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Factors effecting achievement in ESEA Title I schools and non-ESEA Title I schools.

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FACTORS EFFECTING ACHIEVEMENT
IN ESEA TITLE I SCHOOLS
AND NON-ESEA TITLE I
SCHOOLS

A Dissertation Presented

By

James Isiah DeShields

Submitted to the Graduate School of the
University of Massachusetts in
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TABLE OF CONTENTS

	Page
ACKNOWLEDGEMENTS.....	vi
ABSTRACT.....	vii
LIST OF TABLES.....	ix
FORWARD.....	xi
CHAPTER I - Introduction.....	1
Basic Assumption of the Sixties.....	3
Problems Facing the Seventies.....	9
Institutional Bias Against Urban Students.....	12
Recognizing the Strength of the Urban Students.....	16
Treating the Symptom.....	18
The Real Need.....	19
Educational Reconstruction of A City.....	22
Purpose of This Study.....	23
CHAPTER II - Review of the Literature.....	26
Scientific Racism.....	27
Race Differences Revisited.....	29
Responses to Jensen's Article.....	32
Critique.....	39
Racial Isolation.....	42
The Case Against IQ Tests.....	46
The Case for IQ Tests.....	50
Intelligence and Genes.....	52
Conclusion.....	54

CHAPTER III - Method and Procedures.....	60
Introduction.....	60
Statement of the Problem.....	60
Statement of the Purpose.....	63
Statement of the Hypotheses.....	64
Definition of Terms.....	65
Methodology.....	66
Locale.....	66
Experimental Variables.....	67
Selection for ESEA, Title I Funds.....	67
School Rank.....	70
Statistical Analysis.....	70
CHAPTER IV - Analysis of the Data.....	73
Part I - Total Population of Elementary Schools.....	74
Hypothesis I.....	74
Hypothesis II.....	76
Hypothesis III.....	78
Hypothesis IV.....	79
Hypothesis V.....	79
Additional Relationships.....	80
Stepwise Regression Analysis.....	80
Prediction of Reading Success.....	81
Prediction of Arithmetic Success.....	81
Parallelism of Regression Analysis.....	81
Part II - ESEA Title I Schools.....	87
Stepwise Regression Analysis.....	90

Part III - Non-ESEA Title I Schools..... 93

 Stepwise Regression Analysis..... 95

CHAPTER V - Conclusions..... 99

 Socio-economic Discrimination..... 99

 A Dual System..... 106

 Corporate Control of Education Policy..... 110

 Conclusions..... 113

 Implications of this Study..... 115

 Limitations of this Study..... 116

 Recommendation for Further Study..... 117

APPENDICES..... 118

BIBLIOGRAPHY..... 126

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Jimm

ABSTRACT

FACTORS EFFECTING ACHIEVEMENT
IN ESEA TITLE I SCHOOLS
AND NON-ESEA TITLE I
SCHOOLS

This study investigated performance on the Comprehensive Tests of Basic Skills between children from ESEA Title I school districts and children from non-ESEA Title I school districts in Washington, D. C. Specifically, this study examined the extent to which there was a relationship between achievement and the density of children per school reflecting socio-economic variables used as criteria to select Title I target areas in the District of Columbia.

Twelve variables were used in this study. The twelve variables consisted of ten independent variables and two dependent variables. Reading and arithmetic scores were the dependent variables. Only elementary schools were used in this study. Based on their rank all of the elementary schools were divided into ESEA Title I schools and non-ESEA Title I schools.

In the initial analysis the t-test of significance was used to examine the difference between means for ESEA Title I schools and non-ESEA Title I schools for eight of the twelve variables. A second analysis was conducted using Spearman's Coefficients of Correlation to examine the relationship among all twelve variables. The Stepwise Regression Analysis was then conducted to examine the best possible predictive relationship among the set of ten independent variables and each dependent variable, respectively. A fourth analysis was conducted

using the test of Parallelism of Regression to examine the extent to which one regression line for each predictive variable could be used for all observations.

The analysis of the data was divided into three parts. The first part included an analysis of the data derived from the total sample which included comparisons between ESEA Title I schools and non-ESEA Title I schools. The second part included an analysis of data derived from the sub-population of ESEA Title I schools. The analysis of the data for the third part was derived from the sub-population of non-ESEA Title I schools.

The analysis of data indicated that students who attended ESEA Title I schools performed at statistically significant lower levels in both reading and arithmetic performance than students who attended non-ESEA Title I schools. The data analysis also suggested that ESEA Title I Rank was the single best predictor of performance on the reading test. However, ESEA Title I Rank was not a significant predictor of performance on the arithmetic test. Lastly, the Parallelism of Regression analysis suggested that for most of the independent variables, ESEA Title I schools and non-ESEA Title I schools can be treated as independent populations.

LIST OF TABLES

Table	Page
I Comparisons Between ESEA Title I Schools and Non-ESEA Title I Schools.....	75
II Correlation Matrix for Significant Predictors and Criterion Variables (All Schools).....	77
III Stepwise Regression Analysis for Specific Independent Variables as Predictors for Performance on the Basic Test of Comprehensive Skills for Reading (All Schools).....	82
IV Stepwise Regression Analysis for Specific Independent Variables as Predictors for Performance on the Basic Test of Comprehensive Skills for Arithmetic (All Schools).....	83
V Test of Parallelism of Regression Results Among Selected Independent Variables as Predictors for Performance on the Basic Test of Comprehensive Skills for Reading Between ESEA School and Non-ESEA Schools.....	85
VI Test of Parallelism of Regression Results Among Selected Independent Variables as Predictors for Performance on the Basic Test of Comprehensive Skill for Arithmetic Between ESEA Schools and Non-ESEA Schools.....	86
VII Correlational Matrix for Significant Predictors and Criterion Variables (ESEA Schools).....	88
VIII Stepwise Regression Analysis for Specific Independent Variables as Predictors for Performance on the Basic Test of Comprehensive Skills for Reading (ESEA Schools Only).....	91
IX Stepwise Regression Analysis for Specific Independent Variables as Predictors for Performance on the Basic Test of Comprehensive Skills for Arithmetic (ESEA Schools Only).....	92
X Correlational Matrix for Significant Predictors and Criterion Variables (Non-ESEA Schools).....	94

IX	Stepwise Regression Analysis for Specific Independent Variables as Predictors for Performance on the Basic Test of Comprehensive Skills for Reading (Non-ESEA Schools Only).....	96
XII	Stepwise Regression Analysis for Specific Independent Variables as Predictors for Performance on the Basic Test of Comprehensive Skills for Arithmetic (Non-ESEA Schools Only).....	97

FORWARD

A victim of his environment, the ghetto child begins his school career, psychologically, socially, and physically disadvantaged. He is oriented to the present rather than the future, to immediate needs rather than delayed gratification, to the concrete rather than the abstract. He is often handicapped by limited verbal skills, low self-esteem, and a stunted drive toward achievement.¹

The "social deprivation hypothesis" is the belief that children of ethnic minorities and the economically poor who achieve "below average" in school do so mainly because they begin school lacking certain crucial experiences which are prerequisites for school learning--perceptual, attentional, and verbal skills, as well as the self-confidence, self-direction, and teacher oriented attitudes conducive to achievement in the classroom. It is further assumed that they lack the parental help and encouragement needed to promote academic achievement throughout their schooling. The chief aim of preschool and compensatory programs, therefore, is to make up for these environmental lacks as quickly and intensively as possible by providing the assumedly appropriate experiences, cultural enrichment, and training in basic skills of the kind presumably possessed by middle-class "majority" children of the same age.²

¹Carl J. Dolce, "The Inner-City--A Superintendent's View," Saturday Review of Literature, January 11, 1969, p. 36.

²Arthur R. Jensen, "How Much Can We Boost IQ and Scholastic Achievement?" Harvard Educational Review, XXXIX (Winter, 1969), 1-123.

According to Ryan the present use of the deprivation hypothesis is not much different from the old-fashioned racist ideologies.³ He points out that the latter simply dismissed victims as inferior, genetically defective, or morally unfit; the former shifts its emphasis to the environmental causation. The old-fashioned racist could hold firmly to the belief that the oppressed and the victimized were born that way-- "that way," being defective or inadequate in character or ability. Ryan proceeds to argue that the new hypothesis attributes defect and inadequacy to the malignant nature of poverty, injustice, slum life, and racial difficulties. The stigma that marks the victim and accounts for his victimization is an acquired stigma, a stigma of social rather than genetic origin. "But the stigma, the defect, the fatal difference-- though derived in the past from environmental forces--is still located within the victim, inside the skin."⁴

The formulation of the assumptions underlying deprivation are often quite implicit. The exponents of this concept are most articulate and espouse an elusive ideology for justifying a perverse form of social action designed to change, not society, as one might expect, but rather society's victim. Ryan argues that, "at the same time, these proponents can concentrate their charitable interests on the defects of the victim, condemn the vague social and environmental stresses that produced the

³William Ryan. Blaming The Victim. (New York: Random House, Inc., 1971), pp. 7-9.

⁴Ibid.

defect and ignore the continuing effect of victimizing social forces."⁵

The ideological use of the cultural deprivation hypothesis is based on the formulation that the differences in educational achievement of poor as compared with middle class children--and, more specifically, differences between Black and white children--are mediated by differences in home background. Uneducated parents, crowded living quarters, absence of books, family disinterest in education--all combine to handicap the poor Black children as they enter the school system. There is a specific denial of any innate inferiority; rather there is a perceived, a functional inferiority that is attributable to the depressing and repressive effects of living in poverty, which is condemned as bad and unjust.

As one looks back in retrospect, there has been little or no change in programs that have been based on the deprivation hypothesis. In education, there are programs of compensatory education to build up the skills and attitudes of Black children, rather than structural changes in the schools. In social dynamics, there are social engineers who develop ways to strengthen the Black family rather than methods of eliminating racism. In health care, there are newly developed programs to provide health information (to correct the supposed ignorance of the poor) and to reach out and discover cases of untreated illness and disability (to compensate for their supposed unwillingness to seek treatment). Meanwhile, the gross inequities of medical care delivery systems are left completely unchanged. As one might expect, "the logical outcome of analyzing social problems in terms of the deficiencies of the victim is the development of programs aimed at correcting those

⁵Ibid.

deficiencies. The formula for action becomes extraordinarily simple: change the victim."

The folklore of cultural deprivation is used to preserve the core of the status quo in urban education. It has been effective in forestalling questions about the fundamental problems of recruiting and training teachers and governing the school system. Educators advocate Head Start, bussing, teaching machines, Swahili--almost anything that involves changing or manipulating or treating the child. However, it is difficult to get acceptance on proposals that imply there might be anything at all wrong with the teacher or the teaching. Most will resist any exploration of, or intrusion into, the monopolistic control of public education by the teaching profession, particularly if it implies participation in decision-making by laymen from the community.

⁶Ibid.

CHAPTER I

We must particularly ask, to whom are social problems a problem? And usually, if truth were to be told, we would have to admit that we mean they are a problem to those of us who are outside the boundaries of what we have defined as the problem. We cannot comfortably believe that we are the cause of that which is problematic to us; therefore, we are almost compelled to believe that they--the problematic ones--are the cause and this immediately prompts us to search for deviance. Identification of the deviance as the cause of the problem is a simple step that ordinarily does not even require evidence.⁷

Introduction

Before the euphemism, Urban Crises, became popular in this nation, the city represented one of the most sophisticated civilized aspirations of modern man. During the past two decades, American cities have grown into unwieldy, unmanageable seas of frustration. Urban school systems which once represented some of America's finest efforts, are now trapped in a spiral of deterioration. As measured by the effects on Black children, city schools are failing. All citizens are paying a heavy price for this decline--reflected in the dramatic upsurge of drug use, crime, welfare, and other social anomalies. The most obvious victims are the casualties themselves, found mainly (but not exclusively) in those parts of the city that need education most desperately--the low-income neighborhoods. Poor people in the big cities have little choice but the public schools. In the absence of meaningful educational opportunities, the poor, particularly urban minorities, tend to express their

⁷Ibid., pp. 12-13.

frustration in various ways including apathy and withdrawal on the one hand and overt hostility on the other.⁸

It is often asserted that the primary purpose of the contemporary urban school is, "...to educate the young and the not-so-young to live productive and meaningful lives."⁹ Faced with the heterogeneity of aspirational levels and social mores of the people, individuals charged with the responsibility of providing a comprehensive education for all the people of the city confront a formidable task. Complicating their job still further are the hard facts of city life such as:

1. Formal and informal real estate covenants that impede social mobility;
2. Uneven distribution of student population and inadequate transportation facilities that inhibit access to schools distributed throughout the city;
3. Unequal educational and employment opportunity for graduates of city schools which result in lower motivation for large segments of the school population;
4. Problems of school administration brought about the sheer numbers of faculty and students.

Added to all this are the strident voices of the populace venting its anger, its frustration, and its fears upon those charged with the administration of the schools and the education of the young.

⁸Mario D. Fantini, The Reform of Urban Schools (Washington, NEA, 1970), p. 6.

⁹Herbert C. Rudman and Richard L. Featherstone, Urban Schooling (New York: Harcourt, Brace & World, Inc., 1968), pp. 2-3.

By and large, the general nature of urban education and its environment is a very "bad" scene. It is far from pleasant. In general, vis-a-vis minorities, education in this country has never been assigned an adequate priority in terms of financial, human and material resources. The problem facing urban educators is a very complex one. The basic problem is that a major change has occurred in the awareness of large numbers of American citizens, specifically, the minority racial and ethnic groups. They are convinced that they have been short-changed by their fellow American citizens (the white majority) who largely control the social, economic, political and educational institutions in our nation. The steady accumulation of evidence across a wide spectrum of human needs and rights are strong indications that this perception is largely supported. It is within this context that urban education must be received, revitalized and redeployed.

Basic Assumptions of the Sixties

The decade of the Sixties was a revolutionary epoch in American education, but the revolution was not in the schools. The two most powerful forces for educational reform that have appeared in this century--the civil rights movement and the student rebellion--caused widespread ferment and dramatized the desperate need for radical reformation of the educational enterprise, but ultimately they proved only how resistant our educational institutions are to change. The revolution came, not in the schools, but in our view of them, in our changing conception of the nature of childhood, and what society, through its schools,

should do for children, rather than to them.¹⁰

During the early years of the decade the civil rights movement pricked the conscience of the nation and sparked a massive drive to give reality to the ideal of equal educational opportunity. But the task of overcoming the fruits of deprivation proved far more difficult than anticipated, and it became progressively clearer that many in the nation were committed to the ideal of equality only so long as it did not interfere with their right to pursue business as usual. The decade closed in a mood of deepening frustration as doubts increased that the schools could ever change enough to serve poor people.

The result was a new mood of questioning--particularly of the public school "monopoly"--and a search for alternatives. Fifty or a hundred years ago, the concept of free public education for all children embodied the highest ideals of an expanding democracy. And over the years the public schools have developed a mystique that viewed them as the very foundation stone upon which democratic society stands. However, during the Sixties the schools were challenged increasingly not only for their contemporary failures, nor even for the fact that they have always failed the poor and the dispossessed, but because they were positively destructive influences for many of the children entrusted to their care. Questions were raised as to whether any institution that enjoys a virtual monopoly can remain sensitive and responsive to the changing needs of its diverse clientele. And some of the more radical critics were

¹⁰James Cass, "The Crisis of Confidence--and Beyond," Saturday Review, September 19, 1970.

questioning the traditional concept of schooling itself in an age when knowledge is accessible from so many different sources. Clearly, at the end of the decade, the nation was experiencing a crisis of confidence in its schools.¹¹

Through the decade, one of our major concerns was the equalization of educational opportunity for all young Americans, regardless of race, economic level, or social background. We became aware that merely throwing open the school house door was not enough--that some kind of compensatory education was necessary for those who had faced injustices in the past. Though progress has been made, the promise of equal educational opportunity for all has not yet been fulfilled.¹²

During the past decade inner city schools have been increasingly populated with students for whom conventional public schools have proven inadequate. Attempts to improve services have proved only minimally successful and students continue to be alienated by the school systems which purported to serve them. The specialness of the inner city is that the needs and interests of the people who live there are often different from those which most teachers and administrators have been trained to address. It is unlikely that school administrators will ever develop the capacity to construct programs which address needs and interest different from those most familiar to them as long as we continue to train people in and for a compulsory environment.

¹¹Ibid.

¹²Paul Woodring, "Retrospect and Prospect," Saturday Review, September 19, 1970, pp. 66-68.

Looking back in retrospect we see that alienation begins at a very early age. It begins when schools fail to perceive the problem at this early stage and then fail to adjust adequately when the problems are surfaced. By the time youth are of school age, their problems usually have not been anticipated or dealt with by the schools. Consequently, even in the primary grades, it is often too late. In many instances the youth become misfits in a system which is meaningless to their needs. Many students must give up before they ever really begin, too out of step with the system ever to penetrate it.

There have been significant attempts by many urban schools to correct some of these problems such as compensatory education programs to reach preschool children, outreach programs to bring more children into the system, and special education programs to assist the marginal student. These programs have had some success but even where they have recognized the educational needs of the student in the system, they have not been sufficiently successful. This is reflected in the fact that the dropout rate of the inner city schools is nearly 40 percent compared with the national average of approximately 27 percent.

Simplistic and partial solutions which have been and may still be offered to resolve complex educational problems of increasing magnitudes are untenable. Part of the problem resulted from the assumptions and premises used as a rationale for teaching inner city youth. The first assumption had to do with the nature of the educational problem. The terms culturally deprived or culturally disadvantaged carried with it the notion that there was something wrong with the learner--with his cultural and environmental background, not with the school and its

educational process. In short, it was assumed that the problem was with the students rather than the school.

Fantini points out that, "With such a diagnosis, it made sense to mount programs of compensatory education, programs that focused on the remediation of the "disadvantaged learner" with the aim of rehabilitating him to fit the existing school."¹³ Most of the Federal programs of intervention--most notably Title I of the Elementary and Secondary Education Act--were, and still are, compensatory in nature, attempting to get learners to adjust to schools rather than the other way around.

The compensatory strategy supplied neither a revised foundation nor a changed model for educating inner city youth. It simply piled new layers onto an old, weary framework. In many ways the recent era of compensatory education has served to reinforce the original theory of adaptation and adjustment to middle-class society, something that will not work for inner city youth. Fantini further states that, "the results of the gap-filling devices have been discouraging indeed. Although youngsters have demonstrated appreciation for extra attention, their later academic performance has not proved to be substantially different."¹⁴

A second major assumption of the 60's was that more money was needed for public school improvement. While on the surface, this does not appear to be a fallacious assumption, it becomes so when more money is used to do more of the same thing. Money has been poured into an

¹³Fantini, Reform of Urban Schools, p. 11.

¹⁴Ibid., p. 12.

outdated system. If we continue to do so we will end up with an improved, outdated system. In New York City, for example, the school system doubled its educational budget in less than a decade. Taking into account inflation and rising costs, the doubling of expenditures has produced no significant differences in results related to achievements of inner city youth.

The fact is, however, that present financing is insufficient to meet greater needs in the city. Several factors are responsible for this. The most serious threat to local support for urban education stems from general trends in American metropolitanism. The average metropolitan area is undergoing a process which is decentralizing population and employment from the central city to the outlying areas while at the same time concentrating growing numbers of economically depressed persons within the central city itself. The generally lower income and educational levels of the present city populations inevitably provide the cities with fewer tax dollars and higher educational costs.

Another factor is the inequitable state aid formulas. State aid formulas not only fail to recognize the disproportionate educational expenses of the cities but also compound the problem by providing central cities with less state aid per capita than is made available to the outlying areas. One should also remember that federal funds provide the smallest share of the local educational dollar. Even since the passage of legislation such as the Elementary and Secondary Education Act, which provides substantial educational aid to school areas serving the poor, the total public school expenditures borne by Federal aid has been less than eight percent nationally. In fact, in the 1969 fiscal

year, estimates showed a slight decrease to 7.3 percent. And, in addition, the cities suffer from distribution procedures of Federal aid which do not take into account their special needs, just as they suffer from suburban-oriented state aid.

Accompanying these financial problems related to the changing population, commercial and tax base factors, is the additional strain on city revenues caused by its high public service expenditure needs. Density and deterioration, poverty and the central business district are all factors which require a high service level relative to other jurisdictions.

Programs derived from the basic assumptions of the sixties had little impact on the financial and environmental sets of factors contributing to the urban education problem. Such assumptions only reinforced the fact that financial deficiencies and conditions dominating the urban student's world are prime contributors along with legislative obstacles at all governmental levels, to the urban education problem. What we learned was that, in the face of so many obstacles, all too few systems attempt to or know how to wage a battle geared to overcome such obstacles. We also learned that in too many systems, there are aspects of that system (which are themselves an important contributor to the problem) such as remoteness of its administration from its constituencies; patronizing attitudes; inexperienced, unimaginative, and inappropriately trained teachers.

Problems Facing the Seventies

It is ten years later, and the great dream has come to an end. We

thought we had solutions to everything--poverty, racism, injustice, ignorance. It was supposed to be only a matter of time, of money, of proper programs, of massive assaults. Schrag stated it very well when he said, "...Perhaps nothing was ever tried without restraint or dilution, perhaps we were never willing to exert enough effort or spend enough money, but it is now clear that the confidence is gone, that many of the things we knew no longer seem sure or even probable. What we believed about schools and society and perfection has been reduced to belying statistics and to open conflict in the street and the classroom."¹⁵

The fundamental task for education in the seventies is to put it all back together again. We must help, or force, the schools to become more responsive to the varied needs of children. The system must be open so that its most repressive and destructive characteristics are mitigated, if not eliminated. People must remember that children, too, are human beings who deserve to be treated with as much dignity and respect as other humans. All of us must keep in mind that the objective is the development of children, not the preservation of an institution. And, perhaps most difficult of all, ways must be sought to nurture a wider spectrum of youthful talents and tastes, aptitudes and aspirations.

From the majority viewpoint, the school bussing controversy reflects the major dilemma facing us. With both facts and opinions in contention, the white majority has put forward only one acceptable proposal which the moderate majority of Americans seem willing to accept. Lacking the

¹⁵Peter Schrag, "End of the Impossible Dream," Saturday Review, September 19, 1970.

willingness to harmonize their support for school integration with their demand for the best education possible for their children, many have been convinced to say no to expanded use of bussing for desegregation.

Louis Harris documented a marked turn in national opinion on integration through bussing. In 1971, 47% of those surveyed were willing to have children bussed to achieve integrated education, while only 41% were opposed. A year later only 25% expressed support for this purpose, while 69% indicated that they were unwilling to endorse bussing for desegregation. The recent Florida referendum added an exclamation point to this contradiction. "An overwhelming majority of voters opposed bussing for purposes of school desegregation--while an equally overwhelming majority reaffirmed their commitment to quality integrated education. In coping with this ambivalence, as so often happens in this country, the basic move is to the political center. In the absence of a clear and definite rallying point for the liberals, the shrill voices of the "antis" have dominated public posture."¹⁶

In the present milieu, bussing has become such a symbolic issue that any proposal runs the hazard of seeming to abandon the nation's avowed commitment to equal justice. This is especially true of the pending moratoria and other plans which, while seeking to upgrade educational opportunities for children in poor neighborhoods, are susceptible to the charges that they are resurrections of the ancient vulgarity, "separate but equal." There seems to be little sensitivity to the possibility that such action is perceived by the minority

¹⁶Washington Post, May 27, 1972.

community as a repudiation of this society's stated ideals of racial justice.

It is ironic that the first requirement of policy from the Nixon administration was to reassert a dedication to the established goals of desegregation and equal educational opportunity. It is also evident that the second and equally urgent administration requirement is to reassure not only the minority community but the majority white communities. The dominant motive in the entire squabble over bussing is the fear of whites, mainly middle-class, that their children are about to become victims of wholesale relocations. It seems impossible to see how the Nixon administration can satisfy competing demands. Is it possible to assure the minority communities that their children will have maximum reasonable access to the so-called better schools and the anxious majority that their children will not be placed in jeopardy?

Institutional Bias Against Urban Students

Clearly much more needs to be done to involve inner city youth in the educational process and to keep them interested once they are involved. By excluding or dismissing students who are most seriously in need of educational services, the schools cannot survive as meaningful inner city institutions. In the typical urban setting the parties of interest must be connected in search of quality education. Ideas, however sound, cannot be superimposed on others.

One of the more serious problems with many urban systems today is their lack of sensitivity of the effects of their own biases on their students. The racial and ethnic minorities, the urban immigrants of

today, possess essentially the same general goals as those of the nationality immigrants of yesterday. Among these goals are the attainment of self-respect, personal safety, economic security, and acceptance in the mainstream without loss of individual self-identity. Despite the similarity in goals, today's minorities are separated from previous groups because they must face the incipient ravages of social class distinctions. The school systems which expected middle class performance from those earlier immigrants were fulfilled in their expectations for they were similar to those of the students.

The ethnic populations have changed; their strengths and weaknesses have changed; as well as problems, needs and values. Most systems have not. Many systems' institutional biases and static expectations have limited its capacity to teach children who enter the schools without certain attributes considered important by previous constituencies of the system. According to the HEW Urban Education Task Force, "...Such attributes relate to being oriented to middle class values and expectations, being reading-ready, and having the structural orientation that facilitates shifting from subject matter to subject matter as dictated by time blocs rather than by interest and substance."¹⁷ Because of the widespread use of systems equating a student's capacity to meet their expectation with his possession of such middle class attributes, the concept of the self-fulfilling prophecy has all too often been demonstrated. "Children who are treated as if they are

¹⁷Report of the Task Force on Urban Education of the Department of Health, Education, and Welfare. Urban School Crises (Washington: NEA, 1970), p. 34.

uneducable invariably become uneducable."¹⁸

One major problem is that of the teacher in perceiving his students when those students represent backgrounds and values different from his own has complex origins. In addition to personal difficulties on the part of the teacher to accept and respect differences, there is the education system's--and indeed society's--lack of interest in so doing. Until quite recently, society generally, and teacher education institutions specifically, have attached little status to working with poor Blacks from the inner city.

A major reward in education is the increased status (in the eyes of society) for those who have successfully negotiated the educational system from the primary years through graduate school. For many teachers this status comes as a result of successful achievement at an institution of teacher training. All too often, continued high status often rests on one's ability to teach only those students who are already successfully negotiating the system.

Graduate schools of education, with very few exceptions, have sent their brightest interns to wealthy suburban areas as their "reward"; further reinforcing the notion that good teachers deserve to teach in the suburbs, while less capable teachers are left to teach in the city. Implicit in this pattern of assignments is the corollary that suburban schools are "good" while city schools are "bad."

The trend has been that graduates and younger brighter graduate students have started their careers in suburban systems. Moreover,

¹⁸Kenneth Clark, Dark Ghetto: Dilemma of Social Power (New York: Harper and Row, 1965), p. 128.

the more experienced teachers have generally selected suburban teaching settings. Thus, according to Kerner, et al., the least experienced teachers have been relegated to the cities, further reinforcing the view that the ghetto schools are inferior (Kerner, et al., National Advisory Commission on Civil Disorders, 1968, p. 428).

The schools attended by disadvantaged Negro children commonly are staffed by teachers with less experience and lower qualifications than those attended by middle-class whites. For example, a 1963 study ranking Chicago's public high schools by the socioeconomic status of surrounding neighborhoods found that in the ten lowest-ranking schools only 63.2 percent of all teachers were fully certified and the median level of all teaching experience was 3.9 years. In three of these schools the median level was one year. Four of these lowest ranking schools were 100 percent Negro enrollment and three were over 90 percent Negro. By contrast, eight of the ten highest ranking schools had nearly total white enrollments, and the other two were more than 75 percent white. In these schools, 99.3 percent of the teachers were fully certified and the median level of teaching experience was 12.3 years.

Thus, all too often, those teachers who are either less successful in their own educational endeavor or who are least experienced face students with deep-seated differences, problems and needs which they little understand. "Where the teacher is far from his students in terms of their background and culture and is conscious of his own lack of status as awarded by society for teaching the Black inner-city child, the teacher is inclined to develop a set of defenses which distorts his perceptions of his students." Accordingly, such cultural pluralism compounded by the great size and density of population produces a growing schism based on mutual misperception and mistrust between teachers and the urban student.

In too many cases, teachers are not able to develop the veridical

percepts necessary to clearly and humanely reach Black inner-city children. Fortunately, there are a few who are able to reach our children. Despite often inappropriate materials, overcrowded classrooms, inadequate special services, and little special equipment, these teachers somehow still manage to carry on a classroom learning program which is appropriate for and effective with their students. Such teachers must stay enthusiastic about what they and their students are achieving. However, such teachers are in short supply.

Recognizing the Strength of the Urban Student

Educators need to focus on the inner city student--not in terms of his so-called deficiency (e.g., low verbal scores, wrong language, etc.)--but, instead, concentrating on what the student brings to the school which provides the basis for planning the educational program. Black urban communities are demanding that their schools discard the practice of comparing children with the suburban counterpart. Blacks no longer accept the mediating stereotypes which have largely resulted in viewing the Black student as deficient in all the really important behaviors associated with academic success. Unfortunately, most of the recent literature on the disadvantaged student abounds with accounts of his deficiencies. Accounts of the strengths of this student are relatively sparse, and usually appear in the form of anecdotal reports. Often this student's particular forms of manifested behaviors which underlie academic success are misinterpreted because their significance for school learning is not recognized, are overlooked because too much else is happening at the same time in the classroom, or are disregarded

because he has already been judged as incapable of or indifferent to the school's program.

It is not surprising that for the student, his belief that the system has failed is manifested by his lack of opportunity to achieve success within its framework. Consequently, this judgment reinforces his assumption that something outside the system holds more relevance for him than anything within. It also enhances his hostility toward the school environment. The validity of these attitudes may be documented through the indices of student achievement, drop-out rates, and acts of vandalism or other forms of hostility toward the system. The system has failed the urban student and the student of a racial or ethnic minority. In a detailed examination of urban education led by Congressman Alphonzo Bell and released by ten other Congressmen, one conclusion was:

Each student in America should be given the opportunity to acquire the basic tools of speech, writing, reading, and math, without which he can neither learn further nor complete effectively. The core city youth, especially the ghetto Negro is not now acquiring these skills and we believe that urban education is inadequate to provide him the opportunity to acquire them.¹⁹

It is often forgotten that the impoverished urban student has an excellent capacity for problem-solving. He has the daily task of contending with problems of the value systems of at least two worlds: the home or neighborhood and the school. Daily, he must negotiate his way

¹⁹Bell, Alphonzo, "Crisis in Urban Education," Congressional Record, (Washington, D. C.: U. S. Government Printing, August 19, 1968), p. 14.

through the set of values which the school espouses and the set which he lives with and has learned from his family and neighborhood. He must develop and carry out strategies which permit him to survive in both worlds without being overwhelmed by the conflict disparate value systems can produce. The extent to which he survives as a whole human being with a strong and stable self-concept and a sense of worth will be dependent on the quality and reality orientation of the strategies he employs.

By and large, the inner city youngster must work out his own compromises and test them against the daily realities of his environment--all of which constitutes a very sophisticated form of problem solving anchored sharply to the real world. And what is remarkable is that he, all too often, emerges from this process as a self-reliant human being. If properly motivated, there is no task which the school can give him which requires such a high quality degree of problem solving that he cannot cope with it. And yet the staff or a school will rarely register the conflict which this student experiences and resolves--let alone, capitalize upon his very real capability here. Implied in this kind of problem-solving ability for the inner city student are considerable manifestations of intelligence, information and persistence.

Treating the Symptom

To a small minority, school means sparkle and excitement. To most of the children encapsulated in the ghetto it means conformity, suppression and bewilderment. The occasional shafts of light encountered in a

teacher or two, a classroom or two, or a friend or two are quickly (or eventually) darkened by the suffocating crush of the prevailing commitment to care and maintenance.

Teachers have come to expect and demand little of the ghetto child and offer little in return. They deplore the recent massive migration from the rural south or the Puerto Rican farm sprawl. Severe reading lag and language barriers become awesome burdens to the students and bothersome obstacles to the teachers. Human substance is blotted out by human symptoms. Teachers, burdened by cramped facilities, inadequate materials, union regulations and the bureaucratic press for conformity, treat the symptoms rather than the substance. In the ghetto school, the symptoms seem very much alike from class to class. They become blurred into one big symptomatic ball of nerves, restlessness, resentment, fighting, noise, and indifference. And so, school policy is designed to treat the symptoms as teachers are kept busy charting barometric changes from year to year. Students are rarely, if ever, looked at as individuals. Instead they are considered as varying combinations of symptoms spun off from the big ball.

The Real Need

From the time of Socrates, education has had a reputation of leading society rather than trying to catch up with it. Today, given the conditions in the modern American city, there are grounds for wondering whether or not the roles have been reversed. In a critical sense, education is facing problems as big as the urban crisis itself. Society is changing so rapidly that even those who seemed adequately

prepared for life a generation ago, now find that their education is out of date. If this is true at a general level, the lag is bound to be felt even more forcefully in ghetto areas.

To bring a truly human comprehensive education to people in depressed areas is a responsibility of the first order in the development of human beings. Unfortunately, public education is usually taken in a formal and specific sense. In its narrower meaning, public education is the sum total of the activities associated with today's classrooms and rightly named formal education. However, in a wider and more generic sense, education is a process that goes on throughout our lives. Is there any reason why the school, considered now as a purely physical facility--a building and its grounds--should be restricted to education in the formal and specific sense. This decision is a carryover from a time when life was simpler, the social environment more stable and salutary, and homes capable of exercising a much greater and more positive educational influence than they do now.

In these days when family life has changed, religion has less influence, and poverty itself has become a greater source of social evils, there are cogent reasons why the total school environment should be put to use as a better vehicle in the total education of human beings. The building and its grounds can easily be transformed into centers for preschool and postschool facilities to insure that each needy individual, young and old, can get a proper, more complete opportunity for a wholesome comprehensive education. A community education approach is itself a first principle in the social reconstruction of the ghetto environment. It must be seen as an instrument for filling in the large margin of human

needs to which the conventional classroom has not responded.

In addressing any crisis that affects the very spirit of man, motivation is as important as techniques, and indeed both considerations in the end are so intimately intertwined that they can be separated only in a mind of academic way. When privileged classes favor programs only to prevent summer riots, they use a frame of reference that American political philosophy has outgrown. Such a reference-frame is a selfish one, and it is likely to boomerang on those who use it. When deprived people think that the affluent are aiding them only for the advantages of the affluent themselves, the obvious breach that exists today between social groups, racial or otherwise, is not likely to heal.

In the spirit of catching up with ourselves, we must recognize that existing techniques for dealing with the urban crisis, valuable as they are, have not been enough. Even their expansion, no matter how valuable and necessary, will not overtake the conditions in the ghettos; because such conditions are getting worse. The concept of comprehensive education is an effort to rethink the very categories in which urban problems are approached. It is a concept to exploit more fully the most powerful of all the agencies which have shaped our culture, namely the school. Educators should take their lead from physicians. In the treatment of disease, a doctor, while first trying to relieve painful symptoms, realizes that his science and art must attack the primary causes of the illness--the germs or the impaired organ that only an operation can reach. Without this attention to causes, even the pain will return when sedation wears off. In the social order, money by itself will bring at

most only temporary relief to deprived persons; an assault must be made on the causes of their ills. There is generally a lack of understanding that proper comprehensive education is a first principle of successful human development. The need for this response is urgent. The patient does not have a simple headache or a common cold that will eventually go away even without medication. He is in the emergency room, and as in the case of the doctor when he was regarded as a teacher, society must show him how to get well. It must attack the causes.

Educational Reconstruction of a City

No city has demonstrated an orderly system-wide reorganization that has resulted in innovative education. If the practices that innovative educators advocate are indeed better, they must achieve significant results under the worst conditions. Otherwise, we will never know if the "success" was a result of the practice or the home and community environment. To achieve this, innovative practices must be implemented in urban schools for a duration long enough to outwear the Hawthorne effect and long enough to allow realistic appraisal when compared to "traditional" practices. In cities, this necessitates system-wide reorganization to avoid the pilot-project syndrome.

If cities are to survive in it's present form, they must create superior urban education as a prime attraction. To do this, apart from increased funds, urban education must take advantage of the advantages of cities and stop competing on a self-contained, neighborhood suburban model. Part of the problem is, that in their daily crisis management, no one has stopped to consider how cities might utilize their basic

resources for educational benefits.

The Purpose of This Study

The advent of large-scale, federally funded, educational programs to assist urban children from ethnic and socially different backgrounds in making suitable academic adjustment has brought with it a greater need to examine additional objective criteria that may be more applicable to individuals from impoverished backgrounds. Available formal tests of academic skills and attitudes that might be used for individual classification or assessment purposes should only be recommended with caution, for reasons that have been well summarized.²⁰ Adverse effects on test scores have been attributed to such influences as low verbal reading levels, poor test-taking motivation, failure to comprehend middle-class cultural content or language usage, and negative attitudes toward academic trappings. Additional influences claimed include a lack of test-taking skills, poorly designed test formats or instructions, and adverse examinee attitudes toward the examiner, especially when he is of a different race.²¹

Agreement that complex problems exist does not necessarily reflect unanimity of the remedies proposed. However, in recent years the locus of interest in educational assessment of children from ethnic and

²⁰J. M. Karp and I. Sigel, "Psycho-educational Appraisal of Disadvantaged Children," Review of Educational Research, 35, (1965), pp. 401-412.

²¹Norman E. Freeberg, "Assessment of Disadvantaged Adolescents: A Different Approach to Research and Evaluation Measures," Journal of Educational Psychology, 61, 3, (June, 1970), pp. 229-240.

socially different backgrounds has begun to shift from measures of the individual to measures of the environment. While individual measures have been effectively used as predictors and criteria for selection and placement, environmental assessments may make it possible to: (a) improve the accuracy of predicting performance, and (b) manipulate the environment to bring about optimal conditions for improving performance.

The 1965 Elementary and Secondary Education Act (ESEA) is one of the major Federal programs designed to address itself to the educational problems of the poor. Title I is the heart of this Act (see Appendix). The major theme of Title I is that of reform. The central thrust of Title I is to reduce poverty through educational opportunity. The underlying notion is familiar--poor children given the opportunity to do well in school will improve their lot as adults. By allocating extra funds to state and local agencies, the intent of Title I is to expand and improve elementary and secondary school programs for educationally deprived children in low-income areas. In this Act an educationally deprived child is defined as, "A child who needs special educational assistance to perform at the grade level for his age." The term also includes children with special educational needs resulting in poverty, neglect, delinquency, handicaps, or cultural, economic, ethnic, or linguistic isolation from the general community.²²

Therefore, the general purpose of this study is to examine some

²²U. S. House of Representatives, Committee on Education and Labor, A Compilation of Federal Education Laws (Washington, D. C.: Government Printing Office, 1971), pp. 519-538.

factors related to academic performance of children who attend either ESEA Title I elementary schools or non-ESEA Title I elementary schools in the city of Washington, D. C. Specifically, this study looks at the relationship of certain socio-economic variables among elementary schools and the extent to which such variables influence performance in reading and arithmetic between ESEA Title I elementary schools and non-ESEA Title I elementary schools.

CHAPTER II

Review of the Literature

A search of the literature related to achievement among Black students reveals that what is needed at this time are some alternative methods to the discovery and cultivation of the talents we know exist among children whose experiences have been different as a result of conditions in urban communities. What so many researchers refuse to acknowledge is that there is a great reservoir of undiscovered and undeveloped intellectual talents in America's so-called underprivileged areas. It is not my concern that we know this talent exists, but that we continue to waste talented young people who could provide badly needed leadership in our urban communities and within this country.

For many years researchers from all camps have agreed that Black students achieve at lower levels than white students. This has been, not a matter of dispute, but, rather, the central burning fact that has raged in the field of public education--first about desegregation and de facto integration, then about compensatory education, and now about community control and decentralization. The relevant outcome factor, the important variable to be explained is not educational achievement in the abstract, but rather the Black-white gap in educational achievement.

The concern over the Black-white gap can really be traced back to an old controversy, the influence of heredity and environment on intelligence. Even though there are a number of popular misconceptions regarding these concepts, it should be remembered that heredity and

environment are not unitary influences, but abstractions. Each covers a vast multitude of different factors, all interacting with one another in an ever-growing complexity throughout the life of the individual. Anastasi²³ pointed out that, "the comparative evaluation of the races of man has long been a subject of common concern and lively controversy.

"It is an interesting commentary upon human thought that nearly all theories of racial inequality proclaim the superiority of the particular race of their respective exponents." The ambiguity of the term "race differences" has added to the confusion and controversy in discussions of intelligence between races. To find that racial groups differ in behavior may be regarded as demonstrating the existence of "race differences" but not necessarily difference resulting from race.

Scientific Racism

There are many who feel that Blacks are innately less intelligent than Caucasians. Such claims assume special importance among the opponents of school integration. Many racists contend that interracial education simply will not work because Black children are too retarded innately to benefit and will only act to drag down the standards of white children.

During the last two decades the dominant scientific position on this subject has been termed an "equalitarian dogma" and described as

²³Anne Anastasi. Differential Psychology. (New York: The MacMillan Company, 1958), pp. 542-603.

the scientific hoax of the century by one psychologist, Henry Garrett.²⁴ Garrett and Frank McGurk²⁵ conducted intelligence studies on Black and white school children and concluded that "Negroes as a group do not possess as much capacity for education as whites as a group." Audrey Shuey²⁶ conducted a review of more than two hundred studies bearing on racial differences in intelligence. The bulk of this research found most Black scoring lower on I.Q. tests than most whites.

These three attempted to show that the impoverished environment of the typical Negro could not account for the observed test differences. One favorite example, prominently cited by all three was H. A. Tanser's²⁷ investigation of intelligence among Negro and white children of Kent County, Ontario, Canada. Tanser found that his white sample obtained a higher average I.Q. than his Negro sample. Consequently the "scientific racists" maintained that this was convincing evidence for their position, since in Kent County the social and economic conditions of the whites and Negroes were substantially the same. It is interesting to note that Tanser admitted that his sample of Negro children had not attended school as regularly as the white

²⁴Henry E. Garrett, "The Equalitarian Dogma," Mankind Quarterly, 1, (1961), pp. 253-257.

²⁵Frank McGurk, "Psychological Tests: A Scientist's Report on Race Differences," U. S. News and World Report, (September 21, 1956), pp. 92-96.

²⁶Audrey Shuey, The Testing of Negro Intelligence, (Lynchburg, Virginia: Bell, 1968).

²⁷H. A. Tanser, The Settlement of Negroes in Kent County, Ontario, and a Study of the Mental Capacity of Their Descendants, (Chatham, Ontario: Shepherd, 1939).

children.

These three individuals are mentioned because their position is typical of those who have attempted to show that hereditary etiology of intelligence is more prominent in whites than Blacks. The vast majority of investigations on race differences provide only descriptive data, with little or no evidence regarding the causes of the observed group difference. Someday we may be able to conclusively show that differences in cultural level among races are the results rather than the cause of behavioral differences. The "scientific racist" finds it hard to accept that Blacks may be handicapped by poor facilities for intellectual development just because white institutions lacked the capacity or desire to produce a more "favorable" environment.

The proponents of racial differences have not really addressed a fundamental problem that complicates the issue. The concept of race injects special issues. Race is a biological concept referring to subdivisions of a species. Genetic differences between human races are not absolute but relative. Human races are populations that differ in the relative frequency of certain genes. Since Black-Americans do not even approach the status of a genetically pure "race," they are a singularly inappropriate group upon whom to test racist theories of inherent intellectual inferiority of the Negroid subspecies.

Race Differences Revisited

During the early part of 1969, an article by Arthur R. Jensen²⁸

²⁸Arthur R. Jensen, "How Much Can We Boost I.Q. and Scholastic Achievement?" Harvard Educational Review, XXXIX (Winter, 1969), pp. 1-123.

provoked serious thought and discussion among leaders in genetics, psychology and education concerning important fundamental issues and their implications for education. Jensen's basic question was: "Is there a danger that current welfare policies unaided by eugenic foresight, could lead to the genetic enslavement of a substantial segment of our population?" Jensen hypothesized that, "...differential birth-rates in the population that are correlated with educationally and occupationally relevant traits of high heritability could produce long-term dysgenic trends which would make environmental amelioration of the plight of the disadvantaged increasingly difficult..."²⁹ In short, Jensen is considered one of the leading proponents of the view that intelligence (as measured by I.Q.) is basically inherited.

Jensen argues that the failure of recent compensatory education efforts to produce lasting effects on children's I.Q. and achievement suggests that the premise on which they have been founded should be reexamined. He begins by questioning a central notion upon which these and other educational programs have recently been based: that I.Q. differences are almost entirely a result of environmental differences and the cultural basis of I.Q. tests. Jensen's major assumption is that there are racial and social-class differences in patterns of abilities and that there are probably genetic as well as environmental factors involved in these differences. After tracing the history of I.Q. tests, he carefully defines the concept of I.Q., pointing out that it appears

²⁹Arthur R. Jensen, "Reducing the Heredity-Environment Uncertainty: A Reply," Harvard Educational Review, 39 3 (September, 1969), pp. 449-483.

as a common factor in all tests that have been devised thus far to help tap higher mental processes.

Jensen employs an analysis of variance model to explain how I.Q. can be separated into genetic and environmental components. His position is that environmental factors are not nearly as important in determining I.Q. as are genetic factors. After analyzing critical environmental variables in determining I.Q., he concludes that prenatal influences may well contribute the largest environmental influence on I.Q. He then proceeds to discuss evidence which suggests that social class and racial variations in intelligence cannot be accounted for by differences in environment but must be attributed partially to genetic differences.

Jensen examines in detail the results of educational programs for young children, and finds that the changes in I.Q. produced by such programs are generally small. A basic conclusion of Jensen's discussion of the influence of environment on I.Q. is that environment acts as a "threshold variable." Extreme environmental deprivation can keep the child from performing up to his genetic potential, but an enriched educational program cannot push the child above that potential. After examining other mental abilities that might be capitalized on in an educational program, he concludes that educational attempts to boost I.Q. have been misdirected and that the educational process should focus on teaching much more specific skills. He argues that this will be accomplished more effectively if educational methods are developed which are based on other mental abilities besides I.Q.

Shockley³⁰ supports Jensen's position that high heritability of a trait within populations that differ in the trait increases the a priori likelihood of a genetic difference between the populations. Shockley argues that intelligence as measured by I.Q. varies more than twice as much from genetic differences as it does from environmental differences for individuals from families like those that raise one of a pair of white identical twins. Shockley's study led him to assert an 80% figure for geneticity of I.Q., leaving less than 20% of I.Q. variance to environment for the defined population. Like Jensen, Shockley concluded that the fact of the high heritability of I.Q. makes it a very reasonable and likely hypothesis that genetic factors are involved in the Black-white I.Q. differences.

Responses to Jensen's Article

Jerome S. Kagan was critical of the logic of Jensen's position and presented evidence that any I.Q. data collected in the standardized manner may not reflect the actual potential of lower class children.³¹ In Kagan's opinion, Jensen's major fallacies are: (1) his inappropriate generalizations from within-family I.Q. differences to an argument that separate racial gene pools are necessarily different and (2) his conclusion that I.Q. differences are genetically determined, although he glosses over evidence of strong environmental influences on tested

³⁰William Shockley. "A Debate Challenge: Geneticity is 80% for White Identical Twins' I.Q.'s," Phi Delta Kappan, (March 1972), pp. 415-419.

³¹Jerome S. Kagan, "Inadequate Evidence and Illogical Conclusions," Harvard Educational Review, (Spring, 1969), pp. 274-277.

I.Q.--even between identical twins. Kagan cites new studies which suggest that part of the perceived intellectual inequacy of lower class children may derive from a style of mother-child interaction that gives the lower class child less intense exposure to maternal intervention.

Kagan indicated that longitudinal studies being conducted in his laboratory reveal that lower class white children perform less well than middle class children on tests related to those used in intelligence tests. His data indicates that class differences with white populations occur as early as one to two years of age. Detailed observations of the mother-child interactions in the homes of these children indicate that the lower-class children do not experience the quality of parent-child interaction that occurs in the middle-class homes. According to this author, "Specifically, the lower-class mother spends less time in face to face mutual vocalization and smiling with their infants; they do not reward the child's maturational progress, and they do not enter into long periods of play with the child. Kagan's assumption of mental development suggests that specific absence of these experiences tend to retard mental growth and will lead to lower intelligence test scores. As a result of this research, Kagan's generalization is that the most likely determinants of the Black child's lower I.Q. score are his experiences during the first five years of life. These experiences lead young Black children to do poorly on I.Q. tests in part because he does not appreciate the nature of a problem.

From Kagan's point of view it is important to realize that the genetic constitution of a population does not produce a specific level

of mental ability; rather it sets a range of mental ability. Thus genetic factors are likely to be most predictive of proficiency in mental talents that are extremely difficult to attain, such as creative genius in mathematics or music, not relatively easy skills. Learning to read, write or add are easy skills, within the competence of all children who do not have serious brain damage. Therefore, it is erroneous to suggest that genetic differences between human populations could be responsible for failure to master school related tasks. "Ninety out of every 100 children, Black, yellow or white, are capable of adequate mastery of the intellectual requirements of our schools. Let us concentrate on the conditions that will allow this latent competence to be actualized with maximal ease."³²

J. McV. Hunt agrees with Jensen on several important points.³³ He agrees that technological advances in our culture make it highly important to raise the intelligence, the educational attainments, and/or the general competence of those people who now comprise the bottom quarter of our population in measures of this cluster of characteristics. He also agrees that the national welfare policies established in the 1930's have probably operated in dysgenic fashion, and that it is highly important to establish welfare policies which will encourage initiative and probably, in consequence, help foster positive genotypic selection. He also agrees with the educational implication Jensen draws from his finds.

³²Ibid.

³³J. McV. Hunt, "Has Compensatory Education Failed? Has It Been Attempted?" Harvard Educational Review, (Spring, 1969), pp. 278-300.

One does not provide equality of educational opportunity by submitting all children to the lock-step and by providing them with a single way in which to develop their genotypic potential.³⁴

Hunt feels that variation in genotypes combines with variation in early experience to call for an increased individualization of education.

Hunt proceeds to disagree with Jensen on four points. These are: (1) several matters concerned with the measurement, the distribution, the development, and the nature of intelligence; (2) the nature of his emphasis on biological versus psychological and social factors in behavioral development and the implications he draws for the relatively fixed nature of the existing norms for "intelligence"; (3) Jensen's implicitly limited view of the learning process, coupled with his apparent lack of appreciation of the cumulative and dynamic implications of existing evidence of plasticity in the rate of behavioral development; and (4) the implications Jensen draws for class and race differences from the measures of heritability of the I.Q. in European and American Caucasians.

In general, Hunt feels that Jensen fails to find satisfactory evidence to make the assertion about genetic differences determining the intelligence of Blacks and whites. He finds Jensen's claims about the high heritability of intelligence unsubstantiated; he also finds Jensen's conclusion that observed group mean differences in I.Q. scores among Negro and white populations are genetically determined to be even less supportable. Hunt feels that Jensen's argument sums up to a

³⁴Arthur R. Jensen, "How Much Can We Boost I.Q. and Scholastic Achievement?"

sophisticated justification of what Hunt has termed "fixed intelligence" and "predetermined intelligence." Except for the educational significance Jensen finds in the results of his own investigations, his argument allows only a eugenic approach to the problem of incompetence and poverty.

James Crow³⁵ argues that a high heritability of intelligence in the white population would not, even if there were similar evidence in Black populations, indicate that the difference between the groups are genetic. He states that no matter how high the heritability, there is no assurance that a sufficiently great environmental difference does not account for the difference in the two means, especially when one considers that the environmental factor may differ qualitatively in the two groups. He feels that evidence regarding the importance of heredity in determining group mean differences must come from other kinds of studies.

He goes on to say that, "...The failure, thus far, to find identifiable variables, that, when matched, will equalize the I.Q. scores does not prove that the mean difference is hereditary. It can be argued that being white or being Black in our society changes one or more aspects of the environment so importantly as to account for the difference." There is a great deal of disagreement as to when enough identifiable environmental factors have been shown to be insufficient that the remaining differences should be regarded as mainly genetic.

³⁵James F. Crow, "Genetic Theories and Influences: Comments on the Value of Diversity," Harvard Educational Review, (Spring, 1969), pp. 301-309.

To Crow, the evidence on this question is not at all conclusive.

Richard J. Light and Paul V. Smith argue that even if one chooses to accept Jensen's estimates of the proportion of variance in intelligence accounted for by heredity, environment, and their interaction, his hypothesis is not substantiated by his own data.³⁶ They go on to say that the parameter estimates are highly suspect, given the small sample size of the twin studies and the way disparate studies were combined. The authors simulated, on a computer, the process of studying twins and found that the statistical procedures employed in these studies of intelligence yield quite unstable estimates. In particular, the estimate of the interaction effect is quite unreliable, both because of sample size, and because Jensen chose a statistical model which would attribute some interaction to the main variables--heredity and environment. Finally, the authors propose that the studies of intelligence reported by Jensen ignore the reality of feedback loops, initiated by physical differences, and enhanced by processes of social differentiation in our society.

Arthur Stinchcombe deals with the Jensen article from the point of view of an "environmentalist."³⁷ Stinchcombe's argument is that deprivation does more than prevent children from learning simple skills at an early age--that cultures or social conditions must operate

³⁶Richard J. Light and Paul V. Smith, "Social Allocation Models of Intelligence: A Methodological Inquiry," Harvard Educational Review, 39 (Summer, 1969), pp. 484-510.

³⁷Arthur L. Stinchcombe, "Environment: The Cumulation of Effects is Yet to be Understood," Harvard Educational Review, 39 (Summer, 1969), pp. 511-522.

consistently and sequentially to produce successively higher levels of cognitive functioning. Environments, he argues, are cumulative, and until researchers can account for the complexity of environment, statements about the proportional effects of heredity and environment are premature. According to Stinchcombe, extrapolations from twin studies limited to a single social group to estimates of the genetic capabilities of a different group are particularly suspect.

Much of the response to Jensen's article can be summed up in the position taken by Martin Deutsch.³⁸ Deutsch reviewed the literature on compensatory education, intelligence testing, and the nature of educational environments and concludes that Jensen's article has negative implications for the struggle against racism and for the improvement of the educational system. He believes that Jensen's article holds a consistent bias toward an undemocratic eugenic and racist hypothesis.

Deutsch found many erroneous statements, misinterpretations, and misunderstandings of the nature of intelligence, intelligence tests, genetic determination of traits, education in general, and compensatory education in particular. He points out that in many of the citations of the literature Jensen gives only part of the data or interpretation, or leaves out a piece of information which is crucial to his own interpretation. In a very concise manner Deutsch addresses the crucial issue neglected by Jensen and others.

Jensen completely neglects the failure of the school system or the larger society to achieve mass success

³⁸Martin Deutsch, "Happenings on the Way Back to the Forum: Social Science, IQ, and Race Differences Revisited," Harvard Educational Review, 39 (Summer, 1969), pp. 523-557.

in teaching even the basic scholastic skills. His lengthy critique assumes that potential or actual inputs are received by the child and that they get through the complex maze of environmental disorientation, scholastic chaos, and inadequately prepared teachers to a receptive organism. In essence, he (Jensen) fails to acknowledge the role of the school environment, the complexities of the educational system, and of the interpersonal dysfunctioning that typically characterizes the relationship of the school administration to the teaching staff, the teaching staff to the children, and inversely, of the children to their teachers. At an early age, children, often with considerable intuition and great intelligence, learn not to cope with the school situation, not to attend, not to take it seriously. In other words, they find it intellectually non-stimulating, non-motivating, and in circumstances where children and teachers come from different social class and caste backgrounds, children are likely to find the interaction as well as the instruction threatening to their ego structures and personal identities.

Racial Isolation

The Coleman Report, officially titled, "Equality of Educational Opportunity," quickly acquired the reputation of being comprehensive, incisive research upon which the solution to the problem of city schools must be based.³⁹ Interestingly, it was used as the foundation upon which President Nixon's new education program was built.

When Blacks and whites attend schools together, the achievement of whites is not significantly decreased. In fact, the case for increased cultural understanding by both white and Black can easily be made. The summary statement of the Civil Rights Commission's Racial Isolation Study lists the extent of the educational problems in these words:

³⁹James Coleman, "Equality of Educational Opportunity," Study by the National Center for Educational Statistics, U. S. Office of Educational Statistics. Washington, D. C.: U. S. Government Printing Office, 1968.

1. There are marked disparities in the outcomes of education for Black and white Americans. Black students typically do not achieve as well in school as white students. The longer they are in school the further they fall behind. Blacks are enrolled less often in college than whites and are much more likely to attend high schools which send a relatively small proportion of their graduates to college.
2. There is a strong relationship between the achievement and attitudes of a school child and the economic circumstances and educational background of his family. Relevant factors that contribute to this relationship include the material deprivation and inadequate health care that children from backgrounds of poverty often experience, the fact that disadvantaged children frequently have less facility in verbal and written communication--the chief vehicle by which schools measure student achievement--and the inability of parents in poor neighborhoods to become as involved in school affairs and affect school policy as much as more affluent parents.
3. The social class of a student's schoolmates--as measured by the economic circumstances and educational background of their families--also strongly influences his achievement and attitudes. Regardless of his own family background, an individual student achieves better in schools where most of his fellow students are from advantaged backgrounds than in schools where most of his fellow students are from disadvantaged backgrounds. The relationship between a student's achievement and the social class composition of his school grows stronger as the student progresses through school.
4. Black students are much more likely than white students to attend schools in which a majority of the students are disadvantaged. The social class composition of the schools is more important to the achievement and attitudes of Black students than whites.
5. There are noticeable differences in the quality of schools which Blacks attend and those which whites attend. Black students are less likely than whites to attend schools that have well-stocked libraries. Black students also are less likely to attend schools which offer advanced courses in subjects such as science and languages and are more likely to be in overcrowded schools than white students. There is some relationship between such disparities and the achievement of Black students.

6. The quality of teaching has an important influence on the achievement of students, both advantaged and disadvantaged. Black students are more likely than white students to have teachers with low verbal achievements, to have substitute teachers, and to have teachers who are dissatisfied with their school assignment.
7. The relationship between the quality of teaching and the achievement of Black students generally is greater in majority-Black schools than in majority-white schools. Black students in majority-white schools with poorer teachers generally achieve better than similar Black students in majority-Black schools with better teachers.
8. There is also a relationship between the racial composition of schools and the achievement and attitudes of most Black students, which exists when all other factors are taken into account.
 - (a) Disadvantaged Black students in school with a majority of equally disadvantaged white students achieve better than Black students in school with a majority of equally disadvantaged Black students.
 - (b) Differences are even greater when disadvantaged Black students in schools with a majority of disadvantaged Black students are compared with similarly disadvantaged Black students in school with a majority of advantaged white students. The difference in achievement for 12th-grade students amounts to more than two entire grade levels.
 - (c) Blacks in predominately Black schools tend to have lower educational aspirations and more frequently express a sense of inability to influence their future by their own choices than Black students with similar backgrounds attending majority-white schools. Their fellow students are less likely to offer academic stimulation.
 - (d) Predominantly Black schools generally are regarded by the community as inferior institutions. Black students in such schools are sensitive to such views and often come to share them. Teachers and administrative staff frequently recognize or share the community's view and communicate it to the students. This stigma affects the achievement and attitudes of Black students.

9. The effects of racial composition of schools are cumulative. The longer Black students are in desegregated schools, the better is their academic achievement and their attitudes. Conversely, there is a growing deficit for Blacks who remain in racially isolated schools.
10. Racial isolation in school limits job opportunities for Blacks. In general, Black adults who attended desegregated schools tend to have higher incomes and more often fill white-collar jobs than Black adults who went to racially isolated schools.
11. Racial isolation is self-perpetuating. School attendance in racial isolation generates attitudes on the part of both Blacks and whites which tend to alienate them from members of the other race. These attitudes are reflected in behavior. Blacks who attended majority-white schools are more likely to reside in interracial neighborhoods, to have children in majority-white schools, and to have white friends. Similarly, white persons who attended school with Blacks are more likely to live in an interracial neighborhood, to have children who attend schools with Negroes, and to have Black friends.

A Critique. The Coleman Report addressed four basic questions. Are schools segregated? Are schools that are attended by differing groups equal? Do students from differing groups achieve differently? What is the relationship between achievement and the nature of the schools attended? William Ryan⁴⁰ makes some very interesting observations concerning the report. He begins by pointing out that the first two questions are superfluous. The answers are well known and not in any sense in dispute.

He then states that the answer to the third question--do differing ethnic groups differ in school achievement--is also well-known and well-documented; but it remains. In fact, the central phenomenon to be

⁴⁰William Ryan. Blaming the Victim. Vermont: Pantheon Books, 1971.

discussed. The controversy over segregated schools, ghetto schools, compensatory education, integration, and now community control, centers around the fact that Black children learn less in school than white children do. Ryan argues that despite all of Coleman's confirming evidence, he doesn't reach the heart of the problem. Why don't Black children perform as well? According to Ryan, Coleman's report is most disappointing. First of all, his data are correlational; he reports only what characteristics of children and schools go along with, are found together with, differing levels of achievement. While Coleman's findings are instructive, they cast little light on the causes of differing levels of achievement.

Coleman discloses that color and ethnicity have a major effect on learning. One could interpret this to mean that blackness and low achievement are highly correlated; or to put it in a more elegant form, Black children learn less than white children since white children learn more than Black children. In Coleman's view, this relationship is so predominant that it must be controlled for. Ryan thought that he might investigate it, rather than control for it. In seeking for additional factors related to achievement, the researchers dealt with different racial groups separately.

Coleman attempted to explain why he adopted this strategy. "It is important to make clear why the racial groups were kept separate in the analysis. When achievement differs as much as it does between these groups, then to analyze the groups together, without controlling for race or ethnicity of the student, would cause any school characteristics highly associated with race or ethnicity to show a spurious relation to

achievement." Ryan feels that by controlling for race, and analyzing Black and white educational achievement separately made the report itself--no matter how elegant in the scientific sense--almost irrelevant politically. To Ryan, its findings are frustratingly ambiguous and unenlightening.

One of the findings--that "family background" is also correlated with school achievement--is almost well-known, but in fact, it was taken as an assumption by the teachers. They say, for example, "that the larger part of school-to-school variation in achievement appears to be not a consequence of backgrounds of the entering student bodies." They began with this finding as a previously established fact. Studies of school achievement have consistently shown that variations in family background account for far more variation in school achievement than do variations in school characteristics. Because of these important family differences, the general approach should have been to examine effects of school variation after taking account of the effects of background differences among children.

Ryan's second major criticism is that the Coleman Report treats the relationship of family background to school achievement as, in fact, a cause- and-effect relationship. In other words, when Coleman finds that lower class children do poorly and middle class children do well, and further, that the general class level of the classroom and the school is related to level of achievement, he concludes that the class factor--attending a school that is largely for poor kids or largely for affluent--is a cause of good or poor achievement. Ryan concludes that this is faulty reasoning and not scientifically acceptable.

Ryan's third criticism reflects evidence of bias. In speaking of the characteristics of the student body as the major school factor that influences achievement, the researchers chose two measures by which to judge these characteristics: what they call "educational background"--measured by whether there is an encyclopedia in the home, and "educational motivation"--measured by whether the student has concrete plans to attend college. These two items were used as primary indices of the composition of the student body, which in turn was viewed as a major influence on achievement. For example, in analyzing the issue of integration, the report states, "The apparent beneficial effect of a student body with a high proportion of white students comes not from racial composition per se, but from the better educational background and higher educational aspirations that are, on the average, found among white students." One should keep in mind that "better educational background" means having an encyclopedia in the home, and "higher educational aspirations" means having plans made to attend college.

One of Ryan's major criticisms is that Coleman did not look at the way in which the system, the school and the classroom are organized; the atmosphere; the attitudes, prejudices and expectations of teachers and administrators; the interactions and relationships between teachers and pupils in the classroom. Coleman obtained all information about a given school from questionnaire responses provided by that school's principal. And lastly, although Coleman talked continually about "achievement," he used a criterion which is not a test of achievement at all, but rather is a highly biased and totally inadequate measure of intelligence--vocabulary knowledge.

The Case Against I.Q. Tests

The concept of intelligence is among the most confused in our repertoire of ideas. Ambiguity surrounds it: definition, etiology, and social significance. A central issue is to what degree scores on standard intelligence tests reflect a generalized quality of memory and reasoning that is not limited to a particular cultural setting. In Jerome Kagan's view, a person's score on a contemporary I.Q. test has a poor relation to his ability to think logically and coherently. Kagan⁴¹ feels that the psychological trait "intelligence"--now unfortunately equated with the I.Q. score--has become a primary explanation for the unequal access to power in this society.

Kagan's view is that the white middle-class Western community, like any moderately isolated social group, has created over the years a specialized vocabulary, reservoir of information, and style of problem-solving summarized under the concept "intelligence." He states that since possession of these skills is a rite of passage to positions of power and wealth in the society, many have been easily seduced into concluding that those without power or wealth are of fundamentally different intellectual competence. This view ignores the fact that children's access to the experiences necessary to acquire the valued intellectual skills differs enormously by social classes. The majority of Americans believe that children are born with differing intellectual capacities and that as a result some are destined to assume positions of

⁴¹Jerome Kagan, "The Case Against I.Q. Tests," The Humanist, (January/February, 1972), pp. 7-8.

status and responsibility. A much smaller group believes that this psychological capacity has to be attained through the right combination of early experiences and will.

Kagan does not contest the obvious fact that individuals really do differ in regard to the psychological traits valued by our society. He feels that we lack sufficient information about the causes of these differences. He then goes through the process of partially analyzing what an intelligence test is made of. According to Kagan, "the widely publicized announcement that 80 per cent of intelligence is inherited and 20 per cent environmentally determined is based on information from two similarly constructed standardized I.Q. tests invented by Caucasian middle-class Western men, at the request of Caucasian middle-class Western men, for Caucasian middle-class Western men to use for ranking everyone in the society."

Kagan points out that there are all sorts of biases associated with I.Q. tests. He states that the most important set of test questions (important because scores on this set have the highest correlation with the total I.Q.) asks the testee to define words of increasingly rarity. Rarity is a relative quality, depending always on the language community one selects as referent. "Shilling is a rare word for the American child, but so is joint." The test constructors decided that rarity would be defined with respect to the middle-class Caucasian experience. And a child reared in a middle-class home is more likely to learn the meaning of "shilling" than the meaning of "joint." He argues that if contemporary Black psychologists had accepted the assignment of constructing the first part of the intelligence test, they probably would

have made a different choice.

Many other sources of error are documented by Kagan. The examples he cites suggested that the I.Q. test, the basis for Jensen's argument and for the statement that 80 per cent of I.Q. is inherited, is a seriously biased instrument. To Kagan, it almost guarantees that middle-class white children will obtain higher scores than any other group of children in the country, and that the more similar the experiences of two people, the more similar their scores should be. Most citizens are unaware both of the fundamental faults in the I.Q. test and of the multiple bases for differences in tested intelligence. This society needs a rational basis for the awarding of power and prizes. Intelligence is our modern substitute for saintliness, religiousity, courage or moral intensity, and it works.

Kagan concludes by saying that those who insist that I.Q. is inherited base their conclusion on a mathematical model of heritability which assumes that the statistical variation in I.Q. scores is additive, some of it due to genetic and some to environmental factors. That assumption is questionable and has been criticized by many psychologists and mathematicians. Hence, all one can say at the moment is that the genetic contribution to I.Q. is still unknown. A second fact has also led some to conclude that intelligence is controlled in a major way by genetic factors: American Blacks, who are of a different gene pool than whites, have lower I.Q. scores. Many have argued that the 10-to-15 point average difference between American Blacks and whites is likely to be due to the strong cultural biases in the I.Q. test. Hence, given the current knowledge no one can be sure of the determinants of variation in I.Q.

score, a conclusion that is even more true of intelligence itself.

David C. McClelland⁴² sees the continuance of poverty and under-employment in neglected parts of our society as resulting from the use of tests to support discriminatory practices. He argues that the I.Q. test has become a part of an elitist mechanism to discriminate against the disadvantaged. He feels that there has always been a tendency on the part of certain people who are good at manipulating symbols to use this capacity to exclude other people from positions of power in society. For example, to insure their dominant position, the Chinese Intelligentsia invented a language, Mandarin Chinese, that could be learned by only a very small part of the population. This society has a comparable system for defending power, and it is supported oddly enough by the standard anti-democratic argument for "pure" knowledge and "pure" understanding. We call this system intelligence testing.

McClelland feels that I.Q. tests are used to perpetuate a vicious circle that insures that poor people don't get adequate opportunities. Psychometrists have established nice correlation between intelligence and human adjustment. If one has low intelligence-test scores, one is more apt to be neurotic. McClelland suggests that a person may be neurotic because he can't get a job, and can't go to school, etc. But the correlation is there--by dint of what McClelland calls "incestuous validity," that is, you correlate the thing with itself.

To McClelland, what is really odd is that the tests have often been

⁴²David C. McClelland, "I.Q. Tests and Assessing Competence," The Humanist, (January/February, 1972), pp. 9-12.

justified on the grounds, that they are more democratic than other means of selection. There's an especially nice historical irony here. Testing got its start because it was supposed to prevent nepotism. It was supposed to be a democratic mechanism. Instead, it has become much more oppressive than the method it was designed to replace. "For the new type of aristocracy testing selects more rigorously than genes."

The Case for I.Q. Tests

Jensen⁴³ argues that many arguments against I.Q. tests ignore a large number of scientifically established facts. He then proceeds to present facts to substantiate his position.

1. Intelligence tests do, in fact, predict socially and occupationally significant criteria. I.Q. is in a sense a measure of a person's ability to compete successfully in the world of work in all known civilized societies.
2. Intelligence tests do not reflect on the accidents of cultural and social privilege; they get at some quite basic biological capacity underlying the ability to reason, to organize and utilize one's knowledge.
3. Intelligence is positively related to other non-intellectual traits of personality and character that are also involved in competing successfully for what most persons in our society regard as the "good things in life."
4. The use of intelligence tests in the armed forces shows that they are highly correlated with the kinds and levels of skills for which men can be trained and the time they need to achieve certain levels of skill.
5. If the reasons for social-class intelligence differences were due to status-biased content,

⁴³Arthur R. Jensen, "The Case for I.Q. Tests," The Humanist, (January/February, 1972), p. 14.

it should be possible to make tests that reverse the differences. Yet, despite many attempts, no one has succeeded in devising such tests.

6. College aptitude tests, such as the S.A.T. predict college grades for Blacks as well as for whites, for rich as well as for poor. The tests are color-blind. Black individuals and white individuals with the same I.Q. can be expected to perform equally well in school or on the job--insofar as the job depends upon intellectual ability. In predicting a person's scholastic performance, knowledge of his race or social class adds little or nothing to what is predicted by his I.Q.

H. J. Eysenck⁴⁴ argues that, "whatever is measured by I.Q. tests has a strong hereditary basis....To give the impression that this is not so is factually inaccurate and misleading." He points out that identical twins separated very early in life, and brought up in entirely different environments are nevertheless very close in measured I.Q. He also indicates that there is a perfect correlation between social status and I.Q. The higher the social status, the higher, on the average, is the I.Q. of those in that occupation.

He also notes that children of the people in the highest occupations regress toward the mean and have much lower I.Q.'s than their parents. Eysenck states that the first effect gives the lie to McClelland's notion that I.Q. is unrelated to important variables in everyday life. To Eysenck, social status would seem to qualify as something quite important.

⁴⁴H. J. Eysenck, "Don't Talk Nonsense," The Humanist, (January/February, 1972), p. 15.

Intelligence and Genes

Richard J. Light⁴⁵ presented a position concerning the potential role of genetic differentiation in I.Q.'s within and between social groups. He starts off by pointing out that in 1925, Karl Pearson, one of Britain's most creative and methodologically sophisticated statisticians, wrote about Jewish immigrants: "Taken on the average, and regarding both sexes, this alien Jewish population is somewhat inferior both physically and mentally to the native population." The context of Pearson's assertion was that this alleged inferiority was genetic. In both America and Britain today, however, it is quite well known that Jews score as high on intelligence tests as the majority non-Jewish population.

Prior to 1960, Catholics in America scored lower than non-Catholics on standardized intelligence tests. In the 1930's, a genetic explanation was put forth to account for the observed differences. Since 1960, the distribution of intelligence-test scores for American Catholics has duplicated the non-Catholic score distribution almost exactly. Light feels that these two historical examples illustrate that a genetic explanation for differences of intelligence-test scores between social groups can be mistaken.

He then discussed two research findings relating genes and intelligence. He discussed four studies of identical twins reared apart--one conducted in America, two in England, and one in Denmark. These four

⁴⁵Richard J. Light, "Intelligence and Genes," The Humanist, (January/February, 1972), pp. 12-13.

studies, involving a total of 122 twin pairs, showed essentially that identical twins reared apart had much more similar I.Q. scores than pairs of children selected at random. Since identical twins share the same genes, the studies imply that genetic variation explains some intelligence variation (the data suggest approximately 75 per cent).

A second group of five studies examined pairs of unrelated foster children raised in the same families. They found that a relatively low proportion (approximately 25 per cent) of I.Q. score variation was explained by environmental factors; Foster children score only slightly closer together than pairs of children selected at random. If pairs of unrelated foster children raised in the same family are presumed to be exposed to similar environments, and if environmental effects are very "important," then I.Q. scores for each pair of these children should be quite close together. They were not.

Light discusses three conclusions to explain the conflicting findings. First, intelligence (as measured very specifically by I.Q. test scores) appears to be somewhat heritable: that is, a genetic component to intelligence exists. Second, there is no way of estimating with reasonable scientific accuracy the true proportion of variation in I.Q. scores explained by genetic factors. The statistical procedures used in the twin studies do not represent intellectual development as a dynamic process, over time, but provide only a snapshot at a single point in time. Third, any assertion that observed differences between social groups' mean I.Q.--scores are largely genetically based simply has no foundation in data. Light feels that we do not understand very well how I.Q. tests reflect a genetic component of intelligence, as any

genetic component will interact with a person's environment. Further, differences in I.Q. score distributions between social groups can be artificially created by the genetic-environmental interaction operating over time.

Conclusion

This discussion of I.Q. tests brings forth a very important point: our society places far too much reliance on abstract analytical thinking with a strong verbal component. This society sets as models the liberally educated elite, and downgrades the important roles to be played by all the others whose ingenuity and service is essential to the smooth running of our society.⁴⁶

It is obvious that there has been too much optimism about our ability to improve the intellectual functioning of the Black urban child. Theories of intelligence seem to have no reliable and lasting influence. We know that poor children, particularly poor minority children, have had less exposure than middle class children to certain kinds of experiences that are helpful in the school situation. What kind of experiences? We aren't sure, but they seem to be related to hearing, talking, and seeing. Middle class youngsters see and hear a greater variety of things that are important for school work. In the judgment of many observers, this qualifying clause--that are important for school work--is quite significant. Middle class kids are better able to distinguish between words that sound alike, are better able to perceive colors and

⁴⁶Kenneth E. Clark, "The Social Uses of Testing," The Humanist, (January/February, 1972), p. 18.

shapes, and, in imitating their parents' speech, have learned to talk in a style similar to that of most teachers.

Thus, the middle class child is somewhat better prepared for the school experience than is the lower class child. However, it would not be unreasonable to present this proposition in its reversed form: The school is better prepared for the middle-class child than the lower-class child. We could even say that the school experience is tailored for, and stacked in favor of, the middle-class child. The cause-and-effect relationship between the lack of skills and experiences found among poor children and the conditions of lower class life has yet to be delineated. So far, explanations of this relationship have been, at best, sketchy, and have been based on casual observation. We know poor and middle class children exhibit certain differences in styles of talking and thinking, but we do not know yet why or how these differences occur.

Most poor children do not have the kind of home and neighborhood environments that give them the skills required for I.Q. tests. They may learn other important skills, but symbolic reasoning and school-type vocabulary are often poorly developed. If they were raised in homes where these skills were taught, they would do much better on I.Q. tests and in school. And if environmental impediments to high scores were removed, their I.Q. differences would be based far more on genetic differences than they are now.

To the extent that poor children are truly handicapped by their family's life style, we must provide better nutrition, preschool education, and the like. But, to the extent that children from ethnically

and socially different backgrounds represent cultural diversity, we should recognize the richness in our midsts. Cultural and genetic diversity are extremely useful to a society that does not know where it will be in 1000 or even 100 years.

Scarr-Salapatek raises some very interesting assumptions. "Suppose that we do not want every child to have the same skills--that we value diversity. Suppose that there were a wider range of good educational situations for children. And further suppose that society gave equally high rewards to a variety of talents. The traditional I.Q. test would no longer be sufficient to tap all those skills. The farther we move the social reward system and the educational system away from their reliance on sameness (high I.Q.), the more diverse talents can be rewarded, and the more just will be the genetic diversity among us. We cannot and should not try to get rid of our differences. We can only make sure that every child has the best possible opportunity to develop what he can, and reward him for what he becomes.⁴⁷

At this juncture the I.Q. argument is moot. The basic question we should be asking is, what do the schools actually do? More than anything else they certify and legitimize success and failure. "Equality of educational opportunity," even if it has no meaning is necessary because it says to the loser, "you had your chance." Therefore, equality remains a significant political and moral imperative, a tune that has to be sung by politicians, educators and other apologists of the status quo.

⁴⁷Sandra Scarr-Salapatek, "Comments on Individual and Group Differences in I.Q.," The Saturday Evening Post, Summer, 1972, pp. 14-16.

To correct the weaknesses and close the gaps in the present arrangements for educating children from ethnic and socially different backgrounds, it is not enough to create a few exotic substitutes for public schools. The tremendous need of the Black population alone cannot be accommodated by a handful of exciting educational projects staffed by a small corps of dedicated enthusiasts. The response must be commensurate with the magnitude of the problem. We really don't need alternatives to the educational institutions. We need fundamental alterations in our present system. And we must begin with changes in the assumptions underlying present policies and practices.

One of the basic assumptions to be abandoned is the view that the schools' principal function is to screen and classify students. Ever since the acceptance of universal education as a valid social concept and a viable political commitment, educators have been caught on the horns of a dilemma. They have found it easy enough to agree that at the lowest academic levels schools should be open to all. But as soon as differences among pupils become evident, the question arises whether the schools' proper business is to promote learning among all or, having offered a common opportunity, to concentrate on those who respond most readily to standard instruction.

The classic procedure for resolving the conflict has been to obscure it, arguing that the graded reward system by which most schools are managed is in any case the best stimulant to learning. Once that premise is accepted, it becomes eminently logical to reinforce the inducement of a more estimable future status by the threatened penalty of being "left back" for not making the grade. For a system intended,

at least in principle, to be both universal and educational, a less effective--or efficient--scheme would be hard to contrive. The result is an institution that while educational for many is universal only in the sense that it permits all children to submit themselves to screening. The evidence is plentiful and conclusive that by using schools as sorting mechanisms we reject, psychologically and physically, vast numbers of children whose potentiality is neither determined nor developed. For others, who do manage after a fashion to survive, the overriding lesson learned in school is that education is a meaningless waste of time.

As long as the public interest and private well-being both could be served by a low standard of common literacy and by the preparation of a small minority for the more demanding intellectual tasks, the sharply narrowing pyramid offered a workable model for an educational system. That such a model makes no sense today has become embarrassingly clear. The central issue is one of definition. What is a "good school?" Despite all the rhetoric the most widely held view is old and simple: A good school is a school full of good pupils--that is to say, pupils who, for whatever reason, could survive successive screenings.

By the same token, when one found a class of such pupils, one generally assumed that he had also come across an effective teacher. Whether the pupil's performance was due to heredity, fortunate homes, good health or compliant dispositions was irrelevant. Accountability was easy and direct: schools and teachers were given straightforward credit for the gross performance of their pupils and few other questions

were asked.⁴⁸

We can no longer delay coming to grips with the essential questions: what kinds of difference should the school be expected to make in the learning, growth, and development of children? How can they be discovered? How are they best introduced, cultivated, recognized and rewarded? It is to such problems that we should direct our attention so that we can revise the character of the entire educational system.

⁴⁸John H. Fischer, "Who Needs School?" Saturday Review, September 19, 1970, pp. 78-79.

CHAPTER III

METHOD AND PROCEDURES

Introduction

The conceived importance of the psychological and environmental dimensions of personal functions as predictors of academic success has sparked many studies relating cognitive measures, measures of learning, and measures of academic performance to environmental variables of all types.⁴⁹ Other documentation also indicates the importance of noncognitive variables as predictors: When asked to choose what ingredients were most likely to lead to school life success, both teachers and parents picked social skills, goal directedness, and emotional stability, rather than I.Q. or aptitude as the most worthwhile qualities.⁵⁰ Psychological and environmental variables play a major role in both success or failure in school and in the quality of later-life adjustment. For children from ethnic and socially different backgrounds, who appear to be less influenced than their more affluent counterparts by what traditional cognitive instruments measure, the need to identify and examine noncognitive correlates of success is crucial.

Statement of the Problem

The urban environment of many students--its impact, its offerings,

⁴⁹D. T. Lakarczyk and T. K. Hill, "Self-Esteem, Test Anxiety, Stress, and Verbal Learning." Developmental Psychology, 1, (1969), pp. 147-154.

⁵⁰J. W. Getzels and P. W. Jackson, Creativity and Intelligence. New York: Wiley and Sons, 1961, p. 81.

its differences--is a major part of the educational problem, as characterized by divergent social anomies (e.g., overcrowding, poor housing, low levels of income, inadequate diets, etc.). It is completely unrealistic to consider educational accomplishments of children from ethnic and socially different backgrounds apart from this environmental context. For it is the environmental variables interacting--often explosively--within this context which directly contribute to the monumental problems of our school children.

Schools are microcosmic systems in that they tend to reflect the basic characteristics of the community in which they serve. It has long been known that some general relationship exists between environmental conditions in schools and differentiated academic performance. School districts having populations with the highest rate of disease, crime and social disorganization tend to produce "low academic performers." Deficiencies in writing skills and reading skills are particularly striking.

The rate of academic development is seen, in a large part, but not wholly, as a function of the school's environmental circumstances. Impoverished school environments effect both the formal and the contentual aspects of cognition. By "formal" is meant the operations--the behavior--by which stimuli are perceived and responded to. By "contentual" is meant the actual content of a child's knowledge and comprehension. "Formal equipment" would include perceptual discrimination skills, the ability to sustain attention, and the ability to use adults as sources of information and for satisfying curiosity. Examples

of "contentual equipment" would be the language-symbolic system, environmental information, general and environmental orientation, and concepts of comparability and relativity appropriate to the child's age level.

In considering school-related environmental variables, it is an extremely difficult task to rank many of the identifiable factors, including their effects and interactions, in terms of their significance for the urban student and his ability to acquire specific skills. Some, of course, are clearly more significant than others, such as health and food, but beyond the basic survival level, the ordering by significance becomes increasingly less clear. Moreover, cause and effect relationships are difficult to determine because of interactions among the elements. In effect, everything relates to everything else. However, it is the combination of these environmental elements and their interactions in various configurations which impacts on the student's potential and largely influences the extent to which this potential will be--or can be--realized, the directions he will take, and the number of feasible options he will have.

It is the contention of this investigator that a combination of elements surrounding the school environment bombard the least affluent students and create a set of needs above and beyond those of their more fortunate counterparts. This study concerns itself with the extent to which we should consider the development of success in school for children from ethnic and socially different backgrounds to be, in substantial degrees, a function of the cumulative effects of interactions with specific physical and social circumstances of certain

elements of the school environment.

Statement of the Purpose

At virtually every grade level, differences in the degree of school performance by students, no matter how it is operationally defined, varies with the number and kinds of environmental factors that constitute the school environment (e.g., ethnicity, socio-economic status, low income, etc.). In other words, the basic assumption, herein, is that school success depends on a variety of factors beyond just the ability to learn. In general, the purpose of this study is to examine the relationship among specific socio-economic factors in the school environment that tend to influence the level of performance on several academic assessment instruments. One of the basic areas of concern is the extent to which specific indices influence the level of performance.

Consequently, the primary purpose of this study was operationalized by examining performance on the Comprehensive Tests of Basic Skills between children from ESEA Title I schools and non-ESEA Title I schools in Washington, D. C. Specifically, this study examined the relationship between achievement on the reading/arithmetic tests and the percentage of children per school with socio-economic factors reflecting, to some extent, varying degrees of hardship. The basic question raised in this study was, to what extent is there a relationship between achievement and the effects of the socio-economic variables used as criteria to select Title I target areas for public elementary schools?

Statement of the Hypotheses

In pursuance of the primary aim of this investigation the major hypotheses will be stated in the null form. That is, there will be no statistically significant differences between comparative groups. The specific hypotheses are:

1. There will be no statistically significant differences in performance on both the Comprehensive Test of Basic Skills for Arithmetic between students who attend ESEA Title I schools and students who attend non-ESEA Title I schools in Washington, D. C.
2. There will be no statistically significant relationship between the percentage of Blacks per school and performance on both the Comprehensive Test of Basic Skills for Reading and the Comprehensive Test of Basic Skills for Arithmetic.
3. There will be no statistically significant relationship between the per cent of AFDC children per school and performance on both the Comprehensive Test of Basic Skills for Reading and the Comprehensive Test of Basic Skills for Arithmetic.
4. There will be no statistically significant relationship between the per cent of children per school receiving free lunch and performance on both the Comprehensive Test of Basic Skills for Reading and the Comprehensive Test of Basic Skills for Arithmetic.
5. There will be no statistically significant relationship between the per cent of children per school living in public housing and performance on both the Comprehensive Test of Basic Skills for Reading and the Comprehensive Test of Basic Skills for Arithmetic.

Definition of Terms

School Performance:

Although performance in school can be variously defined, it is used here to refer primarily to performance on standardized tests of school achievement and secondarily to evaluations of school activities by teachers, e.g., grades.

Ethnicity:

This term refers to commonly recognized population differences that may be characterized as cultural or racial but not as social or economic.

Socio-economic Status:

Classifications of persons in terms of their income, occupation, area of residence, and number of years of schooling are referred to by socio-economic status.

Elementary and Secondary Education Act of 1965 - Title I:

This refers to the Federally funded aid-to-education program developed to support special programs for low-income families. It is a supplementary program, designed to upgrade the educational opportunities of children from poor families (appendix).

Socio-economic Factors (Indices):

Factors (e.g., number of AFCD cases per school) used to classify schools in terms of educational deficiencies. Such data are often used to determine which children and schools have need for special educational assistance from Federal and State sources in order that levels of educational attainment may be enhanced. For example, a school with a large percentage of AFDC children would be reason to assume that the children need special assistance and may, therefore, be unable to respond constructively to a regular school program.

Comprehensive Tests of Basic Skills (McGraw-Hill):

The arithmetic test is designed for students from the second grade through the twelfth grade. The items on this test are representative of a middle-of-the-road new mathematics curriculum. Although the computational items break no new ground in the measurement of computational skill, it is felt that this instrument is adequate for measurement of the typical computational skills taught in most schools. According to Buros,⁵² the concept items tend to be slanted too much toward factual knowledge. However, the instrument is designed

⁵²Oscar K. Buros, The Seventh Mental Measurements Yearbook, (Highland Park, New Jersey: The Gryphon Press, 1972), p. 684.

to measure concepts as well as vocabulary. Although content validity is reported to be the most important type of validity for this test, little actual information is given on the curriculum emphasis taken or the procedures used to insure item representative of a wide range of mathematics curricula. In summary, this test breaks no new ground in mathematics testing. The tests are carefully developed measures of the standard variety.

Before Math:

The reading test is designed for students from the second grade through the twelfth grade. This instrument is a group survey test which yields conventional scores for vocabulary comprehension total reading, like similar tests. Some feel that its greatest value lies in evaluating total groups with respect to general levels of reading skill and in selecting cases of reading disability which are in need of more intensive diagnosis. The test is designed to measure basic skills as distinct from "higher mental processes." From a technical point of view, the test is considered to be a model of good test construction. Norms are based upon an exceedingly large standardization sample of representative students.⁵³

Methodology

Locale. All of the elementary schools in the District of Columbia were used in this study. As of October, 1971, there were 124 elementary schools in that city. For the same period, the Department of Automated Information Systems, through the D. C. Board of Education, reported an enrollment of 87,629 elementary students.⁵⁴ Two schools were dropped from this study because of insufficient information.

⁵³Ibid.

⁵⁴Public Schools of the District of Columbia. Facts and Figures, 1970-71. (Washington, D. C.: Research Information Center), p. 13.

Experimental Variables. The twelve variables in this study consisted of ten independent variables and two dependent variables. These variables were:

1. ESEA Title I Rank.
2. Total Number of Students Per School (Enrollment)
3. Total Number of Black Students Per School.
4. Total Number of Other Students Per School.
5. Percentage of AFDC Children Per School.
6. Percentage of Children Per School Receiving Free Lunches.
7. Percentage of Children Per School Living in Public Housing.
8. Total Number of Teachers Per School.
9. Percentage of Blacks Per School.
10. Pupil/Teacher Ratio.
11. Median Reading Scores for Third Grade Students Per School.
12. Median Arithmetic Scores for Third Grade Students Per School.

It should be noted that reading scores and arithmetic scores were the dependent variables. These performance variables were only obtained for third grade students because many of the elementary schools did not go beyond the third grade.

Selection for ESEA, Title I Funds. Like most major cities, the District of Columbia has developed criteria to rank schools in terms of eligibility for ESEA, Title I funds. The criterion data used to

determine eligibility and rank were:

- (1) the percentage of children per school whose families were receiving AFDC (Aid to Families with Dependent Children);
- (2) the percentage of children per school who were receiving free lunches;
- (3) the percentage of children per school who were living in public housing.

In other words, the data sources were transformed into the same general unit of measurement--numbers of children per school. To estimate the number of children from low-income families, a weight of 60% was given for the AFDC criterion, 20% for the free lunch criterion and 20% for the public housing criterion. The percentage of children from low-income families was determined for each school by relating the various assigned weights to the total number of children per school.

The data for the first criterion, AFDC (60%), were obtained from a special study conducted for the school system in May, 1971, by the Department of Public Welfare, District of Columbia. The data was compiled by census tract, i.e., the actual number of AFDC cases, along with breakdowns of children, by age, in each tract. The census tracts were then co-related with the appropriate school attendance areas. And, the number of AFDC cases in each school was determined by relating the number of children from AFDC families to the appropriate school attendance areas. The number of AFDC cases in each school was determined by relating the number of children from AFDC families to the appropriate census tracts within a school's attendance area. Income levels and

numbers of children were the requisite data used for determining which families received aid under AFDC. The rationale for using AFDC cases as criterion data is that the U. S. Office of Education recommends such data as a good source for selecting target areas for Title I programs.⁵⁵

The data for the second criterion, free lunches (20%), were obtained from the Food Services Division of the D. C. School system. With the exception of one school, all schools were found to have students who participated in the free lunch program. The data for the third criterion, public housing (20%) were obtained from the National Capital Housing Authority in the District of Columbia. When addresses constituting public housing were located within a school's boundary, the school's principal was asked to supply the number of students living in those housing units who were in attendance at his school.

Like many indices, ESEA Title I ranking suggests conditions that are related to socio-economic status. ESEA Title I purports to be a supplementary program designed to upgrade the educational opportunities of children from poor families. Consequently, schools eligible for ESEA Title I funds would be expected to have a greater proportion of children living in public housing, receiving free lunches, receiving AFDC, etc. All too often, these factors are commonly associated with manifested behavior generally reflecting serious psycho-social consequences. For example, ESEA Title I schools may reflect a greater proportion of children who suffer from serious nutritional deficiencies, poor vision,

⁵⁵U. S. Office of Education, Handbook for Local Title I Officials (U. S. Government Printing Office, 1971), p. 7.

inadequate rest, etc. For instance, undernutrition causes children to be listless, inattentive and, quite often withdrawn.⁵⁶

School Rank. ESEA, Title I eligibility, as defined by the ranking system used in the D. C. public schools was set up so that the lower the numerical rank, the greater the need for Title I funds. Only those schools with a ranking of less than 75 were considered eligible for ESEA Title I funds. Consequently, based on their ESEA rank, all of the elementary schools were divided into ESEA Title I schools and non-ESEA Title I schools.

Statistical Analysis. In the initial analysis the t-test of significance was used to examine difference between means for ESEA Title I schools and non-ESEA Title I schools for eight of the twelve variables. This was done to examine whether differences between treatment means were indicative of true differences between the two populations. F tests were also computed to examine the extent to which the two populations had the same variance for each comparison. The analysis of data was derived from the total sample of schools used in this study.⁵⁷

A second analysis was conducted using Spearman's Coefficient of Correlation to examine the relationships among all twelve factors. Basic coefficients were obtained by comparing each factor with every other factor. In addition, a Stepwise Regression Analysis (SPSS) was

⁵⁶Hunger, USA. Report by the Citizens' Board of Inquiry Into Hunger and Malnutrition in the United States (Washington, D. C.: New Community Press, 1968).

⁵⁷B. J. Winer. Statistical Principles in Experimental Design (New York: McGraw-Hill Book Company, 1962), p. 28.

constructed. This program was derived from the SPSS program that provides in addition standardized Beta weights for the regression analysis.⁵⁸ This analysis was used to examine the best possible predictive relationship among the set of ten independent variables and each dependent variable, respectively (i.e., reading scores and arithmetic scores).

The Stepwise Regression Analysis recursively constructs a prediction equation one independent variable at a time. The first step is to choose the single variable which is the best predictor. The second independent variable to be added to the regression equation is that which provides the best prediction in conjunction with the first variable. One then proceeds in this recursive fashion adding variables step-by-step until he has the desired number of independent variables or until no other variable will make a significant contribution to the prediction. The analysis for the Spearman's Coefficient of Correlation and the Stepwise Regression Analysis were done in three phases. Initially, the analysis of data was derived from the total population including both ESEA Title I schools and non-ESEA Title I schools. Then the analysis of data was derived from the sub-population of ESEA Title I schools only. The last set of analysis was derived from the sub-population of non-ESEA Title I schools.

A third analysis was conducted using the test of Parallelism of Regression to examine the extent to which one regression line for each

⁵⁸Norman H. Nie, Dale H. Bent, and C. Hadlai Hull, Statistical Package for the Social Sciences (New York: McGraw-Hill Book Company, 1970), pp. 180-181.

predictive variable could be used for all observations. Parallelism of Regression provides information about changes in the slope of regression lines as they are used across populations.⁵⁹ In this study Parallelism of Regression was done to examine whether or not the regression line of selected independent variables used to predict performance in reading and arithmetic scores for children in ESEA Title I schools could also be used to predict similar performance in reading and arithmetic for children in non-ESEA Title I schools. In other words, this analysis provided the investigator with information indicating the differential ways certain variables predicted performance between ESEA Title I schools and non-ESEA Title I schools. This analysis was derived from the total population of schools used in this study.

Basically, the regression equation is a straight or approximately straight line for a range of values under consideration. When two variables are positively related, the line representing this relationship will extend from the lower left of the graph to the upper right, and the slope of the line is said to be positive. When the relationship is negative, the line will extend from the upper left of the graph to the lower right, and the slope of the line is said to be negative. When a set of plotted points corresponding to values of an "X" variable and a "Y" variable fall precisely on a straight line such that no single point deviates from the line, the relationship between the two variables is said to be perfect.

⁵⁹Wilfrid J. Dixon and Frank J. Massey, Jr., Introduction to Statistical Analysis (New York: McGraw-Hill Book Company, Inc., 1957), p. 218.

CHAPTER IV

Analysis of the Data

In this chapter the investigator examines data related to the nature of ESEA Title I efforts to make certain that selected schools in Washington, D. C. are equipped to be more responsive to children who have been euphemistically defined as "poor-or-disadvantaged students." Specific variables will be discussed as the study examines the notion that the allocation of extra resources to schools with a high concentration of poor families does in fact improve educational performance.

When examining the data, one should keep in mind the extent to which the D. C. school system, itself, should assume responsibility for the apparent "success-or-failure" of selected students who are enrolled in the D. C. school system. Although it is impossible to isolate the effects upon the system of all the obstacles facing the schools in Washington, D. C., this investigator will attempt to identify certain problem areas in which the D. C. school system is failing in full or partial degree to examine its disparities among schools.

This chapter is divided into three parts. The first part includes an analysis of the data derived from the total population which includes comparisons between ESEA Title I schools and non-ESEA Title I schools. The second part includes an analysis of data derived from the sub-sample of ESEA Title I schools. The analysis of data in the third part was derived from the sub-sample of non-ESEA Title I schools.

Part I - Total Population of Elementary Schools

Hypothesis I. The first hypothesis states that there will be no statistically significant differences in performance on both the Comprehensive Tests of Basic Skills for Reading and Arithmetic between students who attend ESEA Title I schools and students who attend non-ESEA Title I schools. The t-test of significance was used to examine mean differences (for eight variables) between ESEA Title I schools and non-ESEA Title I schools. The results of these comparisons are presented in Table I.

The results on the first two variables (reading and arithmetic) indicate that the students in ESEA Title I schools performed at statistically significant lower levels in both reading and arithmetic than students who attended non-ESEA Title I schools. It is interesting to note that neither group reached a mean of 3.00 which is the grade equivalent for students used in this study. These findings suggest that we reject the first hypothesis. The alternate hypothesis is then accepted: the performance on both Comprehensive Tests of Basic Skills for Reading and Arithmetic will be lower for students who attend ESEA Title I schools than for students who attend non-ESEA Title I schools.

The third variable, Number of Other Students, refers primarily to the actual white population in the D. C. schools. The results indicate that by actual count, the ESEA Title I schools had fewer white students per school than non-ESEA Title I schools. This difference was statistically significant at the .001 level of confidence. On the average, non-ESEA Title I schools had approximately 70 white students per school. The white enrollment averaged less than six students per ESEA Title I

TABLE I
 COMPARISONS BETWEEN ESEA TITLE I SCHOOLS
 AND NON-ESEA TITLE I SCHOOLS

Variables	NSEA Title I Schools			Non-ESEA Title I Schools			F	t	Sig.
	N	Mean	SD	N	Mean	SD			
Reading	68	2.24	.25	54	2.90	.62	6.30	-7.42	.001
Arithmetic	68	2.40	.28	54	2.83	.49	3.03	-6.25	.001
Number of Other Students	68	5.87	12.60	54	69.81	125.66	99.52	-4.17	.001
% Blacks Per School	68	98.73%	34.20	54	80.96%	30.32	78.60	4.80	.001
% AFDC Per School	68	31.26%	11.48	54	9.99%	7.82	2.16	11.63	.001
% Receiving Free Lunches	68	61.35%	19.32	54	23.05%	15.84	1.49	12.03	.001
% Children Public Housing	68	21.68%	30.50	54	1.00%	3.65	69.91	4.98	.001
Pupil/Teacher Ratio	68	27.78	29.12	54	29.02	29.15	1.00	-2.31	.05

schools.

The comparison for the next variable, Percentage of Blacks Per School, indicates that there were, percentagewise, fewer Blacks in non-ESEA Title I schools than in ESEA Title I schools. The difference was statistically significant at the .001 level of confidence. On the average, ESEA Title I schools were practically 100% Black. To the contrary, non-ESEA Title I schools had an average of 81% Blacks per school.

Comparisons for the three variables, AFDC Per School, Percent of Children Per School Receiving Free Lunches, and the Percent of Children Per School Living in Public Housing all reflected statistically significant differences between ESEA Title I schools and non-ESEA Title I schools. One would expect this since these variables were used as criteria upon which schools were given ESEA rankings.

The results of the last analysis in Table I indicate that ESEA Title I schools had a Pupil/Teacher Ratio that was significantly lower than the Pupil/Teacher Ratio for non-ESEA Title I schools. The difference was significant at the .001 confidence level. Some may find this a bit unusual. However, they should remember that the Title I Act makes provisions for the hiring of additional staff (professional and nonprofessional) in ESEA Title I schools.

Hypothesis II. The second hypothesis states that there will be no statistically significant relationship between the Percentage of Blacks Per School and performance on both the Comprehensive Tests of Basic Skills for Reading and Arithmetic. The Spearman Coefficient of Correlation was used to examine these relationships for the total sample of

TABLE II
CORRELATION MATRIX FOR SIGNIFICANT
PREDICTORS AND CRITERION
VARIABLES

(ALL SCHOOLS)

	ESEA Title I Rank	No. Students Per School	No. Blacks Per School	No. Other Students	% AFDC Children	% Children Free Lunches	% Children Public Housing	No. Teachers Per School	% Blacks Per School	Pupil/Teacher Ratio	Reading Scores	Arithmetic Scores
ESEA Title I Rank	1	ns	ns	.41	-.91	-.87	-.50	ns	-.40	.33	.66	.53
Number Students Per School		1	.97	-.18	ns	ns	.41	.97	.26	.26	ns	ns
Number Blacks Per School			1	-.31	ns	ns	.42	.94	.37	.22	ns	.23
Number Other Students				1	-.37	-.37	-.21	ns	.99	ns	.34	.40
% AFDC Children					1	.77	.28	ns	.36	.36	-.62	-.48
% Children Free Lunches						1	.32	ns	.35	-.31	-.69	-.53
% Children Public Housing							1	.42	.21	ns	-.31	-.24
Number Teachers Per School								1	.24	ns	ns	ns
% Blacks Per School									1	ns	-.33	-.40
Pupil/Teacher Ratio										1	ns	ns
Reading Scores											1	.69
Arithmetic Scores												1

N = 122

p < .05 = .17

p < .01 = .22

schools. The results of the comparisons are presented in Table II.

Table II indicates that there was a statistically significant inverse relationship between the Percent of Blacks Per School and performance in reading. The coefficient (-.36) was statistically significant at less than the .01 level of confidence. There was a similar inverse relationship between Percent of Blacks Per School and performance on the arithmetic test. The coefficient (-.40) was statistically significant at less than the .01 confidence level. These two findings suggest that the higher the Percentage of Blacks Per School the lower the reading and arithmetic scores. Furthermore, these findings also support two earlier findings in Table I. There were: (1) statistically significant more Blacks in ESEA Title I schools and (2) Title I schools performed lower on both the reading and arithmetic tests than non-ESEA Title I schools. The results of these data strongly suggest that the second hypothesis be rejected. The alternate hypothesis is therefore accepted that there is a significant relationship between the Percentage of Blacks Per School and performance on both Comprehensive Tests of Basic Skills for Reading and Arithmetic.

Hypothesis III. The third hypothesis asserts that there will be no statistically significant relationship between the Percent of AFDC Per School and performance on both the Comprehensive Tests of Basic Skills for Reading and Arithmetic. Table II reflects a statistically significant inverse relationship between the Percent of AFDC Per School and reading scores. The same holds true for the relationship between Percent AFDC Per School and arithmetic scores. Both relationships were significant at the .01 level of confidence. This means that the higher

the Percent of AFDC Per School the lower the reading and arithmetic scores. These findings are in line with some earlier findings. On the basis of these results the third hypothesis is rejected. Therefore, the hypothesis is accepted that there is a significant relationship between the Percent of AFDC Children Per School and Performance on both Comprehensive Tests of Basic Skills for Reading and Arithmetic.

Hypothesis IV. The fourth hypothesis states that there is no statistically significant relationship between the Percent of Children Per School Receiving Free Lunches and performance on both the Comprehensive Tests of Basic Skills for Reading and Arithmetic. Consistent with other findings, Table II indicates that there was a significant inverse relationship between Percent of Children Per School Receiving Free Lunches and reading scores. The same was true for the relationship between Percent of Children per School Receiving Free Lunches and arithmetic scores. Both of the coefficients (-.69 and -.53) were statistically significant at less than the .01 level of confidence. The data shows that the higher the Percent of Children Per School Receiving Free Lunches the lower the reading and arithmetic scores. This evidence would lead one to reject the fourth hypothesis. The hypothesis to be accepted is that there is a significant relationship between the Percent of Children Per School Receiving Free Lunches and performance on both Comprehensive Tests of Basic Skills for Reading and Arithmetic.

Hypothesis V. The fifth hypothesis states that there will be no statistically significant difference between Percent of Children Per School Living in Public Housing and performance on both the Comprehensive

Tests of Basic skills for Reading and Arithmetic. The data shows that when the Percent of Children Per School Living in Public Housing was high the reading and arithmetic scores were low. These relationships had coefficients that were statistically significant at less than the .01 confidence level. This evidence supports the rejection of the fifth hypothesis. The alternative hypothesis to be accepted is that there is a significant relationship between the Percent of Children Per School Living in Public Housing and performance on both Comprehensive Tests of Basic Skills for Reading and Arithmetic.

Additional Relationships. Significant, but incident to the major hypothesis, there are indications of other interesting relationships in Table II. For example, there was a significant relationship between reading and arithmetic scores. The coefficient (.69) was significant at less than the .01 level of confidence. Another was the positive relationship between ESEA Title I Rank and the Number of Other Students Per School. This relationship was also significant at less than the .01 confidence level. In this instance the lower the rank the fewer the Number of Other Students Per School. It provides further evidence that ESEA Title I schools tend to have fewer non-Black students than non-ESEA Title I Schools.

Stepwise Regression Analysis. To examine the best possible predictive relationship among the ten independent variables and the two dependent variables for the total sample of schools, a Stepwise Regression Analysis was used. The results of the Stepwise regression for reading are contained in Table III. Likewise, the results of the Stepwise regression for arithmetic are contained in Table IV.

Prediction of Reading Success. Table III indicates that ESEA Title I Rank is the single variable which was the best predictor of performance on the reading test. This variable accounted for 42 percent of the variance. In conjunction with ESEA Title I Rank, the Percent of Blacks Per School provided the best two variable predictions. These two variables accounted for 54 percent of the variance. When the two other variables were added step-by-step in conjunction with ESEA Title I Rank and the Percent of Blacks Per School 60 percent of the variance was accounted for in predicting performance on the Basic Test of Comprehensive Skills for Reading. Other variables did not make a significant additional contribution to the prediction.

Prediction of Arithmetic Success. In Table IV one can see that the Percent of Blacks Per School is the single variable which was the best predictor of performance on the arithmetic test. This variable accounted for 56 percent of the variance. The next best predictor when used in conjunction with the Percent of Blacks Per School was the variable, Percent of Children Per School Receiving Free Lunches. These two variables accounted for 62 percent of the variance. All in all, four variables accounted for 65 percent of the variance when predicting performance on the Basic Test of Comprehensive Skills for Arithmetic.

Parallelism of Regression Analysis. A test of Parallelism of Regression was used to examine the differential characteristics of regression lines for selected variables when they were used as predictors of performance (i.e., reading and arithmetic scores) for ESEA Title I schools and when they were used for the same purpose with non-ESEA

TABLE III

STEPWISE REGRESSION ANALYSIS FOR SPECIFIC INDEPENDENT
 VARIABLES AS PREDICTORS FOR PERFORMANCE
 ON THE BASIC TEST OF COMPREHENSIVE
 SKILLS FOR READING

(ALL SCHOOLS)

Step Number	Variable	Multiple R	R Square	R Square Change	F	B	Beta'
1.	ESEA Title I Rank	.65	.42	.42	86.84	.00	.10
2.	% Blacks Per School	.73	.54	.12	68.94	-.01	-.24
3.	% Children Free Lunches	.75	.56	.02	50.40	-.01	-.42
4.	Pupil/Teacher Ratio	.77	.60	.04	35.19	-.38	-.21

B = Raw Score

Beta' = Standard Score

TABLE IV

STEPWISE REGRESSION ANALYSIS FOR SPECIFIC INDEPENDENT
 VARIABLES AS PREDICTORS FOR PERFORMANCE
 ON THE BASIC TEST OF COMPREHENSIVE
 SKILLS FOR ARITHMETIC

(ALL SCHOOLS)

Step Number	Variable	Multiple R	R Square	R Square Change	F	B	Beta'
1.	% Blacks Per School	.75	.56	.56	150.99	-.01	-.58
2.	% Children Free Lunches	.79	.62	.06	98.06	-.00	-.20
3.	% AFDC Per School	.80	.64	.02	70.12	-.02	-.14
4.	ESEA Title I Rank	.80	.65	.01	53.58	.00	.24

B = Raw Score

Beta' = Standard Score

Title I schools. The intent was to look at the relationship between two variables across sub-populations--ESEA Title I schools versus non-ESEA Title I schools. In short then, this analysis reflects the differential way a specific variable predicts performance in reading and arithmetic between ESEA Title I schools and non-ESEA Title I schools. The results of this analysis are contained in Tables V and VI.

Table V contains information about seven independent variables used as predictors for performance in reading between ESEA Title I schools and non-ESEA Title I schools. The results indicated that for only two variables, Percent of Blacks Per School and Percent of Children Per School, could one regression line serve to predict performance in reading for both the ESEA Title I schools and non-ESEA Title I schools. For the other five variables a single regression line was not adequate to predict performance in reading for both ESEA Title I schools and non-ESEA Title I schools. Not only were two regression lines necessary to predict performance in reading between ESEA Title I schools and non-ESEA Title I schools, but the slopes of regression lines statistically significant differed for each sub-population. The F ratios for these five variables were significant at the .001 level of confidence. These results suggest that, for most of the predictive variables, ESEA Title I schools and non-ESEA Title I schools represent two independent populations.

Results of the data in Table VI indicate that, among eight independent variables used as predictors for performance in arithmetic between ESEA Title I schools and non-ESEA Title I schools, four had F ratios that were not significant. This means, that for the following

TABLE V

TEST OF PARALLELISM OF REGRESSION RESULTS AMONG SELECTED
INDEPENDENT VARIABLES AS PREDICTORS FOR PERFORMANCE
ON THE BASIC TEST OF COMPREHENSIVE
SKILL FOR READING BETWEEN ESEA
SCHOOLS AND NON-ESEA SCHOOLS

Variable	DF	Parallelism F Ratio	Sig.
ESEA Title I Rank	1 118	44.26	.001
Enrollment	1 118	25.01	.001
% Blacks Per School	1 118	1.67	NS
Pupil/Teacher Ratio	1 118	20.66	.001
% AFDC Per School	1 118	36.72	.001
% Children Free Lunches	1 118	21.36	.001
% Children Public Housing	1 118	1.91	NS

TABLE VI

TEST OF PARALLELISM OF REGRESSION RESULTS AMONG SELECTED
INDEPENDENT VARIABLES AS PREDICTORS FOR PERFORMANCE
ON THE BASIC TEST OF COMPREHENSIVE
SKILL FOR ARITHMETIC BETWEEN
ESEA SCHOOLS AND NON-ESEA
SCHOOLS

Variable	DF	Parallelism F Ratio	Sig.
ESEA Title I Rank	1 118	40.84	.001
Enrollment	1 118	18.53	.001
% Blacks Per School	1 118	1.00	NS
Pupil/Teacher Ratio	1 118	3.01	NS
% AFDC Per School	1 118	35.11	.001
% Children Free Lunches	1 118	22.24	.001
% Children Public Housing	1 118	.44	NS
Reading Scores	1 118	2.14	NS

variables: Percent of Blacks Per School; Pupil/Teacher Ratio; Percent of Children Per School Living in Public Housing; and Reading Scores; one regression line would be adequate to predict performance in arithmetic for both ESEA Title I schools and non-ESEA Title I schools. On the other hand, variables such as ESEA Title I Rank, Enrollment, Percent of AFDC Per School and the Percent of Children Receiving Free Lunches, had F ratios that were statistically significantly different at the .001 confidence level. This suggests that, for each of these independent variables, ESEA Title I schools and non-ESEA Title I schools could be treated as independent populations requiring two regression lines (one for each population) to predict performance in arithmetic.

Data from Tables V and VI indicate that there is consistency among four of the independent variables used to predict performance on both reading and arithmetic. The four variables were ESEA Title I Rank, Enrollment, Percent AFDC per school and Percent of Children Per School Receiving Free Lunches. The F ratios were significant in the prediction of both dependent variables. This suggests that, in the prediction of either one of the dependent variables, reading or arithmetic success, one regression line would not be adequate for both sub-populations. ESEA Title I schools and non-ESEA Title I schools should be treated as independent populations.

Part II - ESEA Title I Schools

Spearman's Coefficient of Correlation was used to examine the relationships among all twelve variables for ESEA Title I schools only. The basic coefficients are contained in Table VII. In contrast to the

TABLE VII
CORRELATIONAL MATRIX FOR SIGNIFICANT
PREDICTORS AND CRITERION
VARIABLES

(ESEA SCHOOLS)

	ESEA Title I Rank	No. Students Per School	No. Blacks Per School	No. Other Students	% AFDC Children	% Children Free Lunches	% Children Public Housing	No. Teachers Per School	% Blacks Per School	Pupil/Teacher Ratio	Reading Scores	Arithmetic Scores
ESEA Title I Rank	1	ns	.24	ns	-.50	-.39	-.28	ns	ns	.26	ns	ns
Number Students Per School		1	.98	ns	-.28	-.30	-.31	.88	ns	.23	.24	ns
Number Blacks Per School			1	ns	-.29	-.31	-.31	.88	ns	.24	.24	ns
Number Other Students				1	ns	ns	ns	ns	-.93	ns	ns	ns
% AFDC Children					1	.25	ns	-.21	ns	-.34	nd	ns
% Children Free Lunches						1	ns	-.25	ns	-.21	-.24	ns
% Children Public Housing							1	.31	ns	ns	ns	ns
Number Teachers Per School								1	ns	ns	.23	ns
% Blacks Per School									1	ns	ns	ns
Pupil/Teacher Ratio										1	ns	ns
Reading Scores											1	.30
Arithmetic Scores												1

N = 68

$p < .05 = .21$

$p < .01 = .28$

findings in Table II (total population), the data in Table VII indicate that:

1. The relationship between Percent of Blacks Per School and performance in reading and arithmetic was not statistically significant.
2. The relationship between the Percent of AFDC Per School and performance in reading and arithmetic was not statistically significant.
3. There was a statistically significant inverse relationship between the Percent of Children Per School Receiving Free lunches and performance in reading. This relationship was statistically significant at less than the .05 level of confidence. However, the relationship between Percent of Children Per School Receiving Free lunches and performance in arithmetic was not statistically significant.
4. The relationship between the Percent of Children Per School Living in Public Housing and performance in reading and arithmetic was not statistically significant.

Table VII indicates that there were very few relationships that were statistically significant. However, two relationships should be noted. The first is the relationship between Enrollment and performance in reading. This relationship was statistically significant at the .05 confidence level. This suggests that the larger the enrollment the higher the reading scores. The second relationship indicated that the Number of Blacks Per School was positively related to performance in

reading. This relationship was also significant at the .05 level of confidence. This finding also indicates that the larger the actual number of Blacks the higher the reading scores. These findings suggest that there is probably a very small variance among variables related to ESEA Title I schools. Increases in the Number of Students Per School and the Number of Blacks Per School served to broaden the variation and reflected increases in the range of reading scores.

Stepwise Regression Analysis. Table VIII contains the results of a Stepwise regression for reading in ESEA Title I schools only. The data in Table VIII indicate that the Percent of Children Per School Receiving Free Lunches was the best predictor of performance in reading. However, this variable accounted for only nine percent of the variance. In conjunction with the best predictor, Enrollment provided the best prediction. Both variables accounted for only 11 percent of the variance. Four variables accounted for only 11 percent of the variance when predicting performance on the Basic Test of Comprehensive Skills for reading. As the best possible combination of predictors of performance in reading, these variables leave approximately 89 percent of the variance unaccounted for.

In Table IX, the Percent of Blacks Per School showed up as the best predictor for performance in arithmetic. This predictive variable accounted for only six percent of the variance. When Enrollment, Pupil/Teacher Ratio and Percent of Children Per School Living in Public Housing were used in conjunction with Percent of Blacks Per School to predict arithmetic performance, only twenty percent of the variance was accounted for. This combination of predictors left approximately eighty

TABLE VIII

STEPWISE REGRESSION ANALYSIS FOR SPECIFIC INDEPENDENT
 VARIABLES AS PREDICTORS FOR PERFORMANCE
 ON THE BASIC TEST OF COMPREHENSIVE
 SKILLS FOR READING

(ESEA SCHOOLS ONLY)

Step Number	Variable	Multiple R	R Square	R Square Change	F	B	Beta'
1.	% Children Free Lunches	.30	.09	.09	6.62	-.00	-.24
2.	Enrollment	.33	.11	.02	4.02	.00	.18
3.	% Children Public Housing	.34	.11	.00	2.75	.00	.11
4.	ESEA Title I Rank	.34	.11	.00	2.07	.00	.06

B = Raw Score

Beta' = Standard Score

TABLE IX

STEPWISE REGRESSION ANALYSIS FOR SPECIFIC INDEPENDENT
 VARIABLES AS PREDICTORS FOR PERFORMANCE
 ON THE BASIC TEST OF COMPREHENSIVE
 SKILLS FOR ARITHMETIC
 (ESEA SCHOOLS ONLY)

Step Number	Variable	Multiple R	R Square	R Square Change	F	B	Beta'
1.	% Blacks Per School	.25	.06	.06	4.50	-.03	-.32
2.	Enrollment	.35	.12	.06	4.62	.00	.35
3.	Pupil/Teacher Ratio	.41	.17	.05	4.42	-.02	-.23
4.	% Children Public Housing	.45	.20	.03	4.00	-.00	-.15

B = Raw Score

Beta' = Standard Score

percent of the variance unaccounted for. Other variables did not make a significant contribution to the predictive formula.

Part III - Non-ESEA Title I Schools

Spearman's Coefficient of Correlation was also used to examine the relationships among all twelve variables for non-ESEA Title I schools only. Basic coefficients are contained in Table X. These data generally tended to reflect most of the results found in Table II (total sample). Table X indicates that:

1. There were statistically significant inverse relationships among the Percent of Blacks Per School and performance in both reading and arithmetic. These relationships were significant at less than the .01 level of confidence. For non-ESEA schools, the higher the percentage of Blacks Per School the lower the performance in both reading and arithmetic per school.
2. There was a statistically significant inverse relationship among the Percent of AFDC Children Per School and performance on both reading and arithmetic. Both relationships were significant at less than the .01 level of confidence. This suggests that high percentages of AFDC Per School were associated with low performances in reading and arithmetic per school.
3. Likewise, the inverse relationship among the Percent of Children Per School Receiving Free Lunches and performance in both reading and arithmetic were statistically significant

TABLE X
CORRELATIONAL MATRIX FOR SIGNIFICANT
PREDICTORS AND CRITERION
VARIABLES
(NON-ESEA SCHOOLS)

	ESEA Title I Rank	No. Students Per School	No. Blacks Per School	No. Other Students	% AFDC Children	% Children Free Lunches	% Children Public Housing	No. Teachers Per School	% Blacks Per School	Pupil/Teacher Ratio	Reading Scores	Arithmetic Scores
ESEA Title I Rank	1	-.35	-.45	.50	-.93	-.89	-.24	-.28	-.53	-.36	.71	.68
Number Students Per School		1	.93	-.34	.42	ns	.39	.97	.46	.39	-.42	-.44
Number Blacks Per School			1	-.53	.47	.29	.41	.90	.61	.35	-.43	-.54
Number Other Students				1	-.42	-.46	ns	-.30	-.98	ns	.38	.52
% AFDC Children					1	.71	ns	.36	.47	.36	-.66	-.62
% Children Free Lunches						1	ns	ns	.45	ns	-.65	-.61
% Children Public Housing							1	.37	ns	.33	ns	ns
Number Teachers Per School								1	.43	ns	-.35	-.38
% Blacks Per School									1	ns	-.42	-.56
Pupil/Teacher Ratio										1	-.40	ns
Reading Scores											1	.82
Arithmetic Scores												1

N = 54

$p < .05 = .27$

$p < .01 = .35$

at less than the .01 confidence level.

4. The relationships among the Percent of Children Per Schools Living in Public Housing and performance in both reading and arithmetic were not statistically significant. This finding does not support findings of the same comparisons done for the total sample.

The relationship between performance in reading and arithmetic was statistically significant at less than the .01 level of confidence. This coefficient ($r=.82$) and the coefficient for the total sample (Table II, $r=.69$) indicated strong positive relationships between performance in reading and performance in arithmetic. The positive relationship between reading and arithmetic for ESEA Title I schools only (Table VII, $r=.30$) was also statistically significant, but not as strong as the other two coefficients.

Stepwise Regression Analysis. Table XI contains the results of a Stepwise Regression Analysis for predicting performance in reading for non-ESEA Title I schools only. The results indicated that ESEA Title I Rank was the best predictor for performance in reading. As a predictor of reading this variable accounted for 46 percent of the variance. Four other predictive variables, Enrollment, Pupil/Teacher Ratio, Percent of Children Per School Living in Public Housing, when used in conjunction with the ESEA Title I Rank, accounted for 59 percent of the variance.

In Table XII the Stepwise regression indicates that the Percent of Blacks Per School was the best predictor of performance in arithmetic in non-ESEA Title I schools. This variable accounted for 65 percent of the variance. The next best predictor, when used in conjunction with

TABLE XI

STEPWISE REGRESSION ANALYSIS FOR SPECIFIC INDEPENDENT
 VARIABLES AS PREDICTORS FOR PERFORMANCE
 ON THE BASIC TEST OF COMPREHENSIVE
 SKILLS FOR READING

(NON-ESEA SCHOOLS ONLY)

Step Number	Variable	Multiple R	R Square	R Square Change	F	B	Beta'
1.	ESEA Title I Rank	.67	.46	.46	45.44	-.00	-.12
2.	Enrollment	.72	.53	.07	28.47	-.00	-.28
3.	Pupil/Teacher Ratio	.74	.56	.03	21.42	-.05	-.24
4.	% Children Free Lunches	.76	.58	.02	17.16	-.02	-.43
5.	% Children Public Housing	.77	.59	.01	14.05	.01	.08

B = Raw Score

Beta' = Standard Score

TABLE XII

STEPWISE REGRESSION ANALYSIS FOR SPECIFIC INDEPENDENT
 VARIABLES AS PREDICTORS FOR PERFORMANCE
 ON THE BASIC TEST OF COMPREHENSIVE
 SKILLS FOR ARITHMETIC

(NON-ESEA SCHOOLS ONLY)

Step Number	Variable	Multiple R	R Square	R Square Change	F	B	Beta'
1.	% Blacks Per School	.81	.65	.65	95.97	-.01	-.55
2.	ESEA Title I Rank	.86	.73	.08	70.67	.02	.68
3.	% Children Public Housing	.86	.74	.01	47.88	.02	.15
4.	% Children AFDC	.87	.75	.01	36.79	.02	.33
5.	Enrollment	.87	.76	.01	29.81	-.00	-.11

B = Raw Score

Beta' = Standard Score

the Percent of Blacks Per School, was the variable ESEA Title I Rank. These two variables accounted for 73 percent of the total variance. Five variables accounted for 76 percent of the total variance when used to predict performance on the Basic Test of Comprehensive Skills for Arithmetic.

CHAPTER V
Conclusions

Socio-economic discrimination

The results of this study clearly indicate that schools in Washington, D. C., reflect a pattern whereby children are separated, not so much by race, but into groups that are socially and economically homogeneous. It is safe to say that the D. C. school system is characterized by school inequalities that have shown little sign of diminishing over the past five years. The analysis of data in this study suggest that the present structure of the school system plays an important role in perpetuating inequalities. Contrary to the popular belief that the educational system is an equalizing force, the view presented here is that the supposedly meritocratic system, far from providing equality of opportunity for all, is instrumental in legitimizing socio-economic inequality.⁶⁰

Within the D. C. school system, race is an artifact of socio-economic clustering. The data (Table I) indicates that there were greater percentages of Blacks per school in ESEA Title I schools than non-ESEA schools. ESEA Title I schools were practically all Black while non-ESEA schools were only 81% Black. This is an important finding when it is pointed out that for the school year 1970-71, 94.9% of the total

⁶⁰Martin Carnoy, ed., Schooling in a Corporate Society (New York: David McKay Company, Inc., 1972), p. 2.

enrollment in the District of Columbia was Black.⁶¹ This suggests that even though they constitute only a small percentage (5%) of the school student population, whites tend to be clustered in the more affluent school districts.

The Washington Post (December 13, 1972) reported that the number of essentially segregated tracts or neighborhoods (90 to 99 per cent white or Black) jumped from 59 in 1960 to 75 in 1970. The Black tracts increased from 28 to 52. The white tracts declined from 31 to 23 with almost all of the loss in Far Southeast. The 15 tracts in the traditionally white area west of Rock Creek Park remained almost unfazed by open housing and other civil rights breakthroughs in the 1960's, shifting only slightly from 97.1 per cent white in 1960 to 95.3 per cent white 10 years later. The percentage of Blacks actually declined in four of the 15 tracts while increasing in minuscule amounts in the others. The net effect of all these changes is that the city is now not only Blacker but more segregated, with more all Black or nearly all-Black tracts than in 1960 and the nearly all-white tracts drawn into a more tightly concentrated cluster.

The comparisons on performance criteria (reading and arithmetic) reinforces the point that race is an artifact of socio-economic segregation. For the total sample, there were significant inverse relationships between the Percent of Blacks Per School and performance in reading and arithmetic (Table II). That is, the larger the percentage of Blacks per

⁶¹Public Schools of the District of Columbia. Facts and Figures, 1970-71. (Washington, D. C.: Research Information Center), p. 13.

school the lower the performance in reading and arithmetic. It should be remembered that ESEA Title I schools performed at lower levels on both the reading and arithmetic tests than non-ESEA Title I schools (Table I). One can easily slip into the false notion that this is due to the fact that Blacks generally perform at lower levels than whites and that whites tend to be concentrated in non-ESEA Title I schools. However, a five percent white population would not make that much difference. A major reason for the differences in performances between ESEA Title I schools and non-ESEA Title I schools is that non-ESEA Title I schools not only have a high percentage of those whites who attend the D. C. schools but also have a large number of affluent Black students who perform at comparable academic levels to their white counterparts.

Approximately 61% of the students in each ESEA Title I school district receive free lunch. Twenty-two percent of the students in these school districts live in public housing. Likewise, 31% of the students in ESEA Title I school districts receive AFDC. In contrast, 23% of the students in non-ESEA Title I school districts receive free lunches. Of this, one percent live in public housing and only 10% receive AFDC. Analysis of these data reflect interesting demographic characteristics. Most of the ESEA Title I schools are concentrated in central Northwest Washington (center city) or the eastern (Northeast and Southeast) parts of the city. ESEA Title I districts are, for the most part, characterized by high density, low-income apartments and residential dwelling. Non-ESEA Title I schools tend to be concentrated in upper Northwest and near Southwest Washington. These areas are characterized

by low-density apartments, overpriced single family dwellings and/or expensive townhouses.

The District of Columbia has a 71% Black population, a situation unique in American cities although it may well predict the future. While there are some areas of the District which are racially integrated, the District as a whole, is marked by intense segregation--both racially and socio-economically. Whites tend to reside west of Rock Creek Park and in the newly developed Southwest area. Most Blacks live east of the Park. The population shift has been the classic one of whites migrating to the suburbs and Blacks moving into previously white neighborhoods. The Black population is far from homogeneous. Economically and socially, the Black population is highly stratified, ranging from chronically impoverished residents in central city to the high-income residents in upper Northwest and Southwest Washington. Because the Federal government employs approximately 40% of all workers, the District has attracted and retained large groups of well-educated and socially conscious Black professional, semi-professional and clerical workers. In other words, there is a substantial number of well-educated, middle-class Blacks whose income and life styles are similar to those of the white community.

Most of the individuals who live in public housing and receive AFDC are presently concentrated in what used to be Black school districts when the District of Columbia was predominantly white. Consequently, ESEA Title I schools are essentially massed in what were, in times past, Black enclaves. This is reflected in the fact that there is an 18% differential in Black student ratios between ESEA Title I schools and non-ESEA Title I schools. Residents in ESEA Title I school districts are less likely to be

employed in white collar jobs and, to a larger extent, are less likely to be employed. The differences between ESEA Title I school districts and non-ESEA Title I school districts causes one to seriously question the meritocratic ideal in which the "best," most "intelligent" students rise to the top and upon which most school systems are based.⁶² Philosophically, one might even question whether these ideals are the goals of the D. C. school system. Perhaps the real goals are not the "maximization" of everyone's potential, but only the maximization of potential of a few--students who reside in affluent communities. The American dream of social mobility may become a reality for a limited percentage of low- and middle-income families in the District of Columbia while the majority are held in place, to a large extent, by the school system itself.

The question of maximization of potential gains importance when we consider the best possible predictors of performance on the reading and arithmetic tests for the total population of elementary schools. The variable, Percent of Blacks Per School, was the single best predictor of performance for arithmetic success (Table IV) and in conjunction with ESEA Title I Rank provided the best prediction of performance for reading success (Table III). These findings raise the questions of why would there be what is essentially a race factor in a school system that has close to 100% Black student population. One feasible answer is that poverty and the anomies associated with it are endemic to being Black in

⁶²Carnoy, Schooling in a Corporate Society, p. 2.

poverty and the anomies associated with it are endemic to being Black in these United States. Increases in the Percentage of Blacks per school really means that there are increases in the number of poor students who bear the physical and psychological scars of those families whose "life chances" are not equal to those of other Americans. There is abundant data which suggest that while two hundred years of slavery have been followed by one hundred years of "freedom," the average Black American (particularly in Washington, D. C.) still remains outside the mainstream of American life. By almost all standard measures, his welfare is substantially below that of the American majority; statistics on income, employment, life expectancy, housing and infant mortality all reflect his unenviable position.⁶³

The political and economic structure of Washington, D. C. offers an interesting setting for a Black public school system. The District of Columbia is unique in that it is the Federal center of this country. Government is the major industry. The school system and the city government are completely subsidized by the Federal government. The economic plight of most of the Blacks in Washington suggests that the D. C. school system has evolved not as a part of a pursuit of equality, but rather to meet the needs of Federal agencies (via Civil Service) for a disciplined and skilled labor force, and to provide a mechanism for social control in the interest of political stability. As the economic importance of skilled and well-educated labor has grown, inequalities in the school system have

⁶³Samuel Bowles, "Unequal Education and the Production of Social Division of Labor," in Schooling in a Corporate Society, ed. by Martin Carnoy (New York: David McKay Company, Inc., 1952), p. 44.

become increasingly important in reproducing the class structure from one generation to the next.⁶⁴ It should be noted that financing of the school system is controlled completely by the District of Columbia Committee in Congress. Consequently, most decisions about the D. C. schools tend to be consonant with the attitudes of those who control the "purse strings."

The Mayor and close to 50% of the members of the City Council are Black. The District of Columbia Board of Education is predominantly Black. Evidently control over the school board and other decision-making bodies in the city government does not provide a sufficient explanation of the persistence and pervasiveness of inequalities in that school system. Although the unequal distribution of political power serves to maintain inequalities in education, the origins of these inequalities may be found outside the political sphere, in the class structure itself and in the class subcultures typical of capitalist societies. There is strong evidence that unequal education has its roots in the very class structures which it serves to legitimize and reproduce.

For Black people in Washington's Federal bureaucracy, one's status, income and personal autonomy is dependent in great measure on one's place in the work hierarchy. And in turn, position in the Federal social division of labor is associated with educational credentials reflecting the number of years of schooling and the quality of education received. The increasing importance of schooling as a mechanism for allocating children to positions in the class structure plays a major part in

⁶⁴Ibid., p. 37.

legitimizing the structure itself. Historically the D. C. public schools have shown that unequal schooling reproduces a social division of labor. Children whose parents are "making it" in the Federal system generally tend to have better school experiences. Both the amount and the content of their education greatly facilitate their movement into positions similar to those of their parents and/or more advantageous than their poorer counterparts.

Therefore, from the analysis of the data in this study the investigator concludes that students who attend non-ESEA Title I schools are in a more favorable position than students who attend non-ESEA Title I schools in Washington, D. C.

A dual system. The Parallelism of Regression Analysis indicated that the independent variables contributed very little as predictors of performance in reading and arithmetic success for the sub-population of ESEA Title I schools. To the contrary, the independent variables contributed a great deal when used as predictors of performance in reading and arithmetic success for the sub-population of non-ESEA Title I schools. The analysis of these findings suggest that when these variables are used as predictors, with other things being held constant, the D. C. school system has two independent and essentially different school populations based primarily upon socio-economic class. Therefore, any comparison of school performance on the basis of a total population consisting of ESEA Title I schools and non-ESEA Title I schools is quite spurious and misleading.

Unfortunately, it is clear that the D. C. schools as presently constituted have shown little evidence of being able to fulfill most of

the educational needs of Black children and particularly poor Black children. In *Bolling versus Sharpe* (1954) the court ordered the desegregation of the District of Columbia schools, and in 1956 the Board of Education adopted a tracking system for the Washington public schools based on so-called "ability grouping." At that time there was a four-track system. This system included an honors track for the "gifted," a college preparatory track, a general education track and a special track for the "slow learners." The system was highly rationalized and objectified and supported by empirical data derived from an extensive testing program.

In *Hobson versus Hansen* (District Court case, 1967) Shelly Wright, a U. S. circuit judge, wrote the opinion which challenged not only the use of ability tracking in the Washington public schools to circumvent desegregation, but went further by questioning the basis of tracking in the first place. While the school board insisted that the tracking system was based on meeting the needs of individuals through curricular adjustment according to their ability, they also denied racial bias but admitted that enrollment in the tracks was related to socio-economic status of the students. It is clear from the data presented in this study that the existing compensatory approach (ESEA Title I classification system) has done essentially one basic thing. It has moved the D. C. school system from a four-track system to a two-track system. As operationalized this model has generally resulted in most students from low-income homes performing less well than students from higher-income families.

The traditional method of assessing school performance has to be

questioned seriously. Poor people have been subjected to years of testing. They have been channeled through an intricate bureaucratic educational system which in the name of meeting their individual needs, classifies and tracks them into occupations appropriate to their socio-economic class status. The tragic character of this phenomenon is not only that poor Blacks learn to believe in the system, but worse, through internalizing that set of beliefs, make it work. It works because the lowered self-image which the schools and society reinforce on poor Blacks results in lower "achievement." A normal child objectified as subnormal and treated by the teacher and the school as subnormal will almost surely behave as a subnormal child. Similarly, the poor student who is taught in many ways to doubt his own intelligence can be expected to exhibit lower achievement levels than those children who are repeatedly reminded that they are made of superior clay, and therefore, are of superior worth.⁶⁵

The implications of these findings play havoc with the philosophical assumptions underlying the basis upon which our theoretical model of education is supposed to be based. Our basic rhetoric suggests that the learning available to children and the training received in school is theoretically the same for all children at the primary level. All children receive a "general" education that does not prepare them for a particular vocation, but is intended to give them the basic knowledge required of all "good citizens." If successful, "all receive the same diploma; only the grades and recommendations accompanying the diploma

⁶⁵Clarence J. Karier, "Testing for Order and Control in the Corporate Liberal State," Educational Theory, 22, 2, (Spring, 1972), p. 167.

differ."⁶⁶ Once the general courses are finished, it is in theory the option of the individual--on the basis of his criteria and needs--to shape his future occupational and social role.

There is a fundamental belief in U. S. educational circles (and among the public at large) that the rate of learning for lower socio-economic status children is slower than the rate of learning for middle or higher socio-economic status children. The response to this belief on the part of those who wish to equalize the amount learned by all groups is a strategy of allocating much more resources to "disadvantaged" slow learners so that they can "catch up." The structure of schools remain the same in this strategy, as well as the teacher-pupil relation and the student's social-role perception. Schools still have the goal of producing a certain type of citizen, but with a higher achievement or reading score than before. Unfortunately, this strategy, even in failure, turns out to be extremely costly relative to the benefits poor Black people gain in society.

The alternative to this strategy is to reject the concept of a neutral school system implicit in the poor-learners good-learners theory, and to assume instead that all groups of children can learn equally well but under different conditions. We may find that children's motivation is affected much more by the structure of the learning environment than by the number of years of teacher's academic preparation. The low probability of success of compensatory programs within the existing framework points to the need for new educational strategies for ethnic and racial

⁶⁶Carnoy, Schooling in a Corporate Society, p. 176.

minorities if equality is to be achieved. The alternative strategy, then, is to create equality among groups of children, by believing that all children are equally capable of learning and building an educational structure that allows children to express themselves in various ways, all equally acceptable. This alternative would thus start from the premise that the structure of learning in the schools must be changed to produce something called "equality," rather than accepting the present hierarchial, role-reinforcing structure and attempting to overcome its deficiencies with massive infusions of traditional resources, i.e., more of the same.

Corporate control of educational policy. Changes within the D. C. schools will not occur until Blacks in the school hierarchy understand one basic point. Corporate structures, through foundations, serve to shape educational policy by giving and withholding both public and private funds at key points in the system. The American Council on Education is one such agency through which hundreds of philanthropic foundations, private businesses, public schools, colleges and universities work in establishing nation-wide educational policy. In many ways, the Council has acted as both a meeting ground for what appears to be disparate interests, but also a conduit for channeling funds into selected areas of public education, and thereby effectively shaping practice as well as policy.⁶⁷

For example, in most instances the testing of Black students, whether

⁶⁷Clarence J. Karier, "Testing for Order and Control in the Corporate Liberal State," Educational Theory, 22, 2, (Spring, 1972), p. 173.

measuring intelligence or achievement, as well as the meritocracy itself, serves to so mask power as to effectively demobilize any real revolutionary opposition. If a person truly believes that he has a marginal standard of living because he is inferior, he is less likely to take violent measures against that social system than if he believes his condition is a product of social privilege. Daniel Webster once said that, "Public education is a wise and liberal system of policy, by which property, and life, and the peace of society are secured." In the twentieth century, a similar condition prevails. In this sense, the foundations' deep involvement in educational policy whether it is the Ford Foundation in educational television, the Carnegie Foundation in testing or the Rockefeller Foundation in Black education, all have an interest in an effective, efficiently managed system. The foundations' management of educational policy in the twentieth century has been clearly at the cutting edge of every educational reform from the "Carnegie Unit" to the "open classroom."

Even the rhetoric which engages the professional educators seems fairly well managed. Throughout the last four decades, the pendulum of educational rhetoric has swung from the child-centered discussion of the thirties to the society-determined needs of the fifties, then again, to the child-centered needs of the seventies. It is interesting to note that during periods of labor surplus, our educational rhetoric tends to be child-centered, while in periods of shortage, the rhetoric shifts to society-oriented needs. This may be the propelling factor. It is interesting, however, that when the rhetoric became so heated that people could be heard suggesting that we do away with the system or radically

change it, the Carnegie Foundation supported James Conant, who in effect, said the system was basically sound but then co-opted the rhetoric of the attackers to recommend limited change. It was, after all, the survival of the system which Conant had in mind when he spoke of social dynamite in the ghettos. By 1970, when most manpower projections clearly indicated surplus of labor for the next decade, the educational reform rhetoric shifted from training scientists and engineers to open classrooms.

Again, critics could be heard suggesting that the system be radically altered if not abolished, and once again, the Carnegie Foundation supported a study by Silverman which, in effect, said that the system was basically sound but needed some reforming. Once again, the rhetoric of the attackers was co-opted for limited change. As the demand for community control increased from the Black communities across the country the Carnegie Corporation of New York commissioned Christopher Jencks to reexamine the effect of family and schooling in America.⁶⁸ Jencks' basic assumption was that there is no evidence that school reform can substantially reduce the extent of cognitive inequality as measured by verbal fluency, reading comprehension, or mathematical skill. Neither school resources nor segregation ratio has an appreciable effect on either test scores or educational attainment. The demand for educational reform and the infusion of Federal funds to certain Black schools will certainly be truncated as a result of this and other studies.

⁶⁸Christopher Jencks et al. Inequality: A Reassessment of the Effects of Family and Schooling in America. (New York: Basic Books, Inc., 1972), p. 150.

While foundations obviously do not control the pendulum, they have played a major role in managing the rhetoric at critical points when the system is in acute danger. Groups outside the corporate structure have little input in the development of significant reforms of our educational systems. It is this function as governor of the educational machinery that the foundations have performed so well. One can only conclude that the policies of the foundations inevitably reflect those of the corporations which sponsor them and that the domination of men in whose hands the final control of a large part of American industry rests is not limited to their employees, but is being extended to control the education and social services of the nation.

Conclusion. Residential Washington, traditionally segregated by race, became even more segregated during the 1960's. Not only did parts of the city become blacker with the general influx of Black families to the city but many of the remaining white enclaves became more tightly grouped and remote from the Blacks. During this same period the gap between Black family income and white family income widened, leaving Blacks relatively poorer. The public schools in Washington, D. C. are microcosmic in that they mirror, to a small extent, racial residential patterns and to a larger extent, socio-economic residential patterns.

Based on at least one compensatory education approach (ESEA Title I Act) there is still a two-track school system in Washington, D. C. Euphemistically, the systems are designated ESEA Title I schools and non-ESEA Title I schools. As it is presently operationalized, this model has generally resulted in students from ESEA Title I schools performing less well than students from non-ESEA Title I schools. Based on the

analysis of the data in this study a comparison of school performance on the basis of a total population consisting of both ESEA Title I schools and non-ESEA Title I schools is very misleading. There are essentially two distinct populations in the Washington, D. C. school system upon which school performance should be assessed, respectively.

ESEA Title I school districts are the "blacker" of what is sometimes called a Black school system. It is the present-day counterpart to what used to be known as "Division II" or the "Colored Division" during the segregation period prior to 1954. Washington, D. C. has little or no autonomy. It is completely dependent on the Federal government for fiscal support. Because of the uniqueness of the District of Columbia as a Federal city, it is questionable whether the decisions necessary to change the essential structure of the public schools can be made by the elected Board of Education, appointed city officials and/or local school administrators. If decisions can be made at the local level then those in the position to shape local educational strategies should examine closely the serious implications of compensatory education and its impact on Black children. They should be guided by the clear understanding that inherent in compensatory education programs is the condescending view that the urban minority child is somehow inferior to the middle-class child.

Some of the premises upon which ESEA Title I schools are designated should be examined carefully. Far too many Black communities have erroneously accepted the implicit assumption that relative to the white middle-class child the Black urban child is said to be "deprived" and "disadvantaged." Therefore, he needs remedial work and compensatory

resources to improve his prospects. That is, remediation is considered to be the key to the minority child's emancipation. That the minority child is different from the middle-class white child is a mere tautology. However, in many cases school systems assume that a child's social and cultural differences represent inferiorities that must be eliminated. Systemic to this approach is a total disrespect for the cultures and experiences of Black and other minority children.

Implications of this study. Despite all of the rhetoric about the failure of schools, Black communities have generally accepted the widespread notion that in the long run education is a potent power in society and that those who control schools, control something that is extremely meaningful. Because public education is viewed as one of the principle vehicles for the survival of Black people the philosophy of our teachers and the orientation of our teacher training institutions must become economically oriented.

If Black schools are ever going to be successful teachers must understand how and why public schools tend to reinforce and legitimate economic realities. Training should prepare the teachers to separate out the critical content aspects of their teaching from that of preparing students to accept unqualifiedly, predetermined socio-economic roles and relationships which will govern most of their adult lives. By virtue of their closeness to students many teachers are often used as the tool by which many students are taught, early in life, their ultimate place in the scheme of things.

Black teachers must begin to see how they have been traditionally used to "weed out" individuals at different educational levels. Through

this process our childrens' aspirations have been painlessly brought into line with their probable occupational status. Consequently, by the time most of our children terminate schooling they have validated for themselves their inability or unwillingness to be a success at the next highest level. Through competition, success, and defeat in the classroom, the individual is often reconciled to his or her social position.

Hopefully this study will serve to remind and inform teachers that, for the most part, vocational schools and academic tracks were designed and developed specifically to create a working class mentality among selected groups of people, particularly minorities. Traditionally, the academic curriculum has been preserved for middle-class whites who generally have the opportunity to make use of book learning, either in college or in white-collar employment. What Black educators don't understand or are unwilling to accept is the precision with which our children have been channeled into curriculum tracks on the basis of race and socio-economic background. Since teachers are closest to the children during the school day, the onus is on them to truncate the machinations of the industrial hierarchy in its use of school systems to perpetuate a social class structure.

Limitations of the study. Because of the confidential nature of the data in the files belonging to the D. C. public schools this investigator was unable to obtain specific data concerning individual and family characteristics. Most of the data obtained from the D. C. school authorities reflected gross statistics about elementary schools and very little about individuals within each elementary school. In addition, a search of the ERIC system in the U. S. Office of Education indicated that there was a

dearth of published research on achievement and the density of children reflecting socio-economic factors used as criteria to select ESEA Title I target areas.

The experimental variables used in this study are seldom, if ever, used as scholastic predictors of achievement by the professionals in the D. C. public schools. Many of the variables used in this study are artifacts of race and poverty and could be combined in future studies. Also, there was no attempt to examine the validity of the experimental variables used herein against other possible variables traditionally used to predict scholastic achievement.

Lastly, the fiscal relationship between the District of Columbia and the Federal government makes it unique. The District of Columbia doesn't have the fiscal problems other major cities are faced with. Consequently, replication of this study in other major cities would have to include school financing as an important variable.

Recommendations for further research. Future research should examine the appropriateness of the design used in this study with other independent variables (e.g., fiscal resources, student attendance, family incomes, teacher training, etc.). It would also be of interest to look within ESEA Title I school districts for success profiles in relation to non-ESEA Title I success profiles. Such a study might suggest factors that differentiate success between ESEA Title I schools and non-ESEA Title I schools. Lastly, a major study in large cities with large Black populations would have serious implications for the development of a national strategy for the education of Black students.

APPENDICES

Elementary and Secondary Education Act of 1965

Title I - Financial Assistance to Local Educational Agencies for the Education of Children of Low-Income Families

DECLARATION OF POLICY

Sec. 101. In recognition of the special educational needs of children of low-income families and the impact that concentrations of low-income families have on the ability of local educational agencies to support adequate educational programs, the Congress hereby declares it to be the policy of the United States to provide financial assistance (as set forth in the following parts of this title) to local educational agencies serving areas with concentrations of children from low-income families to expand and improve their educational programs by various means (including preschool programs) which contribute particularly to meeting the special educational needs of educationally deprived children.

Title I of the Elementary and Secondary Education Act, the largest Federal aid-to-education program, was passed in 1965 to provide financial assistance to local school districts in planning and operating special programs for low-income families. It is a supplementary program, designed to upgrade the educational opportunities of children from poor families.

The basic objectives of Title I are to expand and improve educational programs to meet the needs of children from low-income areas. The program is designed to supplement instructional and service activities such as: remedial food, health, nutrition, psychological services, cultural development, prevocational training and counseling in areas having a high concentration of children from low-income families. According to the legislation, services should supplement, not supplant, those normally provided by state and local educational agencies.

The term "educationally deprived children" has been defined in the Title I regulations as: "...those children who have need for special educational assistance in order that their level of educational attainment may be raised to that appropriate for children of their age. The term includes children who are handicapped or whose needs for such special educational assistance result from poverty, neglect, delinquency, or cultural or linguistic isolation from the community at large."

According to the guidelines the first step in the development of this compensatory program is to evaluate the evidence concerning the educational deficiencies of children who live in the eligible attendance areas. An attendance area for the purposes of Title I is an area served by a public school. For each such attendance area data must be secured on (a) the total number of children who according to their ages are eligible to attend the public school serving that area and (b) the number of such children who are from low-income families.

One of the basic assumptions of this program is that if a child has a need for special educational assistance under Title I he is, therefore, unable to respond constructively to his regular school program. Regular school programs are suppose to be modified and integrated with services to be provided under Title I so as to provide each child with a total program adapted to his special needs. The requirement that applicants maintain regular school programs in the project areas at the same levels as they would have been maintained if Title I funds were not available applies only to expenditures and not to the program itself. If it is to be truly supplementary Title I must be designed to extend and reinforce the regular school program. Insofar as possible, the regular school program, the

Title I program, and any other special programs should be designated as a total program to meet the needs of the children to be served.

D. C. - Its People and Characteristics

In addition to being the nation's capital, the District of Columbia is the nation's ninth largest city, the heart of the tenth most populous metropolitan area in the country (2,481,489 persons).⁶⁹ The District of Columbia has 756,510 inhabitants and 71% of the city's population is Black, a situation unique in American cities although it may well predict the future. While there are some areas of the District which are racially integrated, the District as a whole is marked by intense segregation--both racially and socio-economically. Rock Creek Park and the newly developed Southwest Area. Most Blacks live east of the park. The racial population shift has been the classic one of whites migrating to the suburbs and Blacks moving into previously white neighborhoods.

The racial shift in the District has been accompanied by other interesting demographic phenomena. Presently, more than 90% of the pupils in the District are Black. This is one of the highest proportions for cities in the United States. During the last decade there were twice as many non-whites as whites among children under twenty and a slight predominance among young adults. The white reproduction rate was low while more Blacks were entering the child bearing age groups. This was due, primarily to the sharp drop in the young whites living in the District. The census

⁶⁹U. S. Department of Commerce, Bureau of the Census. 1970 Census of Population: General Characteristics - District of Columbia. Washington, D. C., September, 1971.

data show a median age of forty-one for whites compared to twenty-five for non-whites.

The Black population is far from Homogeneous. Economically and socially, the Black population is highly stratified, ranging from chronically impoverished residents to the high-income residents in upper Northwest Washington. Because the Federal government employs approximately 40% of all workers, the District has attracted and retained large groups of well-educated and socially conscious professional, semi-professional and clerical workers--both Black and white.

There is a large, and well-educated middle class Black population whose income and life styles are similar to those of the white community. On the whole, District residents (Black and white) have had more years of education, higher incomes, and lower unemployment rates than residents in the central cities of comparable metropolitan areas. Of course, evidences of racial discrimination in education and employment are visible in the wide differential in white and Black family incomes and in the high proportion of Blacks in the low-skill service jobs. The non-whites are less likely to be employed in white collar occupations and they are also less likely to be employed at all. They are more likely to work outside the District in surrounding areas and less likely to be self-employed or in Federal services. Thus by adjusting to the consequences of discrimination--especially the reduced opportunities for education and economic advancement--Blacks tend to remain in a low status. Not surprisingly, significant relationships appear between educational attainment and social and demographic characteristics.

Differences in the fertility ratio (number of children less than

five years of age per 100 women of child-bearing age 15-49) suggest that the already high non-white proportion of public school children may increase in the future. This follows the out migration of white parents and the increasing preference of middle-class individuals, Black and white, for private and parochial schools in the metropolitan area. If the present trend does not reverse itself the prediction will hold that the District public schools will, within a decade, serve mainly a low-income Black clientele.

In summary, the District is a city of great contrasts. The dignity of the national and international capitol adjoins some of the worst slums in the country. As the nation's first predominantly Black city, it houses an affluent segment of Blacks who have resided in the district for generations; a newer group of well-educated, salaried middle-class Blacks and a hard core of impoverished families. The population is three-fifths Black, but its school system is more than nine-tenths Black. Obviously, any consideration of the school program and population, construction and facilities must respect these racial and socio-economic characteristics of the District of Columbia's demography.

The School Population

As of October 21, 1971, approximately 142,899 pupils attended the public schools in the District. The pupil population is roughly equally divided by sex with boys a slight majority. The racial composition of pupil membership is overwhelmingly Black. For the school year 1970-71, 94.9% of the total enrollment was Black. For the same period, 89.2% of the students went to schools with at least 95% Black enrollment. More

than one-fourth (27.8%) went to schools with a Black enrollment of 100%. At the elementary school level, 94.8% of all children are Black.

An estimated 66% of the elementary school children live in neighborhoods where the median family income is considerably less than the 1969 median family income of \$6,191 for Blacks across the country. Almost 80% of the children live in neighborhoods where the majority of adults have not completed high school. The average class size for elementary schools approximates 30. Sixty percent of the elementary school population are enrolled in classes of more than 30. At the junior and senior high school levels, the average class sizes for academic subjects are 30.1 and 30.6, respectively. Again, however, 83.8% of junior high students and 84% of the senior high students are enrolled in classes of more than twenty-five. It should be noted that, in September, 1971, the pupil-teacher ratio for all public schools in the District was reported to approximate 27.4.

The Classroom Teacher

There are approximately 6,735 classroom teachers in the elementary schools and 3,984 in the secondary schools. With better than 75% of the total professional staff Black, ninety elementary schools, six junior high schools have teaching staff which are more than 85% Black. The typical teacher in the District schools--both on the elementary and secondary levels--is a Black woman. Seventy-eight percent of all teachers are Black and 85% are women. The proportion of Blacks are much higher at the elementary and junior high than at the secondary school level.

The Black teachers in the District are somewhat younger than their

white colleagues, a disproportionate number of whites were under twenty-five or over forty-five. On the other hand, a larger proportion of Blacks than whites were in the middle categories between the ages of twenty-five and forty-six. About 40% of the elementary school teachers grew up in the District or within a radius of fifty miles; 27% of the senior high school teachers grew up in Washington or its suburbs. Three out of every four elementary and junior high school teachers and two of every three senior high school teachers live in the District. Ninety percent of the Black teachers reside within the District compared to 50% of the white teachers.

Socio-economic Segregation

The problems of the District's schools are not restricted to racial isolation but stem from the presence of a large proportion of impoverished and culturally disadvantaged students. The extreme concern with racial segregation in Washington seems to have obscured the degree to which the schools, like urban schools elsewhere are segregated in other ways.

The neighborhood school tends to separate children not only by race, but also into groups that are socially and economically homogeneous. Passow conducted a survey and selected twenty-five elementary schools as a representative sample of all elementary schools in the District.⁷⁰ His results indicated that twenty schools in the sample enrolled more than 95% Black students. He points out that these are all de facto segregated schools, but in other respects they are not alike.

⁷⁰Passow, Harry A. Toward Creating a Model Urban School System: A Study of the Washington, D. C. Public Schools. Teachers College Columbia University, September, 1967.

The median annual family income in neighborhoods served by the schools ranged from a low of \$2,940, plainly at the poverty level, to a high of \$8,040, somewhat above the national average. The highest income level represented in the sample, \$13,170 was found in a neighborhood where two-thirds of the public school pupils are Black. These differences suggest that within a city-wide context of racial segregation, the educational task is further complicated by socio-economic segregation at the neighborhood level.

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