumni, accustomed to being with whites, may evoke different responses from the whites they interact with.

TROUBLE WITH POLICE AND WITH VIOLENCE

We asked respondents three questions designed to crudely measure their difficulties with police and their involvement in unacceptable kinds of aggression. Our three measures are "have you ever been picked up by the police?", "have you ever spent the night in jail?" and "since you are an adult have you ever been in a fight?" The fifth and sixth lines of the top panel of Table 2.2 show scores on a scale which goes from 0 to 100 and represents the mean percentage of male students answering "yes" to each of these questions. Male graduates of Project Concern schools are significantly less likely to answer "yes" to these questions. Project Concern females score lower on this scale than does the control group, but this seems entirely due to social class and academic test score effects; when these are controlled the effect of desegregation disappears.

TEENAGE CHILDBIRTH

There is a lower rate of teenage childbirth experienced by women who were enrolled in Project Concern, as shown in the bottom panel of Table 2.2. Only 8 percent of alumni of Project Concern give birth before they are 18, compared to 28 percent of the control group. most of this 21 percent difference cannot be considered an effect of desegregation. Many females in Project Concern become pregnant, but transferred to the Hartford city school system to attend a special school for mothers, so they are not counted as Project Concern Alumni (see Appendix B for an analysis which takes this into consideration).

RELATIONS WITH WHITES

Tables 2.2 also show various measures of interracial relations. A "contact with whites" scale is built on the percentage of black respondents saying that some of their present friends are white and that they visit whites in their homes. The rates are higher for males generally, probably reflecting a more generous definition of friendship that is used by women, and perhaps also reflecting the greater freedom of mobility that males have. Males from Project Concern high schools are significantly more likely to have contact with whites than are graduates of city schools. They are also more likely to have searched for or moved into an apartment in a predominately white neighborhood (the two measures are combined on the second scale), and are less likely to have complained about not having friends when they were in college (since all the colleges in the Hartford area are overwhelmingly white, a lack of friends presumably reflects difficulty in establishing friendships with whites). The differences for females are also quite clear and in fact are stronger on two of the three measures.

SELF-SELECTION BIAS

The data in Tables 2.1 and 2.2 are biased toward showing positive effects of desegregation. To some degree Project Concern alumni have more years of schooling, less difficulties with police, etc., because they are a self-selected group of superior students; others who were not as motivated or able to attend college, or more prone to difficulties with police, etc., simply declined the opportunity to participate in Project Concern or else withdrew from the program before completing school. In Appendix B we carry out a thorough (and very conservative) analysis of the effects of self-selection, and conclude that all the significant findings in Tables 2.1 and 2.2 stand up under tests for self-selection bias, with the possible exception of the male police/violence scale results, which are not statistically significant under some sets of assumptions about the effect of self-selection bias.

INTERPRETATION

We found a series of positive effects of desegregation. On the whole, they are as expected. The Most reasonable are the results showing that both males and females from desegregated schools have more positive social contact with whites; presumably persons who had contact with members of the opposite race in childhood are more likely to want to relate socially to them in adulthood. We are also not surprised at a decline in teenage pregnancy. We would expect desegregated black students to be in a situation where more of their friends would be planning on college and in a situation where they are more isolated from the black community and therefore dating less. The same result appears in Crain and Weisman (1972).

Desegregation may reduce perceptions of ratism for black males simply because it reduces the sense of strangeness in dealing with whites and white institutions. Blacks from desegregated backgrounds may have learned to overlook instances of prejudiced behavior; or perhaps segregated blacks tend to misinterpret innocent white behavior. Either explanation seems quite reasonable.

There are two possible explanations why desegregation might reduce arrest rates and adult violence for black males. Desegregation may reduce difficulties with police because it reduces perception of racism and anger about racism. For decades social scientists and black intellectuals have claimed that black violent behavior, even that directed at other blacks, has its ultimate roots in anger at white racism (Kardiner and Ovisey, 1951; Crain and Weisman, 1972; Grier and Cobbs, 1969). One research study found intraracial black violence declined in three black communities when they were mobilized for civil rights activity (Soloman, Walker, O'Conner and Fishman, 1965). A major theory in juvenile delinquency research, the differential association theory, also predicts that Project Concern students will have less difficulty, simply because they have less time and opportunity to interact with inner-city violent young people.

Why doesn't desegregation reduce female scores on the police/violence scale? One reasonable explanation is that black women in the suburban schools were not as isolated from inner-city youth as

the black men were. The girls in Project Concern tend to associate with teenage boys from their home neighborhood who usually are not in Project Concern. One can easily imagine girls cooperating passively in antisocial behavior initiated by a group of boys. Thus at the time of the interview, a desegregated black woman's history of association with antisocial youth may not look very different from that of black women who attended inner-city schools.

This is not a completely satisfactory explanation, since it does not explain why desegregation also does not affect female perceptions of discrimination in college or in society generally. Females from desegregated schools perceive more discrimination than do males from desegregated schools, and we have no good explanation for this.

Finally, why does desegregation increase educational attainment, but do so mainly for males?

It seems to us that there are three factors which could increase educational attainment: These are (1) academic success; (2) motivation; and (3) a fondness for school. A student who does well in school will be motivated to continue in school simply in order to continue getting the rewards that school offers. A student who is motivated may not do well in school but may feel strongly that completion of schooling is necessary for his or her future. Many students remain in school not because they like schoolwork but because they like school itself--a chance to participate in social activities with friends and feel part of a school community.

Viewed form this perspective, it seems reasonable that desegregation should both lower the high school drop-out rate and increase the years of college completed. Desegregated students should be more motivated, since they are in schools where there is a strong norm favoring high school and college graduation. While desegregated students do not make very good grades in suburban schools, they also do not get into very much disciplinary difficulty compared to students at the inner-city high schools, and that should make them like school more, or at least give them fewer reasons to dislike school. It seems reasonable that a student who perceived a good deal of discrimination in college will be more likely to quit. And if segregated schooling encourages students to perceive a good deal of discrimination in

Hartford city in general, it will probably also cause them to have a more critical view of, and be more willing to drop out of, their own high school. Therefore, we think that we have two reasonable explanations for the lower high school dropout rate of Project Concern students. On the one hand they are less likely to get into trouble with the police and we suspect that means that they are less likely to get into trouble with their school administrator. Secondly, they see less discrimination, suggesting that they are less angry about this and hence less likely to get into difficulties with school officials and less likely to want to drop out of school.

If desegregation makes it easier for blacks to establish friendships with whites, this will also make them more likely to stay in college, since their larger circle of friends will make them feel less alienated. Since both males and females from desegregated schools complain less of not having friends in college, we would expect desegregation to increase the college retention rates for students of both sexes. However, female college retention is not improved by desegregation.

Since women from desegregated schools did not have less difficulties with the police and did not perceive less discrimination in college, these are two reasons to argue that desegregation should not enhance their years of college completed.

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III. STUDENT EXPERIENCES WITH PROJECT CONCERN

One half of the male students and two-fifths of the female students who entered Project Concern left the program to return to Hartford City Schools. The 187 respondents who dropped out of Project Concern gave reasons which fell under five general headings: (1) Most commonly they said they did not like the racial situation; 42 mentioned racial problems or discrimination, and 20 said they did not like their classmates or teachers. (Both classmates and teaching staff were virtually all-white in these schools.) (2) 26 said they wanted to go to school in the city with their friends and relatives (typically their siblings did not attend school with them.) (3) 20 complained about transportation or logistics--often families moved to a new residence and it was no longer possible for the child to be picked up by a school bus. (4) 17 said they were suspended, and 3 left because of a conflict over school policy, which we think probably referred to a disciplinary policy. (5) Only 14 said they did not like the school, and only 5 said they left in order to go to a better school.

The Project Concern desegregation plan made things difficult for many students. The plan does not use any sort of geographic zoning, so that students who attend a particular suburban school come from all over the North Hartford residential area, rather than one particular neighborhood. Thus, students usually do not ride the bus with any of their neighborhood friends. In some cases siblings were separated, attending different suburban schools. Robert Gale and Edward Iwanicki (1982) analyzed dropouts of Project Concern and pointed out that it is difficult to determine how many students were pushed out by disciplinary suspension and expulsion and how many students voluntarily left, since in many cases a student who wished to leave the program but whose parents would not permit it simply acted up in school and was expelled.

Despite the high dropout rate from Project Concern, evaluations by participants are generally quite positive. We asked each student to describe the experiences they had in the high school they attended. Those Project Concern students who remained in the suburbs were quite

favorable. Eighty-nine percent of the males and 91 percent of the females said they liked their high school compared to 83 percent and 82 percent of students who were educated in central city schools. Asked to give a letter grade to their school, graduates of suburban Project Concern schools graded their schools with an average B or better, while graduates of inner-city schools gave their schools a mixture of B's and C's. Suburban graduates complained less about school rules being unfair and were no more likely than central city graduates to say they "didn't belong" in their school. The only area where suburban students complained more about their school was in saying they experienced racial discrimination--hardly surprising since they central city schools were overwhelmingly black. It is also interesting that students who dropped out of Project Concern and returned to city schools were more negative in their evaluation of their high school than were students who had never been in Project Concern. This suggests to us that students who had experienced Project Concern had higher standards for schooling than those who had never seen suburban schools.

We compared Project Concern alumni who remained in suburban schools until they finished their education, Project Concern dropouts, control group students and students from the control group who moved to the suburbs or transferred to desegregated schools in their attitudes toward school and their experiences in school.

Project Concern graduates tend to come from somewhat more affluent families than do Project Concern dropouts or central city students, so again we used multiple regression to control for seven background factors: parent's education, parental homeownership, number of siblings, presence of an encyclopedia, typewriter, or daily newspaper in the home, number of parents in the home while growing up, age and the student's score on a second grade vocabulary test. Rather than reporting the full equation in standard form, Table 3.1 shows the results in the form of a simulated cross-tabulation--the predicted values of Project Concern participants and non-participants if each group were assigned average scores of the seven background variables.

In Table 3.1, the actual difference among the four classes of Project Concern participation are shown first; the results from the regression equation are immediately below it. For example, the first

Table 3.1

PROJECT CONCERN PARTICIPANTS' PERCEPTION OF HIGH SCHOOL BY LOCATION OF LAST SCHOOL ATTENDED AND SEX

	Location of Last School Attended			
	City	Other	City	Other
	Project Concern		Control	
Males				
Liked high school (%)				
Uncontrolled	71	89	83	78
Controlled	76	86	82	76
Mean grade given to school (4=A, 0=F)				
Uncontrolled	2.3	3.2	2.6	2.8
Controlled	2.4	3.1[a]	2.6	2.8
Didn't "belong" (%)				
Uncontrolled	23	21	23	14
Controlled	19	21	23	15
Thought school rules unfair (%)				
Uncontrolled	31	19	39	33
Controlled	29	19[a]	41	34
Perceived discrimination (%)				
Uncontrolled	13	32	11	26
Controlled	9	33[a]	11	27[a]

Table 3.1 (continued)

	Location of Last School Attended			
	City	Other	City	Other
	Project Concern		Control	
Females				
Liked high school (%)				
Uncontrolled	66	91	82	87
Controlled	66[a]	90	82	87
Mean grade given to school (4=A, 0=F)				
Uncontrolled	2.2	3.0	2.6	2.8
Controlled	2.3[a]	3.0[a]	2.6	2.7
Didn't "belong" (%)				
Uncontrolled	38[a]	18	23	15
Controlled	38	22	21	18
Thought school rules unfair (%)				
Uncontrolled	41	23	40	27
Controlled	42	21[a]	40	27
Perceived discrimination (%)				
Uncontrolled	21	22	13	25
Controlled	20	28[a]	10	26[a]

NOTE: Controlling on family background, age, and test scores.

[a] $p < .05$, two-tailed test.

line of the Table shows that 83 percent of male students who never participated in Project Concern and who finished their education (either graduating or dropping out) in a central city school in Hartford said that they like the last school they attended. Seventy eight percent of those students who never participated in Project Concern and who finished their education in a non-city school (typically the metropolitan trade school, a Catholic school, or the high school in Bloomfield, a suburb where many blacks moved during the 1970s) said they liked their school; 71 percent of students who had been in Project Concern but had dropped out of it and finished their education in Hartford city schools said that they liked their school. and 89 percent of the Project Concern students who finished their education in a non-

city school, (either a Project Concern school, the metropolitan vocational school, or occasionally a private school), said they liked their school.

Controlling on background factors changes the patterns of liking school only slightly. The Project Concern dropouts who finished in a central city school tend to show somewhat more positive evaluations of their school when background factors are controlled.

The remainder of Table 3.1 shows Project Concern graduates giving their school a higher letter grade (the question was "we'd like your overall opinion about your school based on your own experiences at that school. Taking all things into consideration if you had to give your school a grades of A, B, C, D, what grade would you give?") Sense of "not belonging" is lower for non-Project Concern students who are in suburban or other-city schools and roughly the same for the other three groups. Perception of rules being unfair is much lower in suburban Project Concern schools than in the others. Sense of being discriminated against is higher in the two categories of non-city schools. For females the pattern is roughly similar except that there is more negative reaction to central city schools on the part of students who left Project Concern. Project Concern dropouts in central city schools like school much less than others do, given them lower grades and more often feel they don't belong. Project Concern graduates of suburban schools give their schools higher grades, do not particularly complain about belonging, do not see the rules as being unfair but do say they suffered discrimination.

Table 3.2 looks at some of the experiences students report having in school. Males in Project Concern suburban schools surprisingly report receiving honors most often -- this despite the fact that they are not academically as good students as their classmates. They also report having many friends -- the percentages there are not lower than they are for central city -- and, not surprising, report having more white friends. The students who have gone to non-city schools without being in Project Concern do not report having as many white friends; this maybe be because they are more likely to be in a vocational school which is heavily minority, or it may reflect the fact that one needs early childhood experience to relate well to whites, and most of the

Table 3.2

PROJECT CONCERN PARTICIPANTS' PERCEPTION OF HIGH SCHOOL LIFE BY LOCATION OF LAST SCHOOL ATTENDED AND SEX

	Location of Last School Attended			
	City	Other	City	Other
	Project Concern		Control	
Males				
Received honors (%)				
Uncontrolled	41	67	42	54
Controlled	43	62[a]	44	49
Had lots of friends (%)				
Uncontrolled	89	90	87	92
Controlled	80	88	90	93
Mean number of white friends				
Uncontrolled	.52	1.47	.51	.82
Controlled	.57	1.52[a]	.48	.81
Was ever suspended (%)				
Uncontrolled	53	38	47	53
Controlled	52	41	46	55
Participated in extracurricular activities (%)				
Uncontrolled	30	42	33	40
Controlled	28	41	34	38

Table 3.2 (continued)

	Location of Last School Attended			
	City	Other	City	Other
	Project Concern		Control	
Females				
Received honors (%)				
Uncontrolled	42	58	39	58
Controlled	44	49	44	46
Had lots of friends (%)				
Uncontrolled	77	92	83	90
Controlled	77	91	84	89
Mean number of white friends				
Uncontrolled	.54	1.40	.42	.98
Controlled	.54	1.41[a]	.39	.99[a]
Was ever suspended (%)				
Uncontrolled	38	24	35	15
Controlled	36	27	35	12[a]
Participated in extracurricular activities (%)				
Uncontrolled	24	37	32	42
Controlled	28	34	34	37

NOTE: Controlling on family background, age, and test scores.

[a] $p < .05$, two-tailed test.

students who are in Catholic schools or in the high school in Bloomfield (the suburb with a large black population) had attended segregated elementary schools.

Given the transportation problems, it is particularly surprising that Project Concern students who finished their education in suburban schools had a higher level of participation in extracurricular activities than did non-Project Concern students in central city schools. (The number reported in Table 3.2 is the mean number of activities participated in from a maximum of 5 choices -- journalism, drama, music, sports, and student council or clubs.)

For females there is no tendency for suburban Project Concern students to have received more honors as was the case with male students. We also see that although females report as much extracurricular participation in suburban Project Concern schools as they do in central city schools, there is not a difference favoring suburban schools as there was for men. Project Concern women students do report having many friends, have a large number of white friends, and had relatively little disciplinary difficulty in the suburban schools.

One difference of interest to our analysis is the very low level of suspensions for female students in column 2--those who were not in Project Concern but who moved to suburban schools or the Catholic or vocational schools. This is in contrast to males with the same educational experience who have a very high suspension rate in high school. This is despite the fact that these should be abler and better motivated students. Crain and Weisman (1972) and Crain, Mahard and Narot (1982) both argue that black males more than females are poorly prepared for interracial experiences in high school if they attended segregated elementary schools. The higher level of suspension for males but not for females who come from non-Project Concern elementary schools into non-city high schools is consistent with this pattern.

The students in suburban Project Concern schools in our survey seem to be saying that the schools they went to are objectively good schools, with high academic standards, good teachers, and with well-organized school discipline policies, as reflected in the low percentage of students calling the school rules unfair. For males extracurricular activities provide ample opportunities and there are honors to be gained. The students who finished in the suburban schools say that they like school. At the same time, however, the high dropout rate reflects a series of problems with the program, some of which are potentially solvable. In many of the schools the students are spread too thinly--with only a handful of black students in an entire elementary or high school. Minority students do not have the "critical mass" needed for emotional support. The almost total absence of black teachers in many of the schools and what appears to be a relatively weak human relations program has resulted in a situation where a large number of students

complained about racism as a factor in their leaving the suburban schools. Finally, because students are so thinly spread transportation problems are serious, and have become more serious due to recent budget cuts.

WHAT TODAY'S STUDENTS SAY

In order to get a clearer sense of student attitudes toward their school experience, 69 face-to-face, very informal interviews were held with present-day Project Concern students in five suburban high schools. The interviews focused on the student's social lives: friends, integration into school environment, extracurricular activities, dating, feelings about school life and Project Concern, and future plans. Field observations were also conducted at each school--in classrooms, cafeterias, gymnasiums, bus stops, and after school. Teachers, principals and guidance counselors were also intervied.

Five schools with different numbers of Project Concern students were chosen. An attempt was also made to choose districts representing a variety of per capita income brackets.

What do the Project Concern students perceive as the "good" thing about Project Concern? There were three points that were stressed by many students: that they were (1) getting a better education in (2) a better environment which was (3) socially heterogeneous. Over half (55 percent) felt they were getting a better education in the suburbs.[1] The following two comments are fairly typical in this regard.

First,

> Project Concern has helped me a lot because if I didn't come out here and went to school in Hartford, I won't say I'd be stupid, but if I was to come out here and then transfer to a Hartford school, I'd automatically graduate because their education out here is higher than it is in Hartford.

Second,

[1] Many of the suburban high school principals and staff members refute this claim, saying that the education is Hartford is just as good, if not better. They sometimes acknowledge, however, that the distractions are perhaps greater in Hartford.

> I'm getting a better education than I would going to a Hartford school, and I really like that because if I was to go to a Hartford school let's say like in my junior year they would skip me to my senior year because of what I know. I get a *much* better education here.

Further, a third of the Project Concern students believed that the program was good because they were in a better environment than they would be in if they went to school in Hartford. In addition, a third of the Project Concern students felt they gained from participating in Project Concern because they met different types of people than they would if they remained in Hartford. When asked how things would be different if she went to school in Hartford, one student remarked.

> It would have been different, like I would grow up being prejudiced toward white people. Cause where I live, its black people...and I would grow up to be prejudiced. By going to this school, I'm glad that I did because I've grown up not to be prejudiced. And it's really good. This program has really did that. You know, white people and black people get together, see what each other is like, and be friends and stuff. This program has really helped that.

Another student commented:

> I think Project Concern is good because it gives us an opportunity to get into a different environment. I think that by going out here it better prepares us for the outside world. In our house my mother taught me that white people, they will always be out there so you have to get along with them to really live in the outside world. I think that going out here better prepares me. A lot of my friends go to Hartford schools, and they don't like white people. But I think this really helped me, now that I look over it, even though I don't like coming out here sometimes, and it gets on my nerves. I think it really helps in the long run.

The major criticisms of Project Concern given by the students revolve around transportation difficulties. As shown in Table 3.3 transportation problems were more prevalent at schools that rely on public transportation to get their Project Concern students to school. At these schools, the Project Concern students have a journey which

Table 3.3

PROJECT CONCERN PARTICIPANTS' PERCEPTIONS OF TRAVEL TIME TO SCHOOL AND TRANSPORTATION DIFFICULTIES, BY SCHOOL

	Carlton[a]	Herald	Irving	Mooney	Tarrytown
No. of respondents	13	8	14	18	16
Average no. of minutes spent getting to school[b]	51.2	38.6	25.4	53.2	34.4
Average no. of miles to school	9	4	13	10	18
Percentage reporting transportation difficulties[c]	38	62	7	67	12

[a]The names of the five Connecticut schools have been changed. Irving and Mooney contain grades 9 to 12; Carlton and Herald, grades 10 to 12; and Tarrytown, grades 7 to 12.

[b]The question was asked, "How long does it usually take you to get to school in the morning?" Project Concern participants at Carlton, Herald, Irving, and Mooney traveled to and from school by public transportation; Tarrytown participants traveled by school bus.

[c]The question was asked, "What would you say are the bad things about the Project Concern program?" Multiple responses were allowed.

involves at least two legs: one to downtown Hartford, another to the school. The lack of school bus transportation emerges as a crucial negative component of their desegregation experience. The situation is exacerbated because at one time school buses were available, but due to budget cuts PC students at certain schools (those in areas with already existing public transportation routes from Hartford) are now forced to use public transportation. One student explained what the transition from school bus to public transportation was like:

> It was really unfair to us...it's really hard to accept. We already wake up early. When we were taking the school bus we had to wake up at 6 o'clock, and we had to get our of the house by 20 of 7. When you have to wake up at 5 o'clock, its dark outside and you have to walk, and you're sleepy. There used to be days, when I'd be up until 11:30, 12 o'clock, because I work, and I work from 2:30 until quarter of 6. By the time I catch a bus to get downtown it would be 20 of 7 and

> by the time I get home it would be 7:30. And then you would have to do things at home. By the time you sit down and do your homework, and you do your hair, and you get your things up for the morning, because in the morning time you have no time to iron clothes and get your things up for school, it be 12:30, 1 o'clock. And you have to wake up at 5 o'clock. It's a rough schedule.

Another student commenting on the busing situation said:

> They cut our busing...that's the thing I hate the most. I think that they should put back in the busing cause it causes a lot of problems. If you miss the bus in the morning, you have to take another one and be late to school.

Project Concern students at both schools using school buses (Irving and Tarrytown) report relatively short travel times (less than two minutes/mile). Therefore it is not surprising that PC students at those two schools are less likely to perceive of transportation as a negative component of the PC program. Aside from transportation, no other negative issues were mentioned by very many PC students. Thirty-two percent of the students interviewed could think of no problems associated with PC.

Most Project Concern students like school either very much (41 percent), or fairly well (49 percent). Only a few (16 percent) report that they feel as if they don't belong in school, and most (81 percent) report liking their principal. Few (7 percent) believe that there are serious problems at their school between blacks and whites, but a substantial amount (64 percent) acknowledge minor problems between the races.

Four Coping Strategies

In order to reduce the lengthy questionnaires to manageable size, a multi-stage scaling procedure was used. First, 33 questionnaire items were Guttman scaled into nine scales. Then these nine scales plus six other individual questionnaire items were combined and factor analyzed, yielding four factors. In interpreting these four factors one can look at them as defining four alternative ways to cope with a white suburban school. The four factors are shown in Table 3.4. For each Guttman

scale or individual item, the factor loading is given; and for every item, the percentage "yes" on that item is shown. Students who score high on any of the first three factors are all involved in extracurricular activities of the school, have white as well as black friends and attend school social events and sports affairs. However, there seem to be three different strategies which enable them to be so highly involved in school:

Factor 1: Being a "model" student. One route is shown in factor one and is simply to be a good student. The students who are high scorers in this particular factor have good grades, plan to go to college, have not been suspended and are active in more school extracurricular activities. On the positive side, these categories represent the epitome of assimilation. On the negative side we find only one category, which at first glance appears inexplicable. Project Concern students who are best assimilated into the school environment have positive experiences at school, but they report negative reactions from their Hartford and fellow Project Concern friends, who resent the fact that model students go places after school with white students. As we shall see, students who adopt other strategies which integrate them into the school do not feel this same pressure to avoid whites. We suspect that for this group, associating with whites is perceived by other blacks as part of academic "rate-busting"; that what these students are doing wrong to earn the hostility of their black friends is being too good--cooperating too well with white students, embarrassing their brothers and sisters with their good grades.

To highlight this orientation, let us quote in part from a model student named Albert.[2]

> I don't consider myself to be a minority because my (white) friends, they don't consider or even look at it as me being a different color--just being regular, being just like them. They (PC students) prefer to be black, they want to just hang around with the blacks, they don't want nothing to do with the whites...I'm not like that...I was called awhile ago an oreo kid, that's a black person hanging around with whites and trying to act white...I attended the ski club and I asked if anyone else wanted to get into it, and you should have seen

[2] All names of the respondents have been changed to maintain anonymity.

Table 3.4

DIMENSIONS OF SCHOOL EXPERIENCE FOR PROJECT CONCERN PARTICIPANTS, 1983

Factor Items	Percent "Pass"	Factor Loadings
Factor 1. The "model student"		
Good student activity		.86
Parents very satisfied with grades	29	
Bought school yearbook	48	
Received honor or award	55	
Not at all uncomfortable with other race	87	
Academic performance		.83
Received grades of B or better	20	
Parents very satisfied with grades	29	
Self-rating of ability: B or better	41	
Plan to go to college	55	
School involvement		.51
Participated in more than two activities other than sports, music, band, chorus	13	
Bought a school ring	42	
Has not been suspended	61	
Phone and personal contact with other race	83	
School belonging		.40
Has both black and white friends	23	
Was part of leading crowd	43	
At least one best friend at school was white	71	
Felt he or she belonged at school	84	
School extracurricular participation		.35
Attended school social event	29	
Attended one school activity	39	
Participated in band or in varsity or nonvarsity sport	64	
Attended school game	74	
Friends supported respondent's interracial activities	90	-.50
Factor 2. Interracial school activity and dating		
Ever dated white person	19	.88
Interracial social activities		.80
Dated white person from school or went steady with white person	25	
After-school friends went to same school	38	
Attended pep rally or musical at school	90	
Ever went steady with white person from school	4	.58
School extracurricular participation (see Factor 1)		.40
School belonging (see Factor 1)		.34

Table 3.4 (continued)

Factor Items	Percent "Pass"	Factor Loadings
Factor 3. Integration into the school community		
Wore school button	35	.71
School identification		.64
Care if school wins in competition	39	
Had a school banner	57	
Had school clothing	47	
Had a lot of friends at school	86	
School extracurricular participation (see Factor 1)		.56
Friends supported respondent's interracial activities	10	.51
School belonging (see Factor 1)		.37
Perception of school race relations (see Factor 4)		.33
Considered school rules fair	72	-.52
Factor 4. Positive perception of race relations		
Liked school		.79
Almost no problems between blacks and whites at school	28	
Gave school a grade of A or B	58	
Liked principal	81	
Saw no problems with Project Concern		.69
Considered school rules fair	72	.52
Perceptions of school race relations		.49
Black students participate in everything		
Black and white students go steady	49	
Black and white students date	58	
Would go steady with a white	67	
School involvement (see Factor 1)		-.37

their faces, it was hysterical. What is this kid talking about, the ski club? It's a bunch of honkies gonna be there.

In contrast to this approach, we find that the student who is totally alienated from school receives a low factor score on this dimension. One such student told me of the things he did not like about school.

> We be watched all the time. They trying to bust us for some kind of thing. Like one time somebody stole $100 and I was called down and my friend was called down. And when I asked the assistant principle why he do that he said cause you're suspicious.

Factor 2: Interracial Sociability. The second factor identifies a group of students whose path to involvement in school is interracial socializing. A large part of high school student's activities are geared toward heterosexual socializing; these activities include dating, going steady, attending parties, and dances. Undoubtedly, the degree to which one is considered "popular" is both a reflection of and reflects the amount and type of heterosexual opportunities these young people experience. Thus, the second factor is a composite of types of social activities that all bear on the degree to which the respondents are appealing to, and have the opportunities to interact with, the opposite sex. The PC student receiving the highest factor score on this dimension was a black male who was, at the time of the study, dating a white girl from school. In addition, he reported that he was part of the leading crowd at school, participated in both varsity and non-varsity sports, and had attended numerous school events, including social events. Clearly, this type of individual typifies the PC student most well-integrated into the social life of the high school culture.

When Walter, the student with the highest factor score on Factor 2, was asked whether or not the social life of Project Concern students differed from students living in the community he replied,

> No, not really. Well, some of the time you wouldn't really see the girl you're dating as often as you would like, not unless you came out here every day. . . But you can do the same things that any other students do that live out here if you want to. You can do anything you want to do if you put your mind to it. So I would say there's no difference.

Only a small number of students, mostly male, are involved in interracial dating; only 4 percent of Project Concern high school students had ever gone steady with someone from their school. A more typical student is one with a low factor scores on this dimension, as

characterized by Vanessa, a black female who has never dated or gone steady with a white person. She typically spends her Saturday nights with friends from her neighborhood, rather than with schoolmates. She attends few school events, and does not go to school social gatherings. She participates in only one school activity, the multi-cultural club. By her own account Vanessa does not have a group of friends with whom she "hangs out" after school, and reports that she is not part of the leading crowd in school. When asked whether white and black students did similar things on dates she replied, "I don't know--maybe." Clearly her knowledge and experiences with respect to interracial sociability are limited.

Factor 3: School Involvement. This scale measures what is often called "school spirit". Without dating, students high on this scale nevertheless participate in a wide range of school activities, wear school sweaters and buttons and care about the fate of the school's teams. But interestingly, this group of students who are so highly involved in the school are the ones who are most likely to complain that school rules are unfair. Perhaps this is simply because they are so highly involved in the school that they are constantly brought into contact with the school rules--they are the ones who know from personal experience about all the regulations governing social activities, for example. It may also be that these students, because they are so well integrated into the school, are not threatened by expressing negative opinions about school rules. Since they are integrated into school, they can complain without raising the cognitively dissonant feelings they might feel if they complained without being integrated into the school and pleased with much of their social experiences there. (If this school is do bad what am I doing here?).

Students with high scores on this factor say that problems with school rules exist due to a lack of uniformity of school rules; the reason PC students experience difficulty at school is *not* because they are marginal students (after all, they do everything that white students do), but because the *school* (including administrators, teachers, and white students) is prejudiced. Blacks are picked on, the rules were made for and apply only to the white students, and black students often have difficulty conforming to those rules. The following quote from Ella, a student with a high score on this factor, is enlightening.

> Some of them's prejudiced--some students and some teachers...Like I had this teacher last year, she was prejudiced. If I talked I'd get in trouble, if a white student talked she'd just tell them to lower their voice..

Of course some of this perception of the unfairness of school rules comes from the problems experienced by PC students due to their busing situation. For instance, many PC students complained about the lack of flexibility shown by the administration to the problems associated with busing. Of particular concern to many PC students was the fact that they were usually penalized for coming to school late, which was easy to do particularly in cases where public transportation was used. Also in many cases, after-school detentions were difficult to attend. I spoke with one guidance counselor who expressed his concern over his school's use of "Saturday School" (a half a day of detention on Saturday morning for students with major discipline problems) as a punishment mechanism, and the particular problems Project Concern students had with such a policy. The counselor recognized the possibility of interpreting this type of punishment as a "covert effort" on the part of the school administration to place undue obstacles in the path of these students, since it was extremely difficult for most of them to get to school on the weekend.

Students with low factor scores on this dimension can be described as apathetic; they don't wear school buttons, nor do they have school banners or clothing with the school name on it. Michael was such a student. He reports that he doesn't care at all if the school wins in any type of competition, has few friends at school, doesn't go to school social events. He does not consider himself part of the leading crowd, nor does he want to be. None of his best friends at school are white. As can be expected, Michael does not feel as if he belongs at school. The group of people he spends most of his time with are all blacks from Hartford, and he simply doesn't know whether black and white students at school date or go steady with each other. In response to a question asking what the good things were about Project Concern, Michael replied, "There ain't none." When asked why he comes to school in the suburbs he told me, "My mother, she thinks I can get a better education here."

Yet Michael thinks the rules at school are fair. It appears as if students like Michael, those who do not become involved, do not blame the alienation they experience on something as trivial as unfair school rules.

Factor 4: Ideological Commitment to Integration. Finally, the fourth scale shows that it is possible for students to hold positive feelings about the school without being involved directly in its social life. These are students that we think of as having an ideological and impersonal commitment to desegregation. Rather than speaking of personally benefiting from the school, they talk in terms of minorities generally benefiting. The same pattern appears in many of the responses from the larger survey: when asked what the good things about Project Concern were, ex-students often talked about the program as being good for "Minorities" rather than good for themselves.

This factor indicates that those with a positive attitude toward school view blacks as an integral part of the school environment, but are less likely *themselves* to participate in many school activities. They are less apt to have a school ring, are more likely to have been suspended, and less likely to have contact with other schoolmates in person and on the phone. Perhaps because these students are in actuality less involved, they can afford to be more positive in their attitudes toward school and race relations. In other words, this attitude may very well be based on an ideological rather than a de facto commitment to desegregation.

Janice is a student with a high score on Factor 4. Her response to a questions concerning the good things about PC reflects this discontinuity between attitude and behavior. She told me the following:

> (It's good) that we get to come to school here. That we get bused out to different schools other than inner Hartford. Any school is good if you're going to learn, but they have more opportunities out here than they do in Hartford. I know I won't get along if I went to school with my own color... I think when I'm around my own color it's more problems. Because there's a lot of fighting. We don't have that here. *When I'm by myself I can do my work, but not when I'm with my friends. And out here you don't get to see your friends.*

Clearly Janice sees busing as offering her the opportunity to get a better education in an environment that is conducive to learning and where there is an absence of hostility.

The remarks made by Mae typifies students with high negative factor scores on this dimension.

> I think the school is prejudiced. I didn't want to come our here...it seems that some things are unfair. Like for example, two girls were being late for class. They're black, and it was a hallway full of other kids, and the principal didn't say anything to anyone else. He singled them out, which I don't think is fair. So a lot of rules which we have here aren't fair. It's like him...and this school does not do things that black people can get into. Like at our prom, we wanted to have a D.J. that could play white music and black music. But no, they (white students) didn't want this. They wanted a band, which we can't comprehend.

Yet Mae also identified several positive aspects of Project Concern. As she told me,

> I think it's good because it gives us an opportunity to get into a different environment. I think that by going out here it better prepares us for the outside world.

She also participates in several school activities, has a school ring, has not been suspended, and has both in-school and telephone contact with white students.

SUMMARY

The data identify one major area of discord associated with Project Concern, transportation arrangements, but indicate some degree of general satisfaction on the part of many of the high school students in the study. This is not to suggest that Project Concern has been, in the opinion of the students interviewed, a resounding success. The clinical observations based on the scaling of dependent variables and subsequent factor analysis clearly demonstrate both positive and negative components of the desegregation experience.

IV. CONCLUSIONS AND DISCUSSION

Project Concern provided several important benefits to black students. The first classes have finished school and we can conclude that compared to similar minority students who attended segregated Hartford city schools,

1. Male participants were more likely to graduate from high school. This is probably true for females as well, but the effect on females is weaker.
2. Male participants completed more years of college. (This is not true for females.)
3. Male participants perceive less discrimination in college and in other areas of adult life in Hartford (not true for females).
5. Participants have closer social contact with whites as adults, are more likely to live in desegregated housing, and had more friends in college.
6. Female participants were less likely to have a child before age 18.

However, participants in the program suffered some discomfort in exchange for these benefits. Half the males and nearly as many females left the program, often because of their social isolation. Most participants were in schools with only very few other black students, and the most commonly given reason for dropping out of the program was racial problems.

Transportation problems have always been serious, and recent cuts in service have aggravated this problem. Some of the black students in the program had problems with school discipline and were suspended or expelled. Those students who remain in the program speak highly of the suburban schools they attended.

We have established some links in the chain of reasoning which connects school desegregation to increased educational attainment for men. The desegregated men are more likely to finish high school and college because they perceive less discrimination in their environment, have less trouble with the police, and relate better to whites. Our data also explain why the effects should be weaker for females, since females do perceive less discrimination and are not less likely to get into trouble with the police, so these mechanisms will not operate to increase their educational attainment. There are, however, mechanisms which should work to increase female educational attainment. Women from desegregated schools are less likely to bear a child before age 18, and are more comfortable with whites. Why, then, do we not see an increase in college attendance for women from desegregated schools?

We do not know why desegregation does not lead to higher college attendance or graduation rates for women, but we think one problem may be a sex-bias in the suburban high school. Recall (in Section 3) that black male Project Concern students participate more in extracurricular activities and receive more honors in suburban schools than do similar students in central city schools; for women there is no difference between the two groups. After our interviews with students presently in suburban high schools, we were convinced that black males do have a better situation, mostly because the athletic teams black males play on are more prestigious than women's teams. It may also be that suburban teachers and counsellors help black males more than black females, but we have no data on this. We believe that suburban high schools should be concerned with providing all that is needed to help black females succeed in college.

There is an important irony in this analysis: black males, who benefit most from the Project Concern desegregation program, are more likely to drop out of Project Concern. We are not sure there is an easy answer here. Males (black or white) cause more trouble in school, are more likely to get suspended and black males are more likely to quit the program voluntarily, so it may be difficult to decrease their dropout rate. Nevertheless, it would serve the best interest of black students and the society if the black male dropout rate from Project Concern were

reduced. Over half of the male students entering the program in 1966-1971 finished their schooling outside of Project Concern. The dropout rate has not changed greatly, only 24 of the 69 present Project Concern high school students whom we interviewed were males.

Although we have no direct evidence on this point, it seems likely that modifications to the program could be made to encourage both male and female students to stay in Project Concern (through a better transportation policy, a better school discipline policy, or an increase in the number of students in the program so as to attain a critical mass of minority students to provide social support for students.)[1]

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[1] This is not a certainty. It may be that a program in which half the students drop out is in fact optimal; had policies been changed to encourage more of the dropouts to remain in suburban schools, their own rate of antisocial behavior might have remained as high or become even higher as a result of the change in policy. This does seem unlikely, but [redacted] a possible interpretation of the data which we cannot disprove.

V. APPENDIX A: EXAMPLES OF REGRESSION TECHNIQUES USED TO PRODUCE TABLES 2.1 AND 2.2

Table A.1 shows the regression equation used to create the fifth row of Table 2.1; it estimates the high school dropout rate for male Project Concern completers and control group students. The equation also contains coefficients for the two mixed groups: the Project Concern students who returned to the city schools or the control students who transferred (or moved) out of city schools. Table 2.1 summarizes this and 13 other regression equations to show the expected percentage of students at each level of educational attainment in what

Table A.1

MULTIPLE REGRESSION EQUATION, WITH HIGH SCHOOL DROPOUT RATE AS THE DEPENDENT VARIABLE, FOR MALES

	% of Cases	b	β
Control variables			
Parent's education		-.003	-.02
Home ownership		.106[a]	.11[b]
Presence of typewriter, encyclopedia, newspaper		-.074[a]	-.15
Number of siblings		.008	.05
Two parents		-.189[a]	-.20
Age		-.011	-.05[b]
2d grade vocabulary score		-.004	-.08
Independent variable: Desegregation experience			
Project Concern completed	20	-.20[a]	-.18
Project Concern dropped	22	.05	.05
Control: noncity schools	9	-.09	-.06
Control: city schools	49	(c)	(c)
Multiple r			.390

[a]Significant, $p < .05$, one-tailed test.

[b]Sign of coefficient is in unexpected direction.

[c]This dummy variable was omitted; regression coefficient is automatically zero.

we refer to as a simulated cross-tabulation. Table A.2 shows the exact calculations needed to estimate the high school dropout rates for statistically matched groups of Project Concern and control students. (Since the regression equation includes two mixed categories of experience with desegregation, this same formula can be used to estimate the corresponding line of Table B.1 in Appendix B which follows.)

Table A.2

COMPUTATION OF TYPICAL VALUE IN TABLE 2.1

The expected dropout percentage, D, for nonparticipants in Project Concern remaining in central city schools (from column b in Table A.1) is computed as follows:

$$D = \sum_{i=1}^{i=8} b_i \bar{X}_i + \sum_{j=8}^{j=11} b_j \bar{X}_j + C$$

where bi, bj = unstandardized regression coefficients

$\bar{X}_i$ = mean of ith background control

$\bar{X}_j$ = mean of jth desegregation experience (where 1 = in the category and 0 = not in the category)

$\bar{X}_1$ = mean years of education of parents

$\bar{X}_2$ = home ownership (0 = no, 1 = yes)

$\bar{X}_3$ = number of items (0,1,2,3)

$\bar{X}_4$ = number of siblings (0 to 9)

$\bar{X}_5$ = two parents (0 = no, 1 = yes)

$\bar{X}_6$ = age (negative of birth year)

$\bar{X}_7$ = second grade standard vocabulary score

$\bar{X}_8$ = 1 if entered and remained in PC, otherwise 0

$\bar{X}_9$ = 1 if entered PC but finished schooling in Hartford city school, otherwise 0

$\bar{X}_{10}$ = 1 if never in PC and finished in noncity school, otherwise 0

$\bar{X}_{11}$ = 1 if never in PC and finished in city school, otherwise 0 (this is the dummy variable that was excluded to prevent overdetermination; see fn c of Table A.1).

Table A.2 (continued)

$$D = \underset{b_1\bar{X}_1}{(-.003 \times 10.9)} + \underset{b_2\bar{X}_2}{(106 \times .41)} + \underset{b_3\bar{X}_3}{(-.074 \times 2.14)} + \underset{b_4\bar{X}_4}{(.008 \times 4.35)}$$

$$\pm \underset{b_5\bar{X}_5}{(-.189 \times .37)} + \underset{b_6\bar{X}_6}{(-.011 \times -1960.5)} + \underset{b_7\bar{X}_7}{(-.004 \times 46.7)} + \underset{b_8\bar{X}_8}{(-.201 \times 0)}$$

$$+ \underset{b_9X_9}{(.050 \times 0)} + \underset{b_{10}X_{10}}{(-.087 \times 0)} + \underset{b_{11}X_{11}}{(0 \times 1)} - 20.863 = .334$$

To estimate the dropout rate for Project Concern participants who remained in the program, change the $\bar{X}_8$ term to (.201 x 1) and the $\bar{X}_{11}$ term to (0 x 0); thus,

$$D = .334 - .201 = .134$$

The estimates .334 and .134 (rounded to .33 and .13) appear in the fifth row (male dropout) of Table 2.1.

VI. APPENDIX B: ANALYSIS OF SELF-SELECTION AND RESPONSE BIAS

This analysis hinges upon the comparison between students who have experienced desegregation and those that have not. The comparison is valid only if one can assume that the students who are desegregated do not differ from the segregated students in any way except for their desegregation. In the typical research study, one has little in the way of a guarantee that this is the case. For example, in a typical voluntary desegregation study, there is the possibility that students who volunteer for desegregated schooling come from higher income families. They may also be more highly motivated, or come from families which have generally provided more help to their children in their schooling. They may be students who are more talented in school work; or they may be the less talented students--those who have done badly in their segregated school, so that their parents search for desegregation as a device to rescue their child's education. Finally, the students who are voluntarily desegregated may be those for whom the logistics are more manageable--those from two-parent households, or those who live relatively close to the receiving schools.

Thus instead of the ideal situation where the desegregated students differ from the segregated students only in the fact of their desegregation, we instead have a situation where they differ on a variety of dimensions--some of them unknown to the researcher.

Typically the best techniques available to deal with this problem is some sort of statistical matching method--drawing pairs of subjects matched on earlier test scores and family characteristics or else artificially matching after the fact using analysis of covariance or multiple regression to adjust the scores of each group up or down to compensate for differences in background variables. But the techniques for adjustment to compensate for pre-test differences are themselves biased, typically underadjusting the data so that control variable differences persist in a concealed fashion in the final result (see Cook and Campbell, 1979, 295-300). If students in desegregated schools are higher in family background than the control group one would expect a

regression analysis to still show desegregated students learning more in desegregated schools after adjustment for pre-test differences have been made, even if this were not really the case. Equally important, researchers are unable to control for any unknown or unmeasured differences between the two groups.

The Project Concern experimental design gives us an opportunity to use stronger analysis methods. We have removed the effects of self-selection bias with two different analysis techniques, which we have called the "experiment participation method" and the "experimental assignment method."

The "experiment participation" approach is based on comparing all students who ever attended Project Concern schools (even if they later withdrew from the program), with students who never entered the program (even if they found some other route to a desegregated education). If the apparent high educational attainment of Project Concern alumni is entirely due to self-selection, then we should find that the high attainment of Project Concern alumni is entirely offset by the correspondingly low attainment of the Project Concern students who transferred back to city schools, and the educational attainment of the program "stayers" and "leavers" combined should be the same as the attainment of the control group.

In the "experiment participation" analysis we include in the Project Concern group students who entered the program but dropped out and returned to the central city schools and include in the control group students who were never in Project Concern but whose last school was desegregated (primarily these were Catholic schools and the high school in Bloomfield, as suburb where many black families moved in the 1970's). This approach is far stronger than the designs normally available to researchers. First, the fact that the students were randomly sampled means that even though we have not completely preserved the experimental design (since students who were originally selected randomly for Project Concern but never entered the program are not considered participants in this analysis; they are in the analysis which follows this one) there is still less self-selection bias in Hartford than there would be in a conventional voluntary school desegregation program.

In Table B.1, we summarized a regression equation in which participation in Project Concern is related to years of school completed in an equation controlling age, the students vocabulary score in the second grade, and seven family background variables (presence of two parents in the home, number of siblings, home ownership, mother's educational attainment, a scale built on the presence of an encyclopedia, a typewriter, and a daily newspaper in the home). In the regression equation, a dummy variable divides students into those who did and did not ever participate in Project Concern.

Table B.1

EDUCATIONAL ATTAINMENT AND PRESENT COLLEGE ATTENDANCE OF PROJECT CONCERN PARTICIPANTS, BY SEX

	Project Concern	Control Group
Males (in percentages)		
College graduate	5	4
2+ years of college	16	12
1 year of college	10	12
High school graduate	42	39
Dropout	27	32
Total	*100*	*100*
Mean years completed	*12.2*	*11.9*
Percentage now in college	*20*	*15*
Females (in percentages)		
College graduate	5	3
2+ years of college	12	14
1 year of college	12	17
High school graduate	51	42
Dropout	20	24
Total	*100*	*100*
Mean years completed	*12.2*	*12.2*
Percentage now in college	*13*	*23*

NOTE: Controlling on family background, age, and test scores.

The educational attainment of male Project Concern students is 12.2 years of schooling 0.3 years higher than the attainment of non-Project Concern students. Their high school dropout rate is lower, the rate at which they completed two or more years of college is higher, and their present college attendance rate is higher. None of these differences are significant but this does not greatly concern us. If there were no differences between Project Concern participants and the control group, we would have reason to dismiss our earlier conclusion as due to self-selection bias. The small differences shown here imply an effect of desegregation large enough to be of significance for social policy. (Our optimistic conclusion is reinforced by statistically significant results which appear in our second "experimental assignment" analysis in this appendix.)

This analysis underestimates the effects of Project Concern. A large number of male students who entered the program in 1966 dropped out after as little as three weeks or as much as ten years of suburban education, returning to the Hartford public schools. These students cannot be said to have received a complete treatment. Evaluating Project Concern partly on the basis of performance of students who were in the Program for only a brief time underestimates the program effect. A comparison between the treatment and control group is further weakened by the fact that a number of students who did not enter Project Concern were able to obtain desegregated schooling by enrolling in parochial schools, private nonsectarian schools, or through their family moving to Bloomfield. In using the "desegregation experience" approach we are comparing a "treatment group" of students, many of whom did not receive a desegregated education to a "control group" of students, some of whom did receive a desegregated education. Since there are more students in the treatment group who received desegregated schooling than in the control group, there is a viable comparison here; but one would expect the overall treatment effect to look very weak because of the impurity of the design.

The lower half of the table shows at most a weak effect of desegregation for female participants. The main difference between the male and female result is that there is no apparent desegregation effect

in enabling females to persist in college once they begin. Averaging Project Concern students who did and did not finish in the city schools, we find that only 17 percent completed two or more years of college, exactly the same percentage as did so among control students.

The data is ambiguous as the whether the effect of Project Concern on high school dropout rates is limited to males or extends to females as well. We saw on Table 2.1 an extremely low high school dropout rate of 9 percent for female students who remained in suburban schools after entering Project Concern. However, the high school dropout rate is quite high for the minority of female Project Concern students who returned to city schools: 37 percent do not receive a high school diploma. When program dropouts and program stayers are pooled in Table B.1, we find a 20 percent dropout rate for Project Concern students versus a 24 percent rate for control students. This 4 percent difference is considerably smaller than the 7 percent difference obtained for male students in the same anal sis. However, this is certainly not clear evidence that there is no effect. The results is not statistically difference from zero, but is also not statistically different from the 7 percent for males, which we believe reflects a genuine effect of Project Concern. Perhaps desegregation is having a beneficial effects on the high school dropout rate of females and perhaps it is not; it does seem very likely that the effects are weaker for females than for males.

We also have a second, more conservative approach available, the "experiment assignment" method. Here we simply compare every student who was selected to go into Project Concern in 1966 to every student in the control group; similarly, every student who was randomly selected to participate in Project Concern in 1968 and 1969 is compared to every student in the randomly selected control group; and finally, every student who entered the program ""voluntarily" is compared to every child a family attempted to enroll in the program. When this is done, dif nces in motivation should be minimized, especially for the two randomly selected groups. The advantage of this approach is that it preserves all the original random assignment in 1966 and 1968-69. Its disadvantage is that the Project Concern-control differences are underestimated compared to the true Program effect.

In table B.2 we show the educational attainment of respondents divided into the three substudies: the 1966 experiment, our constructed retrospective experiment of randomly sampled Project Concern students in 1968 and 1969, and students who voluntarily entered Project Concern. The first panel of the table is for males; the first row shows their simple (uncontrolled) educational attainment. The first 3 columns show the mean educational attainment of Project Concern students selected in 1966, the attainment of the 1966 control group, and the difference between the two. Columns 4 through 7 show the educational attainment of randomly sampled Project Concern candidates in 1968-69, randomly sampled Project Concern candidates who refused to enter the program, a control group of students randomly selected from the same grades from the same elementary schools, and the difference between the control group and the average of the Project Concern participants and refusers. Columns 8 through 10 show the attainment of Project Concern students who entered the program in what we consider a voluntary manner, either because they were randomly sampled in 1970-71, when the recruitment effort was less and hence the refusal rate higher, or those whose names we could not find on any list of randomly sampled students in Project Concern files. These volunteers are then compared to a control group of students who attempted to enter the program and the difference between the two groups is shown in Column 10. The second row of the table shows the expected educational attainment for each group of students derived from a regression equation in which age, second grade test score, and the seven family background variables are controlled. The data for males shows a strong positive desegregation effect in the voluntary substudy and in the 1966 experiment, which is the most rigorous of the designs, and its weakest effects are in the 1968-69 design, the design with the strongest bias in the data. When regression equations are used to control on background variables, the Project Concern effect in the 1966 experiment actually becomes slightly stronger, and the effects of Project Concern in the voluntary study remains very strong. The effect of selection for Project Concern in the 1968-1969 retrospective experiment drops from 0.40 years of schooling to 0.20 years. This drop was to be expected since this control group has lower socioeconomic status than the

Table B.2

EDUCATIONAL ATTAINMENT OF PROJECT CONCERN PARTICIPANTS WITH AND WITHOUT FAMILY BACKGROUND CONTROLS, BY SEX

	1966 Experiment Substudy			1968-1969 Experiment Substudy				Volunteer Substudy			
	PC (%)	Control (%)	Difference	PC (%)	Refused (%)	Control (%)	Difference	PC (%)	Control (%)	Difference	Overall Effect
Males											
Uncontrolled	12.7	12.1	(.57)	11.9	12.3	11.8	(.40)	12.3	11.3	(.98)	
Controlled	12.4	11.6	(.78)	12.0	12.4	12.0	(.20)	12.4	11.4	(1.01)	(.42)*
(Percentage of cases)	(12)	(9)		(14)	(12)	(30)		(16)	(8)		
Females											
Uncontrolled	12.5	12.7	(-.19)	12.5	12.7	11.8	(.80)	12.1	12.2	(-.13)	
Controlled	12.1	11.7	(.39)	12.5	12.4	12.2	(.19)	12.1	12.3	(-.18)	(.12)
(Percentage of cases)	(9)	(9)		(13)	(11)	(31)		(19)	(9)		

NOTE: Students selected for Project Concern have completed significantly more years of school; this is true for both sexes combined and for males alone.

*$p < .05$, one-tailed ($t = 1.96$).

students selected for Project Concern.

In a separate regression equation the males selected for Project Concern in all three substudies were pooled and three control groups pooled; with the standard control variables, the estimated effect of being selected by Project Concern is 0.42 years of schooling, which is statistically significant with a one-tailed test, $p < .05 (t=1.96)$. This value is shown in parentheses in the far right column of the second row. (Because program assignment is not unbiased, the control variables do affect the estimate, raising the possibility that our effects are overestimated due to inadequate control variables; however, the effect of the controls is to reduce the apparent program effect by only 9 percent (.46 to .42), so it does not seem likely that either new or improved control variables would reduce the estimate a great deal.) The estimate of 0.42 is slightly larger than we expected, since the difference between Project Concern participants and the controls using the less conservative desegregation experience method of Table B.1, was only 0.3 years.[1]

In one other regression equation (data not shown in the table) we found that the pooled group of students selected for Project Concern has a high school dropout rate of 22 percent, compared to 36 percent for those not assigned to the program, again net of the seven control variables; the effect is significant, $p < .05$ one tailed ($t=2.37$).

In the lower part of Table B.2 we see a similar analysis for females which shows that Project Concern produced only a weak increase in mean educational attainment. The first row, showing data with no controls, indicates that in the 1966 substudy and the voluntary substudy, the control groups had higher educational attainment than did the students selected for Project Concern. The only apparent positive effect in the 1968-69 study where the females selected for Project Concern had 0.8 more years schooling than their control group. The

[1] The 0.42 effect is partly inflated because of the inexplicably high attainment of the students whose parents refused to volunteer them for the program in 1968-69. If we assume that their attainment, 12.4 years, is inflated by sampling error and, arbitrarily reduce it to 12.0, equal to the attainment of both the Project Concern group and control group for the 1968-69 substudy, we would reduce the overall apparent effect of Project Concern across all three substudies from 0.42 to 0.33.

second row shows the expected level of schooling for each group derived from the regression equation with age, second grade scores, and family background variables controlled. Here we see that the strong positive effect of Project Concern which appears in the 1968-1969 retrospective experiment is largely explained by the background differences between the students. The apparent effect of Project Concern drops from 0.8 years to 0.19 years; since our equation does not include all reasonable control variables (and those present are imperfectly measured) the fact that the effect declines to one quarter of its original size strongly suggests that with a more complete set of better measured control variables the effect might very well become zero. The introduction of controls reverses the apparent effect in the 1966 experiment, showing a noticeable effect apparently favoring Project Concern students, but introducing controls has no impact upon the voluntary study which still shows a slight negative effect of Project Concern. The regression equation pooling all three substudies (again reported in the second row of the last column) shows an overall impact of assignment to Project Concern of only 0.12.

The experimental assignment methods yields an estimate of the treatment group-control group difference which is much smaller than the true effect of desegregation. In the 1968 group half of the selected students never entered at all. Since they were randomly sampled, in order to preserve the experimental design it is necessary to include them with the students who did attend the suburban schools; but obviously the overall effect of desegregated education is weakened if those students who did receive a suburban education is diluted both by students who attended and dropped out rather quickly and a large group of students who never attended at all.

There is a second bias in the educational attainment data. The educational attainment effects of Project Concern are exaggerated in the survey due to a bias of nonresponse. Pooling males and females together, we find that all students who ever entered Project Concern have a 27 percent high school dropout rate compared to a 42 percent dropout rate for students who were either in the control group or refused the opportunity to participate in 1968-1969. However, about 1/4 of this difference is removed when instead of using data from the

responding members of the sample we used the entire population. There we find that nonparticipants in Project Concern have a 46 percent high school dropout rate while participants have a 35 percent dropout rate. Since this 11 percent decrease in the dropout rate is only three fourths as large as the difference (42 percent - 27 percent = 15 percent) found in the survey sample, we conclude that sample bias causes us to overestimate the effect of desegregation on the reduction of the dropout rate by one-fourth.

It is difficult to arrive at an estimate of the effect of desegregation on male achievement. If there were no self-selection, then desegregation would raise educational attainment to the level shown for Project Concern completers in Table 2.1, 12.7 years, 0.8 years higher than the control group. But this is an overestimate. At the opposite extreme, estimates based on the differences shown between Project Concern participants and Control students (0.3 years) or from the analysis of the seven Experimental assignment categories (0.42 years) are both too low, since they assume those who do not participate (or who left the program early) would not have benefited if they had entered (or not left) Project Concern. If we assume, for the sake of example, an effect slightly above the two low estimates of 0.3 and 0.42 years (and well above the value obtained in Table 2.1 of 0.8 years), we are led to conclude that Project Concern decreased the high school dropout rate from 32 percent to 19 percent, and increased the number of students receiving two or more years of college from perhaps 21 percent to perhaps 32 percent.[2] These estimates are based on a host of assumptions, any of which could be modified; but any reasonable set of assumptions will show non-trivial effects.

SELECTION BIAS IN EFFECTS ON OTHER OUTCOMES

The "experimental participation" analysis of the other outcomes of desegregation appears in Table B.3; the "experimental assignment" analysis appears in Tables B.4 and B.5. Table B.3 shows that Project Concern men's perception of college discrimination is significantly

[2] We assume 1/3 of those now in college have not yet but will receive 2 years of schooling. This is 5 percent of the control group and 8 percent of the students in Project Concern.

Table B.3

DELINQUENCY, PERCEIVED DISCRIMINATION, AND CONTACTS WITH WHITES OF PROJECT CONCERN PARTICIPANTS, BY SEX

	Ever in Project Concern	Control Group
Males		
Perceived college discrimination (%)		
Uncontrolled	50	55
Controlled	48	57
Perceived discrimination generally (scale)		
Uncontrolled	7	25
Controlled	6[a]	26
Police/violence (scale)		
Uncontrolled	.25	.31
Controlled	.26	.31
Contact with whites (scale)		
Uncontrolled	.55	.46
Controlled	.57[a]	.46
Moved into white residential area (scale)		
Uncontrolled	.47	.39
Controlled	.49	.36
Had few friends in college (%)		
Controlled	21	32
Uncontrolled	25	32
Females		
Perceived college discrimination (%)		
Uncontrolled	16	15
Controlled	19	16
Perceived discrimination generally (scale)		
Uncontrolled	.50	.52
Controlled	.48	.50
Police/violence (scale)		
Uncontrolled	.10	.13
Controlled	.14	.12
Bore child before age 18 (%)		
Uncontrolled	18	26
Controlled	20	24
Contact with whites (scale)		
Uncontrolled	.43	.42
Controlled	.44	.40
Moved into white residential area (scale)		
Uncontrolled	.52	.42
Controlled	.55[a]	.39
Had few friends in college (%)		
Uncontrolled	18	35
Controlled	18[a]	34

NOTE: Controlling on family background, age, and test scores.

[a] $r < .05$, one-tailed test.

Table B.4

DELINQUENCY, PERCEIVED DISCRIMINATION, AND CONTACT WITH WHITES OF MALE PROJECT CONCERN PARTICIPANTS

	1966 Experiment Substudy			1968-1969 Experiment Substudy				Volunteer Substudy			
	PC	Control	Difference	PC	Refused	Control	Difference	PC	Control	Difference	Overall Effect
Police/violence (scale)											
Uncontrolled	.34	.36	(-.02)	.25	.30	.41	(-.14)	.18	.29	(-.11)	(-.04)
Controlled	.31	.32	(-.01)	.25	.31	.29	(-.01)	.22	.39	(-.16)	
Perceived college discrimination (%)											
Uncontrolled	0	12	(-12)	14	30	28	(-7)	7	24	(-17)	(-15)
Controlled	0	8	(-14)	16	31	30	(-8)	11	23	(-12)	
Perceived discrimination generally (scale)											
Uncontrolled	.55	.51	(.04)	.48	.69	.53	(.05)	.47	.52	(-.05)	(-.01)
Controlled	.54	.54	(0)	.46	.67	.54	(.02)	.45	.56	(-.11)	
Contact with whites (scale)											
Uncontrolled	.42	.50	(-.08)	.55	.45	.46	(.04)	.65	.41	(.24)	(.09)
Controlled	.40	.44	(-.04)	.57	.48	.47	(.06)	.68	.37	(.31)	
Moved into white residential area (scale)											
Uncontrolled	.38	.54	(-.16)	.58	.31	.40	(.06)	.44	.35	(.09)	(.06)
Controlled	.34	.41	(-.07)	.64	.36	.41	(.10)	.49	.25	(.24)	
Had few friends in college (%)											
Uncontrolled	13	23	(-10)	27	33	26	(4)	20	47	(-27)	(-01)
Controlled	13	20	(-7)	30	36	24	(9)	23	39	(-16)	
Percentage of cases	12	9		14	12	30		16	8		

Table B.5

DELINQUENCY, PERCEIVED DISCRIMINATION, AND CONTACT WITH WHITES OF FEMALE PROJECT CONCERN PARTICIPANTS

	1966 Experiment Substudy			1968-1969 Experiment Substudy				Volunteer Substudy			
	PC	Control	Difference	PC	Refused	Control	Difference	PC	Control	Difference	Overall Effect
Police/violence (scale)											
Uncontrolled	.11	.09	(.02)	.10	.14	.13	(-.01)	.11	.25	(-.14)	
Controlled	.08	.09	(-.01)	.09	.07	.06	(.02)	.13	.22	(-.09)	(.00)
Perceived college discrimination (scale)											
Uncontrolled	.09	.50	(-.41)	.11	.10	.09	(.01)	.22	.12	(.10)	
Controlled	.07	.47	(-.40)	.12	.06	.11	(-.02)	.21	.12	(-.09)	(-.07)
Perceived discrimination generally (scale)											
Uncontrolled	.36	.48	(-.12)	.56	.54	.49	(.06)	.51	.56	(-.05)	
Controlled	.34	.41	(-.07)	.58	.56	.50	(.07)	.53	.51	(.02)	(.02)
Bore child before age 18 (%)											
Uncontrolled	21	14	(7)	15	7	35	(-24)	17	23	(-6)	
Controlled	19	21	(-2)	15	11	27	(-14)	19	27	(-2)	(-8)
Contact with whites (scale)											
Uncontrolled	.67	.51	(.16)	.43	.32	.44	(-.07)	.33	.29	(.04)	
Controlled	.58	.39	(.19)	.46	.30	.48	(-.10)	.36	.31	(.05)	(-.01)
Moved into white residential area (scale)											
Uncontrolled	.74	.30	(.34)	.42	.31	.48	(-.11)	.42	.42	(.00)	
Controlled	.69	.23	(.46)	.42	.28	.53	(-.18)	.46	.43	(.03)	(.05)
Had few friends in college (%)											
Uncontrolled	22	0	(22)	22	23	45	(-23)	13	48	(-35)	
Controlled	14	0	(14)	28	22	48	(-23)	13	50	(-37)	(.17)
Percentage of cases	9	9		13	11	31		19	9		

lower than that of the control group.

The evidence from the experimental assignment analysis is mixed but encouraging. In Tables B.4 and B.5 , we see a clear effect favoring Project Concern for the voluntary substudy, but not for the 1966 substudy. Data for the 1968-9 substudy is ambiguous, since Project Concern participants have low perceptions of discrimination but Project refusers have a very high rate (perhaps having inherited from their parents the suspiciousness that caused their parents to refuse to enroll them in the Project 15 years earlier?). The analysis presented in the body of this report finds that desegregated school experience has no effect on women's perception of discrimination; Tables B.3, B.4 and B.5 agree.

There is a sizeable difference in the police contact/aggression scale scores of students who remained in Project Concern and those who dropped out or returned to city schools, suggesting a strong self-selection bias in the analysis. However, Table B.3 shows that when Project Concern dropouts are included with program completers of Project Concern participants, there is still a difference favoring Project Concern male students: Project Concern students score 26 on this scale compared to 31 for the control group, after social class, age, and second grade achievement scores have been entered as controls. This difference is not significant. (With an effective random sample of 253 males, $p < .07$ one tailed.) Despite this, we believe that desegregation probably does reduce difficulties with the police and with violence; the difference here represents a 20 percent reduction in difficulty, and we think that with a larger study a significant effect would have appeared.

If we momentarily suspend our reservations about this non-significant finding, we have another difficulty; what estimate shall we make of the effect of desegregation on trouble with the police and with violence? The effect estimated from comparing only the Project Concern completers to the control group who finished in city schools in Table 2.2, 15 percent, is clearly an overestimate, but at the same time the estimate derived from including all Project Concern dropouts, 6 percent, is no doubt too conservative. Students who have withdrawn from the program presumably cannot get all its benefits.

Tables B.4 and B.5 analyzes the data in terms of student assignment to the initial experimental design. The results for males indicate that after controls for family background, age and early test scores, there is a very weak program effect for the 1966 experiment and the 1968-69 substudy and very strong effects for the voluntary substudy. The overall difference between the students assigned to Project Concern, including refusers, and those assigned to control status is 4 percent, a result whose magnitude is consistent with the results in Table B.3.

The seventh and eighth rows of the bottom panel of Table B.3 show that female participants have a lower rate of teenage childbearing than do the two control groups when they are combined--a rate of 20 percent for the Project Concern group versus 25 percent for the control group. In Table 3.5, when we examine the relationship between childbirth before age 18 and membership in each design category, we find a significant 8 percent reduction in childbirth for students initially assigned to Project Concern ($p < .05$, one-tailed, $t=1.67$).

Table B.3 also shows data on various measures of interracial relations. For both males and females, having participated in Project Concern is associated with higher rates of contact with whites, greater likelihood of househunting in white neighborhoods and lower rates of complaining about lack of friends in college.

Two of the findings in Table B.3 are significant: effects on the "contact with whites" scale for males, and the "moved into white residential areas" scale for females. In Tables B.4 and B.5, if we look at all six male outcome variables and at four female outcome variables (childbirth before age 18, contact with whites, moving into white residential areas and having friends in college) we find that 22 of the 30 differences are in the predicted direction. One variable, perceived discrimination generally for males, shows a difference in the expected direction in only one substudy; six other outcomes show effects in the predicted direction in two substudies, and in three cases (contact with police and perceived college discrimination for males, and early childbearing for females) the results are as predicted in all three substudies. We also are encouraged by the fact that the results when the family background and second grade test scores are controlled shows

a pattern which is very similar to that obtained before the control variables are introduced. This suggests that the control variables are having relatively weak effects and are not strongly correlated with the design categories. This in turn implies that problems of multicollinearity and regression effects are not of great importance.

We conclude that the following apparent effects of desegregation on minority students show one or more statistically significant effects after self-selection bias is removed, and therefore cannot be explained as the results of self-selection bias:

- male high school dropout rates
- male college retention rates
- male perception of college discrimination
- male contact with whites
- female childbearing before age 18
- female househunting in predominantly white neighborhoods
- female complaints of few friends in college

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