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Equal educational opportunities and enrollment patterns of minority students in remedial education.

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EQUAL EDUCATIONAL OPPORTUNITIES AND ENROLLMENT PATTERNS OF
MINORITY STUDENTS IN REMEDIAL EDUCATION

A Dissertation Presented

By

ELAINE BARAKO CUPHONE

Submitted to the Graduate School of the
University of Massachusetts in partial fulfillment of the
requirements for the degree of

DOCTOR OF EDUCATION

September 1986

Elaine Barako Cuphone

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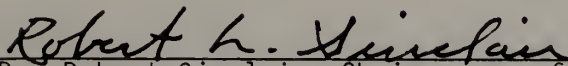
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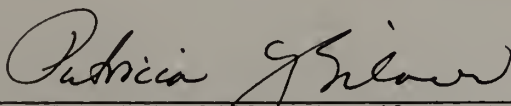
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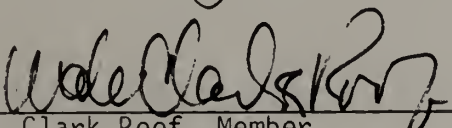
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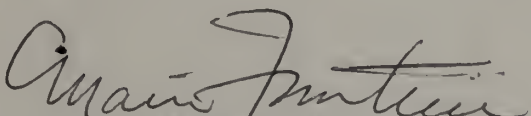
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DEDICATION

It is with pleasure, pride, and love that I dedicate this dissertation to my parents, husband, and son. Without all of you, I would not be me.

ACKNOWLEDGMENTS

Completing a dissertation has been one of the more difficult challenges I have chosen to undertake. It signifies to me the completion of a personal goal; one which demanded sacrifices and perseverance but brought to me knowledge, friendships, and new professional experiences.

There are many people to whom I owe thanks for enabling me to reach my goal. Dr. Robert Sinclair, through his advice and guidance, helped me conceptualize the dissertation from the very roughest of drafts to the final copy. Drs. Patricia Gillespie-Silver and Clark Roof provided support and professional help as members of my committee. Drs. Linda Nober and Roger Frant, through their friendship and encouragement, helped me believe in myself and accept the challenges which a dissertation brings.

To all of you, I express my sincere thanks. If my research serves its ultimate purpose--one of helping students receive equal educational opportunities--you will all be partially responsible. For that you should be proud.

ABSTRACT

EQUAL EDUCATIONAL OPPORTUNITIES AND ENROLLMENT PATTERNS OF
MINORITY STUDENTS IN REMEDIAL EDUCATION

(September 1986)

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The purpose of this study was to determine if minority students were receiving equal educational opportunities in remedial programs as now guaranteed by law. The study focused on the enrollment patterns of Black and Hispanic students in special education, transitional bilingual education, and Chapter I programs at forty-six elementary and eighteen secondary schools in three urban Massachusetts communities which had been cited by the State Department of Education for prima facie denial of equal educational opportunities to minority students.

Disproportionate enrollment patterns of Black and Hispanic students suggested discriminatory placement practices were occurring in these communities. However, after years of state investigations, discrimination was not uncovered nor could the disproportionate enrollment be explained.

The present study inquired into the possibility that the remedial education services provided in a school system could result in disproportionate placement of minority students in some remedial programs without a practice of unequal opportunity. In other words, disproport-

tionate placement in one program could not be equated with discrimination if similar educational opportunities were provided in another appropriate program.

Five research objectives guided this study by determining the relationships among White, Black, and Hispanic student enrollment patterns in special education, transitional bilingual education, and Chapter I programs at selected elementary and secondary schools.

Specific findings suggest that:

- (1) Speech and language needs of minority youth are not appropriately met in remedial education;
- (2) Chapter I programs are primarily utilized by minority students but the language of instruction does not always correlate with the needs of the population;
- (3) Transitional bilingual education and Chapter I programs appear to substitute for some special education programs;
- (4) Enrollment patterns of remedial programs need to be studied collectively rather than individually to determine if and how equal educational opportunities are provided to minority students.

The research culminates in a ten-step model for investigating equal educational opportunities for minority youth in remedial education. This model can be used by school districts to analyze and monitor placement patterns to ensure that equal educational opportunities are being provided to minority students.

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C H A P T E R I

INTRODUCTION

Although public education began in the United States during the 1600s, for centuries educational opportunities were denied to certain student populations.¹ Students of some racial, linguistic, or cultural minority groups and students with physical, emotional, or mental handicaps were excluded from many of the educational programs which were available to the majority of students.² For example, Black students were often denied educational opportunities because of their race. Segregated schools with different and often inferior curricula were responsible for the creation of separate and unequal learning environments for this minority group--a practice which openly existed until legal challenges in the 1950s.

During the 1960s and 1970s discriminatory practices which not only segregated but often excluded students of some cultural and linguistic minority groups from educational systems were recognized as unfair and changed by legislative mandates.³ However, various forms of discrimination continued and as recently as 1974, more than one million students--those with physical, emotional, or mental handicaps--continued to be segregated from peer groups or excluded from both private and public educational opportunities because of their handicapping condition.⁴

Specific pieces of legislation and litigative efforts during 1954-1974 were responsible for a decline in educational inequities

which occurred because of race, poverty, or a handicapping condition. Nationwide attempts were made to correct existing educational policies or procedures which were discriminatory. Federal interventions into state educational practices initiated compensatory and remedial programs which were aimed at equalizing educational opportunities across the country. Equal educational opportunities became a stated national goal.⁵ Summarily, the results of three decades of litigation and legislation helped ensure that students of racial, cultural, and linguistic minority groups and those with a handicapping condition have equal access to educational opportunities which are available to the major student population.

To equalize educational opportunities, remedial and compensatory educational programs such as special education, transitional bilingual education (TBE), and Chapter I were implemented in the 1960s and 1970s. These remedial programs, specifically designed to meet the educational needs of economically disadvantaged, non-English speaking, and handicapped students, provide a mechanism for equalizing educational opportunities for diverse student groups.

Haring, Blackhurst and Berdine state that educators must recognize certain students--in particular, racial or linguistic minority and handicapped--may need to receive remedial services at a greater proportionate rate than their peers. This disproportionality is deemed necessary since the effects of poverty, which are strongly correlated with minority groups, language differences, or of a handicapping condition often interfere with and negatively affect the

ability of students to learn within the regular educational environment.⁶

Therefore, a recent finding by the Massachusetts Advocacy Center (MAC) is disconcerting and a cause of concern. In some Massachusetts communities, Black and Hispanic students are under enrolled in all levels of special education--one of the remedial programs specifically designed to provide equal opportunity for students so they can successfully participate in a school's educational program. This discovery by the MAC raised a major question: Are minority students again, as in the past, being denied educational opportunities?

Massachusetts General Law 71B, section 6, states that a disproportionate enrollment rate of minority students must be investigated by the Massachusetts Department of Education. In 1979, the Department began studies of these disproportionate enrollment rates in special education, but at this time it has neither conclusive evidence of discriminatory practices which exclude Black or Hispanic students from special education programs nor an explanation for such disproportionality.⁷

The question, "Are minority students again, as in the past, being denied educational opportunities?" cannot be answered by looking solely at special education and its enrollment patterns. Educational services may be provided to students through other remedial programs, thereby preventing or decreasing the need for remediation through special education. This could help explain the under enrollment of minority students in special education.

An investigation which focuses on a denial of equal education because disproportionate enrollment patterns exist in one program is an approach which fails to view the total system for remedial education. A more comprehensive approach to an investigation of equal educational opportunities must be conducted if we are to determine if minority students are being denied opportunities intended to provide them with an equal education. Without a more comprehensive approach, we cannot accurately determine if various equal educational opportunities are truly available to all student groups.

The Purpose

The purpose of this study was to determine whether Black or Hispanic students from forty-six elementary and eighteen secondary schools in three urban school districts were being denied access to remedial education. More specifically, the researcher analyzed racial enrollment patterns in three major remedial programs to determine to what extent minority students were enrolled in special education, transitional bilingual education, and Chapter I.

When minority students were under enrolled in special education programs, this discrepancy was identified by race and specific program. Discrepancies were further analyzed to determine if Black or Hispanic students were receiving similar educational services through transitional bilingual education or Chapter I programs or if minority students were indeed being denied equal access to all three remedial

education programs.

The following research objectives gave direction to this study.

(1) To determine the enrollment patterns of Black, Hispanic, and White students in special education, transitional bilingual education, and Chapter I in selected school systems.

(2) To determine if the enrollment patterns in special education at selected school systems had a statistically significant under representation of minority students.

(3) To determine if minority enrollment patterns in special education programs were affected by minority student participation in Chapter I in elementary schools.

(4) To determine if minority enrollment patterns in special education programs were affected by minority student participation in transitional bilingual education in elementary schools.

(5) To determine if differences in enrollment patterns in remedial programs indicated that minority students were denied participation in programs designed to provide educational opportunities.

Definition of Terms

To help insure consistency and clarity in this research, the following key terms are defined.

(1) Black, Hispanic and White Students--These are students whose racial identity and language dominance have been identified through a home/language survey which asked parents to identify their child's

race and dominant language. This racial and language categorization was accepted as accurate if validated by the child's current teacher.

(2) Minority Students--These are students who had been identified by their parents through a home/language survey and by their teacher as Black or Hispanic.

(3) Chapter I--This is a federally funded program which provides remedial and compensatory instruction to students who attend school in districts which have been designated as economically deprived.

(4) Special Education--This refers to remedial services based on a student's identified educational need and provided outside of the regular education curriculum.

(5) Transitional Bilingual Education--This is an educational program which teaches academic subjects in the student's native tongue. In this study, the native language is Spanish.

(6) Discrepancies--These are variations in enrollment rates which show disproportionate numbers of minority students in remedial programs.

(7) Prototype--This is a numeric labelling system for special education programs as mandated by Chapter 766 regulations in Massachusetts. It is based on the length of time a child is out of his/her classroom and in the special education classroom (Appendix A).

Delimitations of the Study

This study is delimited in five ways. First, the investigation

was conducted in school districts which had special education, transitional bilingual education, and Chapter I services on the elementary level. Since school systems establish their own criteria for entering each program, generalizations about the findings are limited to the systems selected for this study.

Second, since parental permission is necessary before students can be enrolled in these three programs, schools may have offered an opportunity for a student to be enrolled in a program but a student may not have entered the program due to parental choice. Lack of enrollment in remedial programs because of parental choice was not considered as a variable in this study.

Third, transitional bilingual educational programs included in this study were those serving Spanish speaking children. Therefore, the enrollment analysis applies only to Spanish speaking children and does not address the enrollment pattern of other linguistic groups.

Fourth, enrollment figures of Black and Hispanic students were based on home/language survey information and by teacher identification. Due to the confidential nature of racial information and the subjective tendencies of this counting process, slight errors may have occurred when determining the Hispanic and Black enrollments.

Fifth, the enrollment data that were collected represented the total number of Black, White and Hispanic students in special education, transitional bilingual education, and Chapter I programs. Since it is possible that a small number of students were simultaneously enrolled in two programs, enrollment figures were analyzed and discussed

on a percentage basis, i.e., percentage of each racial group in each remedial program rather than as numbers of individual students.

Significance of the Study

Massachusetts General Law, Chapter 71B, section 6, prohibits disproportionate enrollment of minority students in special education. During the last five years, the Massachusetts Department of Education has studied disproportionate enrollment figures in special education on a statewide basis to determine how this remedial program is being used by minority students.⁸ However, it has become apparent to local school administrators, educators, and state officials themselves that the current investigative procedures are too narrowly focused and need revision. After five years, the Department still cannot explain why disproportionate enrollment rates exist or if an under enrollment of minority students in special education constitutes a denial of equal educational opportunities.

Current procedures investigate special education enrollment in isolation rather than studying enrollment rates more comprehensively through an analysis of enrollment patterns in other major remedial programs. Therefore, this study is significant because it provides an approach which analyzes student enrollment rates by looking at the interrelationships among special education, transitional bilingual education, and Chapter I programs. This more comprehensive approach will help state and local officials determine if there is an under

representation of Black or Hispanic students in remedial education. If such disproportionality exists, the approach will indicate if there is a lack of equal educational opportunities for minority students, or if enrollment in one program is the result of participation in different program options.

Second, this study presents the goals and placement options which currently exist among various remedial programs and may help or hinder the provision of equal educational opportunities to minority youth. These goals and placement options can be used by school systems to create a continuum of remedial services which is appropriate for the cultural, linguistic, and educational needs of the district's students. With such an appropriate continuum of services, equal educational opportunities are more likely to be provided to and utilized by minority children.

Third, the study is significant because it presents a model which enables a local school district to analyze its enrollment patterns and determine if the remedial services offered link with the needs of minority students. The procedure for analysis allows a school district to take responsibility for monitoring its educational programs rather than deferring this crucial function to a state agency--a practice which too often results in the establishment of adversarial roles and prevents state and local collaboration for instructional improvement.

Fourth, this study is important because it provides a constructive approach to the assurance of equal educational opportunities for minority youth by encouraging school districts to iden-

tify programmatic strengths and weaknesses and then develop a plan of action which addresses necessary changes. The approach used in the present study is in direct contrast to the reactive posture schools are forced to take when the state Department of Education investigates prima facie evidence which suggests discrimination against minority students and implies discriminatory placement procedures. Schools should take control of their mission in education--fair and equitable opportunities for all students--rather than look in retrospect at existing policies and programs, a situation which too often occurs.

In summary, five research objectives have given direction to this study. The stated delimitations made the researcher and reader sensitive to the parameters of the investigations while the statements of significance emphasized the importance of the research and its potential impact on school systems and on the delivery of educational services to minority youth.

The remainder of this research has been organized into four chapters. The introductory comments pertaining to exclusionary practices in education and the legislative and litigative efforts which changed them have been expanded in Chapter II. Here an historical review provides the reader with a greater understanding of the arduous journey toward realizing the stated national goal of equal educational opportunities--a goal which this research study hopes to advance. Chapter II also states the major goals and placement options of special education, transitional bilingual education, and Chapter I programs.

Chapter III is divided into two sections and explains how this study was conducted. The first section describes the school districts, schools, and students included in the study. The second section identifies the data used in the investigation, describes how the data were collected, and details the procedures used to analyze the data.

In Chapter IV, the data from each research objective are presented, analyzed and discussed for each school district. Chapter V summarizes this research and makes recommendations for expansion of this research, future research, and educational reform.

CHAPTER I I

REVIEW OF THE LITERATURE

This chapter is divided into two sections. The first section is an Historical Review that describes key discriminatory and exclusionary educational practices which occurred in the United States for hundreds of years, thus prohibiting equal educational opportunities to school aged children. It also includes a description of the major litigative decisions and legislative acts of three decades which culminated in the present national goal of equal educational opportunity. This section is necessary because it outlines discriminatory practices which have occurred in educational institutions and the Federal and state interventions which have addressed these practices so the country can meet its goal of equal educational opportunities for all students.

The second section lists goals of special education, transitional bilingual education, and Chapter I programs. It focuses on the interrelationships of the Education Consolidation and Improvement Act, Transitional Bilingual Education Act, and Education for All Handicapped Children Act as they attempt to serve the economically disadvantaged, racial and/or linguistic minority, and handicapped student. This section highlights the need to study enrollment patterns in a comprehensive rather than singular approach since the Acts have some overlapping goals and populations.

Historical Review

In early colonial America, education was primarily a family concern and took place at home. The few formal institutions for education were privately controlled and served the wealthier colonists. These practices began to change as the concept of public education was pursued. In 1647, Massachusetts developed the first public school system--a development which was adopted and supported by the colonial government.

After the colonies united, educational matters were regulated by individual states. Since the Constitution does not specifically mention education or schools, it has been implied that the framers viewed public education as a matter for state control. Although the Fourteenth Amendment states "no state shall . . . deny to any person within its jurisdiction the equal protection of the laws," this was not interpreted in relationship to education until 1954 in *Brown vs. Board of Education*.

From the 17th to the 20th centuries, state statutes arbitrarily authorized the exclusion of children from schools. If students were judged to be incapable of profiting from school they were excluded from school and did not come under the purview of state compulsory attendance laws.

Examples of exclusionary practices are shown by the Maine and New York statutes which respectively declared that:

The superintending school committee or school directors may exclude from the public schools any child whose physical or mental condition makes it inexpedient for him to attend.

A person whose mental or physical condition is such that his attendance upon instruction would endanger the health or safety of himself or of others, or who is feebleminded to the extent that he is unable to benefit from instruction, shall not be permitted to attend.⁹

The following poignant quote, taken from *Beattie v. Board of Education of the City of Antigo*, 1919, further illuminates state control over the exclusion of children from school. Students could be expelled from school if they had

. . . a depressing and nauseating effect on the teachers and school children. The rights of a child of school age to attend the schools of the state could not be insisted upon, when its presence therein is harmful to the best interest of the school.¹⁰

The *Beattie* case involved a physically handicapped, speech impaired boy who was excluded from education because his presence was viewed as harmful to the best interests of the school. Although this exclusion was within the state board's power at that time, it is important to review two statements made by Justice Eschweiler as he stated his dissenting minority opinion.

His dissent focused on two counts--statutory power and procedural framework. Justice Eschweiler did not agree that a state statute could be placed above the guaranty of the State Constitution which provided education for students 4 to 20 years old. Secondly, he did not feel that the school board showed convincing evidence that the

presence of this child would be harmful to the school or children who attended it. Justice Eschweiler was concerned about the procedural framework which was followed and believed that the burden of proof for exclusion should be upon the school board and not the student. Justice Eschweiler's opinions were forerunners to the judicial attention which was given to Constitutional rights and due process proceedings in the second half of the century.

Federal involvement in the education of handicapped persons in the 19th century paralleled state movements. As states established schools for deaf, blind, and retarded students, the federal effort evolved from granting land for similar schools to one of financing tuition costs for deaf students. However, after the 1879 Congressional authorization of funds to aid in the education of blind students, there was a 40-year dearth in federal legislation for handicapped citizens.

In the 1800s, state and limited federal involvement in the education of handicapped citizens focused on specific disabilities (blindness, retardation, deafness). Programs which were provided were exclusive and limited. An example of this exclusivity was the first day school program for mentally retarded students started in Providence, Rhode Island in 1896. It was developed for children who were excluded from the public school setting.¹¹

The first half of the 1900s is characterized by a governmental posture and legal system which were reactive rather than proactive. Attention was focused on educational and rehabilitation programs for

disabled and blind World War I and World War II veterans. In 1918 the Soldiers Rehabilitation Act was passed by Congress and signed by President Wilson. It offered vocational rehabilitation services to disabled World War I veterans but excluded disabled civilians using the tenet that rehabilitation was not a federal responsibility. In spite of this tenet, in 1920, the Citizens Vocational Rehabilitation Act became law. Civilians and veterans were under the aegis of this Act and received specialized training so they could return to the work force. In 1943, this Act was expanded to include services for retarded and mentally ill citizens in addition to those who had physical handicaps.

During the early 1950s, categorical legislation which was enacted established institutions for the deaf and dumb; deaf, dumb and blind; insane; and disabled veterans.¹² The needs of specific groups of handicapped persons, as in the 1800s, were again addressed.

Federal involvement in state educational processes escalated in the 1950s as a result of the Civil Rights movement. The historical Supreme Court case, *Brown vs. Board of Education of Topeka*, began intense questioning about equal educational opportunities and marked the advent of judicial decisions which challenged practices throughout the country. Preceding *Brown vs. Board of Education* were four separate state challenges to racial separation in schools. In Kansas, cities of more than 15,000 were permitted to maintain separate facilities for Black and Caucasian students. When this separation was legally challenged, the Court found that segregation in public educa-

tion had a detrimental effect on Black children. However, it denied relief to this situation on the basis that the schools, curriculum, and teachers within the segregated school system were equal. In South Carolina and Virginia, Court cases tried to enjoin statutory codes which segregated Black students from Caucasian students. Although these requests were denied, the legal decision stated that schools must be made equal. However, Black students remained segregated while the schools were equalized. A similar Court case in Delaware ended with the decision that separate facilities were not equal. Black students were allowed to attend schools which were previously closed to them. All four of these decisions were appealed and culminated in the class action suit known as Brown vs. Board of Education in Topeka. The Plaintiffs in these cases sought admission to public schools on a non-segregated basis.

The Supreme Court decision in Brown vs. Board of Education was unanimous and significant in two respects. Equal opportunity was proclaimed a constitutional right. Chief Justice Warren referenced the Fourteenth Amendment in his statement that:

. . . segregation of children in public schools solely on the basis of race, even though the physical facilities and other tangible factors may be equal deprives the children in the minority group of equal educational opportunities, in contravention of the Equal Protection Clause of the 14th Amendment.¹³

This was the first time the Equal Protection Clause in the Constitution was related to educational practices. Second, the state's role

in education was defined.

Today education is perhaps the most important function of state and local government . . . it is a principal instrument in awakening the child to cultural values, in preparing him for later professional training, and in helping him to adjust professionally to his environment. In these days it is doubtful that any child may reasonably be expected to succeed in life if he is denied the opportunity of an education. Such an opportunity, where the state has undertaken to provide it, is a right which must be made available to all children.¹⁴

This quote affirms the rights of all children to an education once the state chose to provide it. Unfortunately, handicapped students did not realize their state right to an education or constitutional right to equal opportunity for almost twenty-five more years.

The decisions from *Brown vs. Board of Education* were precedent setting--especially the reference to the Fourteenth Amendment:

All persons born or naturalized in the United States and subject to the jurisdiction thereof, are citizens of the United States and of the State therein they reside. No state shall make or enforce any law which shall abridge the privileges or immunities of citizens of the United States, nor shall any state deprive any person of life, liberty, or property without due process of law, nor deny any person within the jurisdiction equal protection of the laws.

As previously stated, education is not specifically mentioned in this amendment or the Constitution. However, if equal protection is interpreted as a right to access the free, public education which has been established by the state, then educational opportunities should be available to all students including those who are handicapped.¹⁵

During the 1950s, the Fourteenth Amendment was used unilaterally in the pursuit of equal educational opportunities. The focus was on racial imbalance and resultant inequities. Non-segregated schools were viewed as fulfilling equal educational mandates, although segregated settings were allowed if supportive services were necessary and not available in a non-segregated setting.¹⁶

Throughout the 1960s, the conceptualization and pursuit of equal educational opportunities expanded. Court challenges increased and new legislation was designed and promulgated. Equal protection was interpreted as that which is done for one person must be done for all persons on equal terms. This meant that states could not set up separate systems, such as separate schools for different groups of people, unless there was a compelling reason for doing so.¹⁷ Since separation without due cause was prohibited, schools were forced to question educational and separation practices for various student groups.

During the 1960s, attention also focused on the need for remedial or compensatory education. The Elementary and Secondary Education Act of 1965 was enacted as a vehicle for equalizing educational opportunities. It targeted money for poverty programs and provided educational opportunities for specific student groups.¹⁸ This philosophical position that differing resources were needed if students were to achieve similar objectives was strengthened by court decisions.

In 1967, the Court case of *Hobson vs. Hansen* questioned a tracking system which used the results of group IQ tests to place and

develop programs for students. This was the first significant legal challenge to the use of tests which labelled and often segregated or excluded students from regular education. Since the IQ tests had been standardized on a White population, but were used to place Black students, the results judged students in accordance with their racial or socioeconomic status rather than intelligence or innate ability. A Supreme Court decision, handed down by Judge Skelly Wright, declared it unconstitutional to deprive students of an education which was available to other students because of the results of one test score. This practice was said to violate the due process clause of the Fifth Amendment, since students were suspended or excluded from classes on the basis of test results without recourse to hearings or periodic review.¹⁹

The Hobson case also identified the multiplier effect as a concomitant problem of tracking. Through tracking, children were not only segregated from contemporaries, but also denied access to compensatory programs which multiplied the denial of their equal educational opportunities. Hobson vs. Hansen challenged the use of group intelligence tests for placement and exclusionary practices; subsequent litigation challenged the use of individual intelligence tests.

Although discriminatory practices, tracking and questionable assessment techniques were recognized as obstacles to equal educational opportunities, the educational rights of handicapped students in the 1960s were still lacking in three major respects. First, in the 1960s the majority of mentally retarded students were receiving

instruction in self-contained (separate) classrooms. This can be viewed as a form of tracking and a way to exclude some students from the mainstream of education. Second, students were identified and grouped together under one category such as mental retardation or physically handicapped. It was often assumed that one mentally retarded student was just like another mentally retarded student and a physical disability was synonymous with a need for a different educational program. Individual differences were not always considered and often obscured. Third, there was a lack of federal and state funds to develop programs specifically for handicapped students. The Elementary and Secondary Act of 1965 did target some money for handicapped children but the primary focus of these allocations was for disadvantaged children.²⁰

In *Diana vs. California State Board of Education*, 1971, a class action suit challenged placement and identification procedures used for Mexican students and became another step in the process of securing educational programs for handicapped students. The Plaintiffs charged that the administration of the WISC-R and Stanford-Binet was prejudicial since the children's dominant language was Spanish and the test required a facility with English. It was alleged, as in *Hobson vs. Hansen*, that children were inappropriately labelled and then segregated from some educational programs because of an invalid test. Documentation supported this since about 18.5% of the student population in Monterey County, California had Spanish surnames, yet about 33% of the children in classes for the mentally retarded were

Spanish surnamed. Similar situations occurred throughout the state.²¹

As a result of *Diana vs. California*, some discriminatory placements which resulted from language barriers were rectified and new placement procedures were implemented. Specifically, the court stated:

- (1) Children must be tested in their primary language;
- (2) Children who were already placed in classes for the mentally retarded must be reevaluated;
- (3) New testing protocols were to be developed to reflect different cultural backgrounds;
- (4) Disproportionate numbers of minority students in segregated classes must be explained.

Diana vs. California expanded the *Hobson* decision by ordering a remedy for linguistically biased tests and testing procedures.

Diana and similar cases, (*Arreola vs. Board of Education*, 1968; *Covarrubias vs. San Diego*, 1971), had an impact at both the state and federal levels. In 1970, the former Department of Health, Education and Welfare's (HEW) Office for Civil Rights sent a memo to 1,000 school districts warning them that they would not be in compliance with Section VI of the Civil Rights Act if students whose primary language was not English were assigned to classes for the retarded based on tests which did not take into account their linguistic proficiency. In part, the memo said:

. . . each school district has an affirmative duty to take

prompt and effective action to eliminate . . . discrimination based upon . . . race or national origin, and to correct the effects of past discrimination.²²

Previously, equal protection and due process clauses of the Constitution had been referenced when equal educational opportunities were denied or discriminatory practices existed. This intervention by HEW signified a legislative rather than litigative role of the federal government in educational affairs--a trend that continued and intensified in the 1970s.

Although the federal government intervened in state educational affairs, the early 1970s were still characterized by numerous legal disputes. Two landmark cases which dramatically changed educational practices were Pennsylvania Association for Retarded Children (PARC) vs. Commonwealth of Pennsylvania and Mills vs. District of Columbia.

PARC was a class action suit which questioned the exclusion, denial, and lack of due process procedures for mentally retarded children between the ages of 6 and 21.²³ This suit stated that four Pennsylvania statutes denied educational opportunities. They were as follows:

- (1) The state was relieved of its obligation to educate a child who the school psychologist certified as uneducable or untrainable. The burden of care then shifted to the Department of Public Welfare which was not mandated to provide educational services;
- (2) Education could be postponed if a child had not reached the mental age of five (5);
- (3) Psychologists could exclude children from school if a child was unable to profit from education; and

- (4) Compulsory school age was defined as 8 - 17 and could be used to postpone school admissions.

The Plaintiffs, using the testimony of social scientists presented evidence which led to the establishment of new educational and social priorities. Three salient points were made:

- (1) Systematic education programs for mentally retarded children can produce learning;
- (2) Education must be seen as a continuous process not just the provision of academic experiences;
- (3) Early provision of services will increase the amount of learning which can be expected.²⁴

This information and Constitutional safeguards in the Fifth and Fourteenth Amendments affected the outcome of this case. The conclusion of the consent agreement stated

. . . every retarded person between the ages of 6 and 21 shall be provided access to a free public program of education and training appropriate to his capacities as soon as possible but in no event later than September 1, 1972." (emphasis added)²⁵

The definition of equal opportunities had changed. Specifically, the phrase "appropriate to his capacities" implied that different training may be necessary to access free public programs of education.

PARC is often referred to as the cradle of the legal rights movement for handicapped students. It expanded the Brown vs. Board of Education decision by addressing and rectifying discrimination on the basis of a handicapping condition. Although categorical in nature,

it specifically granted educational opportunities to retarded students in the Commonwealth. PARC stimulated publicity, questioning, and social reaction. Many subsequent judicial decisions, including *Mills vs. Board of Education*, were influenced by PARC.

The genesis of *Mills* was the failure of Washington, D.C., schools to provide education, due process proceedings, and expulsion policies for students. In 1972, the parents and guardians of seven children in the District of Columbia, brought a class action suit against the Board of Education for its failure to provide all children with a public education. The children involved were labelled mentally handicapped, epileptic, brain damaged, orthopedically handicapped and hyperactive students.²⁶

In December 1971, the District Court ordered that a publicly supported education should be provided to the Plaintiffs by January 3, 1972. Judge Joseph Waddy's decision used the Fifth Amendment to support the Constitutional right of all children to have a public-supported education. The *Mills* decision expanded PARC by guaranteeing educational rights to all students regardless of any handicapping condition. The Constitutional guarantee referred to in *Mills* was the Fifth Amendment, rather than the Fourteenth. This was cited since Washington, D.C., is not a state but a Federal entity, and the Fourteenth Amendment specifically addressed state issues.²⁷

Brown, PARC, and *Mills* cited the Constitution as granting educational rights. They are examples of the definite shift from complete control of education through statutory provisions to educational

guarantees under the Constitution.

In addition to determining educational rights, Mills clarified the issue of financial responsibility for equal education opportunities. Quoting the decision:

The District of Columbia's interest in educating the excluded children clearly must outweigh its interest in preserving its financial resources. If sufficient funds are not available to finance all of the services and programs that are needed and desirable in the system, then the available funds must be expended equitably in such a manner that no child is entirely excluded from a publicly supported education consistent with his needs and ability to benefit therefrom. The inadequacies of the District of Columbia public school system whether occasioned by insufficient funding or administrative inefficiency, certainly cannot be permitted to bear more heavily on the exceptional or handicapped child than on the normal child.²⁸

Although financial responsibility remains one of the most controversial issues regarding the education of handicapped students, it was clearly decided in Mills that a lack of financial resources was not justification for excluding students from educational programs.

Racial discrimination, tracking, selective exclusion of handicapped students, and placement via invalid tests were some practices which had denied students educational opportunities during the 1960s. Discriminatory practices which were often challenged in the 1970s were those which affected cultural and linguistic minorities.

In 1972, the Plaintiffs in *Larry P. vs. Riles* claimed both their Constitutional and Civil Rights were violated by a placement process which identified Black elementary school students as mentally retarded

on the basis of one IQ score--a situation similar to *Diana vs. California*. Since the Plaintiff's spoken language and culture was contemporary Black American and the IQ tests were not standardized on this population, the placement process was determined invalid. This decision supported the findings in both *Diana vs. California* and *Hobson vs. Hansen*. Additionally, the Court decided that the Civil Rights Act of 1964 supported the Federal position that equal educational opportunities were required for all children under the equal protection clause of the Fourteenth Amendment.

In 1974, *Lau vs. Nichols* challenged cultural and linguistic biases of tests which were used to segregate students from regular education and also addressed the issues of bilingual education opportunities. The Plaintiffs in *Lau vs. Nichols* were advocates for Chinese-American students who were not receiving bilingual education. Since bilingual education was not available to all students who needed it, the Plaintiffs charged that they were being denied equal educational opportunities. And again, as in *Hobson vs. Hansen*, *Diana vs. California* and *Larry P. vs. Riles*, *Lau* challenged the usage of standardized tests as sole placement indicators. The Supreme Court's decision stated, "There is no equality of treatment merely by providing students with the same facilities, textbooks, teachers, and curriculum, for students who do not understand English are effectively foreclosed from any meaningful education." It also acknowledged the invalid nature of many tests and the subsequent erroneous labelling and placement of bilingual students in special education programs.

The Court recommended the establishment of a task force to ensure the proper use of assessment techniques and programs for bilingual students. As a result of *Lau vs. Nichols*, schools cannot claim to provide equal educational opportunities to students by merely providing them with the same educational services in their native language but must also change testing and assessment procedures.²⁹

The Lau Remedies of 1975 and the Office of Civil Rights Memorandum of May 25, 1975 both advanced the rights of limited English speaking students by guaranteeing their right to transitional bilingual education and prohibiting the assignment of students to special education classes based on criteria which measure language skill rather than academic achievement or ability. Additionally, an Office for Civil Rights task force set procedures for identifying a child's dominant language through the use of home and school observations, developed monitoring strategies, and made recommendations for assessing and placing minority students in educational programs.³⁰

Although all of those judicial decisions helped stop some discriminatory and exclusionary practices in education, and disavowed the philosophy of separate being equal, litigation could not be relied upon to assure equal protection and non-discriminatory practice in education. This position is supported by reviewing *Washington vs. Davis*, 1976 in which the Supreme Court decided that a test of discriminatory effect was not of Constitutional stature and stated that unless there is a proven intent to discriminate, constitutional rights are not violated. Further, it stated that a law is not discriminatory

or unconstitutional because its impact has a discriminatory effect. If this decision was applied to the cases of *Hobson vs. Hansen*, *Diana vs. California*, *Larry P. vs. Riles* or *Lau vs. Nichols*, discriminatory testing procedures might still be preventing some students from equal educational opportunities.

Since a decision such as this could negatively affect the availability of equal educational opportunities by allowing subtle discrimination (tests, assessments, placement criteria), Federal laws and their regulations are of paramount importance. Many students need to depend on Congressional statutes not Constitutional interpretations to protect their educational rights.³¹

Along with the evolving role of the judicial system in determining and changing educational practices, the Federal government gradually changed its position from giving states *carte blanche* in educational issues to one of increased Federal involvement. The 1961 Presidential Committee on Mental Retardation was an impetus to this special education movement. Its numerous recommendations which were reflected in P.L. 88-164 included allocations of federal funds for the training of teachers in the field of special education.³²

The establishment of the Bureau of Education for the Handicapped, a legislative entity within the Office of Education, was viewed as a unified and powerful voice within the federal bureaucracy. Special education funds increased tenfold during the 1966-1976 period and were an expression of the emerging national conscience about educational opportunities for handicapped students.³³

The Civil Rights Act of 1964 is another example of increased federal involvement. Although the Civil Rights Act did not specify education or educational practices in its wording, it was referenced to prohibit discriminatory education practices. In fact, the *Diana vs. California*, *Larry P. vs. Riles* and *Lau vs. Nichols* decisions referenced the Plaintiffs' rights to non-biased assessments and programs under this act. Briefly, the Act states

No person in the United States shall on the grounds of race, color, or national origin be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any program or activity receiving Federal financial assistance.

Public schools receive federal aid in many different forms. Therefore, it was interpreted that all students had a right to attend school without being subjected to discriminatory practices.

The enactment of additional strands of legislation, Vocational Education Amendments of 1968, Economic Opportunities Act of 1972 (Headstart) and the Educational Amendments of 1974 (P.L. 93-380), emphasized an increased Federal interest in the creation of educational opportunities for poor and handicapped students.³⁴ In short, Federal legislation was now prescribing educational programs and services rather than deferring this position to the states.

Title IX of the 1972 Educational Amendments and Section 504 of the Rehabilitation Act of 1973 also serve as examples of Federal protection and intervention in respect to education. Title IX and Section 504 guarantee non-discriminatory educational benefits to students

when they attend programs which receive Federal financial assistance.

In brief, they state

Title IX: No person in the United States, shall on the basis of sex, be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any program or activity receiving Federal financial assistance.

Section 504: No otherwise qualified handicapped individual in the United States, shall solely by reason of his handicap, be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any program or activity receiving Federal financial assistance.

The Federal government was now seen as a strong and significant force in educational matters in contrast to its sparse and sporadic involvement during the 1800s and early 1900s. This increased involvement took some control away from the states but opened new educational opportunities by prohibiting discriminatory and exclusionary educational practices previously practiced.

Today there are three major Federal Acts which have dramatically changed educational practices across the nation. These Acts and their remedial goals will be discussed in the next section of this chapter.

Remedial Education: Acts, Goals and Placement Options

The Education for All Handicapped Children Act of 1978, the Bilingual Acts of 1968, 1974 and 1979, and the Elementary and Secondary Education Act of 1965 now superseded by the Education Consolidation and Improvement Act of 1981 are primarily responsible for the programs

available to handicapped, linguistically different, or economically disadvantaged students. These Acts have dramatically changed educational practices by mandating new programs for students who are needing compensatory, remedial, and/or individualized education. The Education for All Handicapped Children Act requires special education programs; the Bilingual Education Act supports transitional bilingual education (TBE); and the Education Consolidation and Improvement Act provides Chapter I programs.

Although all of these programs were enacted to help specific student groups achieve the national goal of equal educational opportunities, at times the goals of these programs overlap. This can cause duplication of services, which leads to confusion about appropriate placement. The following description of each of the three Acts and Table 1 identify the overlap which exists in programs today, and help explain why placement decisions in remedial education are often difficult and inconsistent.

The Education of All Handicapped Children Act (EHA) of 1978 was enacted to specifically aid handicapped children; some of these children also suffering educationally due to poverty related causes.

EHA has a four pronged focus. It

- (1) Insures that all handicapped children have available to them a free appropriate public education which includes special education and related services;
- (2) Insures that the rights of handicapped children and their parents are protected;
- (3) Assists States and localities to provide for educa-

tion for all handicapped children;

- (4) Assesses and insures the effectiveness of efforts to educate those children.³⁵

Although the EHA states that a child is not handicapped due solely to environmental, cultural or economic disadvantage; testing protocols do not diagnose all etiologies of learning problems. Thus environmentally, culturally and/or economically disadvantaged children may be erroneously labelled mentally handicapped and receive educational services under EHA rather than another remedial program.

The Bilingual Education Acts of 1968, 1974, and 1979 were enacted to aid educationally disadvantaged students--students with limited English skills--in school. The main emphasis is to provide instruction in the child's dominant language while transitioning the student to English instruction. However, when limited English speaking students are from families of low socioeconomic status, the educational needs could be addressed in bilingual education or Chapter I programs. Placement would depend upon the language of instruction in which the remedial service was taught.

Chapter I of the Education Consolidation and Improvement Act of 1981 supersedes Title I of the Elementary and Secondary Act of 1965; however, the primary goal remains the same. It is to "provide financial assistance to State and local educational agencies to meet the special educational needs of educationally deprived children on the basis of allocations calculated under Title I . . ."³⁶

Authorized programs include projects designed to meet the needs

emphasizes the need to review enrollment rates in remedial programs collectively rather than singularly to determine if equal educational opportunities are available to minority youth.

As Table 1 shows, low socioeconomic status could result in a child receiving services under Chapter I programming or special education. Language problems could result in placement in special education, transitional bilingual education, or a Chapter I program. Depending upon the severity of the handicapping condition, special education or Chapter I programs could provide remedial help.

A major intention of the present study is to determine if enrollment patterns of White, Black, and Hispanic students suggest that similar educational needs of students are being met in different remedial programs. More specifically, three students may need remedial reading instruction in small group settings. Their needs might be due to a language based learning disability, a dominant language other than English, or an educationally deprived home environment which was not able to encourage pre-reading skills. Although the educational need for all three students is similar, different programs may meet the educational need.

Taking a very simplistic look at these three students, one might assume that the first student would be placed in special education since there is a handicapping condition--a learning disability. The second student might be placed in a transitional bilingual class since English is not the dominant language. Environmental deprivation can be a placement indicator for Chapter I, thus the third student might

be placed in that program.

However, it must also be suggested that the language learning disabled student might be taught in a Chapter I class, particularly if the disability is not severe. If the limited English speaking student was also misbehaving in the classroom, a placement might have been made in a bilingual special education classroom rather than in transitional bilingual education to address learning and behavioral problems. Since Chapter I does not exist in all schools, a child with a deprived educational background in a non-Chapter I school might receive remedial services in the only option available, special education. Since school systems do not have a well defined set of entrance and exit criteria for each program, nor a well defined set of criteria for movement from one program to another, placement decisions are not clear cut. They contain a substantial degree of subjectivity.

This subjectivity can create unequal enrollment patterns in remedial education due to practices and beliefs relative to race, culture, language, or a handicapping condition. Since unequal can be considered either an over utilization of some programs or an under utilization of other programs,³⁸ both disproportional occurrences create what might be an illusion of discrimination.

As previously stated, Massachusetts General Law, Chapter 71B, Section 6, prohibits disproportionate enrollment of minority students in special education unless there is a "compelling interest for such disproportionality."³⁹ When disproportionality in enrollment rates exists, investigations must be conducted by the Massachusetts Département-

ment of Education to determine if discrimination is occurring.

Investigative procedures by the Department to date have focused mainly on adherence to regulations and assessment practices. For years investigations continued; violations were discovered and cited by the Department. Although violations were corrected by the school systems, disproportionate numbers of students still appeared when the enrollment patterns were studied the following year.

In response to these recurring patterns of discrimination and the mandate to continue investigations, the Department asked each school system which had disproportionate placement of students in special education to develop an Action Plan (Appendix B) to help identify why disproportionality was occurring. However, after four years of developing and implementing individual Action Plans, some school districts continue to be cited for prima facie denial of equal educational opportunities. A clear comprehensive understanding of why this pattern emerges and if discrimination is really occurring has not yet evolved. The Action Plan included as one element an analysis of placement patterns in special education. This, in isolation, did not explain why minority children were placed in one special education program more or less frequently than another. This element, though, touches the periphery of another more important concern which has been discussed in this chapter. Could the remedial needs of minority students be met in more than one program?

A major intention of the present study is to determine if the participation of minority students in one remedial program was affect-

ing the enrollment pattern in another program. The overlap of program goals as seen in Table 1 could be partially responsible for disproportionate enrollment patterns of minority students in special education. It has been shown that more than one remedial program can meet the educational needs of a student and it is being suggested that the placement of minority students in special education, transitional bilingual education, or Chapter I programs may be due to factors other than legal mandate, legislative intent, or educational need. Placements may be based on philosophy of education, availability of a program, or the language in which a program is offered.

It is not the purpose of this research to debate the advantages and disadvantages of any one remedial program. Rather, the intention is to determine if the overlap of educational goals and placement options in remedial programs creates an illusion of discriminatory educational practices for minority youth, or if discriminatory conditions indeed exist and thus prevent Black and Hispanic students from receiving equal educational opportunities. This will be determined through a study of enrollment patterns in remedial education.

In summary, this chapter has provided the reader with an overview of some historical practices which were exclusionary in nature and prevented students from receiving educational opportunities. Major litigation and legislation which led to the guarantee of equal educational opportunities for all student groups was highlighted. Also included was a narrative and graphic description of educational goals which appear in remedial education programs. These goals pro-

vide educational assistance to students in one or more remedial programs and overlap at times. The next chapter presents the design of this study. Data collection and analysis procedures are stated for each of the five research objectives by individual school districts.

C H A P T E R I I I

DESIGN OF THE STUDY

The major purpose of this chapter is to explain how the study was conducted. It consists of two sections. The first section describes the school districts, schools, and students involved in the study. The second section identifies the various types of data used in the investigation, describes how the data were collected, and details the procedures used to analyze the data so each research objective could be accomplished.

Selected School Districts, Schools, and Students

School Districts

The school districts included in this study were three urban systems in western Massachusetts. They were selected for three main reasons. First, each district had been cited by the Massachusetts Department of Education in 1983 for prima facie denial of equal educational opportunities to Black and Hispanic youth. The prima facie evidence was disproportionate enrollment of minority students in special education programs as compared with White peers.

Second, although the Department monitored each district for at least three years, it neither uncovered discriminatory practices nor could explain the disproportionality. The administrators of these school districts were disappointed and frustrated by the investiga-

tions and wanted to better understand the disproportionality which was occurring. The researcher personally met with each administrator to explain the purpose of the study and to request their participation. The three administrators agreed to participate in the study as they wanted to analyze their systems in a new way; one which would, perhaps, explain why disproportionality of minority students in special education continued to appear each year.

Third, these school districts were selected because they represented different types of urban communities. School System A is a large city with a minority-majority population. It had over 23,000 students, of whom 10,402 were White, 6,629 were Black, and 5,481 were Hispanic. There were twelve secondary and thirty elementary schools in this district. School System B is a smaller industrial city where the majority of the school population was White. Minority students accounted for about forty percent of the school population. This district had more than 6,800 students, of whom 3,921 were White, 274 were Black, and 2,484 were Hispanic. There were four secondary and ten elementary schools within this system. School System C is a small professional city with a small minority population. It had more than 3,600 students, of whom 3,170 were White, 73 were Black, and 136 were Hispanic. Two secondary and six elementary schools comprised this district.

Sample Schools and Students

In the present study, all elementary and secondary schools in

each of the three districts were included in the systemwide analyses. There were a total of sixty-four schools--forty-six were elementary, kindergarten through grade six, while eighteen were secondary schools, grades seven through twelve. In total, 32,570 students represented three racial groups. There were 17,493 White, 6,976 Black and 8,101 Hispanic students.

Objectives Three and Four focused on transitional bilingual education and Chapter I programs in elementary schools. All elementary schools in the three school districts were included in this study. The total number of students was 16,897, of whom 8,588 were White, 3,433 were Black, and 4,876 were Hispanic.

Collection and Analysis of the Data

Data collected were analyzed in relationship to each of the five research objectives. Each research objective has been restated in this section with an explanation of the procedures used to complete the analysis.

Objective One

To determine the enrollment patterns of Black, Hispanic and White students in special education, transitional bilingual education, and Chapter I in selected school systems.

The special education data came from the October 1, 1983 School System Summary Report, while the transitional bilingual education data

and Chapter I data came from reports made by administrative personnel in the fall of 1983. Since Massachusetts does not require school districts to keep records of the racial identities of students, these data were extrapolated from local school district records. In Systems B and C, the Directors of Special Education provided the information, while in System A the data came from the Director of Research and Evaluation and the Director of Special Education. School District A had racial information in its computer; School Districts B and C collected it from school building reports.

Formula for analyzing enrollment patterns in remedial education

The formula used for Objective One was:

$$\text{Enrollment Rate} = \frac{\text{number of (insert each racial category) students in (insert each program)}}{\text{total number of (insert each racial category) students in school system}}$$

This formula provided the percentage of Black, White, and Hispanic students enrolled in special education, transitional bilingual education, and Chapter I programs in each school district. These percentages provided information which was used to compare enrollment rates of all three racial groups in each remedial program in each school system. It also allowed comparisons of enrollment patterns to be made across school systems.

Objective Two

To determine if the enrollment patterns in special education at selected school systems had a statistically significant under representation of minority students.

In Massachusetts prima facie denial of equal educational opportunity is investigated by the following formula:

$$\% = \frac{\text{number of (insert each racial category) students in (individual special education program)}}{\text{number of (insert each racial category) students in special education}}$$

If the percentage of Black or Hispanic students differs from that of White students by more than 20 percent, prima facie denial of equal educational opportunities is concluded. The twenty percent figure is arbitrary. Therefore, it was determined that a statistical method, the chi square test, would be applied to special education enrollment figures as an alternative approach to the Massachusetts' formula to determine if under representation, when it occurred, was statistically significant.

The data which were collected for this objective came from the October 1, 1983 School Summary Reports and individual school reports. The data were provided by the Directors of Special Education in the selected school systems.

Formula for determining statistically significant under representation of minority students in special education

A chi square test was applied to the special education enrollment data for each special education program prototype 502.1-502.4 (Appendix A). The formula was:

$$\chi^2 = \sum \left[\frac{(f_o - f_e)^2}{f_e} \right]$$

The data from the chi square test were analyzed by individual school system, racial group, and program. Under representation was labelled significant at the .05 level and was identified by school district, racial group, and program.

Objective Three

To determine if minority enrollment patterns in special education programs were affected by minority student participation in Chapter I in elementary schools.

In School Districts B and C, the individual school program data, which were collected for Objective One and also for Objective Two, were used to address this objective. Both districts had gathered and kept enrollment data for special education and Chapter I programs by individual schools, thus facilitating a study of enrollment patterns at individual elementary schools within a system. Since School District A had not stored enrollment data by individual elementary schools, a systemwide analysis of elementary school enrollment pat-

terns was completed through an alternative procedure. This alternative procedure will be described after the formula used in School Districts B and C is presented.

Formula for determining if special education enrollment was affected by minority student participation in Chapter I programs (School Systems B and C)

$$\text{Enrollment Rate} = \frac{\text{number of (insert each racial category) students in (insert each program) at each elementary school}}{\text{total number of (insert racial category) students in that elementary school}}$$

The schools within each district were separated into two categories, Chapter I Schools and Non Chapter I Schools. This separation allowed the special education enrollment data in percentages to be analyzed in relationship to the availability of another remedial service, Chapter I. In other words, a descriptive analysis of the racial enrollment trends in special education at Chapter I Schools and non Chapter I Schools was completed on an individual school basis. This analysis determined if the existence of Chapter I in a school affected the percentage of minority students in special education.

School System A had provided the enrollment data used in Objectives One and Two from reports they had completed for the state. The special education data had been totaled in the central office by individual programs and reported by program and student age. The

data had not been reported by individual school. Thus, to collect the individual school data a procedure for counting all of the students who were in 502.1, 502.2, 502.3, and 502.4 special education programs would have had to be developed and implemented. The school system would not do this and confidentiality laws prevented this researcher from hand counting students in the programs. Therefore, the Director of Research and Evaluation supplied data extrapolated from individual school reports which he obtained from building principals. However, as these did not reflect the same time periods and had missing information, they could not be used for the individual school analysis.

The researcher decided that an alternative analysis should be completed for Objective Three for School System A. This analysis differs from that for Districts B and C as it presents a systemwide view of the impact Chapter I had on special education in elementary schools rather than an individual school perspective.

Procedure for determining on a systemwide basis if special education enrollment was affected by minority student participation in Chapter I programs

First, a calculation was made to determine the percentage of Black and Hispanic students who attended schools with Chapter I programs. The formula used was:

$$\% = \frac{\text{number of (insert racial group) students in elementary schools with Chapter I}}{\text{number of (insert racial group) students in K-6 grade}}$$

Next, a calculation was made to determine the percentage of Black and Hispanic students who did not attend schools with Chapter I programs.

The formula was:

$$\% = \frac{\text{number of (insert racial group) students in non Chapter I elementary schools}}{\text{number of (insert racial group) students in K-6 grade}}$$

The next two calculations focused on enrollment in special education at Chapter I and non Chapter I schools. One formula was:

$$\% = \frac{\text{number of (insert racial group) students in special education at elementary schools with Chapter I}}{\text{number of (insert racial group) students in K-6 grade at Chapter I schools}}$$

and yielded the percentage of Black and Hispanic students who were enrolled in special education at Chapter I schools. The following formula:

$$\% = \frac{\text{number of (insert racial group) students in special education at non Chapter I elementary schools}}{\text{number of (insert racial group) students in K-6 grade at non Chapter I schools}}$$

yielded the percentage of Black and Hispanic students enrolled in special education at non Chapter I schools. These percentages and

enrollment figures were used to analyze the effect minority student participation in Chapter I appeared to have on special education enrollment patterns.

The analysis continued by taking the total enrollment of each minority group at Chapter I schools and multiplying this number by the percentage of Black and Hispanic students enrolled in special education at non Chapter I schools.

Total enrollment of (insert racial group) at Chapter I schools x percentage of (insert racial group) enrolled in special education at non Chapter I schools = number of (insert racial group) expected to need special education if Chapter I were not available

This resulted in the number of Black or Hispanic students who would be expected to need special education if Chapter I programs did not exist. After subtracting the actual number of students in special education at Chapter I schools from the number expected to need special education, the result was analyzed to determine if the participation of minority students in Chapter I programs had an impact on enrollment in special education.

Objective Four

To determine if minority enrollment patterns in special education programs were affected by minority student participation in transitional bilingual education in elementary schools.

As stated in Objective Three, the individual school program data which were collected by the Directors of Special Education in School

Systems B and C were used to address this objective. These data were translated into percentages using the following formula.

Formula for determining if special education enrollment was affected by Hispanic student participation in transitional bilingual education (School Systems B and C)

$$\text{Enrollment Rate} = \frac{\text{number of (insert each racial category) students in (insert each program) at each elementary school}}{\text{total number of (insert racial category) students in that elementary school}}$$

The schools within each district were separated into two categories, Transitional Bilingual Education Schools and Non Transitional Bilingual Education Schools. This separation allowed the special education enrollment data, translated into racial percentages, to be analyzed in relationship to the availability of another remedial service, transitional bilingual education. A descriptive analysis of the racial enrollment trends in special education at Transitional Bilingual Education Schools and Non Transitional Bilingual Education Schools was completed on an individual school basis. This analysis was used to determine if the existence of transitional bilingual education in a school affected the percentage of minority students in special education.

As previously stated, the individual school data for District A could not be validly analyzed by individual schools, so again a

systemwide analysis was completed. A procedure analogous to that in Objective Three was used for this analysis.

Procedure for determining on a systemwide basis if special education was affected by Hispanic student participation in transitional bilingual education (School System A)

First a calculation was made to determine the percentage of Hispanic students who attended schools with transitional bilingual education. The formula was:

$$\% = \frac{\text{number of Hispanic students in elementary schools with transitional bilingual education}}{\text{number of Hispanic students in K-6 grade}}$$

Next, a calculation was made to determine the percentage of Hispanic students who did not attend schools with transitional bilingual education. This formula was:

$$\% = \frac{\text{number of Hispanic students in elementary schools without transitional bilingual education}}{\text{number of Hispanic students in K-6 grade}}$$

The next two calculations focused on enrollment in special education at transitional bilingual education schools and schools without transitional bilingual education. One formula was:

$$\% = \frac{\text{number of Hispanic students in special education at elementary schools with TBE}}{\text{number of Hispanic students in K-6 grade at TBE schools}}$$

and yielded the percentage of Hispanic students who were enrolled in special education at TBE schools. The following formula:

$$\% = \frac{\text{number of Hispanic students in special education at non TBE schools}}{\text{number of Hispanic students in K-6 grade at non TBE schools}}$$

yielded the percentage of Hispanic students enrolled in special education at non TBE schools. These percentages and enrollment figures were used to analyze the effect that minority student participation in transitional bilingual education appeared to have on special education enrollment patterns.

This analysis continued by taking the total number of Hispanic students at transitional bilingual education schools and multiplying this number by the percentage of Hispanic students enrolled in special education at non transitional bilingual education schools.

Total Hispanic enrollment at transitional bilingual education schools x percentage of Hispanic students enrolled in special education at non transitional bilingual education schools = number of Hispanic students expected to need special education if transitional bilingual education were not available

This resulted in the number of Hispanic students who would be expected to need special education if transitional bilingual education did not exist. After subtracting the actual number of students in special education at transitional bilingual education schools from the number expected to need special education, the result was analyzed to deter-

mine if the participation of minority students in transitional bilingual education programs had an impact on special education.

Objective Five

To determine if enrollment patterns in remedial programs indicated that minority students were denied participation in programs designed to provide equal educational opportunities.

Data gathered for and previously used in Objectives One through Four were used to address this objective for all three school systems. The data were analyzed collectively by using the results from:

- (1) Formula for analyzing enrollment patterns in remedial education,
- (2) Formula for determining statistically significant under representation of minority students in special education,
- (3) Formula for determining if special education enrollment was affected by minority student participation in Chapter I programs,
- (4) Procedures for determining on a systemwide basis if special education enrollment was affected by minority students participating in Chapter I programs,
- (5) Formula for determining if special education enrollment was affected by Hispanic student participation in transitional bilingual education, and
- (6) Procedure for determining on a systemwide basis if special education was affected by Hispanic student participation in

transitional bilingual education.

All of the enrollment data which were collected for special education, transitional bilingual education, and Chapter I programs were analyzed collectively by school district to determine if the participation of minority students in one remedial program affected participation in another remedial program. This collective analysis was used to determine if minority students were denied equal educational opportunities or if the accessibility of one remedial program created illusions of discrimination in another program, specifically special education.

In summary, this chapter had two main purposes. First, it explained demographic information about the three school districts which were included in this study and then presented the actual sample used in this research--the number of elementary and secondary schools and number of White, Black, and Hispanic students. Reasons for the inclusion of these districts in the present research were stated. Second, it restated each research objective which guided this study and after each objective, gave descriptions of the data collected and statistical calculations applied to the data. This was followed by an explanation of the methods used to analyze the data. Due to confidentiality laws and a system-wide data collection system, some data from School System A were analyzed differently for Objectives Three, Four, and Five. The alternate analysis was explained where necessary. The design provided the format for Chapter IV, Results of the Study, where the collected data are presented, analyzed and discussed.

C H A P T E R I V
RESULTS OF THE STUDY

The major purpose of Chapter IV is to present the results of this study on equal educational opportunities for minority students in remedial education. The data collected for the three school districts included in this study are presented for each research objective and followed by an analysis and discussion of the data. Analysis and discussion are completed by districts and across districts, when appropriate. However, due to the many variables which exist in a school district, the results are not intended to be used to compare school districts with each other, since a more thorough understanding of the complexities of the individual systems would be needed. Rather, the results are to be used to determine if the systems which participated in this study were denying equal educational opportunities to minority students and if similar patterns of denial existed among the school districts.

Presentation of the Data

Objective One

To determine the enrollment pattern of Black, Hispanic, and White students in special education, transitional bilingual education, and Chapter I in selected school systems.

The data which were collected for this objective included special

education enrollment figures for five different special education program prototypes. Prototypes, as described in the first chapter and in Appendix A, are a numerical labelling system which designate how much time a student spends in special education. The severity of a child's academic needs can be determined by the prototype; the higher the prototype the greater the need for special education services. Within the public schools, 502.4 is the prototype which represents students with the greatest academic needs. In contrast, students in 502.1 prototypes generally have the least severe academic needs of all students in special education. Enrollment in each prototype, 502.1, 502.2 academic, 502.2 speech/language, 502.3, and 502.4, was separated by racial identity--White, Black or Hispanic. The number of students who entered transitional bilingual education was obtained from the TBE school reports and reported by racial group. Chapter I enrollment figures were similarly obtained and reported.

In the public school special education programs provided by School System A, 11.3 percent of the Black students, 9.2 percent of the Hispanic students, and 9 percent of the White students were in special education. A more thorough comparison of these percentages is provided by breaking down the enrollment of special education into individual program prototypes and analyzing each component by racial enrollment. Table 2 presents this special education enrollment data for School System A. It shows that Hispanic students were under represented in 502.1 and both the 502.2 academic and speech/language program when compared with the enrollment rates of White students in

Table 2
Special Education Program Enrollment Data
School System A

Racial Group	Total Enrollment	Individual Special Education Program Enrollment									
		502.1		502.2 (academic)		502.2 (speech/language)		502.3		502.4	
		Number of Students	Percent	Number of Students	Percent	Number of Students	Percent	Number of Students	Percent	Number of Students	Percent
White	10,402	23	.2	140	1.3	232	2.2	231	2.2	320	3.1
Black	6,629	7	.1	94	1.4	85	1.3	295	4.5	266	4.0
Hispanic	5,481	0	0	34	.6	49	.9	242	4.4	179	3.3

these programs. Black students were under represented when compared to White student enrollment rates in the 502.1. The major enrollment discrepancy occurred in the speech/language special education program. While White students entered speech/language at a rate of 2.2 percent of the population, only 1.3 percent of Black students and .9 percent of Hispanic students received speech/language services in special education. When 502.3 and 502.4 program enrollment rates were studied, there was an over representation of minority students in both of these programs. The more noticeable difference occurred in the 502.3 program where the percentage enrollment rate of minority students was double the percentage enrollment rate of White students (Black, 4.5%; Hispanic, 4.4%; White, 2.2%).

Transitional bilingual education enrollment data are presented in Table 3. More than 20 percent of the Hispanic student population, 1135 students, were enrolled in transitional bilingual programs. These programs only served Hispanic students.

Table 4 is a presentation of relative percentage rates of White, Black and Hispanic students in Chapter I programs. The enrollment rate of Hispanic students in Chapter I was 38.8 percent, while Black students were enrolled at a 21.9 percentage rate. Enrollment rates of minority student groups were greater than the White student enrollment rate of 13.1 percent.

Contrasting enrollment patterns of White and Black students, Black students were under represented in 502.1 and 502.2 special education speech/language programs. Black students were enrolled at

Table 3
Transitional Bilingual Education Enrollment Data
School System A

Racial Group	Total Enrollment	TBE Enrollment	
		Number of Students	Percent of Students
White	10,402	0	0
Black	6,629	0	0
Hispanic	5,481	1,135	20.7

Table 4
Chapter I Enrollment Rate
School System A

Racial Group	Total Enrollment	Chapter I Enrollment	
		Number of Students	Percent of Students
White	10,402	1,359	13.1
Black	6,629	1,452	21.9
Hispanic	5,481	2,127	38.8

a greater proportionate rate than White peers in 502.2 academic, 502.3 and 502.4 special education programs, and Chapter I. Neither Black nor White students were enrolled in transitional bilingual education.

Contrasting enrollment patterns of White and Hispanic students, Hispanic students were under represented in 502.1, 502.2 academic, and 502.2 speech/language programs. They were over represented in the 502.3 and 502.4 special education programs, were the only racial group in TBE, and had the highest proportional representation of all races in Chapter I.

In the public school special education programs provided by School System B, 16.8 percent of Black students, 10.4 percent of Hispanic, and 11.4 percent of White students were enrolled. According to these percentages, Black students received 5.4 percent more and Hispanic students received 1.0 percent less remedial help in special education than their White peers.

Table 5, which presents School System B's special education enrollment data, shows that compared with White student enrollment, Hispanic students were under represented in 502.1, 502.2 academic and 502.2 speech/language. Black students were only under represented in 502.2 speech/language. However, in the more restrictive programs, 502.3 (White, 1.5%; Black, 2.9%; Hispanic, 2.9%) and 502.4 (White, 1.6%; Black, 2.6%; Hispanic, 2.4%), the enrollment rate of Black and Hispanic students was greater than that of the White student population.

Transitional bilingual education enrollment data are presented

Table 5
Special Education Program Enrollment Data
School System B

Racial Group	Total Enrollment	Individual Special Education Program Enrollment									
		502.1		502.2 (academic)		502.2 (speech/language)		502.3		502.4	
		Number of Students	Percent	Number of Students	Percent	Number of Students	Percent	Number of Students	Percent	Number of Students	Percent
White	3,921	26	.7	212	5.4	88	2.2	57	1.5	64	1.6
Black	274	2	.7	26	9.5	3	1.1	8	2.9	7	2.6
Hispanic	2,484	7	.3	99	4.0	21	.8	72	2.9	60	2.4

in Table 6. Almost 30 percent of the Hispanic population were enrolled in transitional bilingual education. Again, Hispanic students were the only racial group enrolled in this program.

Table 7 is a presentation of relative percentage rates of White, Black and Hispanic students in Chapter I programs. The greatest enrollment rate was that of Hispanic students, 37.4 percent, followed by Black student enrollment at 21.5 percent, and a White enrollment rate of 12.4 percent. This resulted in a majority of minority students (58.9%) in Chapter I.

Contrasting special education enrollment patterns of White and Black students in System B, Black students were under represented only in the 502.2 speech/language program. They were over represented in the 502.2 academic, 502.3, and 502.4 programs and equally represented in the 502.1 program. Neither Black nor White students were enrolled in TBE.

Contrasting special education enrollment patterns of White and Hispanic students in System B, Hispanic students were under represented in 502.1, 502.2 academic, and 502.2 speech and language programs. They were over represented in both the 502.3 and 502.4 special education programs. Hispanic students were the only racial group to receive TBE services (726 students) and had the highest proportional representation in Chapter I programs (37.4%).

In the public school special education programs provided by School System C, 21.9 percent of the students were Black, 23.5 percent of the students were Hispanic, and 13.2 percent of the students

Table 6
Transitional Bilingual Education Enrollment Data
School System B

Racial Group	Total Enrollment	TBE Enrollment	
		Number of Students	Percent of Students
White	3,921	0	0
Black	274	0	0
Hispanic	2,484	726	29.2

Table 7
Chapter I Enrollment Data
School System B

Racial Group	Total Enrollment	Chapter I Enrollment	
		Number of Students	Percent of Students
White	3,921	488	12.4
Black	274	59	21.5
Hispanic	2,494	929	37.4

were White. Minority students participated in special education at greater percentage rates than White peers.

Table 8 presents special education enrollment data. When compared with the White enrollment rates, Black and Hispanic students were under represented in the 502.2 speech/language (White, 1.9%; Black, 1.4%; Hispanic, 0%) program and Blacks were under represented in the 502.1 program (White, .9%; Black, 0%).

Minority students were enrolled in the 502.3 and 502.4 special education programs at more than twice the rate of White students. In the 502.3 program, 1.8 percent of White students were enrolled, as contrasted with 4.1 percent of the Black students and 8.8 percent of the Hispanic students. In the 502.4 program, 2.0 percent of White students were enrolled, as contrasted with 6.8 percent of the Black students and 5.9 percent of the Hispanic students.

Transitional bilingual education data are presented in Table 9 for School System C. More than 30 percent of the Hispanic population of this school system were enrolled in this transitional bilingual program. Table 10 is a presentation of relative percentage rates of White, Black and Hispanic students in Chapter I. Black students led the enrollment pattern with over 30 percent of Black students receiving aid from Chapter I. Hispanic students, with an enrollment rate of 9.6 percent, were similar to the enrollment rate of White students (8.1%).

Contrasting special education enrollment patterns of White and Black students in System C, Black students were under represented in

Table 8
 Special Education Program Enrollment Data
 School System C

Racial Group	Total Enrollment	Individual Special Education Program Enrollment									
		502.1		502.2 (academic)		502.2 (speech/language)		502.3		502.4	
		Number of Students	Percent	Number of Students	Percent	Number of Students	Percent	Number of Students	Percent	Number of Students	Percent
White	3,170	27	.9	214	6.8	59	1.9	58	1.8	62	2.0
Black	73	0	0	7	9.6	1	1.4	3	4.1	5	6.8
Hispanic	136	2	1.5	10	7.4	0	0	12	8.8	8	5.9

Table 9
Transitional Bilingual Education Enrollment Data
School System C

Racial Group	Total Enrollment	TBE Enrollment	
		Number of Students	Percent of Students
White	3,170	0	0
Black	73	0	0
Hispanic	136	43	31.6

Table 10
Chapter I Enrollment Rate
School System C

Racial Group	Total Enrollment	Chapter I Enrollment	
		Number of Students	Percent of Students
White	3,170	258	8.1
Black	73	23	31.5
Hispanic	136	13	9.6

502.1 and 502.2 speech and language programs. They were over represented in all others. Black students entered Chapter I programs at almost four times the rate of White students (White, 8.1%; Black, 31.5%). Neither racial group entered TBE.

Contrasting special education enrollment patterns of White and Hispanic students in System C, Hispanic students were under represented in only one program, 502.2 speech/language. They were over represented in all other programs in special education. Additionally, they were the only racial group serviced in TBE (31.6%) and were enrolled at a slightly higher percentage rate (White, 8.1%; Hispanic, 9.6%) than White peers in Chapter I.

Analysis and Discussion

At first, the enrollment patterns of Black (11.3%), White (9.0%), and Hispanic (9.2%) students in special education at School System A suggested that more minority students received special education services than White students. However, when individual special education programs were analyzed, minority students did not receive speech/language services at a rate proportionate to their White peers and Hispanic students were under represented in the 502.1 and 502.2 academic special education programs. Under representation of minority students in special education did not appear in the total enrollment analysis because of the over representation of minority students in the 502.3 and 502.4 programs.

The 38.8 percent representation of Hispanic students in Chapter

I programs and the 20.7 percent representation in TBE appears to be decreasing the enrollment of Hispanic students in 502.1 or 502.2 academic services. Although it would be expected that more Hispanic students than White students would be enrolled in remedial programs such as TBE and Chapter I due to socio-economic factors, linguistic differences, and perhaps a deprived educational background, as discussed in Chapter II of this study, a question must be raised about the appropriateness of the large Hispanic enrollment in Chapter I and TBE programs. Are some Hispanic students remaining or placed in Chapter I or TBE rather than in special education 502.1 or 502.2 academic programs? It appears that this is true and a denial of some special education services is occurring.

Additionally, this denial of the less comprehensive special education services may result in a greater Hispanic enrollment in 502.3 and 502.4 programs, the more segregated and comprehensive programs within a public school. If special needs are not diagnosed and remediated early in a child's school career, the result can be a greater need for special education such as provided in the 502.3 and 502.4 settings. Therefore, the decreased Hispanic enrollment in 502.1 and 502.2 academic programs may be due, in part, to the availability and utilization of Chapter I and TBE programs but also appears to indicate a denial of some special education services resulting in a need for more comprehensive services at a later date.

Black students were enrolled in Chapter I programs and in the 502.2 academic special education program at a greater proportionate

rate than their White peers. However, they were under represented in the 502.1 special education program. It appears that the utilization of Chapter I may decrease enrollment in 502.1 programs by providing one-half to one hour of a remedial service rather than a modification in regular education as provided by 502.1 programs. When the nature of the Black population's educational needs are greater than those of White counterparts, as previously discussed, this enrollment pattern would appear to be appropriate rather than indicate a denial of equal educational opportunities. The opportunities may be provided in a more comprehensive fashion in Chapter I rather than the 502.1 special education program.

Hispanic and Black students were both under represented in the speech/language special education programs. This suggests two possibilities in School System A. First, another remedial program addressed some speech/language needs of some minority students. Second, speech/language needs among the Black and Hispanic populations were not accurately identified, and therefore, their speech/language needs were not met.

If another program addressed speech and language needs of minority students, the under representation which was found might not indicate a denial of equal educational opportunities, but rather the participation of minority students in other remedial programs. However, since Chapter I programs did not provide speech and language remediation, they were not a substitute for the speech and language services of special education. It is possible that TBE addressed some language

needs of Hispanic students but could not have addressed speech needs as the teachers were not qualified to do this. Therefore, the under enrollment which was found in the 502.2 speech/language special education programs appears to constitute a denial of equal educational opportunities to Black and Hispanic youth.

In School System B, Black students were enrolled in the 502.2 academic special education program and Chapter I at approximately twice the rate of White students. Hispanic students participated in Chapter I at more than three times the rate of White students but participated in the 502.2 academic program at a 1.4 percent lower rate than White students.

The 502.2 academic program offered one-half to one and one-half hours of daily remedial instruction comparable to the length of time a student might spend in a Chapter I program. It appears that participation of Hispanic students in Chapter I programs may have decreased their enrollment in special education 502.1 or 502.2 academic programs. However, if Hispanic students had actually been denied entrance into these programs, this denial of a less comprehensive special education program might have resulted in a student's educational needs becoming greater, thus necessitating the more comprehensive special education program (502.3 or 502.4). If, due to over reliance on Chapter I, the over representation in the more comprehensive special education programs resulted, then a denial of educational opportunities in less comprehensive programs (502.1 and 502.2 academic) appears to have occurred.

As in School System A, speech and language services were not received by minority students at the same proportionate rate as White students. For Hispanic students, this may be, among other reasons, caused by a lack of Spanish speech pathologists who could accurately identify, diagnose and remediate speech and language problems in Spanish speaking youth or by participation in another remedial program, TBE. Since TBE was not designed to provide speech services, a denial of some educational opportunities appears to have occurred. No other remedial program offered speech and language services to Black students, therefore, the under representation of Black students in speech and language may have been caused, in part, by a lack of personnel; more specifically, a lack of those who understood the dialect and culture of Black students. As no other programs in System B provided speech services to minority students, it appears that under representation of Black and Hispanic students in 502.2 speech/language is a denial of equal educational opportunities.

Although minority groups represented a small percentage of School System C's student population, special education, transitional bilingual education, and Chapter I programs were all offered. Hispanic students participated in every academic special education program at a rate higher than White students. It appeared that the academic needs of the Hispanic students in this professional city were greater than the White student group and were met through a variety of remedial programs.

The under representation of Black students in the 502.1 program

may have been due to the large enrollment in Chapter I (31.5%) as contrasted with the other minority groups (White, 8.1%; Hispanic, 9.6%). Chapter I may have provided more comprehensive but necessary remediation to Black students. This pattern does not in itself suggest that educational opportunities were denied to Black students.

Speech and language services appear to have been unavailable or not identified for Hispanic students, since no Hispanic students received speech/language services under special education. Since this system had one bilingual speech pathologist which should have adequately met speech/language needs of Hispanic students, services were available. However, it may be interpreted that either the small sample size was not a true representation of the Hispanic population's speech and language needs or that another program, such as TBE, offered language services to some minority youth. It appears that speech services may have been denied to Hispanic youth.

Black students had a higher rate of enrollment in three of the five special education programs studied and in the Chapter I program. Black students, though under represented, did receive speech/language services in special education. Due to the small sample size of Black students (73), the under representation cannot be assumed to be a denial of speech services. The sample size may not have reflected a representative group of Black students.

Objective One determined the racial enrollment patterns in special education, transitional bilingual education, and Chapter I programs in the three systems selected for this study. Enrollment pat-

terns showed the following trends. In special education in all three systems minority students were consistently under represented in the 502.2 speech programs and often over represented in the more comprehensive, 502.3 and 502.4, programs. All systems used transitional bilingual education as a program specifically for Hispanic students and Chapter I programs were most heavily utilized by minority youth. Minority students utilized Chapter I and TBE remedial programs at a greater proportionate rate than White peers, used the less comprehensive special education services at a lower proportionate rate than White peers, and were enrolled in the more comprehensive special education services at a greater proportionate rate than White peers.

Objective Two

To determine if enrollment patterns in special education in selected school systems had a statistically significant under representation of minority students.

The Massachusetts Department of Education bases its citation of prima facie denial of equal educational opportunities to minority youth on a comparison of enrollment figures in special education on October 1 of each year. If minority students are enrolled in special education at a rate 20 percent lower than their White peers, under representation is deemed significant. Since there has been much criticism about the 20 percent figure as it is an arbitrary one, this objective was designed to analyze the October 1 special education enrollment by applying a chi square test to determine the statistical

significance of under enrollment of minority students in special education. Therefore, data collected for this objective were the same enrollment figures as the Department of Education collects, the October 1, 1983 School Summary Report. In addition, enrollment figures of the 502.2 speech and language programs were collected to provide a more accurate look at the 502.2 prototype programs.

When the total special education enrollment was used as a basis for determining the proportional percentage of enrollment of Black, Hispanic, and White students in special education, under representation of both minority groups appeared in School System A's 502.1, 502.2 academic, and 502.2 speech and language programs. The largest discrepancies occurred in the 502.2 programs.

In the 502.1 program, 2.1 percent of the White students enrolled in special education were in this program, as compared with .8 percent of the Black students and no Hispanic students. A comparison of enrollment rates in the 502.2 academic program shows enrollment percentages of 12.9 percent White students, 11.3 percent Black students and 6.0 percent Hispanic students. The 502.2 speech and language program accounted for 21.4 percent of the White special education enrollment, 10.2 percent of the Black student enrollment, and 8.6 percent of the Hispanic student enrollment. The chi square analysis showed that all three enrollment patterns in these special education programs were statistically significant at the .05 level (Table 11).

When the special education enrollment of School System B was analyzed, under representation of both minority groups appeared in

Table 11
 Chi Square Analysis
 Special Education Enrollment Data
 School System A

Individual Program	Special Education Percentages			Chi Square
	White	Black	Hispanic	
502.1	2.1	.8	0	15.52097*
502.2 academics	12.9	11.3	6.0	19.21237*
502.2 speech/language	21.4	10.2	8.6	69.13180*

*p < .05.

the 501.1 and 502.2 speech and language programs. Of all White students in special education, 5.0 percent of them entered the 502.1 program as contrasted with a Black enrollment rate of 3.8 percent and an Hispanic enrollment rate of 2.4 percent.

In the 502.2 speech and language programs, White students were enrolled two to three times more than their minority counterparts. White students had a representation of 16.8 percent as contrasted with 5.7 percent of the Black students and 7.1 percent of the Hispanic students. The chi square analysis showed that the enrollment pattern in this 502.2 program was statistically significant at the .05 level (Table 12).

When special education enrollment was analyzed in School System C, under representation of both minority groups appeared in the 502.2 programs. Of the total number of Black students in special education, 43.8 percent of them were in the 502.2 academic program as compared with a percentage enrollment rate of 48.0 percent White students. Of the total Hispanic special education population, 30.3 percent were enrolled in this academic program.

Black students entered speech and language 502.2 programs at a lower proportionate rate than White students. While 13.0 percent of the White students in special education entered speech and language programs, only 6.3 percent of the Black students entered this program prototype in School System C. The under representation in both of these programs was not significant at the .05 level, as shown in Table 13.

Table 12
 Chi Square Analysis
 Special Education Enrollment Data
 School System B

Individual Program	Special Education Percentages			Chi Square
	White	Black	Hispanic	
502.1	5.0	3.8	2.4	3.33526 ¹
502.2 speech/language	16.8	5.7	7.1	69.13180*

¹Not significant at .05 level.

*p < .05.

Table 13

Chi Square Analysis
 Special Education Enrollment Data
 School System C

Individual Program	Special Education Percentages			Chi Square
	White	Black	Hispanic	
502.2 academics	48.0	43.8	30.3	3.91507 ¹
502.2 speech/language	13.0	6.3	0	5.45579 ¹

¹Not significant at .05 level.

Analysis and Discussion

The chi square test, when applied to special education enrollment patterns, provides an approved and acceptable statistical methodology for analyzing under representation of minority students in special education. It serves as a contrast to the arbitrary mathematical formula (20 percent discrepancy between racial enrollments) currently used by the Massachusetts Department of Education, while also providing another format for analyzing disproportionate enrollment rates.

In System A, the chi square test corroborated the patterns of under representation which were found in the systemwide enrollment analysis of Objective One and showed an additional finding of under representation of Black students in 502.2 academic programs. This example of under representation, which did not appear when the total school population was used as the basis for determining disproportionality, highlights the importance of using more than one measure to analyze enrollment. Disproportionality may not appear when the total enrollment of a racial group within the system is used as a basis for determining enrollment patterns, but may appear when racial enrollment within a remedial program is used as a basis for determining disproportionate placement.

As seen in the data from Objective One, both Black and Hispanic students had a higher proportionate representation in Chapter I than their White peers. Hispanic students were also heavily enrolled in transitional bilingual education. These programs, it can be argued, may have eliminated the need for some minority students to enter spe-

cial education. This may have been true for the 502.1 special education programs where a student's progress is monitored or modifications are made to the regular education curriculum. But since the curriculum and remediation in Chapter I, TBE and the 502.2 special education programs were not similar, Chapter I programs and/or TBE may have supplanted special educational opportunities. It appears that Hispanic and Black youth, as suggested by the under representation in 502.2 academic programs, were denied equal educational opportunities.

Speech and language services had a statistically significant under enrollment of both minority groups which corroborates the findings in Objective One. It is possible that transitional bilingual education addressed some language needs of Hispanic students, thus substituting for special education. However, it appears that the linguistic differences of Hispanic students may have interfered with the proper diagnosis of their speech needs. The acknowledged shortage of bilingual and Black speech and language pathologists may be responsible for the disparity in enrollment rates in special education speech and language programs and suggests a denial of equal educational opportunities to minority youth, most dramatically in the area of speech.

The chi square analysis of School System B's enrollment rates in special education showed an area of under representation, Black students in the 502.1 programs, which was not seen in the systemwide analysis of Objective One's enrollment patterns. The appearance of under representation of Black students in the 502.1 program again

shows how a systemwide analysis does not identify all areas which need further investigation.

It may again be speculated that the participation rate of minority students in Chapter I programs and TBE may have decreased the enrollment of Black and Hispanic students in special education 502.1 programs. Since the differences in enrollment rates were relatively small (Blacks were enrolled at a 1.2 percent lower rate than White students and Hispanics were enrolled at a 2.6 percent lower rate than White students) and were not found to be statistically significant at the .05 level, the enrollment pattern will not be interpreted to suggest equal educational opportunities were denied to the minority students in School System B's 502.1 programs. However, the enrollment should be monitored to determine if any changes in the enrollment pattern occur which might suggest a denial of educational options.

The speech enrollment pattern gives strength to the finding in Objective One that either minority students received speech and language remediation in another program or a denial of equal educational opportunities was occurring. Since Chapter I did not provide speech services, it does not appear that Black students had a chance to receive speech services in another program. Thus, it again appears that Black students were denied equal educational opportunities in speech and language programs.

Hispanic students may have received some remedial help in the speech and language area through transitional bilingual education but again, as in School System A, since the design of TBE did not include

speech remediation, the provision of equal educational opportunities would appear to have been unavailable to this minority group, at least in the area of speech.

In School System C, the disproportionate entry of minority students in the 502.2 programs may, as in the other school systems, constitute a denial of equal educational opportunities or may reflect participation in TBE and Chapter I programs. Again, since Chapter I did not provide speech services, it does not appear that Black students received speech in another remedial program; thus, it appears that they were denied equal educational opportunities in the area of speech and language.

TBE may have substituted for some of the academic and language needs of the Hispanic population, thus creating disparity in White and Hispanic enrollment rates. However, since no Hispanic students received speech and language services in System C, unless the sample was not a representative one, it appears that services were not provided to Hispanic youth on an equal basis.

The under representation which is shown in the 502.2 academic programs may result, in part, from the 31.5 percent enrollment rate of Black students in Chapter I and the 31.6 percent enrollment rate of Hispanic students in TBE. Since Chapter I and TBE do not offer the extent of services found in 502.2 academic programs, it appears that within the enrollment pattern of special education, minority students do not receive equal educational opportunities. This pattern needs to be further monitored, as it was not consistent with the

systemwide total analysis which showed higher percentage rates of minority students in 502.2 programs (Table 8).

In conclusion, the chi square analysis brought attention to findings which strengthen and then go beyond an analysis of a total school population's participation rate in selected remedial programs and gave a statistical interpretation to under representation of minority students in special education. Within the identified special education population of all three systems, under representation was seen in the same programs identified by the total population analysis of Objective One. Additionally, this analysis added three findings. First, based upon enrollment in special education, Black students were under represented in the 502.2 academic program in Systems A and C. Second, based upon enrollment in special education, Black students were under represented in the 502.1 program in System B. Third, based upon enrollment in special education, Hispanic students were under represented in the 502.2 academic program in System C.

The chi square test supported the under representation which was found in the systemwide analysis of enrollment rates. It also provided new comparisons within special education by using an approved mathematical alternative to the arbitrary mathematical procedure currently used by the Massachusetts Department of Education to determine denial of equal educational opportunities to minority youth.

Objective Three

To determine if minority enrollment patterns in special education

programs were affected by minority student participation in Chapter I in elementary schools.

The data collected for this objective were enrollment figures of White, Black, and Hispanic students in Chapter I programs. In School Systems B and C, the data were collected by individual elementary school; in System A, the data were collected on a systemwide basis. These data, in combination with data from Objective One, were used for Objective Three.

In School System A, special education enrollment data from the thirty elementary schools were kept by individual program prototype, age and racial category on a systemwide basis at the central office of administration. Individual school records were not part of this central record keeping system.

As stated in the design of this study, the Director of Research and Evaluation was unable to collect all of the individual school data which were necessary for this objective. This missing data can be seen in Tables 14 and 15.

Since special education program enrollment data could not be obtained according to all of the individual prototypes, the alternative analysis--procedures for determining if special education was affected by minority student participation in Chapter I programs--presented in the design of this study was completed. The intent of Objective Three was to determine if enrollment in special education programs was affected by minority student participation in Chapter I programs at elementary schools. The available data did not give the complete repre-

Table 14

Individual Elementary School Enrollment Data
School System A
Chapter I Schools

School	Racial Group	Total Enrollment by Race	Program Enrollment Data						Chapter I	
			502.2 (academics)		502.2 (speech/language)		502.3 + 502.4		Number	Percent
			Number	Percent	Number	Percent	Number	Percent		
A-1	White	252							73	30.0
A-1	Black	121	5	4.1	3	2.5	6	5.0	46	38.0
A-1	Hispanic	153	1	.7	2	1.3	1	.7	56	36.7
A-2	White	160							51	31.9
A-2	Black	122	1	.8	7	5.7	10	8.2	57	46.7
A-2	Hispanic	14	0	0	0	0	0	0	11	78.6
A-3	White	159							33	20.8
A-3	Black	87	3	3.4	4	4.6	5	5.7	45	51.7
A-3	Hispanic	129	1	.8	5	3.9	7	5.4	50	38.8
A-4	White	41							24	58.5
A-4	Black	52	0	0	0	0	1	2.0	24	46.2
A-4	Hispanic	328	2	.1	0	0	24	7.3	208	63.4
A-5	White	196							76	38.8
A-5	Black	164	2	1.2	5	3.0	25	15.2	73	44.5
A-5	Hispanic	177	2	1.1	2	1.1	17	9.6	87	49.2
A-6	White	78							14	20.0
A-6	Black	144	0	0	0	0	8	5.6	51	35.4
A-6	Hispanic	145	0	0	1	.7	16	11.0	88	60.7

Table 14, continued

School	Racial Group	Total Enrollment by Race	Program Enrollment Data									
			502.2 (academics)		502.2 (speech/language)		502.3 + 502.4		Chapter I			
			Number	Percent	Number	Percent	Number	Percent	Number	Percent		
A-7	White	126	1	.7	1	.7	32	22.1	33	26.2		
A-7	Black	145	0	0	0	0	12	33.3	54	37.2		
A-7	Hispanic	36							6	16.7		
A-8	White	84							30	35.7		
A-8	Black	60	3	5.0	1	1.7	10	16.7	58	96.7		
A-8	Hispanic	20	0	0	1	5.0	4	20.0	11	55.0		
A-9	White	92							49	53.3		
A-9	Black	71	0	0	4	5.6	5	7.0	43	60.1		
A-9	Hispanic	183	4	2.2	5	2.7	10	5.5	81	44.3		
A-10	White	219							14	6.4		
A-10	Black	64	1	1.6	1	1.6	9	14.1	25	39.1		
A-10	Hispanic	10	0	0	1	10.0	1	10.0	2	20.0		
A-11	White	113							31	27.4		
A-11	Black	92	2	2.2	9	9.8	11	12.0	85	92.4		
A-11	Hispanic	23	1	4.3	1	4.3	2	8.7	13	56.5		
A-12	White	84							34	40.5		
A-12	Black	110	2	1.8	2	1.8	24	21.8	52	47.3		
A-12	Hispanic	226	0	0	4	1.8	29	12.8	101	44.7		
A-13	White	248							99	40.0		
A-13	Black	105	5	4.8	4	3.8	2	2.0	55	52.4		
A-13	Hispanic	50	2	40.0	1	20.0	4	80.0	28	56.0		

Table 14, continued

School	Racial Group	Total Enrollment by Race	Program Enrollment Data											
			502.2 (academics)		502.2 (speech/language)		502.3 + 502.4		Chapter 1					
			Number	Percent	Number	Percent	Number	Percent	Number	Percent				
A-14	White	239	1	.8	2	1.5	4	3.1	65	27.2				
A-14	Black	130	0	0	3	5.7	1	1.9	38	29.2				
A-14	Hispanic	53							27	50.9				
A-15	White	196	3	4.4	1	1.5	11	16.2	32	16.3				
A-15	Black	68	1	2.2	0	0	5	10.9	32	47.1				
A-15	Hispanic	46							25	54.3				
A-16	White	49	0	0	0	0	0	0	21	42.9				
A-16	Black	16	1	.2	0	0	6	1.2	10	62.5				
A-16	Hispanic	490							286	58.4				
A-17	White	303	4	2.1	5	2.6	29	15.3	94	49.7				
A-17	Black	189	3	.6	8	1.7	54	11.3	284	59.5				
A-17	Hispanic	477							110	48.2				
A-18	White	228	0	0	5	5.5	5	4.4	48	52.7				
A-18	Black	91	4	1.7	1	.4	3	1.3	145	60.7				
A-18	Hispanic	239							50	21.6				
A-19	White	231	3	2.5	6	5.1	5	4.2	58	49.2				
A-19	Black	118	0	0	5	4.9	4	3.9	37	36.3				
A-19	Hispanic	102							70	35.4				
A-20	White	198	1	1.2	1	1.2	10	12.3	45	55.6				
A-20	Black	81	2	2.3	1	1.1	10	11.4	62	70.5				
A-20	Hispanic	88												

Table 15

Individual Elementary School Enrollment Data
School System A
Non Chapter I Schools

School	Racial Group	Total Enrollment by Race	Program Enrollment Data							
			502.2 (academics)		502.2 (speech/language)		502.3 + 502.4		Chapter I	
			Number	Percent	Number	Percent	Number	Percent	Number	Percent
A-21	White	171	1	2.6	3	7.7	4	10.3		
A-21	Black	39	0	0	1	8.3	7	58.3		
A-21	Hispanic	12								
A-22	White	228	1	.6	9	5.6	6	3.7		
A-22	Black	162	0	0	0	0	1	10.0		
A-22	Hispanic	10								
A-23	White	154	3	3.0	1	1.0	10	10.0		
A-23	Black	99	0	0	0	0	16	57.1		
A-23	Hispanic	28								
A-24	White	161	8	5.6	2	1.4	27	18.8		
A-24	Black	144	0	0	0	0	19	57.6		
A-24	Hispanic	33								
A-25	White	194	0	0	6	6.2	16	16.7		
A-25	Black	96	0	0	1	10.0	5	50.0		
A-25	Hispanic	10								
A-26	White	193	3	8.1	1	2.7	15	40.5		
A-26	Black	37	0	0	0	0	9	75.0		
A-26	Hispanic	12								

sentation of individual elementary school enrollment trends. Therefore, the alternative analysis was completed using systemwide data, which included all racial groups in kindergarten through sixth grade.

Table 16 identifies enrollment patterns of Black and Hispanic students in special education and Chapter I programs. This analysis showed 309 Black students enrolled in special education at Chapter I schools and 229 students enrolled in special education at non Chapter I schools. However, when compared on a percentage basis of enrollment, 14.1 percent of Black students entered special education at Chapter I schools while 21.1 percent of Black students entered special education at non Chapter I schools.

A similar enrollment pattern emerged when the Hispanic student enrollment was analyzed at Chapter I and non Chapter I schools. In this school system, 271 Hispanic students were enrolled in special education at Chapter I schools (9.0%) and 82 Hispanic students were enrolled in special education at non Chapter I schools (46.3%).

Of the 10 elementary schools in School System B, nine had Chapter I services and one did not. The school without Chapter I was a pre-school and kindergarten combination and had only four White children in special education at the kindergarten level. Due to this small number, it was not included in the analysis. Table 17 shows the program enrollment data by race and school for the nine Chapter I elementary schools.

In School B-1, Hispanic students were consistently under represented in the 502.2 programs. Black students had no representation

Table 16
Chapter I and Special Education Program Relationships
School System A
Elementary Schools

Analysis Data	Black Students	Hispanic Students
(1) Enrollment in grades K-6	3,269	3,183
(2) Enrollment in Chapter I schools	2,184	3,006
(3) Percentage of Minority Students Enrolled in Schools with Chapter I Programs	66.8	94.4
(4) Enrollment in Non Chapter I schools	1,085	177
(5) Percentage of Minority Students Enrolled in Schools Without Chapter I Programs	33.2	5.6
(6) Enrollment in Special Education (502.2-502.4)	538	353
(7) Enrollment in Special Education (502.2-502.4) at Chapter I schools	309	271
(8) Percentage of Minority Students at Chapter I Schools Enrolled in Special Education	14.1	9.0
(9) Enrollment in Special Education (502.2-502.4) at Non Chapter I schools	229	82
(10) Percentage of Minority Students at Non Chapter I Schools Enrolled in Special Education	21.1	46.3

Table 17
Individual Elementary School Enrollment Data
School System B
Chapter I Schools

School	Racial Group	Total Enrollment by Race	Program Enrollment Data													
			502.1		502.2 (Academic)		502.2 (Speech/Lang.)		502.3		502.4		Chapter I		Total 502.1 - 502.4	
			Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
B-1	White	96	0	0	5	5.2	5	5.2	1	1.0	1	1.0	38	39.6	12	12.5
B-1	Black	15	0	0	0	0	0	0	0	0	0	0	13	86.7	0	0
B-1	Hispanic	71	0	0	3	4.2	2	2.8	6	8.5	1	1.4	64	90.1	12	16.9
B-2	White	196	1	.5	19	9.7	8	4.1	5	2.6	0	0	76	38.8	33	16.8
B-2	Black	16	0	0	3	18.8	1	6.3	0	0	0	0	11	68.8	4	25.0
B-2	Hispanic	228	1	.4	10	4.4	2	.9	4	1.8	0	0	140	61.4	17	7.5
B-3	White	260	0	0	12	8.3	8	3.1	7	2.7	19	7.3	73	28.1	48	18.5
B-3	Black	24	0	0	6	25.0	0	0	1	4.2	2	8.3	12	50.0	9	37.5
B-3	Hispanic	175	1	.4	8	3.4	3	1.3	4	1.7	20	8.4	128	53.8	36	15.1
B-4	White	238	0	0	23	13.1	6	3.4	3	1.7	0	0	59	33.7	32	18.3
B-4	Black	13	0	0	0	0	1	7.7	0	0	0	0	6	46.2	1	7.7
B-4	Hispanic	107	0	0	9	8.4	3	2.8	4	3.7	0	0	86	80.4	16	15.0
B-5	White	223	1	.4	25	11.2	10	4.5	5	2.2	5	2.2	40	17.9	46	20.6
B-5	Black	12	0	0	2	16.7	0	0	1	8.3	0	0	5	41.7	3	25.0
B-5	Hispanic	343	1	.3	14	4.1	4	1.2	3	.9	7	2.0	95	27.7	29	8.5
B-6	White	299	0	0	7	2.3	18	6.0	3	1.0	7	2.3	51	17.1	36	12.0
B-6	Black	15	0	0	0	0	1	6.7	0	0	1	6.7	2	13.3	2	13.3
B-6	Hispanic	85	0	0	1	1.2	1	1.2	4	4.7	5	5.9	56	65.9	11	13.0
B-7	White	103	1	1.0	13	12.6	15	14.6	1	1.0	1	1.0	52	50.1	31	30.1
B-7	Black	4	0	0	0	0	0	0	0	0	0	0	1	25.0	0	0
B-7	Hispanic	180	0	0	9	5.0	4	2.2	2	1.1	0	0	133	73.9	15	8.3
B-8	White	64	0	0	3	4.7	6	9.4	0	0	0	0	24	37.5	9	14.1
B-8	Black	9	0	0	1	11.1	0	0	0	0	0	0	6	66.7	1	11.1
B-8	Hispanic	205	2	1.0	11	5.7	2	1.0	2	1.0	0	0	120	58.5	17	8.3
B-9	White	209	4	1.9	12	5.7	9	4.3	2	1.0	6	2.9	75	35.9	33	15.8
B-9	Black	16	1	6.3	0	0	0	0	0	0	0	0	3	18.8	1	6.3
B-9	Hispanic	139	1	.7	4	2.9	0	0	2	1.4	7	5.0	107	77.0	14	10.1

in any special education programs. Chapter I services were used by minority students at more than twice the rate as the White students. Hispanic and Black students in School B-2 had an opposite enrollment pattern in 502.2 when compared to the White rates; Hispanic students were consistently under represented and Black students were over represented. Both minority groups were under represented in 502.3 and enrolled in Chapter I at almost twice the rate of White students. In School B-3, the enrollment rates in special education fluctuated and no racial group showed a consistent pattern of under or over representation. Again, Chapter I appeared to be a minority majority program; Black and Hispanic students were enrolled at almost twice the rate of White students.

Although the number of Black students in School B-4 (N = 13) made it hard to identify enrollment trends, the pattern showed similar Chapter I enrollment rates between Black and White students and an under representation of both Black and Hispanic students, when contrasted with Whites, in total special education. Chapter I was heavily utilized by Hispanic youngsters (80.4%).

In all special education programs in which Black students were enrolled in School B-5, they were enrolled at a greater rate than both other racial groups. Hispanic students were under represented in all special education programs and were enrolled in Chapter I at about two-thirds the rate of Black students. In School B-6, the minority students were, with the exception of Black students in speech/language, under represented in the lower prototypes (502.1 and 502.2) and

generally over represented in the more restrictive prototypes (502.3 and 502.4). Hispanic students represented the majority of students in Chapter I and were enrolled at a rate of 65.9 percent. Since only one of the four Black students in School B-7 was enrolled in special education, a trend of enrollment patterns cannot be determined for Black students. However, there was considerable under representation of Hispanic students in special education (8.3%) and over representation in Chapter I (73.9%).

School B-8 had varying degrees of over and under representation of minority students in remedial education. Both minority groups were under represented in special education in 502.2 speech/language programs and over represented in Chapter I. The pattern which emerged in School B-9 was under representation of both minority groups in 502.2 special education programs. Chapter I enrollment rates showed an under representation of Black students (18.8%) and an over representation of Hispanic students (77.0%) as compared to White enrollment rates (35.9%).

There were six elementary schools in School System C, of which four had Chapter I programs. Table 18 shows program enrollment data by race, by school, by program for all Chapter I schools. Table 19 shows the same data for the non Chapter I schools.

In School C-1, minority students were under represented only in the 502.2 speech/language program. In Chapter I, Hispanic students were represented at half the rate of the White students. In School C-2, Hispanic students were under represented in 502.2 academic and

502.2 speech/language. Black students were only enrolled in the 502.3 program. Chapter I enrollment rates of Black and Hispanic students exceeded the enrollment rate of White students. All Black students at C-2 were enrolled in the Chapter I program.

School C-3 had an under representation of Black students in 502.1, 502.2 academic, 502.3, and 502.4. There were no Hispanic students in this school. The Chapter I enrollment rate of Black students was more than twice the rate of White students enrolled in the program. In School C-4, Black students were under represented in 502.1, 502.2 academic, 502.3, and 502.4, but over represented in Chapter I programs. No Hispanic students were in special education or in Chapter I programs.

In Schools C-5 and C-6, without Chapter I services, there was an under representation of Black students in 502.1, 502.2 speech/language and 502.3. Hispanic students did not enter any programs in special education at either school.

Analysis and Discussion

Table 4 showed that 21.9 percent of Black students entered Chapter I programs in School System A. When this enrollment percentage of Chapter I participation is viewed in conjunction with the special education enrollment of Black students in Chapter I schools (14.1%), total participation of Black students in remedial programs was 36 percent. This can be contrasted with the enrollment rate of Black students in special education at non Chapter I schools, 21.1 percent.

It must be noted that some Chapter I students may also be in special education; however, this dual enrollment is reported by Chapter I directors and administrators of special education to be minimal.

The seven percent decrease in special education enrollment of Black students at Chapter I schools as contrasted with Black students in special education at non Chapter I schools appears to be connected to the 21.9 percent enrollment rate of Black students in Chapter I programs. If the Chapter I programs were addressing their goal of meeting academic needs of children educationally deprived due to low socioeconomic status, poor prenatal care, or limited educational exposure, and schools were designated as Chapter I schools based upon a greater educational need of their population, then it would be expected that more students would receive remedial help at Chapter I schools than non Chapter I schools. However, when the special education enrollment at non Chapter I schools is greater than that at Chapter I schools, this remedial program appears to be supplanting special education. Equal educational opportunities appear to be denied to Black youth in special education at Chapter I schools.

This systemwide analysis does not allow comparisons to be made within the special education prototypes at Chapter I schools to corroborate the suggestion made in the analysis of data in Objective One that Chapter I programs may substitute for necessary special education services (502.2 academic) and create an unnecessary dependence on the more comprehensive prototype placements (502.3 and 502.4). Individual school data are necessary before this suggestion can be corroborated.

The enrollment of Hispanic students in special education at non Chapter I schools was more than five times the enrollment rate at Chapter I schools. Enrollment data from Table 4 showed 38.8 percent of Hispanic students at Chapter I schools entered Chapter I programs. When this enrollment percentage of Chapter I participation is viewed in conjunction with the special education enrollment of Hispanic students at Chapter I schools (9.0%), total participation of Hispanic students in remedial education at Chapter I schools was 47.8 percent. This can be contrasted with the enrollment rate of Hispanic students in special education at non Chapter I schools, 46.3 percent. These similar total enrollment rates in remedial programs suggest that Chapter I programs are either preventing some student placements in special education or supplanting special education services.

Again, although there may be students in both remedial programs included in the combined total, the reported 1.5 percent difference in remedial program enrollment percentages between Chapter I and non Chapter I schools could be attributed to a greater educational need of Hispanic students at Chapter I schools, as previously discussed. However, the concern that must be stated is, Why are so many Hispanic students in Chapter I programs rather than special education? Is Chapter I supplanting special education or preventing a need for it? The enrollment percentages suggest Chapter I is supplanting some special educational placements. Therefore, it appears that educational opportunities in special education were denied to some Hispanic students.

Upon further inquiry into the design of Chapter I programs in System A, a new concern was raised. Chapter I programs provided instruction only in English, although 43 percent of the children enrolled in the program were Hispanic. The exclusive use of English as the language of instruction suggests that access to Chapter I depended upon fluency in English. Therefore, if an Hispanic student was not fluent in English, it appears that he/she either could not enter Chapter I or participated with a disadvantage due to linguistic differences. Both situations would constitute a denial of equal educational opportunities in School System A's Chapter I programs and raise more concern about the disparate special education enrollment rates just discussed.

The sample size of Black students for System B was small (124). In some Chapter I programs, Black students received more services than White peers and in other programs less. Strong statements about enrollment trends would be spurious. However, it did not appear that the participation of Black students in Chapter I programs caused any particular pattern to emerge in special education placement decisions.

Hispanic students were the majority group in Chapter I and were enrolled at individual schools at a rate of one and one-half to over three times the rate of their White counterparts. Chapter I with some Spanish instruction was the foremost remedial service utilized by Hispanic students. This utilization of Chapter I appears to be responsible, in part, for the under enrollment of Hispanic students in 502.2 (academics), which occurred at all schools excluding B-8.

Under representation in special education may have occurred because students were participating in Chapter I programs. This participation may also be responsible for some of the over enrollment in 502.3 and 502.4 special education programs. These enrollment patterns can only suggest that Hispanic students enter and remain in Chapter I rather than entering special education 502.2 programs. It can be speculated that for some Hispanic students their participation in Chapter I programs rather than special education 502.2 may result in the need for more comprehensive special education services (502.3 or 502.4), thus creating an over representation of Hispanic students in these programs. Educational opportunities appear to be unequal between Hispanic and White students in special education.

Chapter I programs, with their reading and math instruction, did not affect enrollment in 502.2 speech/language programs as speech/language remediation was not a Chapter I service. A lack of bilingual (Spanish/English) speech pathologists was acknowledged by System B and believed to be a significant reason for the under representation of Hispanic students in 502.2 speech programs.

As previously stated, the numbers of Black students in this system precluded generalizations. However, since Black students were, at times, enrolled in speech and language programs at individual schools at a rate higher than White students, it can be suggested that the denial of speech services which appears to occur in the Hispanic population is caused by the lack of pathologists who can identify and remediate speech needs rather than blatant discrimina-

tion against minority students.

Due to the small sample size of minority children in the elementary schools of School System C (Black = 40, Hispanic = 97), this analysis of Chapter I was made cautiously and tried to locate trends or patterns which were occurring in the system. Minority students were, percentage-wise, always the majority of students in Chapter I. Of the four Chapter I schools, three schools had both Hispanic and Black students. In the one exception, C-2, all Black students were enrolled in Chapter I programs. At all Chapter I schools, Hispanic elementary students were enrolled in Chapter I at a lower rate than Black students, but the combined enrollment of minority students in Chapter I was always higher than that of White students. This greater enrollment rate in Chapter I of minority students may have been responsible for the lack of participation of minority students, particularly Hispanic, in some special education programs. To determine if this were true, Schools C-1 and C-2 with the largest minority enrollment of all schools, were analyzed further to see if any other enrollment pattern existed which showed any relationship between Chapter I and special education enrollments for minority students. However, no pattern emerged.

As in School System A, the language of instruction may have presented a barrier to Hispanic students and prevented them from entering Chapter I programs. Since the only remedial program which offered remediation in Spanish was special education 502.4 programs at C-2, and this program had an over representation of Hispanic students, it

appears that equal educational opportunities may have been denied in Chapter I and provided through special education to some youth who needed Spanish instruction.

In conclusion, Chapter I programs were not equally available to Hispanic youth in Systems A and C as services were not provided in Spanish. Equal educational opportunities were, therefore, not provided.

It appears that Chapter I may be a substitute for some special education services as well as supplanting others. Further investigations into the services of Chapter I and special education programs and the placement practices of administrators and teachers especially in respect to race, may determine if the under representation of minority students in some special education programs (502.1 or 502.2 academic) and over representation of minority students in 502.3 or 502.4 programs indicates a denial of equal educational opportunities. The enrollment patterns suggest this to be true.

Objective Four

To determine if minority enrollment patterns in special education programs were affected by minority student participation in transitional bilingual education in elementary schools.

The data which were collected for this objective included the number of Hispanic surnamed students at each elementary school and the number of Hispanic surnamed children who were in TBE at these elementary schools. Enrollment figures were translated into percen-

tages to determine the percentage of Hispanic students who were enrolled in TBE at the elementary level.

The enrollment data for transitional bilingual education was kept by the thirty elementary schools in System A. Table 20 shows the enrollment number and percentage enrollment rate of Hispanic students in the fourteen schools with bilingual education programs. Table 21 shows the number of Hispanic students in the sixteen schools with no transitional bilingual education programs.

Transitional bilingual education was primarily offered at schools with over 100 Hispanic students. There were three exceptions, Schools A-10, A-17, and A-30, with respective enrollments of 25, 50, and 88 students. The non transitional bilingual schools had Hispanic enrollments lower than 50, with the exception of A-18 with 53 students.

As in Objective Three, the intent of this objective was to determine if special education enrollment figures were affected by the participation of minority students in another remedial program, in this case, transitional bilingual education. Since the elementary school data for special education in this system were not complete, again, a systemwide analysis was conducted. These data represent grades kindergarten through six and appear in Table 22.

Of the 3,183 Hispanic students in grades K-6, 2,812 were enrolled at schools with transitional bilingual education and 371 were at schools where transitional bilingual education was not available. Hispanic students were enrolled in special education at transitional bilingual education schools at a rate of 8.6 percent. When transi-

Table 20
 Hispanic Elementary School Data
 School System A
 Transitional Bilingual Education Schools

School	Number of Hispanic Students	Number of Hispanic Students in TBE	Percent of Enrollment
A-1	153	68	44.4
A-4	129	36	27.9
A-5	328	78	23.8
A-6	177	55	31.1
A-8	145	84	57.9
A-10	25	9	36.0
A-12	183	80	43.7
A-16	226	121	53.5
A-17	50	17	34.0
A-20	490	142	29.0
A-23	477	65	13.6
A-24	239	59	24.7
A-26	102	30	29.4
A-30	88	24	27.3

Table 21
Hispanic Elementary School Data
School System A
Non Transitional Bilingual Education Students

School	Hispanic Students
A-2	14
A-3	12
A-7	10
A-9	36
A-11	28
A-13	33
A-14	10
A-15	35
A-18	53
A-19	46
A-21	10
A-22	12
A-25	8
A-27	10
A-28	23
A-21	31

Table 22
 Transitional Bilingual Education and
 Special Education Program Relationships
 School System A
 Elementary Transitional Bilingual Education Data

	Hispanic Students
(1) Enrollment in Grades K-6	3,183
(2) Enrollment in TBE Schools	2,812
(3) Percentage of Hispanic Students Enrolled in Schools with TBE	88.3
(4) Enrollment in Non TBE Schools	371
(5) Percentage of Hispanic Students Enrolled in Schools without TBE	11.7
(6) Enrollment in Special Education (502.2-502.4)	353
(7) Enrollment in Special Education (502.2-502.4) in TBE Schools	243
(8) Percentage of Minority Students in TBE Schools Enrolled in Special Education	8.6
(9) Enrollment in Special Education at Non TBE Schools	110
(10) Percentage of Minority Students at Non TBE Schools Enrolled in Special Education	29.6

tional bilingual programs were not available, Hispanic students entered special education programs at a percentage rate of 29.6 percent.

Six of the nine elementary schools in School System B had transitional bilingual education programs. Enrollment rates of Hispanic students in these programs ranged from 33.0 to 75.1 percent (Table 23). Enrollment rates in 502.2 academic special education programs at TBE schools were similar and averaged about four percent, while the rates at the non TBE schools varied from 1.2 to 8.4 percent (Table 24). The enrollment patterns in speech/language programs at non TBE schools varied, but the average (2.2%) was higher than the average enrollment at TBE schools (1.1%). Enrollment rates in 502.3 special education programs at TBE schools were about one percent. The three schools without TBE had 502.3 program enrollment rates of 3.7 to 8.5 percent, noticeably higher than those at TBE schools. No specific trends appeared in 502.4 programs. Enrollment rates varied at all schools.

The six elementary schools in System C were separated into two groups--those which had transitional bilingual education and those which did not. Only one school had a transitional bilingual education program. The enrollment pattern in special education at the school with transitional bilingual education is shown in Table 25. Enrollment patterns at the non transitional bilingual schools are shown in Table 26.

Three schools, C-1, C-2, and C-6, in this system had 20 or more Hispanic students enrolled, yet only C-2 had transitional bilingual

Table 23
 Individual Elementary School Program Enrollment Data
 School System B
 Transitional Bilingual Education Schools

School	Racial Group	Total Enrollment by Race	Program Enrollment Data											
			502.1		502.2 (Academic)		502.2 (Speech/Lang.)		502.3		502.4		TBE	
			Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
B-2	White	196	1	.5	19	9.7	8	4.1	5	2.6	0	0	0	0
B-2	Black	16	0	0	3	18.8	1	6.3	0	0	0	0	0	0
B-2	Hispanic	228	1	.4	10	4.4	2	.9	4	1.8	0	0	135	59.2
B-3	White	260	0	0	12	8.3	8	3.1	7	2.7	19	7.3	0	0
B-3	Black	24	0	0	6	25.0	0	0	1	4.2	2	8.3	0	0
B-3	Hispanic	238	1	.4	8	3.4	3	1.3	4	1.7	20	8.4	110	46.2
B-5	White	223	1	.4	25	11.2	10	4.5	5	2.2	5	2.2	0	0
B-5	Black	12	0	0	2	16.7	0	0	1	8.3	0	0	0	0
B-5	Hispanic	343	1	.3	14	4.1	4	1.2	3	.9	7	2.0	113	33.0
B-7	White	103	1	1.0	13	12.6	15	14.6	1	1.0	1	1.0	0	0
B-7	Black	4	0	0	0	0	0	0	0	0	0	0	0	0
B-7	Hispanic	180	0	0	9	5.0	4	2.2	2	1.1	0	0	134	74.4
B-8	White	64	0	0	3	4.7	6	9.4	0	0	0	0	0	0
B-8	Black	9	0	0	1	11.1	0	0	0	0	0	0	0	0
B-8	Hispanic	205	2	1.0	11	5.7	2	1.0	2	1.0	0	0	154	75.1
B-9	White	209	4	1.9	12	5.7	9	4.3	2	1.0	6	2.9	0	0
B-9	Black	16	1	6.3	0	0	0	0	0	0	0	0	0	0
B-9	Hispanic	139	1	.7	4	2.9	0	0	2	1.4	7	5.0	80	57.6

Table 24
 Individual Elementary School Program Enrollment Data
 School System B
 Non Transitional Bilingual Education Schools

School	Racial Group	Total Enrollment by Race	Program Enrollment Data											
			502.1		502.2 (Academic)		502.2 (Speech/Lang.)		502.3		502.4		TBE	
			Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
B-1	White	96	0	0	5	5.2	5	5.2	1	1.0	1	1.0	0	0
B-1	Black	15	0	0	0	0	0	0	0	0	0	0	0	0
B-1	Hispanic	71	0	0	3	4.2	2	2.8	6	8.5	1	1.4	0	0
B-4	White	175	0	0	23	13.1	6	3.4	3	1.7	0	0	0	0
B-4	Black	13	0	0	0	0	1	7.7	0	0	0	0	0	0
B-4	Hispanic	107	0	0	9	8.4	3	2.8	4	3.7	0	0	0	0
B-6	White	299	1	.3	7	2.3	18	6.0	3	1.0	7	2.3	0	0
B-6	Black	15	0	0	0	0	1	6.7	0	0	1	6.7	0	0
B-6	Hispanic	85	0	0	1	1.2	1	1.2	4	4.7	5	5.9	0	0

Table 25
 Individual Elementary School Enrollment Data
 School System C
 Transitional Bilingual Education Schools

School	Racial Group	Total Enrollment by Race	Program Enrollment Data											
			502.1	502.2 (Academic)	502.2 (Speech/Lang.)	502.3	502.4	TBE						
			Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent		
C-2	White	444	6	1.4	36	8.1	13	2.9	11	2.5	24	5.4	0	0
C-2	Black	20	0	0	0	0	0	0	2	10.0	0	0	0	0
C-2	Hispanic	45	3	6.7	3	6.7	0	0	2	4.4	4	8.8	21	46.7

education. Almost half of the Hispanic students in C-2 were enrolled in TBE. Schools C-3, C-4, C-5 and C-6 had no Hispanic students in any special education program. School C-1, a non TBE school, had 28.6 percent of its students in special education and C-2, the TBE school, had 26.6 percent.

Analysis and Discussion

It appeared that when TBE did not exist in System A, many Hispanic students, perhaps due to a lack of program options, entered special education. Since the percentage of Hispanic students in special education at non TBE schools was more than three times that of Hispanic students at TBE schools, TBE appeared to substitute for special education. This could be viewed as a viable placement option for Hispanic students if the services in TBE and special education were similar. However, although TBE had some remedial and/or compensatory services within its structure, it is unlikely that these compared with the remedial aid available in special education.

The acknowledged shortage of bilingual special education teachers and speech pathologists in this city and the lack of Spanish Chapter I programs may have resulted in students with limited English skills remaining in TBE rather than moving into special education for remedial help. This inappropriate reliance on TBE might have lowered the enrollment rates in special education at TBE schools. Therefore, it can be suggested that the existence of transitional bilingual education programs decreased the enrollment rate in special education in

this system because of staffing rather than educational reasons. Equal educational opportunities do not appear to have been provided.

In School System B enrollment suggested that TBE decreased the need at some schools for educational services such as 502.2 academics or, possibly, 502.2 speech/language programs by providing remedial help within the TBE structure. If TBE provided this help, it would then be expected that the enrollment rate of students in 502.2 programs at non TBE schools would be greater than the enrollment in 502.2 programs at TBE schools. However, In System B, in only one of the three non TBE schools (B-4) was the 502.2 academic enrollment rate significantly higher (8.4%) than that at TBE schools. However, it must be noted that at these non TBE schools, the enrollment rate in 502.3 programs ranged from 3.7 to 8.5 percent, while at the TBE schools these rates were about one percent. These findings suggest that without transitional bilingual services, Hispanic students may eventually be placed in a 502.3 program, one of the more comprehensive special education placements. This may indicate a denial of 502.2 academic special education services or may indicate the result of non participation in TBE. If TBE was truly unavailable to the students and they entered special education 502.3 programs due to language barriers or lack of previous special education interventions, then equal educational opportunities appear to have been denied in special education and in TBE.

In the 502.2 speech/language program, Hispanic enrollment rates were higher (2.8%, 2.8%, 1.2%), on the average, at non TBE schools

than at TBE schools (.9%, 1.3%, 1.2%, 2.2%, 1.0%, 0%). Since the percentage difference between the average was small (1.1%), it appears that some speech/language needs of Hispanic students may have been met in TBE, thus creating the appearance of a denial of equal educational opportunities in special education.

After analyzing both the 502.2 and the 502.3 enrollment rates, it appeared that the availability and utilization of TBE decreased the participation of Hispanic students in 502.3 programs and perhaps slightly decreased enrollment in some 502.2 programs. In School System B, educational opportunities do not appear to have been denied to Hispanic youth in special education but may have been delayed, thus creating a need for 502.3 rather than 502.2 placements or opportunities to participate in TBE may have not been equally available to all Hispanic youth.

Since only two schools in School System C, C-1 (non TBE) and C-2 (TBE), had Hispanic students in special education, a comparison of these two schools was completed. The enrollment patterns suggested that special education needs of Hispanic children were identified at similar rates (C-1, 28.6%; C-2, 26.6%) but the special education programs which served the students were different. At C-2, the TBE school, a lower percentage (502.2 academic, 6.7%; 502.3, 4.4%) of students were enrolled in the 502.2 academic and 502.3 program than at the non TBE school, C-1 (502.2 academic, 14.3%; 502.3, 14.3%). It appears that the participation of Hispanic students in TBE decreased the enrollment rate of Hispanic students in the 502.2 academic and

502.3 special education program, thus creating an appearance of a denial of equal educational opportunities. Again, as in the other systems, there may be a denial of equal educational opportunities occurring in TBE and creating disproportionate placement in special education. Since no Hispanic students entered the special education speech/language program at any school in System C, it appears that equal educational opportunities were not available to this population.

In all three school systems, special education enrollment in some programs decreased by the participation of Hispanic students in TBE. The 502.2 academic and 502.3 programs both appeared to have decreased Hispanic enrollment when TBE was available, but this trend varied among individual schools. Enrollment patterns suggested that if TBE did not provide educational services, special education enrollment increased. It appears that a lack of TBE services may create disproportionate placement patterns in special education and be a denial of equal educational opportunities.

Objective Five

To determine if differences in enrollment patterns in remedial programs indicated that minority students were denied participation in programs designed to provide equal educational opportunities.

All of the data which were collected for the previous four objectives were used in this summative objective. The data are again presented to provide a more comprehensive view of enrollment patterns in remedial education.

The major intention of Objective Five was to look at enrollment rates from special education, transitional bilingual education, and Chapter I programs as remedial educational opportunities which were available to all students who needed them. It was considered that these various remedial programs may have provided educational opportunities similar to one another, or that one program may have served as a substitute for remedial services provided in another program. The individual analyses which have been conducted in Objectives One, Two, Three, and Four emphasized the importance of not relying on enrollment numbers in any one program as an indication that equal educational opportunities were being provided or denied to any student group.

These data showed how enrollment patterns when studied in isolation could be deceptive and cause erroneous decisions to be made about the provision of equal educational opportunities to minority youth. Specific examples of this follow.

In School System A, 11.3 percent of Black, 9 percent of Hispanic, and 9.2 percent of White students entered special education. However, when compared with White student enrollment percentages in 502.2 programs, (speech/language, 2.2%; 502.2, 1.3%), Black students were under represented in the speech/language program (1.3%) and Hispanic students were under represented in both speech/language (.9%) and academics (.6%). Over twenty percent (20.7%) of Hispanic students entered TBE and minority students entered the Chapter I program (Black 21.9%; Hispanic, 38.8%) at almost two to three times the rate of White

students (13.1%). Table 27 shows a comparison of all racial groups in remedial education.

In School System B, 16.8 percent of Black, 10.4 percent of Hispanic and 11.4 percent of White students entered special education. However, when compared with White student enrollment percentages in 502.2 programs (speech/language, 2.2%; academics, 5.4%), Black students were under represented in speech/language (1.1%) and Hispanic students were under represented in speech/language (.8%) and academics (4.0%). Over twenty-nine percent (29.2%) of Hispanic students entered TBE and minority students entered the Chapter I program (Black, 21.5%; Hispanic, 37.4%) at almost two to three times the rate of White students (12.4%). Table 28 shows a comparison of all racial groups in remedial education.

In School System C, 21.9 percent of Black students, 23.5 percent of Hispanic, and 13.2 percent of White students entered special education. However, when compared with the White student enrollment percentage in the 502.2 speech/language special education program (1.9%), Black students were under represented (1.4%). No Hispanic students were enrolled in the speech/language program. Over thirty percent (31.6%) of Hispanic students entered TBE and minority students (Black, 31.5%; Hispanic, 9.6%) entered the Chapter I program at a higher percentage rate than White peers (8.1%). Table 29 shows a comparison of all racial groups in remedial education.

Table 27
 Comparison of Remedial Education Programs
 School System A

Program	Enrollment Percentage		
	White	Black	Hispanic
Special Education	9.2	11.3	9.0
TBE	0	0	20.7
Chapter I	13.1	21.9	38.8
502.2 academic	1.3	1.4	.6
502.2 speech/language	2.2	1.3	.9
502.2 academic and Chapter I	14.4	23.3	39.4
502.2 academic, Chapter I and TBE	14.4	23.3	60.1

Table 28
 Comparison of Remedial Education Programs
 School System B

Program	Enrollment Percentage		
	White	Black	Hispanic
Special Education	11.4	16.8	10.4
TBE	0	0	29.2
Chapter I	12.4	21.5	37.4
502.2 academic	5.4	9.5	4.0
502.2 speech/language	2.2	1.1	.8
502.2 academic and Chapter I	17.8	31.0	41.4
502.2 academic, Chapter I and TBE	17.8	31.0	70.6

Table 29
 Comparison of Remedial Education Programs
 School System C

Program	Enrollment Percentage		
	White	Black	Hispanic
Special Education	13.2	21.9	23.5
TBE	0	0	31.6
Chapter I	8.1	31.5	9.6
502.2 academic	6.8	9.6	7.4
502.2 speech/language	1.9	1.4	0
502.2 academic and Chapter I	14.9	41.1	17.0
502.2 academic, Chapter I and TBE	14.9	41.1	48.6

Analysis and Discussion

In School System A, the enrollment rate of minority students in remedial education was similar to or greater than that of White students when all enrollment was examined. However, when programs within a remedial program were analyzed, specifically the 502.2 special education programs, different enrollment patterns emerged. The underrepresentation of Black students in speech/language and Hispanic students in 502.2 speech/language and academic programs appeared to be a denial of equal educational opportunities to some minority youth. It can be suggested that the participation of Black students in Chapter I programs and Hispanic students in transitional bilingual education and Chapter I programs, contributed to this underrepresentation of minority students in special education. Chapter I and TBE may have substituted for or prevented the remedial services of special education 502.2 programs; if this were true, equal educational opportunities were not denied.

However, since Chapter I programs were taught only in English, equal educational opportunities were provided only to those Hispanic students who were proficient in English. Hispanic students with limited English proficiency, it appears, were either excluded from Chapter I programs or entered inappropriately. Therefore, the lack of Spanish instruction in Chapter I programs appears to be a denial of equal educational opportunities to some Hispanic youth and may result in questionable placements in special education.

Participation of Hispanic students in transitional bilingual

education may explain, in part, the under representation of Hispanic students in 502.2 academic special education programs. It has also been suggested that when TBE is unavailable, special education enrollment is increased. Therefore, a denial of equal educational opportunities may occur when TBE is not available, thus creating an over reliance and representation of students in special education 502.3 and 502.4 programs. The combination of Chapter I instruction solely in English, a shortage of bilingual teachers and speech pathologists in special education as stated in Objective Four, and an over representation of Hispanic students in special education when TBE does not exist, suggests that although Hispanic students receive a high percentage of remedial services, these services may not be meeting the real needs of the students. Equal educational opportunities do not appear to be provided.

Both minority groups were under represented in the speech/language programs in special education. As previously stated, TBE may have provided some speech/language remediation to Hispanic students, thus slightly decreasing their enrollment in 502.2 speech/language programs. Since Chapter I programs neither provided speech/language services nor were offered in Spanish, the participation of Black and Hispanic youth in Chapter I would not legitimately decrease enrollment in speech/language special education programs. It appears that equal educational opportunities in the area of speech/language remediation were not available to minority students.

The enrollment rate of minority students in remedial education

in School System B was similar to or greater than that of White students when the total percentage of enrollment was examined. However, when programs within a remedial program were analyzed, specifically 502.2 special education programs, different enrollment patterns emerged. The systemwide under representation of Black and Hispanic students in speech/language, Hispanic students in 502.2 academic programs and Black students in 502.2 academic programs at some schools, at first, appeared to be a denial of equal educational opportunities to minority youth.

Upon further investigation at individual schools, it can be suggested that Black and Hispanic student participation in Chapter I programs contributed to the under representation of minority students in some special education programs. Chapter I, with its Spanish and English instruction, may have been a substitute, at times, for special education. In this situation, it appears that equal educational opportunities in special education may not have been denied to minority students but provided in another remedial program, Chapter I.

However, if Chapter I programs delayed appropriate services provided in special education, educational opportunities may have been denied and resulted in a greater need for minority placement in 502.3 and 502.4 programs. As discussed in the analysis of Objective Four, enrollment of Hispanic students in 502.2 academic programs did not appear to be decreased by TBE. However, although the systemwide analysis (Objective One) showed an over representation of Hispanic students in 502.3 programs, the individual school analysis (Objective

Four) of TBE and its relationship to special education suggested that TBE may have decreased Hispanic student participation in 502.3 special education programs. The combined participation of Hispanic students in 502.2 academic and 502.3 special education, in TBE, and in Spanish instructed Chapter I programs appeared to provide them with equal educational opportunities in academic areas. However, when TBE was not available, special education enrollment appeared to increase in some areas. This situation suggests that a denial of equal educational opportunities may occur in TBE rather than special education.

Both minority groups were under represented in the 502.2 speech/language program. Chapter I programs were not designed to provide speech/language remediation, therefore the participation of minority students in Chapter I programs did not appear responsible for under representation of minority students in 502.2 speech/language. There is a possibility that some Hispanic students received speech/language aid in transitional bilingual education, thus contributing to the discriminatory appearance of their under representation in speech. However, it is also possible, due to a lack of bilingual speech pathologists, that if TBE was used for speech/language remediation it was so used due to a lack of other remedial options. Therefore, it appears that equal educational opportunities in the area of speech/language remediation were not provided to Black or Hispanic students in System B and it is inconclusive as to whether Hispanic students received equal educational opportunities in the language area.

In School System C, the enrollment rate of minority students in

special education was similar to or greater than that of White students when the total percentage of enrollment was examined. However, when individual programs within special education were analyzed, specifically 502.2 special education programs, different enrollment patterns emerged.

The examination of actual enrollment rates in special education and enrollment percentages of each racial group within each program (Table 13) showed an under representation of Black and Hispanic students in 502.2 academic programs in addition to the under representation which had been seen in 502.2 speech/language programs (Table 2). These patterns gave the appearance that equal educational opportunities were denied to some minority youth.

Upon further investigation, it was suggested that Black student participation in Chapter I, as seen in the individual school analysis (Objective Three) did not appear to affect enrollment in special education 502.2 academic programs in any consistent way. Equal educational opportunities in academic areas do not appear to have been denied.

The participation of Hispanic students in Chapter I programs and TBE at individual schools did not explain the under representation which was found in the 502.2 academic program analysis in Objective Two and suggests a denial of equal educational opportunities. Furthermore, since Chapter I programs were provided only with English instruction, students whose dominant language was Spanish were denied educational opportunities provided by Chapter I.

Black students were under represented and Hispanic students had no representation in the 502.2 speech/language program (Table 8). Since Chapter I did not provide speech instruction, the participation of minority students in this program would not be expected to decrease enrollment in the 502.2 speech/language program. Therefore, it appears that Black and Hispanic students in System C were denied equal educational opportunities in the area of speech/language. This statement is made cautiously since the small number of Black students may provide misleading information. The needs of this particular sample may not be representative of the Black population.

It appeared that Black students in this community received a relatively high percentage of remedial services. However, the small sample size of Black students makes it difficult to state that equal educational opportunities were available to Black students or that discrimination, as suggested in some enrollment patterns, existed. Hispanic students accessed TBE, Chapter I programs, and special education, but not always at the rate which would have been expected when compared to other racial groups.

In all three systems, minority students received more remedial services than their White counterparts. However, the language in which programs were offered appeared to have a significant effect on the placement decisions which were made and may have contributed to a denial of equal educational opportunities, not only in special education but in the remedial programs of Chapter I and TBE.

Additional Findings

While collecting the information that was needed to answer the research objectives, the following additional data were gathered. Although they did not directly address any of the research objectives which were posed, they had a correlation with the main concern of this dissertation.

The present study was concerned with the access of racial minority students, specifically Black and Hispanic students, to remedial education. Another student group that is often treated as a minority and discriminated against is females. Therefore, data about access for females in remedial programs were analyzed to see if there were any trends which suggested unequal educational opportunities for females in special education.

Tables 30, 31, and 32 show the pattern of male and female enrollments in four special education programs: the 502.1, 502.2 total, 502.3 and 502.4 programs. Gender information had been collected by age for the elementary school population in School System A, and by the elementary and secondary school populations in School Systems B and C. The results are very similar in all three systems. Although there are a few exceptions, females were outnumbered in the individual programs by their male counterparts. When the total number of girls and boys in each prototype was analyzed, there was a consistent boy:girl ratio of 2:1 and at times 3:1. With the exception of the 502.1 program in School System B, the 3:1 ratios were found in the more

Table 30
Systemwide Special Education Data
Gender and Age
School System A

Age	Program Enrollment Data							
	502.1		502.2		502.3		502.4	
	Male	Female	Male	Female	Male	Female	Male	Female
5	1	0	26	9	1	0	30	9
6	2	0	50	18	2	4	33	15
7	1	0	48	18	26	9	42	18
8	1	0	64	38	41	15	53	14
9	0	3	45	39	54	28	53	21
10	0	1	50	22	57	36	54	15
11	3	2	27	15	51	38	61	21
12	1	0	28	16	77	37	61	16
13	5	1	25	4	58	33	24	19
14	3	1	10	8	61	37	25	7
Subtotal	17	8	373	187	428	239	436	155
Total	25		560		665		591	
Percentage	68.0	32.0	66.7	33.3	64.4	35.6	73.8	26.2

Table 31
Systemwide Special Education Data
Gender and Age
School System B

Age	Program Enrollment Data							
	502.1		502.2		502.3		502.4	
	Male	Female	Male	Female	Male	Female	Male	Female
5	0	0	16	6	0	0	6	3
6	0	1	25	20	0	3	15	1
7	7	1	41	14	11	4	4	4
8	0	1	31	29	14	4	6	1
9	2	3	31	26	18	4	3	1
10	1	0	32	14	6	2	7	3
11	3	0	23	8	6	5	4	1
12	3	1	24	6	6	2	5	3
13	2	0	6	4	6	3	8	1
14	2	0	12	5	2	1	4	4
15	2	0	20	10	10	6	7	3
16	3	1	16	3	9	4	10	7
17	1	0	10	5	5	2	5	1
18	1	0	3	1	1	1	2	0
19	0	0	1	0	0	0	1	2
20	0	0	1	0	0	0	1	0
21	0	0	1	0	0	0	2	2
Subtotal	27	8	294	151	94	41	90	37
Total	35		445		135		127	
Percentage	77.1	22.9	66.1	34.0	70.0	30.0	70.1	29.1

Table 32
 Systemwide Special Education Data
 Gender and Age
 School System C

Age	Program Enrollment Data							
	502.1		502.2		502.3		502.4	
	Male	Female	Male	Female	Male	Female	Male	Female
5	0	1	2	2	3	0	3	2
6	1	0	11	11	2	0	2	2
7	3	1	26	23	4	1	6	4
8	1	2	20	6	6	0	5	1
9	2	0	22	9	6	4	5	0
10	1	0	25	10	8	2	2	0
11	3	1	22	11	10	6	3	3
12	4	4	21	10	5	1	4	1
13	2	0	14	9	2	3	3	2
14	1	0	14	6	2	1	2	5
15	1	1	8	1	3	0	2	1
16	0	0	4	2	2	0	4	0
17	1	0	1	4	3	2	1	1
18	0	0	2	1	0	0	1	1
19	0	0	1	2	0	0	2	2
20	0	0	0	0	0	0	3	0
21	0	0	0	0	0	0	1	1
Subtotal	20	10	193	96	56	20	49	26
Total	30		289		76		75	
Percentage	66.7	33.3	66.7	33.2	73.7	26.3	65.3	34.7

restrictive, 502.3 and 502.4 programs.

Educational research is replete with statistics on the prevalence of handicapping conditions among school aged children. According to Federal statistics, about 12 percent of the school-aged population is handicapped. However, these prevalence rates are most often reported in a categorical format according to handicapping condition.⁴¹ Prevalence rates stated in respect to gender differences are now being reported more often and need to be further researched. Lerner, for example, believes that boys are four to six times more likely to be diagnosed as learning disabled than girls⁴² and the National Information Center for Handicapped Children and Youth reports that males are four times more likely to have autism than females.⁴³ Higher ratios of boys to girls in special education, then, appear likely and appropriate.

Consistently, throughout the three school systems which were included in this study, males outnumbered females in special education. The smallest percentage difference was in School System C, program 502.4, where boys exceeded girls by almost a 2:1 ratio. All other percentage ratios exceeded this finding. The highest ratio difference occurred in School System B, prototype 502.1, where males exceeded females by a ratio of 3.4:1.

It is not clear if the higher ratio of males to females was due to a higher prevalence rate of handicapping conditions which necessitated remedial education or if placement decisions were gender related. Further research needs to be conducted about the relation-

ships between gender and placement to determine if remedial programs are equally available to female and male students. This will be further discussed in the following chapter.

In summary, this chapter discussed each school system individually for each of the five research objectives. The three urban school districts which were included in this study were of three different sizes and had different proportionate enrollment rates of Black, Hispanic and White students. School System A, which was the largest district, was a minority-majority system with over 52 percent of the students being of racial minority status.

School System B was the second largest district and had a majority of White students--56 percent. The second largest group was Hispanic students with 36 percent. School System C was the smallest community included in this study and had a very small percentage of Black and Hispanic students. This small percentage has been thought to be one of the reasons this district continues to be cited for prima facie denial of equal educational opportunities. The population may be a non representative sample of minority students.

There were three recurrent themes which were discovered throughout this study of equal educational opportunities for minority youth. First, the participation of minority students in transitional bilingual education or Chapter I programs appeared to decrease their enrollment in some special education programs. Second, if the language of instruction in which a remedial program was offered was not the student's dominant language, equal educational opportunities were not

available. Third, it appeared that both Black and Hispanic students were denied equal educational opportunities in the area of speech/language remediation. Chapter V, the concluding chapter, will summarize the findings of the study, state conclusions, and make recommendations for further research and educational reform.

CHAPTER V
SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

This chapter summarizes the findings of the present study, draws conclusions related to these findings, and suggests recommendations for further research and educational reform.

Summary

The central purpose of this study was to determine if minority students were again, as in the past, being denied access to educational opportunities. More specifically, this study focused on the enrollment patterns of White, Black and Hispanic youth in remedial education programs to determine if under enrollment of minority students in special education was indicative of a denial of equal educational opportunities or if their participation in other remedial programs such as transitional bilingual education or Chapter I created the appearance of a denial of educational options. In essence, did the participation of minority students in one remedial program affect their participation in another remedial program?

In Massachusetts, the finding of under representation of minority youth in special education programs has been a statewide concern since 1978. As under representation appears most frequently in urban school districts, three varied systems in western Massachusetts were selected for this study. There were forty-six elementary schools and eighteen

secondary schools included in these systems representing over 32,000 students.

These districts were selected for their similarities as well as their differences. Each system included students who represented the racial categories included in this study--Black, White, and Hispanic. Also, each system offered special education, transitional bilingual education, and Chapter I programs to its youth. Perhaps most important, each district had been cited for three consecutive years by the Massachusetts Department of Education for prima facie denial of equal educational opportunities to minority youth.

The systems differed in respect to size, racial balance, and socioeconomic status. School System A, with over 23,000 students, was the largest system and had a minority population of 53 percent. It is both a working class and professional city. School System B, with over 6,800 students, was primarily comprised of White students but about 40 percent of the population was Hispanic. It is a working class community. School System C was the smallest community, with approximately 3,600 students, of whom less than 6 percent were minority students. It is a small professional city.

Although the Massachusetts Department of Education had monitored the prima facie denial of equal educational opportunity to minority youth in special education in each of these systems for three years and had each system develop a plan of corrective action to eliminate its discrepancies in special education enrollment, discrepancies consistently appeared in all three systems during 1980-1983. Therefore,

the following five research objectives were developed to broaden the base of inquiry into under enrollment of minority youth in remedial education. These objectives analyzed the enrollment patterns of minority youth in three separate areas of remedial education rather than studying special education in isolation to determine if under representation, when it occurred, constituted a denial of equal educational opportunities to Black or Hispanic students.

Objective One

To determine the enrollment pattern of Black, Hispanic, and White students in special education, transitional bilingual education, and Chapter I programs in selected school systems.

Objective Two

To determine if enrollment patterns in special education in selected school systems had a statistically significant under representation of minority students.

Objective Three

To determine if minority enrollment patterns in special education were affected by minority student participation in Chapter I programs in elementary schools.

Objective Four

To determine if minority enrollment patterns in special education

were affected by minority student participation in transitional bilingual education in elementary schools.

Objective Five

To determine if differences in enrollment patterns in remedial education indicated that minority students were denied participation in programs designed to provide equal educational opportunities.

The first research objective determined the patterns of enrollment of minority students in special education, transitional bilingual education, and Chapter I programs. Three patterns consistently emerged in all three school districts. First, speech and language services in special education were not equally provided to minority students but rather were provided in a descending order to White, Black, and then Hispanic youth. Second, Chapter I programs were primarily utilized by minority students whether the language of instruction was English or Spanish. Third, the special education enrollment in the 502.2 academic programs was predominantly composed of White students, while the more comprehensive special education programs, 502.3 and 502.4, were predominantly composed of Black and Hispanic students.

Objective Two centered on special education enrollment rates in isolation from other remedial programs, as currently analyzed by the Massachusetts Department of Education, to determine if current racial enrollment within special education showed a pattern of under representation; thus providing prima facie evidence that a denial of equal

educational opportunities was occurring. Based upon actual enrollment in special education, under representation of minority students in speech and language programs and 502.2 academic programs was found to be significant in School Systems A and B ($p < .05$). Under representation was also found in these programs in School System C, but was not significant ($p > .05$).

This analysis supported the findings of the systemwide analysis by again showing the under representation of minority students in specific special education programs. It also added 502.2 academics for Black students at School System A, 502.1 programs for Black students at School System B, and 502.2 academics for Black and Hispanic students at School System C as new areas for the investigation of under representation.

Objective Three, which analyzed minority student participation in Chapter I programs to determine if there was a relationship between participation in Chapter I programs and enrollment in special education, determined that Chapter I programs appeared to have a direct impact upon enrollment rates of Black and Hispanic students in some special education programs. More specifically, Chapter I programs when offered in a student's dominant language appeared to substitute for or prevent some 502.1 and 502.2 special education placements and served as an appropriate remedial option. Chapter I programs when not provided in the student's dominant language appeared to be an inappropriate placement for some Hispanic students and seemed to be responsible for the over enrollment of Hispanic students in the more

comprehensive special education programs (502.3 and 502.4).

Chapter I programs did not offer speech/language remediation as part of their curriculum. Therefore, the under enrollment of minority students in speech/language special education programs was not due to participation in Chapter I programs. Speech and language opportunities appeared to have been denied to many minority youths.

Objective Four determined if minority enrollment patterns in special education programs were affected by minority student participation in transitional bilingual education in elementary schools. It was determined that transitional bilingual education appeared to decrease the enrollment rate of Hispanic students in special education 502.2 academic or 502.3 programs. It appeared that when TBI was available, students remained in TBI rather than entering special education but when TBI was unavailable special education enrollment rates were inflated. These situations appeared to be due to staffing reasons rather than educational concerns.

When Hispanic students had the option of TBI or Chapter I services prior to entering special education, the under representation of Hispanic students in 502.2 special education programs appeared to be caused, in part, by their participation in other appropriate remedial programs. However, when Chapter I remediation was not available in Spanish as in School Systems A and C, Hispanic students had only two choices for remedial help outside of the regular curriculum--TBI and special education. This lack of remedial Spanish instruction in Chapter I

programs appeared to have encouraged the utilization of TBE and may have delayed students from entering special education 502.2 programs. Equal educational opportunities were not truly available to Hispanic students due to a lack of program alternatives for students whose dominant language was not English.

Objective Five determined if differences in enrollment patterns in remedial programs suggested that equal educational opportunities were not being provided to minority students. This summative objective draws on data from the previous objectives and provides the conclusions for this study.

Conclusions

The most consistent determination was that speech and language remediation through special education was not available to minority students on an equal basis. In all three school districts included in this study, Black and Hispanic students received less service in these programs than their White counterparts. No other remedial programs provided speech remediation; alternative options were not utilized as they were unavailable.

It was suggested that some language remediation for Hispanic students may have taken place in the transitional bilingual education programs, thus substituting for a need for language remediation in special education. However, based upon the design of TBE and the knowledge that there were not enough bilingual educators to meet the

needs of Hispanic youth in other remedial programs, TBE appears to have been a substitute for the language remediation of special education and used by necessity rather than by choice or design. Minority students appear to have been denied equal educational opportunities in all systems included in this study.

Participation of minority students in Chapter I programs appeared to decrease the enrollment of minority students in the 502.1 and 502.2 academic special education programs. This occurred more often with the Hispanic population. When Chapter I programs were available in English and Spanish, this correlation might be appropriate and not suggest a denial of equal educational opportunities in special education. However, when, as in all three systems, a pattern appears which shows over representation in Chapter I and the comprehensive (502.3 and 502.4) programs and under representation in the 502.1 and 502.2 academic programs, it can be concluded that an over reliance on Chapter I may prevent enrollment in 502.1 or 502.2 programs and eventually create a need for more comprehensive placements in special education. If this placement pattern is occurring, as suggested by enrollment patterns, equal educational opportunities are being denied to some minority youth as seen particularly in the under representation in 502.2 academic programs.

The utilization of transitional bilingual education programs by Hispanic youth appeared to decrease the numbers of Spanish speaking students who entered some programs in special education or the lack of TBE may have created an over reliance on special education in

selected schools. Because the special education enrollment was not reported by language of instruction, the number of students receiving special education instruction in Spanish could not be determined, making it difficult to absolutely state the correlation between TBE and special education.

However, both School System A and C reported that they were unable to staff the number of bilingual special education programs which would best meet the needs of their student population. Therefore, the enrollment patterns suggest that the placement of Hispanic students in TBE may have been due to staffing patterns rather than educational concerns and equal educational opportunities in special education, especially the 502.2 programs, were not available to Hispanic youth.

Although this study concentrated on equal educational opportunities in remedial education for minority students, a pattern of enrollment was uncovered between male and female students which suggests additional discriminatory placement practices. In all special education placements, boys outnumbered girls. More specifically, boys outnumbered girls 2:1 and 3:1 in individual programs. The more comprehensive the program, the fewer girls were enrolled. This suggests that equal educational opportunities may not be available to girls through special education or equal educational opportunities may not be available to boys in other remedial programs or in the regular education curriculum. Further research needs to be conducted in this area and will be recommended later in this chapter.

Educational opportunities, then, did not appear to have been provided on an equal basis to Black and Hispanic students in remedial education. Most noticeable were the lack of speech and language services available to minority youth and then the lack of remedial services available to students with a dominant language other than English. The participation of minority students in Chapter I programs and TBE did appear to decrease the enrollment rate of minority students in special education, particularly the 502.2 academic program; however, this decreased enrollment appeared to be caused by the lack of other remedial options in the student's dominant language rather than the lack of need for a special education program.

The enrollment patterns have suggested that discrimination has occurred against minority students in their educational options. Speech and language programs were not available to them and others, such as Chapter I and special education, though available, were not always in the appropriate language of instruction. These patterns should not be interpreted to suggest covert discriminatory practices but rather show the result of a shortage of appropriate staff and a lack of attention to the language of instruction in which remedial services should be offered.

This section presented the findings of the five research objectives which were summarized by individual school systems and collectively for all three systems. Enrollment patterns of special education, transitional bilingual education, and Chapter I programs were shown, in some cases, to suggest a denial of equal educational oppor-

tunities to some minority youth, while other enrollment patterns suggested that remedial opportunities were not denied to minority students but, in part, provided through another remedial program.

Recommendations for Further Research

It is suggested that the present study could be extended in two ways. First, enrollment patterns in remedial education at individual schools within each school system should be analyzed after categorizing schools according to the programs available, the language in which services are offered, and the type of service provided. Categories would include groups of schools which offered the following programs:

- Group A Special education, bilingual special education, transitional bilingual education, and Chapter I programs;
- Group B Special education, transitional bilingual education, and Chapter I programs;
- Group C Special education, bilingual special education and transitional bilingual education;
- Group D Special education and bilingual special education;
- Group E Special education and Chapter I programs;
- Group F Transitional bilingual education and special education;
and
- Group G Special education.

Within each group of schools, the remedial programs need to be

further identified to allow for more in-depth analyses. The main language of instruction should be listed. When the language of instruction is other than English, the position of the instructor should be identified, i.e., aide, teacher, pathologist. Each remedial program needs to be identified by services provided. Chapter I programs need to specify if reading and/or language instruction is provided; special education programs need to specify if academic instruction is offered as compared to academic and behavioral programs.

These distinctions will enable a more comprehensive analysis of remedial programs to be conducted. Such a detailed analysis could help answer the questions continually raised in the present study: Are equal educational opportunities being denied due to the language in which instruction is offered? Is participation in one remedial program occurring because no appropriate alternatives are available? Does a reliance on one remedial program eventually result in a placement in a more comprehensive but segregated remedial program?

If the research is expanded in this way, administrators of special education, transitional bilingual education, and Chapter I programs would have a better understanding of their programs and perhaps would now see how the program offerings within each remedial area can affect the educational opportunities in other areas of remediation.

Second, an analysis of the student profiles of students in the 502.3 and 502.4 special education programs should be made to compare the educational needs of minority students to those of White students in these programs. Certain components, such as intelligence quo-

tients, educational history, and dominant language need to be analyzed to determine if there is a need for the over representation of minority students in these programs or if discriminatory practices existed, thus resulting in inappropriate placements in special education.

If IQ scores were used to determine placement in 502.3 and 502.4 programs, it must be determined if the tests given to minority youth were culturally fair and linguistically non-biased. As discussed in Chapter II of this study, in the past minority students often were placed in special education due to prejudicial testing protocols.

The educational history of minority students should be analyzed in respect to that of White peers in the program. Did minority students follow a similar remedial program to that of White students? If not, what was different and why was it different? This information could provide more details about the relationships among Chapter I programs, TBE and special education. Of further interest would be the dominant language of each student and the language in which the 502.3 and 502.4 programs are taught. This should be analyzed to determine the extent to which language affects placement of minority students in some special education programs.

Three recommendations for related but additional research about the provision of equal educational opportunities to minority students follow. First, enrollment patterns in all remedial programs should be analyzed in respect to gender and race to determine if gender is responsible for placement decisions in remedial education. Statistically, as stated by Lerner⁴³, nationally, more boys than girls

enter special education programs. However, the proposed research study could determine if boys of different racial groups enter remedial education at a rate consistently above that of their female counterparts. If so, in what programs are boys entering at a greater rate and is gender, race, or educational need the cause for remedial placements? Presently, data are not routinely gathered by gender for each remedial program. New data collection procedures must be implemented if such a study is to occur.

Second, the goals and objectives of all remedial programs should be studied in relation to each other to determine how their design fits within the school's structure of remedial education. If remedial services are to meet the needs of all students, they must be available in the student's dominant language, must work in conjunction with one another not in competition for students, and must have clearly defined entrance and exit criteria. As discussed in Chapter II of this study, the goals of remedial programs often overlap and cause confusion about placement. Further research into programmatic relationships among remedial programs needs to be conducted to determine a process and design in which remedial programs can work together to advance the provision of equal educational opportunities to minority youth.

Third, the enrollment patterns of remedial reading should be analyzed to determine how remedial reading services and Chapter I programs interface with each other. As more remedial reading programs are being reinstated in school districts and Chapter I programs are declining due to cuts in federal funds, this interface between

the two programs needs to be carefully designed and implemented so educational opportunities are available in the schools where they are most needed.

Recommendations for Reform

Recommendations to reform the conditions which prevented minority students from participating in remedial education at a rate proportionate with their peers should be addressed not only by the school districts involved in this study, but also by state agencies and institutes of higher education. Since it is beyond a school's locus of control to correct all of the conditions internally, collaborative efforts must be encouraged. Examples of such collaboration follow.

Speech and language instruction was not available to minority youth in the same proportionate way as it was to White students; therefore, the following recommendations are being made. First, schools need to continue to actively recruit bilingual speech and language therapists to meet the needs of Hispanic students. In conjunction with this, they should work with the State Department Bureau of Certification and institutes of higher education to develop training programs which result in a new cadre of trained bilingual speech and language therapists who can serve minority youth.

Second, inservice training in culture and language differences of minority youth needs to be provided to veteran speech and language therapists on a yearly basis to update their skills in identification

and diagnosis of speech and language problems among minority students. Professional incentives, such as release time or pay scale increments, should be awarded for attending these sessions. Collaboration in inservice training should be with other school districts for the pooling of physical and financial resources, institutions of higher education for trainers, and the State Department of Education for funding sources and technical assistance.

To correct the placement practices which appeared to result from the language of instruction rather than the actual remedial needs of the student, the following recommendations are made. Chapter I programs must be reviewed to determine if the language of instruction is appropriate to the needs of the students within the school district. This review can be either internal or external, but a combination of the two is recommended. Reviews should be part of the three year evaluation which is conducted every three years in Chapter I projects. Additionally, questions about language of instruction in Chapter I programs should be a more comprehensive component in the prima facie monitoring by the State Department of Education.

Also, parents of minority children must be recruited to serve on the Advisory Councils of Chapter I. Recognizing the attempts that have been made to accomplish this and the limited success that has occurred, it is recommended that parents are paid a stipend to serve on such advisory councils. This stipend should be part of the Chapter I project.

In addition, administrators need to develop a conceptual model

for the delivery of remedial services to minority youth within their school districts. This model should include recommendations from administrators, teachers, and students. If parental input is viable, they are recommended to form the fourth constituency group. This model should be a continuum of services which addresses the language and academic needs of all students who need remedial education.

Curriculum design must be addressed in each remedial program. It is recommended that a curriculum coordinator or outside curriculum specialist be hired to help ensure that the curricula of all remedial programs are developed to meet the needs of minority students. Technical assistance grants from the State Department of Education should be earmarked for curriculum coordination among remedial programs.

As stated in Chapters III and IV, all school districts did not routinely maintain statistics which were vital to understanding and analyzing enrollment patterns in remedial education. Therefore, it is recommended that the State Department of Education require school systems to collect and maintain:

- (1) System enrollment data by gender and race for all remedial programs.
- (2) Individual school enrollment data by gender, race, and remedial program.
- (3) Data which show enrollment rates in remedial programs labelled by the language of instruction.
- (4) Enrollment data which show primary, secondary, and tertiary remedial services provided to individual students.

- (5) Racial data which can be used to determine non participation in a remedial program due to parental choice.

To collect data which have been suggested, school systems should have a computerized format. Although many school districts maintain data on computers, the state has yet to develop a statewide data collection format. This should be done immediately. Institutes of higher learning can provide the State Department of Education with technical assistance in the establishment of data bases which would enable the data collection which has been recommended.

Finally, it is recommended that the Massachusetts Department of Education analyze statewide remedial enrollment rates by program and race. It should assign Department staff to assist the school districts which have been cited for prima facie denial of equal educational opportunities in analyzing their enrollment rates in a more comprehensive manner. The following model for administrators, state officials, and advocates for children is offered as a comprehensive approach for investigating the availability of equal educational opportunities to minority youth (Figure 1). It is based on the findings of the research objectives which guided this study and the factors which are likely to affect placement in remedial education.

This simple but sequential ten step approach should enable administrators, state officials, and advocates for children to investigate the educational opportunities which are available to minority students through a variety of means; one of which is an investigation of enrollment patterns. The beginning steps require paperwork reviews

Figure 1

Ten Step Model for Investigating Equal Educational Opportunities for Minority Youth

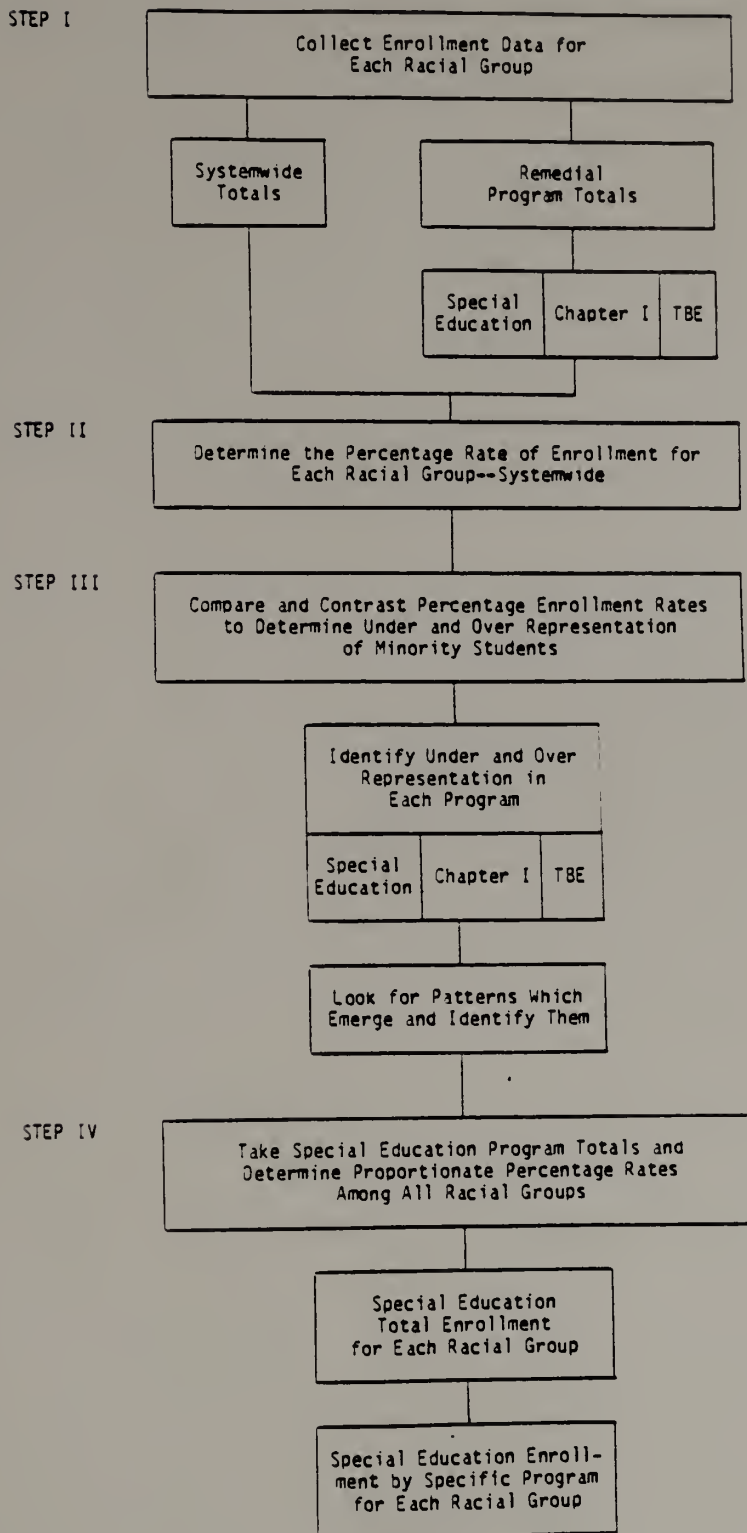
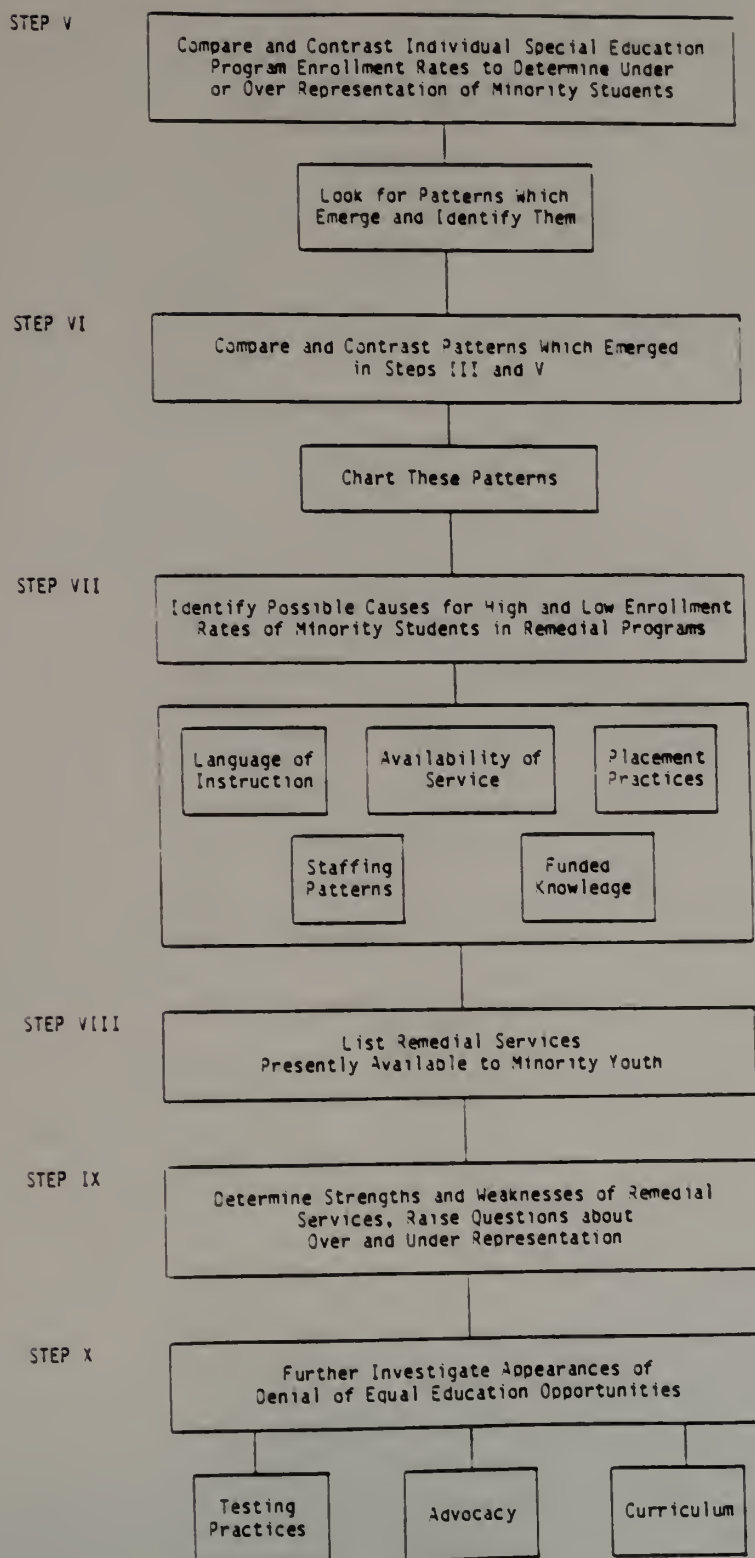


Figure 1, continued



while the final steps will require sensitive, professional probing. Together the data collection and analysis in Steps I through VI begin to identify patterns of enrollment. These can then be investigated during steps VII through X to determine if equal educational opportunities are available, and if not, to identify reasons for disproportionate placement.

This country has advocated strongly for public education to meet the needs of bilingual, bicultural, disadvantaged, and handicapped youth. It is with a spirit of pride and accomplishment that we can reflect upon the educational programs which are now available to minority and educationally disadvantaged youth. The above recommendations do not reflect a failure of national advocacy or remedial programs. Rather, they represent procedures which can help to improve the delivery of remedial education to minority youth. The enactment of these recommendations will prove a commitment by professionals to help ensure that all students have an equal opportunity to receive the benefits of remedial programs which are available. This sincere commitment of dedicated professionals is what is needed if the national goal of equal educational opportunities for all students is to be fully realized.

FOOTNOTES

¹Robert L. Burgdorf, ed., The Legal Rights of Handicapped Persons: Cases, Materials and Text (Baltimore: Brooks Publishers, 1980), p. 60.

²Norris G. Haring, ed., Behavior of Exceptional Children (Columbus, Ohio: Charles E. Merrill Publishing Company, 1974), p. 10.

³James E. Ysseldyke and Bob Algozzine, Introduction to Special Education (Boston: Houghton Mifflin Company, 1979), pp. 372-376.

⁴S. Rep. No. 168, 94th Congress, 1st Session. 8 (1975).

⁵Ysseldyke and Algozzine, Introduction to Special Education, pp. 372-384.

⁶Haring, Behavior of Exceptional Children, pp. 10-17; A. Edward Blackhurst and William H. Berdine, An Introduction to Special Education (Boston: Little, Brown and Company, 1981), pp. 42-43.

⁷Interviews with James Fenlason, Springfield Public School System, Springfield, Massachusetts, 9 September 1983, and Nancy A. Curtis, Massachusetts Department of Education, West Springfield, Massachusetts, 10 November 1983.

⁸Statement by Roger W. Brown, Ed.D., Massachusetts Department of Education, Quincy, Massachusetts, 27 October 1983.

⁹Burgdorf, The Legal Rights of Handicapped Persons, p. 63.

¹⁰Burgdorf, The Legal Rights of Handicapped Persons, p. 60.

¹¹Martin L. LaVor, "Federal Legislation for Exceptional Persons: A History," in Education of Exceptional Children, edited by Frederick J. Weintraub (Reston, Virginia: Council for Exceptional Children, 1976), pp. 96-97.

¹²G. Dybwad, "A Look at History and Present Trends in the Protection of Children's Right to Education," in Leadership Series in Special Education, edited by R. Johnson, J. Gross and R. Weatherman, University of Minnesota, pp. 152-163.

¹³Brown v. Board of Education, Topeka, Kansas, 347 U.S. 483, 74 S.Ct., 686, Ed. 873 (1954).

¹⁴Burgdorf, The Legal Rights of Handicapped Persons, p. 153.

¹⁵Anne Langstaff Pasanella and Cara B. Volkmer, Coming Back or Never Leaving (Columbus, Ohio: Charles E. Merrill Publishing Company, 1977), pp. 14-19.

¹⁶Education for the Handicapped Law Report (Washington, D.C.: CPR Publishing Company, October 2, 1982), p. 1.

¹⁷Thomas K. Gilhool, "Education: An Inalienable Right," in Frederick J. Weintraub, Education for Exceptional Children, p. 17.

¹⁸Joel S. Berke and Mary T. Moore, "A Developmental View of the Current Federal Government Role in Elementary and Secondary Education," Phi Delta Kappan, January 1982.

¹⁹Haring, Behavior of Exceptional Children, pp. 16-18.

²⁰U.S. Federal Register, Department of Health, Education and Welfare, Office of Elementary and Secondary Education, April 11, 1965.

²¹Frederick J. Weintraub and Alan Abeson, "New Policies for the Handicapped: The Quiet Revolution," in Weintraub, Public Policy and the Education of Exceptional Children, pp. 11-12.

²²David P. Riley, Herbert D. Nash and J.T. Hunt, "National Incentives in Special Education" (Washington, D.C.: NASDE, 1978), p. 2.

²³Pennsylvania Association for Retarded Children v. Commonwealth of Pennsylvania, 343, F. Supp. 279. 1972.

²⁴Frederick J. Weintraub, "New Educational Policies," p.

²⁵Joseph J. Marinelli, "Financing the Education of Exceptional Children," in Weintraub, Public Policy and the Education of Exceptional Children, pp. 151-154.

²⁶Pennsylvania Association for Retarded Children (1972).

²⁷Burgdorf, The Legal Rights of Handicapped Persons, pp. 94-96.

²⁸Frederick Weintraub et al., Public Policy and the Education of Exceptional Children (Reston, Virginia: Council for Exceptional Children, 1976), pp. 9-10.

²⁹Lau v. Nichols, 414 U.S. 565, 95 S.Ct. 786, 39 L.Ed. 2d 1 (1973).

³⁰Iris Rotberg, "Federal Policy in Bilingual Education," American Education, vol. 18, October, 1982.

³¹Burgdorf, The Legal Rights of Handicapped Persons, pp. 154, 309.

³²Haring, Behavior of Exceptional Children, pp. 12, 568.

³³Haring, Behavior of Exceptional Children, pp. 10-12; Samuel Kirk and James Gallagher, Educating Exceptional Children (Boston: Houghton Mifflin, 1983), pp. 14-17.

³⁴H. Rutherford Turnbull and Ann Turnbull, Free Appropriate Public Education--Law and Implementation (Colorado: Love Publishing Company, 1978), p.

³⁵U.S. Federal Register, Department of Health, Education and Welfare, Department of Education. Education of All Handicapped Children Act. Vol. 42, No. 163, August 23, 1977, pp. 42477-8.

³⁶U.S. Federal Register, Department of Education, Office of Elementary and Secondary Education. Chapter I of the Education Consolidation and Improvement Act of 1981, Vol. 47, No. 224, November 19, 1982, p. 52340.

³⁷Ibid.

³⁸Ena Vasquez Nuttall, Patricia Medeiros Landurand, and Patricia G. Goldman, "A Critical Look at Testing and Evaluation from a Cross Cultural Perspective," unpublished Comprehensive Examination, University of Massachusetts, October 1, 1984, pp. 31-32; Interviews with Dr. Mary Claffey, Massachusetts Department of Education, West Springfield, Massachusetts, October 1984.

³⁹Massachusetts General Law, 71B, section 6. 40 U.S. Office of Education. Progress Toward a free Appropriate Education: A Report to Congress on the Implementation of 94-124, The Education for All Handicapped Children Act, Washington, D.C.: U.S. Department of Health, Education and Welfare, January, 1979, p. 162.

⁴⁰Interviews with Mary Claffey, Ed.D., Massachusetts Department of Education, West Springfield, Massachusetts, 10 November 1983; John Howell, Ph.D., Springfield Public Schools, Springfield, Massachusetts, 9 September, 1983.

⁴¹Janet Lerner, Learning Disabilities, Third Edition (Boston: Houghton Mifflin Publishing Company, 1981), p. 17.

⁴²National Information Center for Handicapped Children and Youth Handout. Washington, D.C.

⁴³Lerner, Learning Disabilities, p. 17.

BIBLIOGRAPHY

- Alford, Albert L. "What to Anticipate: Advice for Administrators from the Chief Architect of Title I, Education Act of 1965." Phi Delta Kappan 46, 1 June 1965: 483-487.
- Ballard, Joseph. "Public Law 94-142 and Section 504--Understanding What They Are and Are Not." Reston, Virginia: Council for Exceptional Children, 1977.
- Becker, Ralph J., and Halpein, Samuel. "Title I: Improvement of Education of Children of Low Income Families." American School Board Journal 15 (July 1965): 5-13.
- Bergin, Victoria. Special Education Needs in Bilingual Programs. Inter America Research Associates, Inc., National Clearinghouse for Bilingual Education, 1980.
- Berke, Joel L., and Moore, Mary. "A Developmental View of the Current Federal Government Role in Elementary and Secondary Education," Phi Delta Kappan, January 1982.
- Blackhurst, Edward, and Berdine, William H. An Introduction to Special Education. Boston: Little, Brown and Company, 1981.
- Bogatz, B.E. With Bias Toward None. Coordinating Office of Regional Resource Centers, University of Kentucky, 1978.
- Brown Roger, W. Personal statement, 1983.
- Brown v. Board of Education, Topeka, Kansas, 347 U.S. 483, 74 S.Ct., 686, Ed. 873, 1974.
- Burgdorf, Robert L., ed. The Legal Rights of Handicapped Persons: Cases, Materials, and Text. Baltimore: Brooks Publishers, 1982.
- Claffey, Mary A. "Working with Bilingual Children." West Springfield, Massachusetts: Massachusetts Department of Education, undated.
- Claffey, Mary A. Personal Interview. 1983.
- Coleman, J. "The Concept of Equality of Educational Opportunity," Harvard Educational Review, 1968 in "New Educational Policies for the Handicapped: The Quiet Revolution," in Weintraub, Frederick J. and Abeson, Alan, Education of Exceptional Children, 1976.

- Dabney, Margaret G. "Curriculum Building and Implementation in Mainstream Settings: Some Concepts and Propositions," in Jones, Reginald L., Mainstreaming and the Minority Child.
- Dybwad, G. "A Look at History and Present Trends in the Protection of Children's Right to Education," in Second Leadership Series in Special Education, Johnson R., Gross, J., and Weatherman, R., eds. Minnesota: University of Minnesota, undated.
- Education for the Handicapped Law Report. Washington, D.C.: CPR Publishing Company, 1982.
- Farnum, H. Arthur. Memorandum About the Proposed P.L. 94-142 Regulation Changes. American Speech, Language and Hearing Association (August 24, 1982).
- Fenlason, James E. Personal Interview, 1983.
- Foster, Charles R. "Defining the Issues in Bilingualism and Bilingual Education." Phi Delta Kappan 63 (January 1982).
- Gilhool, Thomas K. "Education: An Inalienable Right," in Weintraub, Frederick, Education for Exceptional Children, 1976.
- Haring, Norris G., ed. Behavior of Exceptional Children. Columbus, Ohio: Charles E. Merrill Publishing Company, 1974.
- Henderson, Ronald W. "Social and Emotional Needs of Culturally Diverse Children." Exceptional Children, 46(8), May 1980.
- Hewitt, Frank M., and Forness, Steven R. Education of Exceptional Learners.
- Howell, John. Personal Interview. 1983.
- "Implementing Massachusetts' Special Education Law: A Statewide Assessment." Massachusetts: Department of Education, 1982.
- Jones, Reginald, ed. Mainstreaming and the Minority Child. Reston, Virginia: Council for Exceptional Children, 1976.
- Kirk, Samuel A., and Gallagher, James J. Educating Exceptional Children. Boston: Houghton Mifflin Company, 1983.
- Lau v. Nichols, 414 U.S. 565, 95 S.Ct. 786, 39 L.Ed. 2d, 1973.
- LaVor, Martin L. "Federal Legislation for Exceptional Persons: A History," in Weintraub, Frederick J., Education of Exceptional Children. Virginia: Council for Exceptional Children, 1976.

- Lerner, Janet. Learning Disabilities, Third Edition. Boston: Houghton Mifflin Publishing Company, 1981.
- Marinelli, Joseph J. "Financing the Education of Exceptional Children," in Weintraub, Public Policy and the Education of Exceptional Children, 1976.
- Massachusetts General Law, 71B. Section 6.
- McKay, Robert E. "The President's Program: A New Commitment to Quality and Equality in Education." Phi Delta Kappan 46 (May 1965): 427-429.
- National Information Center for Children and Youth Handout, Washington, D.C.
- Nuttall, Ena Vasquez, Landurand, Patricia Madeiros and Goldman, Patricia G. "Critical Look at Testing and Evaluation from a Cross Cultural Perspective," unpublished Comprehensive Examination, University of Massachusetts, 1984.
- Passanella, Anne Langstroff and Volkmor, Cara. Coming Back or Never Leaving. Columbus, Ohio: Charles E. Merrill Publishing Company, 1977.
- Pennsylvania Association for Retarded Children v. Commonwealth of Pennsylvania, 343, F.Supp. 279, 1972.
- Riley, David P., Nash, Herbert D., and Hunt, J.T. "National Incentives in Special Education." Washington, D.C.: National Association of State Directors of Special Education, 1978.
- Rotberg, Iris. "Federal Policy in Bilingual Education," American Education, vol. 18, 1982.
- Shannon, Thomas A. "The Emerging Role of the Federal Government in Public Education," Phi Delta Kappan 63 (May 1982).
- S. Rep. No. 168, 94th Congress, 1st Session, 8, 1975.
- Turnbull, H. Rutherford and Turnbull, Ann. Free Appropriate Public Education--Law and Implementation. Colorado: Love Publishing Company, 1978.
- U.S. Federal Register, Department of Health, Education and Welfare, Office of Elementary and Secondary Education, 1965.

- Weintraub, Frederick J. and Abeson, Alan. "New Educational Policies for the Handicapped: The Quiet Revolution," in Weintraub, Education of Exceptional Children. Reston, Virginia: Council for Exceptional Children, 1976.
- Weintraub, Frederick J., et al. Public Policy and the Education of Exceptional Children. Reston, Virginia: Council for Exceptional Children, 1976.
- Yaffe, Elaine. "Ambiguous Laws Fuel Debate on Bilingual Education." Phi Delta Kappan 62 (June 1981): 10.
- Ysseldyke, James E. and Algozzine, Bob. Introduction to Special Education. Boston: Houghton Mifflin Company, 1984.

APPENDIX A

Massachusetts' Special Education Prototypes

Massachusetts' Special Education Prototypes

- Prototype 502.1 A regular classroom program which has been slightly modified. For example, classroom furniture is rearranged so that it is easier for a child with a hearing loss to lipread, or a specialist provides support and training to the child's classroom teacher.
- Prototype 502.2 A regular classroom program in which up to 25% of a child's time is spent in specialized services. For example, a child spends 1 hour per week with a speech therapist.
- Prototype 502.3 A regular classroom program in which up to 60% of a child's time is spent in specialized services. For example, a child who needs small group instruction receives it in a special education classroom.
- Prototype 502.4 A special class which is in a regular public school and is entirely composed of other young people with special needs.
- Prototype 502.4(i) A classroom of all special education students which is located in a building other than a public school.
- Prototype 502.5 A private day school program for children with special needs. For example, a school which specializes in programs for children with severe emotional needs and is privately operated.
- Prototype 502.6 A residential educational program which enables a child to live at the school.
- Prototype 502.7 A home or hospital program which is implemented if a child is at home or in the hospital for 14 days or more.
- Prototype 502.8 A preschool program for 3- and 4-year-olds which may be
- (a) a Home Program where school personnel make home visits and provide instruction, materials for the child and group sessions for the parents;

- (b) an integrated program where up to 50% of the children may have special needs; or
- (c) a separate program where up to 50% of the children have special needs.

Prototype 502.9

An eight week diagnostic program designed so a TEAM can learn more about a student's special educational needs.

Prototype 502.11

A special educational program designed for students 16-22 who cannot function within the regular school setting.

APPENDIX B
Action Plan

Action Plan, Elements 1-9

An Action Plan is a concise written statement of the steps a school district will undertake to correct the disproportionate placement of minority children in special education. The development of an Action Plan can be done voluntarily after notification of prima facie denial or it can be ordered by a hearing officer after a finding that a school district has denied minority students equal opportunities concerning their participation in special education programs.

At minimum, an acceptable Action Plan is composed of the following nine elements and covers the activities of the school district over a three year period with modifications made yearly as necessary. Each of the nine elements will assist in securing the rights of minority children to equal opportunity in special education.

The Action Plan must be submitted on the form provided by the Department. It must also contain all the information and documentation requested. Staff from the Regional Center are available to provide technical assistance in preparing the Plan. Modifications of approved sections of an Action Plan can be made with the approval of the Regional Center and may be required after on site monitoring visits by the Regional Center.

Element #1. Minority Student Placement Review

The district shall conduct during the first year of their Action Plan, a placement review of each minority student in special education prototypes in which over-representation was found. This placement review will consist of an in-depth record review which will be the basis for determining which students, if any, should have a full review or re-evaluation under 333.0 and 334.0 of the regulations to further determine appropriate placement. Prior to the start of this process, the district shall notify parents of the reason for this placement review and their right to participate if it is determined that a review or re-evaluation should be done.

- 1.1 The district must submit a copy of the letter to be sent to parents.
- 1.2 The district must include a description of the composition of the placement review team, identifying those members with the training and experience in non-biased assessment who will determine whether each student's evaluation was as free as possible from cultural and linguistic bias and the person responsible for coordination of this effort.

- 1.3 The district must include a description of the placement review process and must address the following minimum requirements when reviewing each student's record:
 - a. Language dominance and proficiency testing completed prior to other testing for limited English proficient children.
 - b. Pre-referral modifications attempted and documented with results of each modification.
 - c. Appropriate assessments conducted which were as free as possible from cultural and linguistic bias.
 - d. Composition of the evaluation TEAM met requirements of sections 311.0, 312.0, and 313.0.
 - e. Interpreter was present when primary language of parent or student was other than English.
 - f. Forms and notices to parent were in primary language of parent.
 - g. IEP included specific criteria for movement to less restrictive program.
 - h. IEP and placement were based on the results of the assessments.
 - i. Progress reports are prepared as required and show that child has made progress in achieving goals in IEP.
- 1.4 The district must include a statement of the criteria to be used to determine whether a student should have a complete review or re-evaluation under 333.0 or 334.0.
- 1.5 The record review and any subsequent reviews or re-evaluations must be completed within the timelines specified by the Regional Center.

Element #2. Identification of Primary Language and Non-Biased Assessment

The district shall describe the procedures used, or to be used, to identify the primary languages of all students, including an assessment of language dominance and proficiency as well as achievement levels and for insuring non-biased assessment of minority children referred for evaluation.

- 2.1 Identification of primary languages may be accomplished by either an approved Lau Plan or a description of the process by which all students are tested for language dominance and proficiency as detailed below.
- 2.2 The process by which all students are tested for language dominance including how the home and school surveys which

answer the following "Lau Questions" are completed:

- Home What language do you speak to your child?
- Home What language does your child speak to you?
- Home What language does the child speak to brothers,
 sisters and friends?
- School Which children are not functioning on grade level
 in English?

- 2.3 The process for testing all students' language proficiency and achievement level, including copies of tests employed.
- 2.4 The process for identification of primary home language of all students.
- 2.5 The procedures used to insure non-biased assessment of minority children referred for evaluation, including a list of assessors with their specialized training and/or approvals and copies of certifications.

Element #3. Community Group Involvement

A statement of the manner in which interested community groups will be involved both in the development of the Action Plan and on an ongoing basis.

Include in this statement:

- 3.1 Identification of groups and name of contact person for each group.
- 3.2 A description of the role these groups will play both in the development of the Action Plan and on an ongoing basis.

Element #4. In-Service Plan

A plan to provide training to appropriate staff which includes the required areas and processes.

- 4.1 An acceptable in-service training plan includes the following process components:
 - a. A needs assessment to identify target populations and critical issues.
 - b. Evidence of participatory planning.
 - c. Evaluation plan with criteria for success.

- 4.2 An acceptable in-service training plan includes at minimum the following content areas:
- a. Cultural awareness (all staff): the impact of cultural and linguistic diversity on the individual learner and the learning environment.
 - b. Non-discriminatory assessment (all staff involved in assessments): issues, techniques, and procedures to assure non-discriminatory assessment in the evaluation of minority students.
 - c. Pre-referral modification procedures: resources available and staff responsibilities.

Element #5. Collaboration Between Bilingual and Special Education

A description of the procedures through which bilingual education and special education staff collaborate in the referral, evaluation, and placement of limited English proficiency students.

This description should include the following:

- 5.1 The manner in which bilingual staff will be involved in the pre-referral and referral process (314.0).
- 5.2 The manner and frequency with which bilingual and special education staff will communicate and collaborate.
- 5.3 Explanation of how student records from various programs are to be maintained and shared.
- 5.4 The availability of placements for students who require both bililngual and special education.
- 5.5 The persons/position responsible for the above effort.

Element #6. Public Outreach Plan

A plan for increased efforts at public outreach to ensure that minority parents are aware of their rights under Chapter 766 and understand the procedures for referral, evaluation, placement, and appeal.

The plan should describe the following:

- 6.1 How continuous and systematic efforts to identify minority children out of school (3-21 years) who are in need of special education are maintained.

- 6.2 The annual communication with parents and students describing available special education programs and options.
- 6.3 The special outreach efforts made to encourage minority parents of children ages 3 and 4 to attend annual orientation workshops, and orientation workshops to be conducted in the native language(s) of the parents when applicable.
- 6.4 Staff development activities that have taken place and those planned for the coming year to assist staff in reaching parents and involving the parents in their child's education.
- 6.5 Its support for the existing advisory council or other appropriate group(s) which include minority members or its intention to organize such a group.

Element #7. School Placement Pattern Review

A plan to review the referral and placement patterns of special needs students by race, language category, prototype, school building and systemwide.

The plan should include:

- 7.1 Identification of personnel responsible for collecting and analyzing by school building the referral and placement figures.
- 7.2 The procedure for generating such figures at least twice a year and prior to any monitoring visits by the Department.
- 7.3 Intervention strategies that will follow when particular schools are identified with disproportionate enrollments.

Element #8. Staffing

A statement of procedures currently used, or to be undertaken, to provide appropriate staffing for serving the needs of minority children in special education.

The statement should include the following:

- 8.1 A list of staff providing special education and related services indicating certification status, language certifications, and race of each.
- 8.2 Where additional staff are needed in order to secure appro-

priate staff for serving the needs of minority children, especially in accordance with Regulation 213.0 and 314.0.

8.3 The plan to fill staffing needs.

Element #9. District Monitor

The identification of an individual to monitor the implementation of the proposed plan.

9.1 Assurances must be given that the individual identified:

- a. Does not have a direct line relationship with those persons responsible for implementation;
- b. Has time to carry out the responsibilities of the Plan; and
- c. Is clear as to the function s/he will play in monitoring the implementation of the Plan.

APPENDIX C
Raw Chi Square Data

School System A
502.1
Chi Square Analysis

	White	Black	Hispanic
Count	23	7	0
Row Percent	76.7	23.3	0
Column Percent	2.1	.8	0
Total Percent	.9	.3	0

Raw chi square = 15.52097 with 2 degrees of freedom.

Significance = .0004.

School System B
502.1
Chi Square Analysis

	White	Black	Hispanic
Count	26	2	7
Row Percent	74.3	5.7	20.0
Column Percent	5.0	3.8	2.4
Total Percent	3.0	.2	.8

Raw chi square = 3.33526 with 2 degrees of freedom.

Significance = .1887.

School System C

502.1

Chi Square Analysis

	White	Black	Hispanic
Count	27	0	2
Row Percent	93.1	0	6.9
Column Percent	6.1	0	6.1
Total Percent	5.5	0	.4

Raw chi square = 1.02897 with 2 degrees of freedom.

Significance = .5978.

School System A
502.2 Academic
Chi Square Analysis

	White	Black	Hispanic
Count	140	94	34
Row Percent	52.2	35.1	12.7
Column Percent	12.9	11.3	6.0
Total Percent	5.6	3.8	1.4

Raw chi square = 19.21237 with 2 degrees of freedom.

Significance = .0001.

School System B
502.2 Academic
Chi Square Analysis

	White	Black	Hispanic
Count	212	26	99
Row Percent	62.9	7.7	29.4
Column Percent	40.4	49.1	33.3
Total Percent	24.2	3.0	11.3

Raw chi square = 6.62644 with 2 degrees of freedom.

Significance = .0364.

School System C
502.2 Academic
Chi Square Analysis

	White	Black	Hispanic
Count	214	7	10
Row Percent	92.6	3.0	4.3
Column Percent	48.0	43.8	30.3
Total Percent	43.2	1.4	2.0

Raw chi square = 3.91507 with 2 degrees of freedom.

Significance = .1412.

School System A
502.2 Speech/Language
Chi Square Analysis

	White	Black	Hispanic
Count	232	85	49
Row Percent	63.4	23.2	13.4
Column Percent	21.4	10.2	8.6
Total Percent	9.3	3.4	2.0

Raw chi square = 69.13180 with 2 degrees of freedom.

Significance = .0000.

School System B
502.2 Speech/Language
Chi Square Analysis

	White	Black	Hispanic
Count	88	3	21
Row Percent	78.6	2.7	18.8
Column Percent	16.8	5.7	7.1
Total Percent	10.1	.3	2.4

Raw chi square = 18.53799 with 2 degrees of freedom.

Significance = .0001.

School System C
502.2 Speech/Language
Chi Square Analysis

	White	Black	Hispanic
Count	58	1	0
Row Percent	98.3	1.7	0
Column Percent	13.0	6.3	0
Total Percent	11.7	.2	0

Raw chi square = 5.45579 with 2 degrees of freedom.

Significance = .0654.

School System A

502.3

Chi Square Analysis

	White	Black	Hispanic
Count	231	295	242
Row Percent	30.1	38.4	31.5
Column Percent	21.3	35.5	42.5
Total Percent	9.3	11.9	9.8

Raw chi square = 90.17899 with 2 degrees of freedom.

Significance = .0000.

School System B

502.3

Chi Square Analysis

	White	Black	Hispanic
Count	57	8	72
Row Percent	41.6	5.8	52.6
Column Percent	10.9	15.1	24.2
Total Percent	6.5	.9	8.2

Raw chi square = 25.74936 with 2 degrees of freedom.

Significance = .0000.

School System A

502.4

Chi Square Analysis

	White	Black	Hispanic
Count	320	266	179
Row Percent	41.8	34.8	23.4
Column Percent	29.6	32.0	31.4
Total Percent	12.9	10.7	7.2

Raw chi square = 1.46496 with 2 degrees of freedom.

Significance = .4807.

School System B

502.4

Chi Square Analysis

	White	Black	Hispanic
Count	64	7	60
Row Percent	48.9	5.3	45.8
Column Percent	12.2	13.2	20.2
Total Percent	7.3	.8	6.9

Raw chi square = 9.70208 with 2 degrees of freedom.

Significance = .0078.

School System C

502.4

Chi Square Analysis

	White	Black	Hispanic
Count	62	5	8
Row Percent	82.7	6.7	10.7
Column Percent	13.9	31.3	24.2
Total Percent	12.5	1.0	1.6

Raw chi square = 5.88909 with 2 degrees of freedom.

Significance = .0526.

