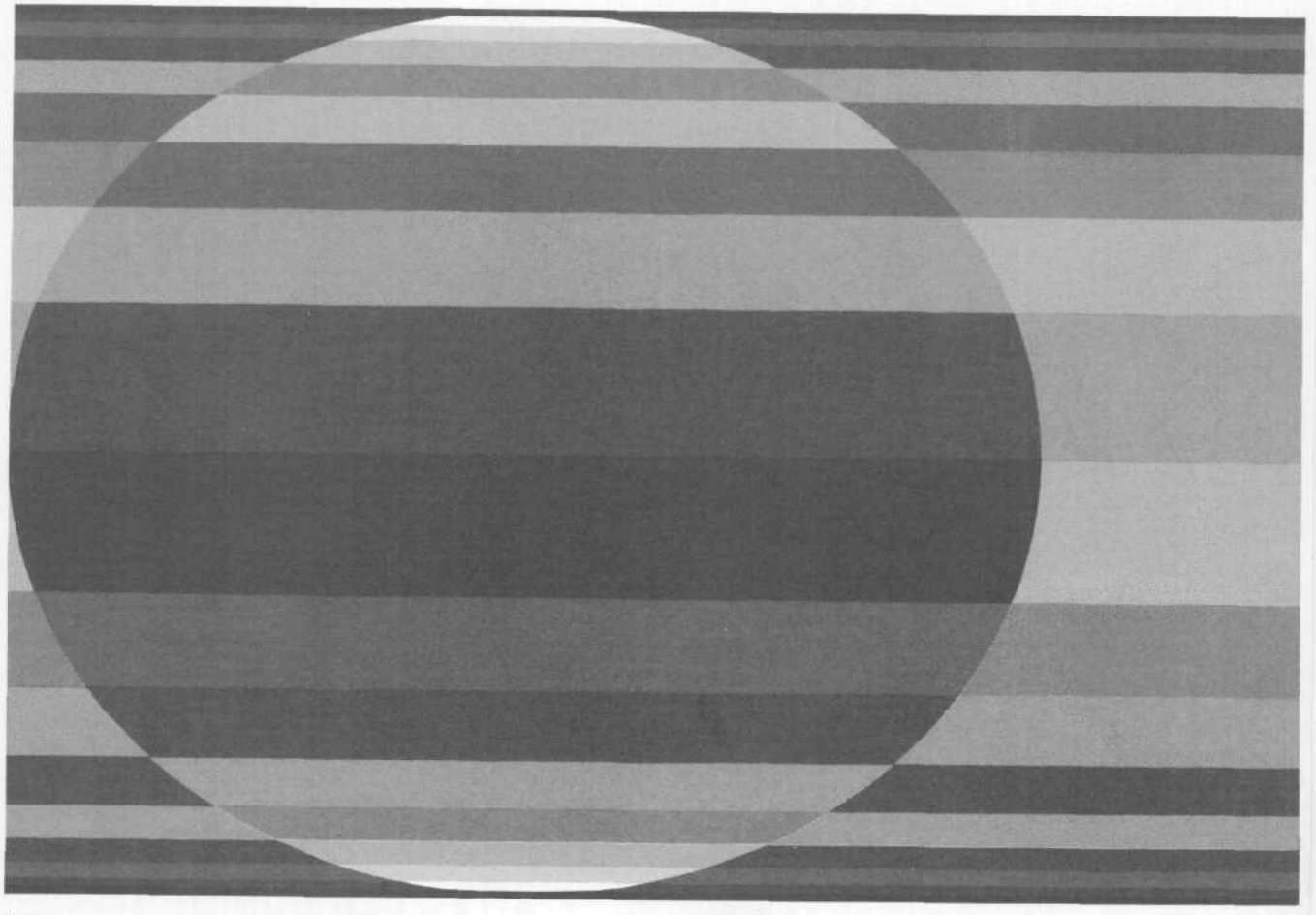
BACKGROUND PAPER

Inequalities in the Educational Experiences of Black and White Americans

September 1977



Congress of the United States
Congressional Budget Office
Washington, D.C.

INEQUALITIES IN THE EDUCATIONAL EXPERIENCES OF BLACK AND WHITE AMERICANS

The Congress of the United States
Congressional Budget Office

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NOTE

Throughout this paper, unless otherwise noted, the term white applies to Caucasians, including those of Hispanic heritage. The term nonwhite applies to blacks (which may include some persons of Hispanic heritage), American Indians, and Orientals. Whenever possible, data for blacks were separated from those for other nonwhites in order to focus specifically on their experiences.

PREFACE

Inequalities in the Educational Experiences of Black and White Americans is part of a series of studies undertaken by the Congressional Budget Office to examine the causes of and possible remedies for racial inequalities. The paper was prepared at the request of Parren J. Mitchell, Chairman of the House Task Force on Human Resources and Louis Stokes, Chairman of the House Budget Committee Task Force on Community and Physical Resources. Topics of the related papers include inequalities in health and wealth.

This study was prepared by Steven Chadima and Richard Wabnick of CBO's Division of Human Resources and Community Development, under the supervision of David S. Mundel and Robert D. Reischauer. The authors wish to thank Cheryl Smith, David Allen, Carlene Crumpton-Bawden, Arnold Mitchem, and Nathaniel Thomas for helpful comments and assistance. The manuscript was prepared for publication under the supervision of Johanna Zacharias with the assistance of Tricia Knapick. Special thanks go to Betty Ingram, Jill Bury, and Martha Anne McIntosh for their patience and skill throughout the production of this paper.

In keeping with CBO's mandate to provide nonpartisan and objective analysis, this paper offers no recommendations.

Alice M. Rivlin
Director

September 1977

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SUMMARY

The inequalities in the educational experiences of blacks and whites are widely known. Black students tend to have lower grade point averages in school than do white students, and they are suspended more often and for longer spells than whites. Fewer black students remain in secondary schools beyond the compulsory attendance age, fewer graduate from high school, and fewer attend college and graduate school. A recent examination of the nation's 17-year-olds by the National Assessment of Educational Progress revealed that 92 percent of white children but only 58 percent of black children were functionally literate.

Partly as a result of these educational inequalities, the postschooling experiences of blacks and whites are dramatically different. The unemployment rate among blacks is nearly twice that of whites. In recent months, nearly 40 percent of all black teenagers who are looking for work have been unemployed. Even with governmental cash assistance included as income, more than one-fourth of all black families remained in poverty in 1975, compared with less than 8 percent of white families.

This admittedly bleak situation is nevertheless an improvement over that of recent years. The differences between the number of years of schooling completed by blacks and whites has been narrowing. Among persons born in the early 1900s, black males completed about seven years of school while white males completed around 10.5 years. The school attainments of persons born about 25 years ago, however, are far more similar: black men have completed an average of just less than 12 years of school, while white men have completed just over 13 years. While there are no accurate data available on degrees attained, one indicator suggests that twice the percentage of blacks are completing four or more years of college now than 15 years ago.

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FACTORS THAT MAY CONTRIBUTE TO DISPARITIES

In elementary-secondary education, the inequalities in the school experiences of blacks and whites have been attributed to four major factors: differential school resources, segregated schooling, the inappropriateness of standard programs for minority pupils, and other, nonschool factors. Studies of these major hypotheses almost uniformly conclude that differences among children's family backgrounds and the social and economic characteristics of their communities are the most significant factors in explaining inequalities.

Nearly every major study of the effects of differential school resources on student achievement has concluded that there is very little tie between the two. Once other factors, such as family background and the influence of peers, are considered, knowing the amount and kind of resources in a child's class helps very little in predicting how well he or she will do in school. However, the availability of supplementary compensatory education generally has not been considered in these studies; such compensatory programs may provide enough of the right resources to make a difference.

Segregated schooling, per se, appears to have negative effects on black children. A majority of reliable studies examining the effects of desegregation on the achievement of black and white children have noted increases in the achievement of black students with no measurable effect on whites. However, most of these gains have been attributed to factors (such as teachers' attitudes) that are very difficult to measure.

The appropriateness of standard school programs for many black students is often questioned. As mentioned previously, most of the differences between the performance of blacks and of whites in standard school programs can be explained by socioeconomic factors. Economically disadvantaged children, a disproportionate number of whom are black, often come to school with fewer of the skills their more advantaged peers have assimilated from their home environments or preschool experiences. These differences are often compounded in the schooling process. Consequently, many disadvantaged students never meet their full educational potential in a system geared toward the so-called "average" student. Compensatory programs are often needed to combat these initial disadvantages.

At the postsecondary level, researchers have concluded that two factors (which have been measured) appear most important in influencing attendance: family income and academic proficiency. Other factors, such as motivation, have been suggested as strongly influential, but these have been insufficiently studied to draw implications for policy decisions.

The differences in family income between blacks and whites have a dramatic influence on the overall rate of attendance of both groups. Within given ranges of family income (e.g., $0-$7500, $7500-$10,000) black students almost always enroll at rates equal to or greater than white students. However, because the majority of black students fall in lower income brackets, in which rates of attendance are lower for all students, the average enrollment rate of blacks over all income groups is less than that of whites.

The differences in measured academic proficiency of blacks and whites have a similar effect on college enrollments. If students are divided into groups according to achievement in high school (measured by grade point average), blacks and whites enroll in college at nearly the same rates. However, because more black children tend to fall into lower achievement groups, their overall rate of enrollment is lower than that of whites.

THE FEDERAL RESPONSE

The Congress has enacted few laws that directly address these black/white differences. However, during the last 12 years, new programs aimed at students from low-income families have had the effect of disproportionately assisting black children and thereby indirectly addressing racial differences.

In preschool education, the major federal program of support is Head Start. About half of the children served in this program are black, and at least 90 percent are supposed to come from poor families (about two-thirds actually do, according to a recent report by the General Accounting Office). Recent evaluations have revealed that enrollees have made substantial achievement gains on their nonparticipating peers. In addition, after enrollment in elementary school, they have had to repeat the same grade less often and have needed less special assistance.

At the elementary-secondary level, the Congress has enacted two major programs of support: Title I of the Elementary and Secondary Education Act and the Emergency School Aid Act (ESAA). In addition, special programs for the disadvantaged are authorized through the Vocational Education Act.

Title I provides compensatory education assistance for low-achieving children who attend schools in areas with concentrations of families in poverty. Program regulations require that Title I schools receive the same amount of nonfederal school resources as other schools in a district so that Title I funds will provide supplemental services for these disadvantaged children. A major series of evaluations of the Title I program is in progress, but early results as well as previous studies indicate that Title I children are gaining on their higher achieving peers during the school year, though much of these gains may be lost over the summer months.

The ESAA program assists school districts with special needs associated with desegregation efforts. Evaluation results indicate that the process of distributing funds has benefited the most needy schools and students. While achievement gains have been noted for students in ESAA schools, further study of these claims is in progress.

Federal vocational education funds provide special assistance for disadvantaged students through two programs: a special set-aside of funds from the basic vocational education grant to states, and a separately appropriated program of special vocational assistance to disadvantaged students. The percentage of black students in these programs is about twice that in regular vocational programs. However, recent evaluations of these vocational programs have questioned their effectiveness.

In postsecondary education, most federal funds are directed at need-based student aid programs with some funds going to institutional aid. The student aid programs include Basic Grants, Supplemental Grants, Guaranteed Loans, Direct Loans, and College Work-Study. Two major programs help postsecondary institutions. One, Strengthening Developing Institutions (Title III of the Higher Education Act), supports schools that need financial bolstering to reach their academic and managerial potential. The other, Special Programs for Students from Disadvantaged Backgrounds, offers remedial counseling, information, and referral services through Talent Search, Upward Bound Special Services, Educational Opportunity Centers, and newly authorized service learning centers.

About half of all federal postsecondary student assistance funds will go to students from families with incomes lower than $7,500 in fiscal year 1977. An additional 20 percent will go to self-supporting students who generally also have low incomes. This targeting of federal aid has undoubtedly funneled substantial assistance to needy minority students. While the precise magnitude of the effect of federal aid is unknown, it is noteworthy that the percentage of 18- to 24-year-olds from families with incomes under $6,000 enrolling full time in college has increased since 1970, while the percentages for students from all other income groups have declined slightly.

Except for the Upward Bound program, institutional assistance programs have, in general, not received high marks from evaluation studies. The Strengthening Developing Institutions program lacks solid eligibility criteria; Talent Search has not clearly defined its target population; and Special Services has not significantly improved the academic performance of its clients. Upward Bound has shown some measurable success in improving the chances that students will graduate from high school, but the postsecondary aspects of the program (enrolling and retaining students) have yet to be tested.

IMPACT OF FUNDING CHANGES

Because each of the foregoing programs is oriented toward a different set of goals, it is hard to compare the effects of funding changes across programs in terms of final student outcomes. However, it is useful to note the effect of funding changes on both the number of students served and on the proportion who are black. The Summary Table (see pages xv and xvi) describes the effect of an additional $100 million in each of these program areas.

In elementary-secondary education, most federal programs serve only a small part of the eligible population. In the Head Start preschool program, an additional $100 million would provide full-year services for an additional 66,000 children. About 15 percent of the eligible population are served at present; an additional $2.5 billion would be needed to serve this group fully. Each $100 million added to the Title I program could provide services for an additional 265,000 regular school year or one million summer school students, or raise per pupil spending by about $19. Providing summer programs to combat achievement

losses for 50 percent of the regular school year Title I students who could be expected to participate would require about $275 million. To serve fully the eligible student population in eligible schools with regular school year programs would require an additional $2 billion over fiscal year 1977 appropriations. An additional $100 million in ESAA funding would extend support to school districts with applications on file but unfunded at present spending levels, or might serve 100,000 to 160,000 students through the magnet school program. An additional $100 million in vocational education funding would not likely add to the level of services unless earmarked for disadvantaged students.

In postsecondary education, the impact of funding additions is somewhat more complicated. Final spending decisions would require additional program decisions on how new funds were to be used, or would depend on the actions of persons outside the federal government such as financial aid officers or bank lending officers. More spending for student aid programs would likely help a group more affluent than the current set of recipients. However, student financial aid officers could use additional student aid funds to recruit more low-income students, but the extent of this possible effect is unknown. For institutional assistance programs, an additional $100 million institutional assistance programs would significantly expand these efforts. Such an increase would almost double the number of colleges participating in the Title III program and would more than double the number of students being served by the Trio programs (Talent Search, Upward Bound, and Special Services).

In general, however, funding increases would assist black students substantially, though probably to a lesser extent proportionally than do the dollars currently expended. Absolute levels of services to black students would remain high. But in no case does the current state of research permit an estimate of how much a program would close the educational gaps between blacks and whites. The educational process is so complex that federal efforts cannot alone achieve the goals of equality. Only if financial resources are accompanied by a strong commitment to high quality educational programs by both parents and school personnel will the experiences of blacks and whites begin to become more similar.

MAJOR FEDERAL EDUCATION PROGRAMS DISPROPORTIONATELY ASSISTING BLACK STUDENTS

Program	Fiscal Year 1977 Appropriation (in millions of dollars)	Number of Recipients	Percent Black	Dollars Per Student	Effect of An Additional $100 Million
Head Start	475	349,000	50	1,505 a/	Would serve an additional 66,000 in full-year programs at current per child spending rates.
ESEA, Title 1	2,285	5,605,000 b/	34	377	Would either increase per pupil spending from $377 to $396 or add 265,000 new regular year pupils, or open one million summer school slots, or some combination of these.
Emergency School Aid	275	2,200,000 c/	40-60	125 d/	If added to state apportionment program, would fund districts with application levels; if added to other area, e.g., magnet schools, would add students not served in regular LEA programs (OE estimates 50,000-80,000 new students per $50 million in magnet schools).
Vocational Education	612	16,000,000	15 e/	38	Would increase federal subsidy to $44.50. Would not likely add to number of students served or level of service, unless earmarked for special programs.
Student Assistance: Basic Grants	1,904 f/	1,975,000	27 g/	911	Could raise ceiling $100 reaching new middle-income eligibles; tighten contribution schedule by reducing income breakpoint to $3,000 increasing under $10,000 incomes share of funds by 3 percentage points; loosen contribution schedule with opposite effect.

a/ Full-year cost for 292,000 children; the 46,000 children in summer programs are served at $175 per child.

b/ Includes children served by state agencies as well as by local educational agencies (LEAs).

c/ Excludes students served by educational television (3,218,056) and counts only once students served by more than one ESAA project.

d/ Ranges from $50 to $1,000 per student, depending on program and characteristics of LEA or nonprofit group sponsoring services.

e/ 15.1 percent of total vocational students are black; however, about 30 percent of students in special programs for the disadvantaged are black.

f/ Available funds total $1,700 million.

g/ Estimated.

(Continued)

Program	Fiscal Year 1977 Appropriation (in millions of dollars)	Number of Recipients	Percent Black	Dollars Per Student	Effect of An Additional $100 million
Supplemental Grants	250	445,000	54 h/	562	At current average award would serve 178,000 more students of which about 40 percent would be low-income dependent students.
College Work-Study	390	891,000	26 h/	525	At current average award would aid 229,000 additional students -- 30 percent to students from low-income families.
Direct Loans	311	834,000	23 h/	690 j/	At current average loan would disburse 159,000 more loans -- over 20 percent to students from low-income families.
Guaranteed Loans	357	866,000	14 i/	1,210 j/	Increased subsidy commitments of $100 million would require the disbursement of about 970,000 new loans at the current average amount; new subsidy provisions suggest that these loans would go to middle- and upper-middle income families.
Institutional Assistance:					
Developing Institutions	110	758,000 k/	35 l/	145	About twice the number of institutions would be served with significant expansion at urban institutions.
Special Programs for Disadvantaged	85	275,000	50	309	About 324,000 new eligibles could be served.

h/ These are Fiscal operations data from fiscal year 1973. They probably overstate the percent of blacks served in each year since the inception of Basic Grants.

i/ Survey estimate for fiscal year 1973.

j/ Average loan per borrower.

k/ Enrollment at Title III schools.

l/ Percent of enrollment at Title III schools.

CHAPTER I. INTRODUCTION

The concept of educational equality has been widely discussed in the last quarter century. Since the landmark 1954 Supreme Court decision in Brown v. Board of Education, there has been considerable debate over the measurement of and remedies for the differing educational opportunities and experiences of the various racial, ethnic, and socioeconomic groups in the United States.

Two major reasons underlie the national concern for educational equality. First, the opportunity for a quality educational experience for everyone is directly desired -- that is, regardless of the ultimate value of an education, many seek an equal opportunity in the educational system as an end in itself. Second, educational equality is sought because of its role as a contributor to greater equality in other areas of American life -- income, employment, and social and political influence among racial and ethnic groups.

That nonwhites and whites have unequal postschooling experiences is not a point of contention in current debate. For example, the unemployment rate of nonwhites has traditionally been about twice that of whites. The incomes of blacks and whites also differ substantially. In 1975, the median black nonfarm family income was $8,871; the median white nonfarm family income was $14,391. In that same year, 27.1 percent of black families had incomes below the official poverty level, while only 7.7 percent of white families were so situated. 1/ These differences result not only from different educational experiences, but also from family and other social situations, and from discrimination in the labor market. 2/

1/ Income includes money income before taxes and other deductions. It does not include the value of in-kind benefits such as housing or food stamps, but does include social security, public assistance, and other cash payments.

2/ See Congressional Budget Office, The Unemployment of Nonwhite Americans: The Effects of Alternative Policies, Background Paper No. 11 (July 19, 1976).

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While one can measure the educational experiences of blacks and whites along a multitude of dimensions, two direct measures are of major importance: an individual's performance in the schooling process (achievement), and the amount of schooling a person obtains (attainment). This paper examines these key measures and the factors that may contribute to the disparities in achievement and attainment among various population groups. It also examines the current federal effort in education and its effect on these disparities.

CHAPTER II. INEQUALITIES IN ELEMENTARY AND SECONDARY EDUCATION

TRENDS IN ENROLLMENT, ATTAINMENT, AND ACHIEVEMENT

The gap between blacks and whites in enrollment, attainment, and achievement has been narrowing in recent years. Large differences still exist, however, particularly in measures of achievement.

Enrollment

Among the elementary-secondary age population (5 to 17 years old), school enrollment is nearly universal (see Table 1). In 1955, 90.8 percent of nonwhite children and 94.4 percent of white children 5 to 13 years old were enrolled in school, a gap of 3.6 percentage points. By 1975, this difference had narrowed to less than half a percentage point, with more than 98 percent of both groups enrolled in school. A similar trend has occurred among secondary students (14 to 17 years old). Twenty years ago, 82.2 percent of nonwhites and 87.5 percent of whites in this age group were enrolled in school, a difference of 4.7 percentage points. By 1975, this gap had declined to 1.2 percentage points, with more than 92 percent of both groups enrolled.

TABLE 1. PERCENT OF POPULATION 5 TO 17 YEARS OLD ENROLLED IN SCHOOL, BY AGE AND RACE, OCTOBER 1955, 1965, and 1975

	5 to 13 years old			14 to 17 years old		
Year	White	Nonwhite	Difference	White	Nonwhite	Difference
1975	98.4	98.1	0.3	93.8	92.6	1.2
1965	96.1	94.4	1.7	93.4	91.7	1.7
1955	94.4	90.8	3.6	87.5	82.8	4.7

SOURCE: U.S. Bureau of the Census, Current Population Reports, Series P-20, "School Enrollment," No. 162 Table A, and No. 303 Table 1.

These similar enrollment rates for blacks and whites may mask considerable differences in the actual amount of time spent in school. Data collected in 1972 and 1973 by the Office of Civil Rights indicate that black secondary students were nearly twice as likely and black elementary students three times as likely as white students to be suspended at least once during the school year (see Table 2). The average length of each suspension was also longer for black students than for white students. Many of these differences may be due to discriminatory application of disciplinary rules, but no systematic analysis of school suspensions has been done to test this widely held conclusion.

TABLE 2. STUDENTS SUSPENDED AT LEAST ONCE DURING THE 1972-1973 SCHOOL YEAR

	White	Black
Elementary and Secondary Schools		
Students suspended at least once (in percent)	3.1	6.0
Average length of suspension (in days)	3.55	4.46
Elementary Schools		
Students suspended at least once (in percent)	0.5	1.5
Average length of suspension (in days)	3.25	3.91
Secondary Schools		
Students suspended at least once (in percent)	6.0	11.8
Average length of suspension (in days)	3.57	4.55

SOURCE: Children's Defense Fund, School Suspensions: Are They Helping Children? (Washington Research Project, Inc., 1975), Appendix B, Table 1, p. 125. Data obtained from OCR form OS/CR-102 for fall 1972 and fall 1973 as filed by local school districts.

Substantial differences also exist in the age at which students leave high school and in their status upon leaving (see Table 3). In October 1975, 21.3 percent of nonwhite 18- and 19-year-olds were enrolled below the college level, while only 8.4 percent of whites of the same age were in secondary schools. Among 18- to 19-year olds, a substantially greater percentage of whites was enrolled in college. Among those not enrolled, proportionally more whites were high school graduates.

TABLE 3. SCHOOL ENROLLMENT OF 3-TO 19-YEAR OLD POPULATION (WHITE AND NONWHITE), OCTOBER 1975

		Percent Enrolled		Not Enrolled	
	Population	Below College	In College	High School Graduate	Not High School Graduate
White					
3-4 years	5,518	30.8	--	--	69.2
5-15 years	34,981	98.4	a/	a/	1.6
16-17 years	7,043	85.8	3.5	2.3	8.4
18-19 years	6,855	8.4	38.1	38.9	14.7
Nonwhite					
3-4 years	1,158	34.9	--	--	65.1
5-15 years	6,718	98.0	0.1	--	2.0
16-17 years	1,270	84.4	2.9	3.3	9.5
18-19 years	1,169	21.3	28.2	26.3	24.0

SOURCE: U. S. Bureau of the Census, Current Population Reports, Series P-20, No. 303, "School Enrollment," Table 1.

a/ Less than 0.1 percent.

NOTE: Totals may not add to 100 percent because of rounding.

Economic factors may also influence high school (and post-secondary) enrollment. In a recent analysis of patterns of school enrollment and retention rates of 16- to 17-year olds over postwar business cycles (1947 to 1974), researcher Linda Nasif Edwards found that the enrollment rates of nonwhite males varied countercyclically with business conditions (that is, nonwhite males were more likely to remain in school during periods of high unemployment than in periods of low unemployment). 1/ White males did not appear to respond to changes in business conditions. The enrollment rates of both white and nonwhite females varied procyclically (that is, white and nonwhite females were less likely to remain in school during periods of high unemployment). This may be true because during high unemployment cycles women often enter the labor market in search of additional sources of family income.

Attainment

Corresponding to recent trends in enrollment, the differences in attainment between nonwhites and whites appear to be narrowing (see Table 4). In 1973, black men born between 1907 and 1916 (those then about 60 years old) averaged 7.14 years of schooling; while white men of the same age averaged 10.57 years of education, a difference of more than 3.4 years. At the same time, black men born between 1947 and 1951 (about 25 years old then) averaged 11.9 years of schooling and white men 13.01 years, a difference of just over one year.

1/ Linda Nasif Edwards, "School Retention of Teenagers Over the Business Cycle," Journal of Human Resources, Volume XI, No. 2 (Spring 1976), pp. 200-208.

TABLE 4. MEAN EDUCATIONAL ATTAINMENT OF MEN BY RACE AND YEAR OF BIRTH IN 1973

Year of Birth	Black	Hispanic a/	Other b/
1947-1951	11.90	11.04	13.01
1937-1946	11.43	10.14	12.86
1927-1936	10.05	8.90	12.23
1917-1926	8.61	7.87	11.64
1907-1916	7.14	7.55	10.57

SOURCE: Robert M. Hauser and David L. Featherman, "Equality of Schooling: Trends and Prospects" (University of Wisconsin-Madison, Institute for Research on Poverty, Reprint 193, 1976), Table 8.

a/ Includes all nonblack males who reported that the original nationality of their father's family was Mexican, Puerto Rican, Cuban, Central or South American, or Spanish.

b/ Includes whites (other than those described in previous footnote) and nonwhites other than blacks.

Achievement 2/

Among the most comprehensive, nationwide examinations of the achievement of children in various age groups are those administered by the National Assessment of Educational Progress. In 1971 and 1975, tests of reading, mathematics, science, and other subjects were administered to national probability samples of nine-, 13-, and 17-year-old children. During that four-year

2/ Considerable controversy surrounds the measurement of achievement. Many widely used standardized tests are considered faulty measures of what schools are teaching, and are criticized as biased in their methods of testing the abilities or achievement of children from nonmajority cultures. The argument in defense of such tests is that, flawed though they may be, they are the only systematic method available for assessing the achievement of students.

period, only in the youngest group of children did achievement levels increase. At all age levels, the gap between blacks and whites was substantial.

Among nine-year-olds tested for reading ability, the average percentage of correct responses to test questions among black children was 49.7 in 1971 and 54.5 in 1975, an increase of 4.8 percentage points. White children, however, on an average responded correctly to 6.4 percent of the items in 1971 and 67.7 percent in 1975, a gain of 1.2 percentage points. In 1975, the gap between the performance of black and white children was still more than 13 percentage points. While the increases for white children were uniform in all regions of the country, the major increases among black nine-year-olds occurred in the Southeast. There, gains of 7.7 percentage points were recorded, compared with a 2.8 percentage point increase for blacks in the rest of the country.

A somewhat different trend was observed in science achievement among nine-year-olds. Scores on this National Assessment test declined for all groups except blacks in the Southeast, for whom a gain of 2.8 percentage points was noted. Even in that region, however, the gap between black and white students remained substantial (a difference of 16.5 percentage points nationally, 14.7 points in the Southeast).

Analysis of reading test scores among 13- and 17-year-olds revealed no significant change for any group between 1971 and 1975. In both years, the performance level of black children was about 17 percentage points behind that of whites for 13-year-olds and about 19 percentage points for 17-year-olds. The National Assessment reported similar results in other subject areas.

In a different examination of the nation's 17-year-old population, the National Assessment (under contract with the U.S. Office of Education's Right to Read program) found substantially different results for a less comprehensive reading measure, "functional literacy" (as defined by Right to Read). In that test, students were asked to respond to 86 questions on reading items they might normally enounter (such as street signs, store coupons, and telephone directories). The Right to Read program determined that any 17-year-old responding correctly to at least 75 percent of the questions in the assessment could reasonably be considered functionally literate. In 1975, 87 percent of those tested met this guideline. Among white students, 92 percent

reached the criterion, a gain of 2 percentage points since 1971. However, among black 17-year-olds, despite a 5 percentage point gain in four years, only 58 percent of those tested were considered functionally literate.

FACTORS THAT MAY CONTRIBUTE TO DISPARITIES

Attempts to explain the sources of disparities in enrollment, attainment, and achievement among blacks and whites have occupied researchers for decades. Four major areas which may contribute to these differences have been suggested: differential school resources, segregated schooling, the appropriateness of standard school programs for minority students, and other, noneducational factors.

Differential School Resources

The effects of differential school resources on student outcomes have been widely studied, with differing results. The two most extensively reported and debated studies, the "Coleman Report" 3/ and Christopher Jencks' Inequality 4/ found little evidence to suggest that school resources make a measurable difference on student achievement. (It should be noted that the Coleman data were used extensively in the Jencks study.) Other studies, particularly those of intervention programs such as compensatory education, have shown positive results. Even these, however, have not shown a strong correlation between level of funding and student outcomes, but simply that the existence of an intervention program has improved student achievement. Harvey Averch, in a review of research findings, notes that

> Overall, the input-output studies provide very little evidence that school resources, in general, have a powerful impact on student outcomes....The results from the input-output

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3/ James S. Coleman, Equality of Educational Opportunity, U.S. Department of Health, Education and Welfare (1966).

4/ Christopher Jencks, Inequality: A Reassessment of the Effect of Family and Schooling in America (Basic Books, 1972).

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> approach do not mean that school resources fail, actually or potentially, to affect student outcomes. We simply observe that so far these studies have failed to show that school resources do affect student outcomes. 5/

Problems in the accurate collection of data, the inability of researchers to measure key variables, the lack of longitudinal data, and the use of poorly conceived statistical models have made many of these studies of questionable use in policy decisions.

Segregated Schooling

It is often suggested that segregated schooling per se (i.e., independent of differences in school resources) contributes to the lower achievement of black students. The major body of research examining this question has focused on the learning effects of desegregation. 6/ However, much of this research is critically flawed and cannot be used to draw inferences for public policy. Of those studies which have tested carefully controlled groups of children, the conclusions are mixed.

The majority of studies suggest positive effects on the achievement of black children in desegregated schools with no measurable effect on the learning of white children. One of the most extensive studies of this type was a 1973 evaluation of the federal Emergency School Assistance Program (ESAP). 7/

5/ Harvey A. Averch, "How Effective is Schooling: A Critical Synthesis and Review of Research Findings," in Donald M. Levine and Mary Jo Bane (editors), The 'Inequality' Controversy: Schooling and Distributive Justice (Basic Books, 1975), p. 72.

6/ See Meyer Weinberg, Minority Students: A Research Appraisal, U.S. Department of Health, Education and Welfare, National Institute of Education (March 1977).

7/ Robert L. Crain, Southern Schools: An Evaluation of the Effects of the Emergency School Assistance Program and of Desegregation (National Opinion Research Center, October 1973).

Researchers found that the achievement scores of black male high school students attending ESAP schools were half a grade level higher than their counterparts in non-ESAP schools by the end of the period examined. These differences were attributed to improvements in the racial climate which affected the motivation of the students. Studies of the schools in Pittsburgh and Boston by Nancy St. John found similar achievement results among black students in integrated schools. 8/ Again, the improvement of black children in these environments was attributed to the skill and support of understanding school personnel, particularly teachers.

Other studies of multiracial schooling have found mixed results or no discernible effect on student achievement. Only a very few studies have found desegregation to have negative effects on the learning rates of white or nonwhite students. These latter studies are, again, riddled with methodological problems which discount much of their usefulness. 9/

The Appropriateness of Standard Programs for Minority Students

The curriculum in most elementary and secondary schools is based on certain assumptions about the backgrounds and attitudes of students. Elementary school reading curricula, for example, assume that students arrive with certain prereading skills assimilated from their home environments or preschool experiences. Most secondary schools assume that students arrive with particular skills that allowed them to complete the primary grades. For the majority of students at each grade level, these assumptions result in an appropriate curriculum. For a number of other students, however, the assumption of a "standard" background or preparation is not appropriate and does not allow many children to meet their full potential within the standard curriculum. Included among them are the handicapped, the gifted and talented, and children from disadvantaged backgrounds. Black children are disproportionately represented among the disadvantaged and, consequently, often seem to respond less well to regular school programs than other children do.

8/ See, for example, Nancy H. St. John, School Integration, Classroom Climate and Achievement, ERIC ED-052-269 (January 1971).

9/ See Weinberg, op. cit.

Within supplemental compensatory education programs, black children appear to be improving at approximately the same rate as other children during the school year. Many of these special programs are designed by black teachers for predominantly black groups of children. However, there is no evidence to indicate that black children perform any better under these circumstances than in a predominantly white compensatory education environment. (Further discussion of the efficacy of compensatory education appears later in this chapter.)

Noneducational Factors

Most of the analyses of enrollment, attainment, and achievement data arrive at the same conclusion: that differences between blacks and whites along these educational measures are attributable largely to noneducational factors. Family income, parental education, and socioeconomic status of the student's community consistently explain more of the variance in the educational experiences of blacks and whites than do school factors such as dollars spent per pupil or teacher experience. This is not to suggest that schools could not do a better job of educating particular students than they now do or that school resources are not important. It simply means that, on the average, other factors are more influential in determining educational outcomes of students from both racial groups.

In examining data on educational attainment described earlier (see Table 4), University of Wisconsin researchers Robert Hauser and David Featherman found that the narrowing gap in average years of schooling between blacks and whites was largely due to differences in their social and economic experiences. They noted that

> The disadvantages in schooling associated with...black skin or Spanish origin appear to be declining, but those associated with poorly educated or low status fathers and with large families have persisted. Family origins consistently explain at least 55 percent of the variance in schooling, and perhaps as much as 70 percent. 10/

10/ Robert M. Hauser and David L. Featherman, "Equality of Schooling: Trends and Prospects" (University of Wisconsin-, Madison, Institute for Research on Poverty, Reprint 193, 1976), p. 99.

Many of the same conclusions appear throughout the literature on nonschool factors influencing student achievement. The "Coleman Report" concluded that factors beyond the control of the schools were most directly responsible for differences in student achievement; the report cited especially socioeconomic characteristics of schools and family background characteristics of students. Jencks, in reexamining the Coleman data and other studies, concluded that even those measures were only weakly influential and that the explanation for differences in student scores rested outside variables which were measured in any of the studies reviewed. As was mentioned earlier, however, these studies may conceal the effects of major influences on student achievement.

Very little work has been done on the effects on student achievement of secondary factors such as housing or family health. In a recent paper, Henry Aaron noted that

> All such research contains an enormous bias toward finding no statistically significant results because data are poorly measured, because models omit important variables, because mathematical forms are incorrectly specified, or because only cross-sectional data are available when longitudinal surveys or experiments are required. 11/

He concluded that "social science provides no justification for advocating policies in each of these...areas because of favorable impacts on education." 12/

CURRENT FEDERAL POLICY AND ITS IMPACT

Federal Preschool and Elementary-Secondary Education Programs

Partly in response to the disparities in the experiences of blacks and whites (and other groups) and the perceived sources of those differences, the Congress has taken three major legislative

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11/ Henry Aaron, Healthy, Wealthy, and Wise: Backdoor Approaches to Education (July 1976; mimeo), p. 12.

12/ Ibid., p. 13.

initiatives: Title I of the Elementary and Secondary Education Act, the Head Start program, and the Emergency School Aid Act (and its predecessor, the Emergency School Assistance Program). In addition, special programs for the disadvantaged in vocational education and research sponsored by the National Institute of Education's Educational Equity Group focus on these issues. Together these responses address the first three factors mentioned above -- differential school resources, segregated schooling, and standard programs that ignore minority needs. Other federal programs (such as medicaid, Aid to Families with Dependent Children, food stamps, and various housing assistance programs) have focused on nonschool influences. The discussion here, however, will be confined to educational initiatives.

ESEA Title I. Title I of the Elementary and Secondary Education Act (ESEA) is the major national effort in compensatory education. Through this program, over $2 billion in federal funds are expended annually. The U.S. Office of Education estimates that state spending on state-sponsored compensatory education programs is about one-fourth that amount. 13/ No estimate of local spending on compensatory education has been made. In contrast to compensatory education, federal spending for general education services for the general student population is minimal. 14/

Title I funds are targeted on schools serving high concentrations of children from low-income families; these funds provide reading, mathematics, and language arts instruction, resource centers, and some medical and dental services. Children are selected to participate in Title I programs based on their need for compensatory services independent of family income. About 34 percent of students in compensatory programs are black, compared to about 14.5 percent of elementary-secondary school enrollment.

13/ U.S. Department of Health, Education and Welfare, Office of Education, State Compensatory Education Programs, Publication No. (OE)75-07107.

14/ See Congressional Budget Office, Elementary-Secondary and Vocational Education: An Examination of Alternative Federal Roles (January 1977).

A major component of the Title I program directly addresses the question of differential school resources, in this case among schools serving different socioeconomic groups. In order to receive Title I funds, a school district must assure the Office of Education that the amount of resources devoted per child in Title I schools is roughly equal to that in non-Title I schools, excluding Title I monies. While no data were collected to monitor the shift of funds among schools in districts as they complied with these comparability requirements, it is widely believed that this provision greatly aided schools in areas with large concentrations of poverty-level families.

In addition, Title I also directly addresses the problem of the inability of standard programs to meet the needs of certain students. Compensatory education programs are designed to aid those, regardless of race, whom the schools' regular programs have insufficiently affected.

Head Start. The Head Start program is a comprehensive preschool program that includes medical, nutritive, and social services for recipient children, over half of whom are black. Head Start, as the name implies, attempts to improve the chances of eligible children to participate effectively in regular school programs. Head Start also provides differential resources to those children who enroll, 90 percent of whom are supposed to be from poor families.

Emergency School Aid. In June 1972, the Congress enacted the Emergency School Aid Act (ESAA) to provide financial assistance to meet the special needs of school districts undergoing desegregation. Additionally, the Act would encourage voluntary reduction in minority group isolation and aid school children in overcoming the educational disadvantages of such isolation. The fiscal year 1977 appropriation of $240 million will be apportioned among the states largely on the basis of the number of minority group children 5 to 17 years old in each state. The Office of Education estimates that between 40 and 60 percent of the students in ESAA programs are black.

ESAA addresses all three major sources of disparities between black and white students. First, it attempts to overcome the disadvantages of segregated schooling by assisting desegregation efforts. Second, it provides additional school resources for a variety of purposes, including educational television, training and advisory services, and other special projects. And third, ESAA provides funds for programs designed to meet the needs of minority children. These include remedial instruction.

Vocational education. Federal funds provided through the Vocational Education Act are intended primarily to encourage and subsidize expenditures of state and local agencies for services of their own choosing. For every federal dollar received, states and local educational agencies (LEAs) spend an average of more than $6 on vocational education. Data from state reports to the Office of Education indicate that 15.1 percent of vocational students are black.

About 18 percent of federal vocational education dollars in fiscal year 1975 (about $97 million of total federal outlays of $536 million) supported special services for disadvantaged students, about 30 percent of whom were black. These special services are provided through two major efforts. First, 20 percent of the federal grant to states for vocational education is to be set aside for programs for the disadvantaged. In 1975, when the set-aside was 15 percent, these funds were matched on an average of over two-to-one by the states. Second, a special program, appropriated directly by the Congress, provides additional assistance for disadvantaged students. The states spent less than 50 cents of their own funds on this program for every federal dollar received (there is no matching requirement for this program). It should be noted that these figures do not imply any degree of federal leverage over state and local funding: federal law requires, at most, a one-to-one matching of state/local and federal funds. Additional spending by states is discretionary.

The Effects of Federal Programs

In examining the effects of federal education programs, it is important to make distinctions among the types or stages of those effects. First, one can ask, are federal funds delivered to the intended schools and children? Second, when the funds are delivered, are they supplementing regular school resources or are they supplanting local revenues? Third, if federal funds represent additional resources that would not otherwise be available, do they result in increased services or do they subsidize increases in the costs of current inputs (such as salaries)? And finally, if new services result, are they effective in improving achievement or attainment (where appropriate) or are the effects dissipated by other factors?

Delivery of federal funds. After somewhat stormy beginnings, it now appears that funds from two of the federal programs which disproportionately assist minority students (Title I and ESAA) are being delivered to the intended schools and children. The extent to which this is true for Head Start and special vocational funds has been questioned.

An HEW analysis of 1969-1970 data found that Title I funds went to districts with low family incomes and to urban and rural districts in a greater proportion than would be expected if they were distributed randomly. Title I expenditures were also found to be neutral with respect to the property value of recipient districts. 15/ A major update of this study, which includes all federal education programs, is in progress.

In a recent summary of evaluations of the Emergency School Aid Act, the Office of Education reports that

> Evaluation results indicate that the grant award process effectively targeted funds to educationally needy school districts; school districts targeted ESAA funds to needy schools; schools, in turn, focused their ESAA funds on basic skill programs directly related to student needs; and finally, at least at the elementary level, the intensity of basic skill services received by students was directly related to the severity of their needs. 16/

The Head Start program has not been as successful in targeting services on poor children as the Congress had intended. In a 1975 audit, the General Accounting Office (GAO) reported that at six of eight sites examined the number of children from nonpoor

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15/ Alan Ginsburg, "Patterns of Federal Aid to School Districts," Office of the Assistant Secretary of Planning and Evaluation, Technical Analysis Paper (February 1975).

16/ U.S. Department of Health, Education and Welfare, Office of Education, Annual Evaluation Report on Programs Administered by the U.S. Office of Education, Fiscal Year 1975, p. 174.

families exceeded the Head Start guideline of 10 percent. 17/ At those six sites, 34 percent of the cases which they examined were children from nonpoor families. A detailed income analysis was performed at three of the sites, and the GAO found that two-thirds of the nonpoor families exceeded the eligibility limits by more than $1,000. While this small sample may not be nationally representative, it does suggest that the Head Start program is targeted less on the poor than intended.

A recent examination of vocational education programs for the disadvantaged (conducted by Olympus Research Centers for the Office of Education) indicates that these special federal funds may not be reaching their intended recipients. 18/ The report suggests that there is considerable confusion at the state and local levels as to the meaning of the term "disadvantaged." In addition, half of the project directors interviewed did not believe that the students enrolled in these federally funded programs were disadvantaged. However, this study, like many others in this area, is considerably flawed by a lack of accurate data on the characteristics of program participants and its results should be viewed with that perspective in mind.

Supplementary impact of federal funds. Title I and ESAA programs are operated by school districts who might use federal dollars to replace local resources which might otherwise have been utilized. These federal programs therefore require local educational agencies (LEAs) to insure that federal funds are supplementing regular school expenditures. The degree to which the restrictions placed on LEA spending are effective is uncertain. However, research on "fiscal substitution" in the Title I program is in the final stages of preparation for the Compensatory Education Project of the National Institute of Education. Professor Martin Feldstein of Harvard University indicates that each Title I dollar allocated to a school district results in about 67 cents in additional total expenditures on compensatory

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17/ General Accounting Office, Project Head Start: Achievement and Problems, MWD-75-51 (May 1975).

18/ John Walsh and Jan L. Totten, An Assessment of Vocational Education Programs for the Disadvantaged Under Part B and Part A Section 102(b) of the 1968 Amendments to the Vocational Education Act (Olympus Research Centers, December 1976).

programs. That is, about one-third of the Title I funds go either to noncompensatory programs or to local tax relief. The same study found that a dollar of unrestricted and unmatched state foundation grant money (state general aid to education) resulted in only 19 cents of additional total spending.

The degree to which other federal programs (such as ESAA) result in expenditure patterns more like that of Title I than those of unrestricted state grants is uncertain. Examinations of the ESAA predecessor, ESAP, revealed that funds were being used in some instances for general aid purposes rather than for desegregation. These findings were considered in drafting the ESAA legislation. However, the fact that the restrictions on ESAA, vocational education, and other programs are less stringent than those on Title I would seem to indicate that they are less likely to be as fiscally effective.

While there are no studies of the degree to which Head Start funds are used for other educational purposes, the structure of the program minimizes the possibility of fiscal substitution. Unlike other federal education programs, Head Start grantees include local nonprofit organizations, such as community action agencies, as well as school districts. In addition, the target population (preschool children) is not normally served in school systems.

Service increases resulting from federal funds. When a school district does find itself with additional resources, how does it allocate them among competing priorities? Several studies indicate that discretionary funds are largely though not totally spent to increase services to students. One of the most recent studies of this question is by Stephen Barro and Stephen Carroll of RAND for the National Institute of Education. 19/ Barro and Carroll examined the way in which school district spending patterns changed when budgets were increased. They found that while increments above base-year levels were largely spent on teachers, the amount so distributed was proportionally

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19/ Stephen M. Barro and Stephen J. Carroll, Budget Allocation by School Districts: An Analysis of Spending for Teachers and Other Resources (RAND, R-1797-NIE, December 1975).

less than in the base budget and was more often used to reduce class size than to increase salaries. They also found that dollars were directed in greater proportion than in the base budget to one-time or limited-duration expenditures for such things as specialists, supplies, and equipment. Spending on administrative personnel was also proportionally less than in the base budget.

Program effects on students. There is a large body of evidence, particularly from studies completed in the last five years, indicating that three of the programs examined in this paper (Title I, Head Start, and EmergencySchool Aid) have positive effects on the achievement of recipient students. The effects of these programs on enrollment or attainment have not been systematically studied, however.

While increased academic achievement is only one of the many goals of Title I, it is the one which has received the most attention from researchers. A number of studies have been completed which indicate that, during a school year, Title I students on the average seem to gain on noncompensatory students in the number of correct responses on reading tests. 20/ One of the methods chosen by researchers to express these changes was to compute the number of correct responses by compensatory students as a percent of the number of correct responses by noncompensatory students. Gains during a school year averaged five points at the fourth and sixth grade levels. For example, compensatory students increased their number of correct responses from 70 percent to 75 percent of the correct answers of students in schools without compensatory programs at the fourth grade level. Increases of 13 percentage points were noted at the second grade level. These data also reveal that, within the school year, black children in compensatory programs learn at the same rate as other compensatory students.

Evidence is beginning to accumulate that, while Title I students gain in ability during a school year, they lose some of their gains during the summer. In particular, those students who started out at the lowest achievement levels (and made the most dramatic improvements) appear to experience the greatest summer losses. Black children seem to be disproportionately represented

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20/ See U.S. Office of Education, Office of Planning, Budgeting, and Evaluation, A Study of Compensatory Reading Programs: A Technical Summary (1976), and supporting documents.

in this group. However, additional studies of this question are under way and will be available during the debate over the reauthorization of ESEA.

Research has recently been completed on the effectiveness of various types of supplementary instruction on blacks and whites alike. Abt Associates, in examining the success of various models of instruction used in the planned variation experiments of the Follow Through program, 21/ has found that programs that stress basic skills through traditional, formal instructional methods are generally more effective in raising the achievement score levels of participating students than are less structured methods.

A major review of Head Start research of the last ten years was recently completed by the Social Research Group of The George Washington University for HEW's Office of Child Development. A majority of studies examined by the group showed gains in achievement and cognitive development were made by program participants. For example, one study found that Head Start participants, entering the program with 18-month deficits in language development, improved an average of 13 months during an eight-month period. Another study found average I.Q. gains of 5.6 points over those of nonparticipants. Children who have shown gains in cognitive development often lose these advantages when placed in regular school programs and require additional assistance through the Follow Through or Title I compensatory programs. However, researchers have generally found that "Head Start participants performed equal to or better than their peers when

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21/ Because of its small size ($59 million in fiscal year 1978 appropriations) and the experimental nature of its operations, the Follow Through program was not examined in detail in this paper. The program was designed to provide supplementary educational services for those Head Start preschool children who needed additional assistance once they entered a regular school program.

they began regular school and there were fewer grade retentions 22/ and special class placements." 23/

The differences in achievement by Head Start participants of different races are currently under study. The Office of Child Development reports that at this stage of the analysis it appears that black children generally make greater achievement gains than white children (though a gap between the two still exists at the end of the test period), and that greater gains are made by children from low-income and single-parent families. It should be noted, however, that black children are disproportionately represented among these latter groups. The improvement of black children independent of these social and economic characteristics has not been thoroughly studied and no conclusions can be drawn.

The degree of effectiveness of ESAA-funded instructional programs of effectiveness is uncertain. A major study of ESAA program participants found considerable achievement gains. 24/ At the end of a five and one-half month observation period, ESAA students were achieving at the same rate or better than average children in average schools. However, further analysis revealed that students in non-ESAA schools in the same districts were experiencing the same achievement gains. Researchers found that districts were apparently motivated to find additional resources to fund ESAA-type programs in their remaining needy schools (an unintended benefit of the program). Other evaluations are planned to determine the extent of achievement gains resulting from this program.

Vocational education and its federal support are difficult to characterize as either success or failure. The principal

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22/ "Grade retention" is polite phraseology for "flunking a grade."

23/ Ada Jo Mann, Adele Harrell, and Maure Hurt, Jr., A Review of Head Start Research Since 1969 (working draft prepared by the Social Research Group, George Washington University, for Office of Child Development, U.S. Department of Health Education and Welfare, December 1976), p. 5.

24/ J.E. Coulson, et al., The First Year of Emergency School Aid Act (ESAA) Implementation: Preliminary Analysis (System Development Corporation, September 1975).

goal of vocational education is to improve the employment skills and resulting job opportunities of participating students. Unfortunately, there are a number of difficulties in examining these effects. Vocational educators usually measure program success by growth in enrollments, growth in completions, and the percentage of students looking for work who find jobs in their general area of training. While these factors are surely important, each is an incomplete measure of success. More appropriate measures of program success would include the differences between vocational and nonvocational students in wage rates, the average time before job placement, and average hours and earnings during the first year or two. The fact that such data are not systematically collected is a major impediment to the evaluation of vocational education. Few of the studies using some or all of these measures have noted any differences in success in the job market between vocational education and general or academic students looking for work. What few differences there are seem to vanish within five years. 25/ These general experiences seem to apply equally to blacks and whites. A study at North Carolina State University's Center for Occupational Education has found, perhaps significantly, that available manpower data are rarely used by vocational administrators and counselors to alter curricula to meet changing labor market demands or to improve job opportunities. 26/

25/ See, for example, John T. Grasso, The Contributions of Vocational Education, Training and Work Experience to the Early Career Achievements of Young Men (Ohio State University, Center for Human Resources Research, July 1975).

26/ D.W. Drewes and Douglas S. Katz, Manpower Data and Vocational Education: A National Study of Availability and Use (North Carolina State University at Raleigh, Center for Occupational Education, 1975).

CHAPTER III. INEQUALITIES IN POSTSECONDARY EDUCATION

TRENDS IN ENROLLMENT AND DEGREE ATTAINMENT

Enrollment

Between 1965 and 1975 there was a substantial increase in the enrollment of black students in college. This increase raised their share of enrollments from 4.8 percent in 1965 to 9.8 percent in 1975 (see Appendix Table A-1). However, blacks have been and continue to be underrepresented in college when compared to their share of the 14- to 34-year-old population.

The gap between the percent of blacks enrolled in college and their percent of the population has been narrowing (see Table 5). In 1965, 4.8 percent of all enrolled students 14 to 34 years old were black, while 11.1 percent of that age group in the entire population were black -- a gap of 6.3 percentage points. By 1975 this gap was down to 2.1 percentage points. The growth of student financial assistance and prevailing economic conditions perhaps influenced black student enrollments to a greater degree than white enrollments. The evidence, though, does not allow a precise explanation of these changes.

In 1970, 6.2 percent of the 1.6 million first-time, full-time college students were black. 1/ For the same year blacks were 7 percent of total enrollment (full- and part-time). 2/ Similarly, for the following four years, the percent of blacks enrolled among all students equaled or exceeded the percent of new full-time students who were black, primarily because blacks are more heavily represented among the part-time student population (see Appendix Table A-2).

1/ American Council on Education and Cooperative Institutional Research Program, The American Freshman: National Norms (1970). The National Norms for Freshmen tabulates enrollments of first-time, full-time students by race and other student-reported social and financial characteristics.

2/ U.S. Bureau of the Census, Current Population Report, Series P-20, "School Enrollment," Nos. 162, 222, 303.

TABLE 5. POPULATION, PERCENT ENROLLED IN COLLEGE, AND PERCENT IN POPULATION OF 14- to 34-YEAR-OLD PERSONS BY RACE FOR 1965, 1970, and 1975

Year	Total 14- to 34-year-old Population	All Races Percent Enrolled	Black		
			Percent of enrollment	Percent in Population	Percent Representation
1975	73,523	13.2	9.8	11.9	82.4
1970	62,873	11.8	7.0	11.7	59.8
1965	54,190	10.5	4.8	11.1	43.2

Degree Attainment

Since 1960 the percent of both the white and black 25- to 34-year-old population that has completed at least four years of college has almost doubled. In 1960, 4.1 percent of the black population in this age group had completed four years of college, while 11.9 percent of the white population had. In 1974, 8.1 percent of the black population and 21.0 percent of the white group had. In 14 years, progress was made for both racial groups, but blacks still remained significantly behind whites in postsecondary educational attainment (see Table 6).

TABLE 5. (Continued)

White			Other		
Percent of Enrollment	Percent in Population	Percent Representation	Percent of Enrollment	Percent in Population	Percent Representation
87.8	86.3	101.7	2.4	1.8	133.3
91.2	87.2	104.6	1.8	1.2	150.0
93.7	87.7	106.8	1.5	1.2	125.0

SOURCE: Data from U.S. Bureau of the Census, Current Population Report, Series P-20, "School Enrollment," Nos. 162, 222, 303.

However, these data would tend to underestimate the attainment of blacks because students who received degrees at community colleges are not included, nor are students who were affected by the dramatic growth in need-based federal student aid programs since 1972. Minority students were much more likely to be represented among these groups, although an exact accounting is not possible because data on specific degree attainment by race are not collected nationally, routinely, and comprehensively for all levels of postsecondary education. 3/

3/ Beginning in fall 1976 the Office of Civil Rights (OCR) required institutions to report degree completion data by race. (These data will soon be available for examination.) For these data OCR relies, primarily, upon self-identification data collected by the institutions. Since the institutions cannot require students to report their race, many institutions have a high percentage of nonrespondents.

TABLE 6. PERCENT OF POPULATION 25 TO 34 YEARS OLD WHO COMPLETED FOUR YEARS OF COLLEGE OR MORE

Year	Black	White
1974	8.1	21.0
1970	6.1	16.6
1966	5.7	14.6
1960	4.1	11.9

SOURCE: U.S. Bureau of the Census, The Social and Economic Status of the Black Population in the United States, Series P-23, No. 54.

FACTORS THAT MAY CONTRIBUTE TO DISPARITIES

Many variables may explain the differences in postsecondary enrollment and educational attainment among racial groups. Among them are income and other measures of financial strength, academic proficiency, school choice, motivation, and cultural differences. From the perspective of federal postsecondary policymakers, these variables fall into two groups, divided by the degree of control that the federal government can or does exert on them. Financial and educational variables (income, academic ability, school type, motivation, etc.) can and have been influenced to some degree by direct federal action, while social and cultural variables (language problems, etc.) have not been considered as problems to be dealt with through federal postsecondary policy. No matter what degree of federal control is present, these factors all work toward producing different enrollment and completion rates among racial groups.

Differences in Income or Financial Strength

Comparing families with about the same ability to pay, proportionately more black students enrolled in college in fall 1972 than white students. Among those students with incomes under $7,500, the enrollment rate for blacks was 49

percent and for whites, 44 percent (see Table 7). 4/ In three of the four income quartiles, the enrollment rate of black students exceeded that of whites. Overall enrollment among blacks, however, stayed lower than that of whites (53 percent for blacks, 58 percent for whites) because a greater proportion of blacks fell in the lower income quartiles; in the lower quartiles, enrollment rates were lower for all students in general.

TABLE 7. COLLEGE ENROLLMENT RATES OF HIGH SCHOOL SENIORS BY INCOME QUARTILE AND RACE IN FALL 1972

Family Income Quartiles (approximate income ranges)	All Students	Black	White	Other
		(Percent of Enrollment in Parentheses)		
Lowest ($0-7,500)	45	49 (60)	44 (21)	47 (57)
Second ($7,500-10,500)	53	56 (21)	52 (22)	49 (22)
Third ($10,500-15,000)	58	55 (12)	58 (29)	49 (16)
Highest ($15,000 and up)	72	77 (7)	72 (28)	53 (12)
All Incomes	57	57 (100)	58 (100)	48 (100)

SOURCE: National Longitudinal Survey Of High School Seniors In 1972, tabulated by College Entrance Examination Board for the National Center for Education Statistics.

4/ Surprisingly, these enrollment rates occurred prior to the surge in federal student assistance which began in the 1973-1974 academic year with Basic Grants.

A similar conclusion can be drawn from October 1975 Bureau of the Census data which show the percent of 18- to 24-year-old dependents enrolled in college by race and income class (see Table 8). In every income group, except that between $15,000 and $20,000, the enrollment rate of 18- to 24- year old blacks exceeded that of white students. 5/

TABLE 8. PERCENT OF PRIMARY FAMILY MEMBERS 18-24 YEARS OLD, ENROLLED IN COLLEGE BY INCOME AND RACE, OCTOBER 1975: INCOMES IN THOUSANDS OF DOLLARS

	All Incomes	0-5	5-10	10-15	15-20	20-25	25 and above	No Response
Black								
number	2,890	1,001	955	467	161	57	44	203
percent	21	16	24	24	34	47	66	16
White								
number	19,666	2,079	4,779	4,951	2,695	1,793	1,832	1,536
percent	27	14	14	22	34	41	58	31

SOURCE: U.S. Bureau of the Census, Current Population Report, Series P-20, No. 303, "School Enrollment."

Differences in Academic Proficiency 6/

Of a national sample of 1972 high school seniors 21 percent of the white students and 60 percent of the black students were

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5/ However, the small sample used to obtain the black distribution introduces significant sampling errors which could negate the conclusions drawn from the data.

6/ Most techniques that measure educational achievement, proficiency, or ability have been criticized as culturally biased, by intent or accident. Grade averages, rank in class, and college entrance test scores have all been questioned as sound measures of how well students really perform and learn in school. The basic argument for their continued use is the lack of a widely acceptable substitute.

in the lowest "measured ability" quartile. 7/ However, within an ability quartile, results from the same sample found college enrollment rates to be slightly higher among blacks in the first two quartiles, somewhat lower in the third, and almost the same in the fourth (see Table 9). 8/

Differences in School Choice

The school in which students initially enroll may have considerable effect on their chances of obtaining their desired years of schooling. For minority students, as for other students, the variables that primarily influence school choice -- peer pressure, parental advice, lack of information, cost, and financial aid -- may in fact limit their range of schooling opportunities, excluding some schools that may better promote their educational potential. A recent research study revealed that almost two-thirds of all 1972 high school seniors applied to only one postsecondary institution. However, in general, the schools applied to by an individual student who did apply to several schools were similar. 9/ This suggests that some students perhaps are not aware of or are unable to afford a wide range of available opportunities, while others may, in fact, have substantial information and resources to do so but choose not to. However, there has been little research measuring the strength of

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7/ "Measured ability" is a composite index of high school rank in class and grade point average; it does not reflect the results of any standardized achievement test. It is the measure of academic ability used in this particular survey, a nationally representative longitudinal data base. The Congressional Budget Office's reporting of the results does not imply an endorsement of this measure.

8/ Again, as when measuring enrollment rates by income group, the small sample size within quartiles introduces the potential for sampling error which could, within any one quartile, reverse the black-white relationship.

9/ Gregory Jackson, "Financial Aid to Students and the Demand for Postsecondary Education," (Ed.D. dissertation, Harvard University School of Education, 1977). Similar type is measured by control (public or private) and scope (two year, four year or university).

federal financial aid in altering a student's decision about which school to attend; nor has there been adequate research on the effects of one type of school or another on completion rates. A study designed to answer these questions is currently under way for the Office of Education. It is scheduled for completion in fall 1978.

TABLE 9. COLLEGE ENROLLMENT RATES a/ BY RACE AND MEASURED ABILITY, FALL 1972

	Measured Ability Quartiles b/				
	Lowest	Second	Third	Highest	All Ability Levels
	(percent of enrollment in parentheses)				
All Students	35	50	62	75	57
Black Students	39 (27)	54 (34)	52 (20)	74 (19)	53 (100)
White Students	34 (20)	50 (27)	63 (22)	75 (32)	58 (100)

SOURCE: Tabulation of data from National Longitudinal Survey of High School Seniors in 1972 by College Entrance Examination Board under contract to the National Center for Education Statistics.

a/ Percent of spring 1972 high school graduates who enrolled in fall 1972.

b/ "Measured ability" from a composite index of high school rank in class and grade point average.

Differences in Motivation, Aspirations, and Social Pressure

The combination of peer, parental, educational, and other social stimuli molds an individual's values, motivations, and aspirations including his desire for postsecondary education. The importance of each factor differs for each person and is not readily measurable. Those with lower aspirations or motivation are less likely to enroll. A student's motivation for postsecond ary education can only be superficially measured by examining students' plans for college attendance.

The data suggest there is substantial motivation (measured as students' plans) among blacks and whites to attend school beyond high school. However, tying these data with enrollment rates suggests that black students fulfilled their plans, at most, 60 percent of the time, compared to 69 percent of the time for white students.

Between 1972 and 1974 the percent of high school seniors who planned to attend college decreased. Among black students the percent who planned to enroll decreased from 89 to 82 percent, while that for white students fell from 85 to 81 percent. Most of the decline was among male students, perhaps in response to changes in the draft laws. In 1972, 86 percent of male high school seniors had plans for postsecondary education. By 1974 this proportion had dropped to 81 percent. At the same time, plans of female high school seniors remained fairly constant, except for a 3 percent decrease in those desiring to attend vocational school.

In 1975 there was an upsurge of interest among high school seniors to attend postsecondary education over the prior two years. According to the fall 1975 Census Bureau data, 84 percent of all students planned to (or might) attend some form of post-secondary education: 83 percent of white students, and 86 percent of black students (a rise of 4 percentage points from 1974). (See Table 10.)

Cultural Differences

Language barriers, the treatment of women in certain cultures, family structure, the value placed on education, and other cultural differences can play a part in explaining enrollment and attainment differences between racial groups in postsecondary

TABLE 10. PLANS TO ATTEND COLLEGE OF HIGH SCHOOL SENIORS 14 TO 34 YEARS OLD, BY RACE, 1972 TO 1975 a/

Race of Student and Year	Number Reporting College Plans (thousands)	Percent Plan To Attend College	Percent May Attend College	Percent Plan or May Attend Vocational School	Percent Subtotal Post-Secondary Plans	Percent No School Plans	Percent All Plans
White							
1975	2,780	49	24	10	(83)	17	100
1974	2,927	44	26	10	(81)	20	100
1973	2,858	43	28	11	(82)	18	100
1972	2,785	46	26	12	(85)	15	100
Black							
1975	462	41	35	11	(86)	13	100
1974	422	36	32	15	(82)	18	100
1973	451	39	34	10	(83)	18	100
1972	413	45	33	11	(89)	11	100

SOURCE: U.S. Bureau of the Census, College Plans of High School Seniors, Series P-20, No. 299, Table B.

a/ Excluding seniors not reporting.

education. The extent of the influence of these factors is not accurately known but they can be presumed to inhibit many potential students from entering and successfully completing higher education. Except for language barriers, which have received some attention through federal bilingual demonstration projects at the elementary and secondary levels, these problems are not addressed by the federal government at the postsecondary level.

DISTRIBUTION AND IMPACT OF FEDERAL POSTSECONDARY ASSISTANCE

The federal objective of equalizing educational opportunity applies to all potential students who are considered educationally or financially "disadvantaged." A good portion of federal postsecondary assistance flows to minority students as a result of their overrepresentation among these kinds of "dis advantaged" students. However, racial inequities in postsecondary education are not addressed directly through present federal postsecondary education programs.

Funds flow to minority students largely through the major Office of Education student assistance programs and some institutional assistance programs, 10/ through veterans' readjustment benefits, and through social security educational benefits. In fiscal year 1977, outlays for these programs will total about $8.4 billion.

Through 1974 about 10 percent of the 4.4 million cumulative beneficiaries in the veterans' education program were black; they received about 9 percent of the 10.8 billion in cumulative benefits. 11/ Among the 680,000 social security educational beneficiaries at the end of 1974, 16 percent were black and they received 13 percent of the $900 million in benefits. 12/ Since the Congress can do little directly to alter the chances that a minority family per se receive social security or veterans' educational benefits, the following section will concentrate on the racial distribution of recipients and funds spent in the more discretionary Office of Education programs.

10/ Included here are Basic Grants, Supplemental Grants, College Work-Study, Direct Loans, Guaranteed Loans, Strengthening Developing Institutions, and Trio programs.

11/ An estimate based on data from "Voucher Funding of Training: A Study of the G.I. Bill," prepared by Dave M. O'Neill and Sue Ross, Center for Naval Analysis, (PRI: 312-76).

12/ Office of Research and Statistics, Social Security Administration. The percent of funds received by blacks is slightly less than the percent of beneficiaries who are black because, on average, black insured workers earn less during their working lifetime and qualify for lesser benefits.

Participation in Office of Education Postsecondary Programs

Student assistance programs. Basic Educational Opportunity Grants (Basic Grants) and Guaranteed Student Loans (GSL) are the two major programs that do not routinely solicit racial or ethnic data on their application forms. The three other major student assistance programs do require institutions to report recipients and funds spent by race. They are the Supplemental Grants, Direct Student Loans, and College Work-Study programs. These data collection differences make it difficult to construct a clear picture of the racial distribution of student aid. 13/

The "need targeting" of Basic Grants guarantees that minority students, who tend to be disproportionately represented among the more financially needy, receive a substantial share of awards. In fiscal year 1977 about 85 percent of Basic Grants funds will flow to dependent and self-supporting students with family incomes and student incomes below $10,000. 14/ If blacks are as equally represented in the Basic Grants program as they are among enrolled students with family incomes under $10,000, about 27 percent of Basic Grants recipients would be black.

A special sample survey showed that in fiscal year 1973 about 14 percent of Guaranteed Student Loan borrowers were black, 85 percent were white, and 2 percent were classified under other races. 15/ The average loan of black borrowers was somewhat less than that of white borrowers. Attendance by black students at

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13/ The Basic Grants program does not collect any racial or ethnic data, and none are available from any other reliable, national source. In the Guaranteed Loan program, the only evidence available is from a comprehensive survey of lenders and borrowers that supplies borrower characteristics by race through fiscal year 1973.

14/ See Congressional Budget Office, Postsecondary Education: The Current Federal Role and Alternative Approaches (February 1977), for further discussion.

15/ Analysis of Student Borrower and Loan Characteristics in the Guaranteed Student Loan Program, (prepared by Systems Group, Inc. for the U.S. Office of Education under contract no. OEC-0-73-1362, 1974).

lower-cost schools and their access to assistance under other federal student aid programs may partially explain this difference. When more recent data become available, it would not be surprising to discover that the difference between average loans by race has increased, since the expansion of Basic Grants in conjunction with existing programs may be sufficient to fully meet many black students' needs without reliance upon the Guaranteed Loan program.

In fiscal year 1973, 16/ over $900 million was spent on about 1.3 million students for the three "campus-based" student aid programs -- Direct Loans, Supplemental Grants, and College Work-Study (see Table 11). Black students received 28 percent of the funds spent ($257 million) and were 24 percent of all recipients (313,000). The average white recipient was granted $677 from these sources; the average black awardee received $821. Though black students received smaller average awards under two of the three campus-based programs, a black student was about five times as likely as a white student to receive multiple awards. This is why their overall average surpasses that for white students.

Institutional assistance programs. Among the dozen or so federal programs that assist postsecondary institutions, two have the intended purpose of targeting aid to disadvantaged students through the secondary or postsecondary schools they attend. One program, Strengthening Developing Institutions (1977 appropriations: $110 million), supports those schools which require financial bolstering in order to reach their academic and managerial potential. The other program, Special Programs for Students from Disadvantaged Backgrounds (1977 appropriations: $85 million), offers remedial counseling, information, and referral services through Talent Search, Upward Bound, Special Services, Educational Opportunity Centers, and the newly authorized service learning centers.

Under the Developing Institutions program about 250 schools are assisted. Black students comprise about 35 percent of the enrollment at these schools, and predominantly black institutions receive about 50 percent of the program's funds (see Tables 12 and 13).

16/ The last period for which final and reliable fiscal operations data are available.

TABLE 11. AMOUNTS SPENT, RECIPIENTS, AND AVERAGE AWARDS OF CAMPUS-BASED STUDENT ASSISTANCE, BY RACE, FOR FISCAL YEAR 1973

	Programs			
	Direct Loans	Supplemental Grants	College Work-Study	Total
	Amounts Spent in Millions of Dollars			
All Races	433 (100)	189 (100)	296 (100)	918 (100)
Black	94 (22)	75 (40)	88 (30)	257 (28)
White	272 (63)	79 (42)	160 (54)	511 (56)
Other	67 (15)	35 (19)	48 (16)	150 (16)
	Number of Recipients in Thousands a/			
All Races	640 (100)	331 (100)	538 (100)	1278 (100)
Black	145 (23)	178 (54)	138 (26)	313 (24)
White	392 (61)	105 (32)	319 (59)	755 (59)
Other	103 (16)	48 (15)	81 (15)	209 (16)
	Average Assistance in Dollars			
All Races	677	571	550	718
Black	648	421	638	821
White	694	752	502	677
Other	650	729	593	718

SOURCE: Division of Student Financial Aid, Bureau of Post-secondary Education.

NOTE: Numbers in parentheses are column percents.

a/ "Total" column and "All Races" row are unduplicated counts of recipients.

TABLE 12. STRENGTHENING DEVELOPING INSTITUTIONS (BASIC AND ADVANCED INSTITUTIONAL DEVELOPMENT PROGRAM) AWARDS FOR FISCAL YEAR 1976

Type of Institution	Number of Institutions	Total Funds	Average Funds Per Institution
Predominantly Black Institutions	68	$54,580,000	$802,650
Predominantly White Institutions	169	$55,420,000	$327,930
All Institutions	237	$110,000,000	$464,135

SOURCE: Advisory Council on Developing Institutions, Annual Report, March 1977.

TABLE 13. ENROLLMENT AT DEVELOPING INSTITUTIONS (FUNDED UNDER TITLE III) BY RACE, IN FISCAL YEAR 1976

Race	Number Enrolled	Percent Enrolled
Black	267,800	35.3
White	389,100	51.3
Other	101,400	13.4
Total	758,300	100.0

SOURCE: Division of Institutional Development, Bureau of Post-secondary Education, unpublished data.

In three of the special programs for the disadvantaged (the Trio of Talent Search, Upward Bound, and Special Services) 50 percent of the students served were black; 23 percent were white. A greater than average percent of those receiving intensive academic and counseling services through Special Services (at the college level) or Upward Bound (at the high school level) were black students. (See Table 14.)

TABLE 14. PERCENT DISTRIBUTION OF "TRIO" STUDENTS, BY RACE, FISCAL YEAR 1976

	All Students		Race		
	Number	Percent	Percent Black	Percent White	Percent Other
Upward Bound	62,732	23	57	27	16
Special Services	89,753	33	51	21	28
Talent Search	122,810	44	45	21	34
TOTALS	275,295	100	50	23	27

SOURCE: Compiled for CBO by the Mid-America Association of Educational Opportunity Program Personnel from U.S. Office of Education data.

The Impact of Student Assistance Programs

The Basic Grants program has brought a substantial amount of federal aid to minority students during its growth from a funding level of $122 million in fiscal year 1973 to $1.9 billion in fiscal year 1977. Aid under the campus-based student assistance programs, which totals about $1 billion in fiscal year 1977, has been used to augment students' awards by building up from the Basic Grants award. Through these programs federal post secondary assistance has concentrated, in recent years, on lower-income, more financially needy students.

There are no completed studies which assess the impact on enrollment and retention of these student assistance programs since the introduction of the Basic Grants program in 1973-1974. However, it is generally believed that reducing the perceived price of postsecondary education to students will induce more students to attend. One recent study suggests that between 1968 and 1972 "expanded financial aid programs may have increased the likelihood individuals would attend college by somewhere between 0.3 and 2 percentage points." 17/

Certain provisions of the Education Amendments of 1976 may, however, shift the focus of student assistance. First, the "liberalized" Guaranteed Student Loan program -- with expanded subsidy eligibility to students from families with incomes between $15,000 and $25,000 18/ -- would facilitate loans to students from middle- and upper-middle income families. Second, the legislated increase in the Basic Grants maximum award from $1400 to $1800 would allow small awards to newly eligible students from middle-income families and slightly higher awards for some students, but no increase in awards to low-income students who attend low-cost institutions. These provisions would tend to reduce minority students' share of student assistance funds. But new student consumer information provisions and the new service learning centers may offset some of this proportionate loss by identifying and informing more disadvantaged students of available financial aid and educational opportunities.

The Impact of Institutional Assistance Programs

Aid to institutions will affect both the schools and their clientele. The degree of influence on these two groups will depend upon the interpretation of legislative intent, the administrative regulations, and the attitudes of those implementing the program. As an example, the Developing Institutions pro-

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17/ George B. Weathersby, Gregory A. Jackson, and others, The Development of Institutions of Higher Education: Theory and Assessment of Impact of Four Possible Areas of Federal Intervention: Final Report, Appendix E, Abstract, (Harvard University, Graduate School of Education, January 1977).

18/ This is adjusted family income which equals $19,000 to $31,000 in adjusted gross income.

gram's mandate is to assist those institutions that are "out of the academic mainstream" by improving institutional resources, managerial skills, etc. However, a GAO evaluation study found, among other things, that 25 percent of the administrators at developing institutions who were polled believed that the "program should be directed toward low-income students' needs," while 70 percent believed that the "primary purpose was to strengthen the institution." 19/ With many institutional aid programs, like Developing Institutions, it is difficult to measure effectiveness until there is an agreed upon set of goals or a readily identifiable target population.

Developing Institutions. The most recent evaluation and developmental study of Developing Institutions could not assess the program's impact on institutional development because the available quantitative data provided no measures of development. 20/ As a remedy, the evaluators suggested that close monitoring and well-defined eligibility criteria be established to identify schools that would be suited for initial or advanced assistance (Basic and Advanced Program). This suggestion was meant to guide institutions better into and through the program and to dislodge those that can no longer be classified as "developing."

This study also examined the impact of student aid on developing institutions and concluded that "the only effect of student-directed federal aid on black colleges was their share of its modest but general effect on students' inclinations toward college." Overall, the study argues that: student aid doesn't disproportionately help these institutions; the effect of direct institutional support cannot, at present, be measured; and the measures of institutional activity (more library volumes, more Ph.D. faculty, etc.) at Title III schools are not significantly different than at nonfunded institutions.

Trio programs. The Talent Search program placed 42,000 clients in postsecondary education in academic year 1974-1975. About 13,000 actual or potential dropouts were persuaded to return to school or college. Slightly more than 3,600 were

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19/ General Accounting Office, Assessing The Federal Program For Strengthening Developing Institutions Of Higher Education, Report No. MWD-76-1 (October 31, 1975).

20/ George B. Weathersby, et al., op. cit.

enrolled in high school equivalency programs. In addition, 12,800 veterans were placed in postsecondary education, and 7,100 were enrolled in high school equivalency programs through the Talent Search effort of the Special Veterans component of the Upward Bound program.

Program records for Special Services show that in 1974-1975 almost 15,000 students successfully completed the program: about 6,500 students showed adequate academic and personal adjustment and moved out of the program into the regular academic channels of the host institutions, about 5,500 graduated from the host institutions, and about 2,500 left the host institutions to transfer to other colleges.

The latest available Upward Bound program data show that in 1974 almost 11,000 participants completed high school and that about 70 percent of these were planning some form of post-secondary education. About 6,300 of the 1974 graduates actually enrolled in college the same year. The postsecondary enrollment rate of Upward Bound high school graduates was significantly higher than the rate for the comparison group. Also Upward Bound enrolled a much larger proportion (76 percent) of its students in four-year colleges than did the comparison group (45 percent), and fewer in two-year colleges and vocational-technical schools.

However, the Trio programs suffer, in varying degrees, from a failure to identify clearly their target population. Talent Search seems to suffer most "from a lack of clear definition and logic" while "its intervention models are not well-defined or coherent." Special Services showed "little positive indication of any significant impact...on the academic achievement of the target population." Upward Bound, in contrast, has had a pronounced and measurable effect on the postsecondary participation of its students, but its effectiveness in improving the college performance or retention of participants has yet to be tested. 21/

21/ U.S. Department of Health, Education and Welfare, Annual Evaluation Report on Programs Administered by the U.S. Office of Education, Fiscal Year 1975, pp. 310 and 318.

CHAPTER IV. IMPACT OF BUDGETARY INCREMENTS TO FEDERAL PROGRAMS ON THE EDUCATIONAL EXPERIENCES OF BLACK AMERICANS

During the last 12 years, the Congress has enacted a variety of legislation that indirectly addresses the disparities in educational achievement and attainment between blacks and whites. Through the Head Start preschool program, Title I elementary and secondary compensatory education program, emergency school aid, the Trio programs and postsecondary student assistance programs, blacks are provided educational and financial resources in greater proportion than their numbers in the school age population. Each of these programs has generally been shown to be somewhat effective in meeting its particular goals. Together, the programs can be considered a federal strategy which, among other purposes, tries to improve the educational opportunities and performance of minority children.

The current state of research, however, does not allow a direct comparison of the relative effectiveness of the various programs discussed in this paper, for at least two reasons. First, each is aimed at (and measured by) different goals. For example, the effectiveness of the Head Start program can be measured in part by the performance of enrollees on achievement tests. In contrast, the success of the Basic Grants student aid program can be gauged by its effects on the enrollment of low-income students. And second, most of these programs have not existed long enough to allow researchers to measure their effects on the one goal it could be argued they all share: to improve the post-schooling opportunities of recipient children. Until such research is performed, there is no hard evidence to conclude that any one "intervention" strategy is any more effective than another.

Meanwhile, it is useful to note the effects of different funding strategies on the number of students served and the proportion of additional funding that will help minority students. Table 15 summarizes the effects of each additional $100 million in the various programs that substantially assist minority students. In general, because most of these programs include an income measure in order to allocate funds to those in greatest economic need of assistance, and because blacks are dispropor-

TABLE 15. MAJOR FEDERAL EDUCATION PROGRAMS DISPROPORTIONATELY ASSISTING BLACK STUDENTS

Program	Fiscal Year 1977 Appropriation (in millions of dollars)	Number of Recipients	Percent Black	Dollars Per Student	Effect of An Additional $100 Million
Head Start	475	349,000	50	1,505 a/	Would serve an additional 66,000 in full-year programs at current per child spending rates.
ESEA, Title 1	2,285	5,605,000 b/	34	377	Would either increase per pupil spending from $377 to $396 or add 265,000 new regular year pupils, or open one million summer school slots, or some combination of these.
Emergency School Aid	275	2,200,000 c/	40-60	125 d/	If added to state apportionment program, would fund districts with application levels; if added to other area, e.g., magnet schools, would add students not served in regular LEA programs (OE estimates 50,000-80,000 new students per $50 million in magnet schools).
Vocational Education	612	16,000,000	15 e/	38	Would increase federal subsidy to $44.50. Would not likely add to number of students served or level of service, unless earmarked for special programs.
Student Assistance: Basic Grants	1,904 f/	1,975,000	27 g/	911	Could raise ceiling $100 reaching new middle-income eligibles; tighten contribution schedule by reducing income breakpoint to $3,000 increasing under $10,000 incomes share of funds by 3 percentage points; loosen contribution schedule with opposite effect.

a/ Full-year cost for 292,000 children; the 46,000 children in summer programs are served at $175 per child.

b/ Includes children served by state agencies as well as by local educational agencies (LEAs).

c/ Excludes students served by educational television (3,218,056) and counts only once students served by more than one ESAA project.

d/ Ranges from $50 to $1,000 per student, depending on program and characteristics of LEA or nonprofit group sponsoring services.

e/ 15.1 percent of total vocational students are black; however, about 30 percent of students in special programs for the disadvantaged are black.

f/ Available funds total $1.

TABLE 15. (Continued)

Program	Fiscal Year 1977 Appropriation (in millions of dollars)	Number of Recipients	Percent Black	Dollars Per Student	Effect of An Additional $100 million
Supplemental Grants	250	445,000	54 h/	562	At current average award would serve 178,000 more students of which about 40 percent would be low-income dependent students.
College Work-Study	390	891,000	26 h/	525	At current average award would aid 229,000 additional students -- 30 percent to students from low-income families.
Direct Loans	311	834,000	23 h/	690 j/	At current average loan would disburse 159,000 more loans -- over 20 percent to students from low-income families.
Guaranteed Loans	357	866,000	14 i/	1,210 j/	Increased subsidy commitments of $100 million would require the disbursement of about 970,000 new loans at the current average amount; new subsidy provisions suggest that these loans would go to middle- and upper-middle income families.
Institutional Assistance:					
Developing Institutions	110	758,000 k/	35 l/	145	About twice the number of institutions would be served with significant expansion at urban institutions.
Special Programs for Disadvantaged	85	275,000	50	309	About 324,000 new eligibles could be served.

h/ These are Fiscal operations data from fiscal year 1973. They probably overstate the percent of blacks served in each year since the inception of Basic Grants.

i/ Survey estimate for fiscal year 1973.

j/ Average loan per borrower.

k/ Enrollment at Title III schools.

l/ Percent of enrollment at Title III schools.

tionately represented in the lowest income groups, a substantial portion of current assistance goes to black students. Because any new students who will be served as a result of additional funds in most of these programs will generally be from families with slightly higher incomes than those currently served, the proportion of new black students will be less than in the group presently served. However, their absolute numbers will remain substantial.

In the Head Start preschool program, an additional $100 million would result in full-year services for an additional 66,000 children. At present funding levels, only about 15 percent of those eligible to receive services are enrolled; each additional $100 million could increase that level by about 3.5 percentage points. To serve the eligible population fully would require an additional $2.5 billion. Because new monies could be utilized by the Office of Child Development to fund additional centers, and the groups to be served would be quite similar to the present enrollees, the proportion of black children added to the program would be the same as now, around 50 percent.

The impact of additional Title I funds is less certain. School districts could use new monies to increase the level of services to those currently in the program, or they could choose to serve more children. An additional $100 million would allow LEAs to increase average spending per child from the present $377 to about $396, or to serve an additional 265,000 children at $377 per student, or some combination of the two. Because the most disadvantaged students are now served, the proportion of added students who would be black would be somewhat less than the current one-third. Just over 50 percent of the eligible children in Title I-eligible schools are now being served. At current levels of spending per child, around $2 billion in additional spending would be needed to serve all of these eligible students. 1/

Another proposal receiving increasing attention is to offer Title I programs during the summer for all regular school year students who choose to participate. In this way the major

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1/ $2 billion (in addition to fiscal year 1977 appropriations of $2.285 billion) does not include any additional funds which may be needed annually to counteract the effects of inflation on Title I programs.

drawback to the present program, the loss over the summer of achievement gains made during the school year, might be directly attacked. Stanford Research Institute personnel who have been extensively studying this question indicate that if all districts currently offering Title I programs during the school year were to make available a summer program, about half of the regular school year Title I children would participate. However, the researchers have also found that summer programs are somewhat more expensive than the regular school year offerings. Because summer programs must often underwrite the costs of transportation, food, and other expenditures the school district finances during the regular school year, an average eight-week summer program would cost about $100 per child (compared to about $377 for a full school year Title I program in fiscal year 1977). Very few of the more than five million Title I students now receive summer services. To implement summer programs for the current Title I recipients at the anticipated participation rate of 50 percent, about $275 million would be required.

Emergency School Aid consists of a number of separate programs; therefore, the effect of an additional $100 million would depend considerably on where the money was directed. If the funds were added to a state apportionment program, school districts with applications on file but unfunded at present appropriation levels could be served. If the $100 million were added to one of the other programs, such as magnet or neutral site schools, 2/ students who may not be served by the regular LEA program could be reached. The Office of Education estimates that an additional $50 million for magnet schools would assist 50,000 to 80,000 students. The proportion of these students who

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2/ "The term 'magnet school' means a school or education center that offers a special curriculum capable of attracting substantial numbers of students of different racial back grounds." (Section 720(9), ESAA.) "The term 'neutral site school' means a school that is located so as to be accessible to substantial numbers of students of different racial backgrounds." (Section 720(12), ESAA.) These two devices are commonly used by districts attempting to reduce the concentrations of minority students in particular schools as part of a voluntary desegregation effort. Federal funds for these purposes are allocated to districts or groups of districts on a project grant basis and are not apportioned among the states (as is the case with the majority of ESAA funds).

would be black is not known, though about half those in current programs are black.

An additional $100 million in vocational education funding would have little effect, both on service levels in general and for black students in particular, unless it were specifically earmarked for special programs for disadvantaged students. The current federal role in the financing of vocational education would allow the additional $100 million, if added to the basic grant to states, to be utilized by states and LEAs to finance increasing costs and not to increase levels of service to students. However, an additional $100 million in special programs for the disadvantaged would increase fivefold the current appropriation. 3/ Currently, 162,000 students are served through this program, about 30 percent of whom are black. Approximately 450,000 additional disadvantaged students could be served by an additional $100 million.

The impact of funding additions to postsecondary programs are somewhat more complicated. Spending an extra $100 million in the Basic Grants program would require some legislative or administrative action which changes the program's award criteria. The form of that action is critical for minority students. If the Congress raises the award ceiling by $100, for example, this action would bring in many new eligibles from primarily middle-income families (incomes between $15,000 and $20,000). But it would not provide more grants for low-income students attending community (or other low-cost) colleges. On the other hand, a reshaping of the Basic Grants contribution schedule could work to the advantage of low-income (disproportionately minority) students by, for example, decreasing the proportion of a family's income expected to pay for educational costs.

Since the distribution of campus-based student assistance relies on the discretion of financial aid officers, who use the results of a "needs" test as a guide, the effect of $100 million more in any of these programs is difficult to pinpoint. Limited data suggest that currently available funds go first to assist the neediest students (who are disproportionately black). Increases in assistance would likely be distributed to students from families whose incomes average slightly higher (i.e.,

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3/ The authorization for this program (as amended by Sec. 202 of the Education Amendments of 1976) is $35 million in fiscal year 1978.

proportionately fewer from minority groups) than those of the current group of recipients. However, substantial increases in funding for campus-based programs may aid in the recruitment of additional low-income students.

Federal expenditures in the Guaranteed Student Loan program depend upon the actions of lending institutions. If banks were to make available about $1.2 billion in new loans to students, the federal commitment for subsidy payments would increase about $100 million. Under recent changes in the loan program's subsidy provisions, it is likely that most of these new loans, particularly first-time loans, would be made to middle- and upper-middle-income families (incomes between $19,000 and $31,000).

Of the 600 institutions qualified for assistance under the Developing Institutions Program, only about 250 receive any funds. This suggests that adding $100 million (to the fiscal year 1977 appropriation of $110 million) would almost certainly double the number of institutions served and would probably allow increased funding to many large urban institutions that are now eligible but unfunded. This should improve the administrative services and other activities supported by Title III funds at schools with generally higher shares of black students.

Various estimates for the Trio programs indicate that the 275,000 students now being served constitute only 3 to 10 percent of the target population. An additional $100 million could fund about 324,000 new participants at the current cost per student. Of these about 50 percent would be black students, much the same as the proportion of present participants.

In total, over $7 billion was appropriated in fiscal year 1977 to major federal education programs that disproportionately assist black students. While black children constitute about 14 percent of the population 3 to 24 years old, at least 14 percent and as much as 60 percent of those served by the major efforts described in this paper are black. Despite the fact that the neediest students are now being served by these programs, in no case are all of those eligible or in need served at present levels of appropriations. Additional funding for any of these programs would continue to assist blacks and other minority students disproportionately.

Assessing the degree to which increased expenditures in these programs can close any one of the educational gaps between

blacks and whites is beyond the current state of research. Increases in funding, modifications in existing programs, and new initiatives would all surely help, but the link between these actions and changes in key educational measures is at best uncertain. The process by which an individual's measured abilities are enhanced is long and complex. Many variables outside the educational sector may influence performance to a greater degree than those within, particularly in the early years of schooling when parental attitudes towards a child's efforts to learn may be far more influential than the curriculum or teaching staff. The current set of federal programs that aid this process are beginning to have positive effects, but by themselves they hold little hope of solving the problem.

APPENDIX

TABLE A-1. COLLEGE ENROLLMENTS BY RACE FOR 1965 THROUGH 1975 (NUMBERS IN THOUSANDS)

Fall of Academic Year	Total Enrolled, All Races	Black Percent	White Percent	Other Percent
1965-66	5,675	4.8	93.7	1.5
1970-71	7,413	7.0	91.2	1.8
1971-72	8,087	8.4	89.9	1.7
1972-73	8,313	8.7	89.7	1.5
1973-74	8,179	8.4	89.5	2.1
1974-75	8,827	9.2	88.1	2.6
1975-76	9,697	9.8	87.8	2.4

SOURCE: U.S. Bureau of the Census, Current Population Reports, Series P-20, "School Enrollment."

NOTE: Since these are estimates based on a sample of the population, they are subject to some sampling variability. The chances are 68 out of 100 that the estimates for blacks would differ from a complete census by $\pm$ 50,000; for whites by $\pm$ 140,000; for other races, by $\pm$ 20,000.

TABLE A-2. FIRST TIME, FULL TIME FRESHMEN BY RACE FOR 1970 THROUGH 1975

Fall of Academic Year	Total First-Time Full-Time Enrollments	Percent White Enrollees	Percent Black Enrollees	Percent Other Enrollees
1970-71	1,617,300	91.5	6.2	2.2
1971-72	1,634,150	91.4	6.3	3.9
1972-73	1,557,500	87.3	8.7	6.1
1973-74	1,649,000	88.5	7.8	5.2
1974-75	1,673,100	88.6	7.4	5.6
1975-76	1,760,500	86.5	9.0	6.7

SOURCE: American Council on Education and Cooperative Institutional Research Program, The American Freshman: National Norms (1969-1975).

NOTE: Percentages will sum to more than 100 if students checked more than one category.