This report examines the current condition of educationally disadvantaged children in the United States, describes conditions likely to prevail through the year 2020, and discusses implications for the education of disadvantaged children. The text: (1) develops a common definition of the term "educationally disadvantaged"; (2) identifies the current state of the educationally disadvantaged; (3) points out projected changes in the educationally disadvantaged population, and indicates implications for social and educational policy. It is asserted that students who are educationally disadvantaged are those who have been exposed to insufficient educational experiences in at least one of three domains: family, school, and community. Over 50 references are cited. (RH)
THE CHANGING NATURE OF THE DISADVANTAGED POPULATION: CURRENT DIMENSIONS AND FUTURE TRENDS

Aaron M. Pallas, Gary Natriello and Edward L. McDill

March, 1989
Center Staff

Edward L. McDill, Co-Director
James M. McPartland, Co-Director

Karl L. Alexander
Henry J. Becker
Jomills H. Braddock II
Renee B. Castaneda
Barbara S. Colton
Diane B. Diggs
Doris R. Entwisle
Joyce L. Epstein
Anna Marie Farnish
Denise C. Gottfredson
Gary D. Gottfredson
Edward J. Harsch
Brigette B. Hinte
John H. Hollifield
Lois G. Hybl
Marva J. Jeffery
Nancy L. Karweit
Melvin L. Kohn
Mary S. Leighton
Barbara M. Luebbe
Nancy A. Madden
Barbara E. McHugh
Laura B. Rice
Karen C. Salinas
Dorothy C. Sauer
Robert J. Stevens
Ni-Chang Wu

Center Liaison

Rene Gonzalez, Office of Educational Research and Improvement

National Advisory Board

Patricia A. Bauch, Catholic University of America
Jere Brophy, Michigan State University
Jeanne S. Chall, Harvard University
James S. Coleman, University of Chicago
Edgar G. Epps, University of Chicago
Barbara Heyns, New York University
Michael W. Kirst, Chair, Stanford University
Rebecca McAndrew, West Baltimore Middle School
Jeffrey Schneider, National Education Association
The Center

The mission of the Center for Research on Elementary and Middle Schools is to produce useful knowledge about how elementary and middle schools can foster growth in students' learning and development, to develop and evaluate practical methods for improving the effectiveness of elementary and middle schools based on existing and new research findings, and to develop and evaluate specific strategies to help schools implement effective research-based school and classroom practices.

The Center conducts its research in three program areas: (1) Elementary Schools, (2) Middle Schools, and (3) School Improvement.

The Elementary School Program

This program works from a strong existing research base to develop, evaluate, and disseminate effective elementary school and classroom practices; synthesizes current knowledge; and analyzes survey and descriptive data to expand the knowledge base in effective elementary education.

The Middle School Program

This program's research links current knowledge about early adolescence as a stage of human development to school organization and classroom policies and practices for effective middle schools. The major task is to establish a research base to identify specific problem areas and promising practices in middle schools that will contribute to effective policy decisions and the development of effective school and classroom practices.

School Improvement Program

This program focuses on improving the organizational performance of schools in adopting and adapting innovations and developing school capacity for change.

This report, prepared as part of the External Faculty project of the Effective Middle Schools Program, examines the current conditions of educationally disadvantaged children in the United States, examines likely conditions through the year 2020, and discusses implications for current and future education of these children.
Abstract

In this paper we 1) develop a common definition of the "educationally disadvantaged" to facilitate discussion of their plight; 2) identify the current state of the educationally disadvantaged in the United States; and 3) consider the changing conditions of the disadvantaged and the implications for U.S. education. We examine the likely course of sociodemographic changes in the disadvantaged population over the thirty-five year period between 1986 and 2020, that is, during the course of the working career of the average 35-year-old today. We consider the challenges likely to be presented to U.S. schools over this period of time.
The Changing Nature of the Disadvantaged Population: 
Current Dimensions and Future Trends

I. Defining the Educationally Disadvantaged

In order to examine the plight of the educationally disadvantaged in U.S. schools, we must first have a clear understanding of the term "educationally disadvantaged" and the populations it signifies. Various definitions have been proposed for the term. In answer to the question, "Who are the socially disadvantaged?" Havighurst (1965:211) notes that:

Disadvantage is a relative term. When we speak of a child as being "socially disadvantaged" we mean that he has a disadvantage relative to some other child for some kind of social life. As the term is used in this book, it means disadvantaged for living competently in an urban, industrial, and democratic society. The socially disadvantaged child is one who is handicapped in the task of growing up to lead a competent and satisfying life in the American society.

Havighurst proceeds to develop this definition by providing examples of students who may be classified as disadvantaged and by arguing that the socially disadvantaged may be defined and described in terms of certain 1) family characteristics such as a family which fails to expose the child to an elaborated language (Bernstein, 1960; 1961; 1964) and fails to set expectations regarding school related activities such as reading; 2) personal characteristics such as inferior auditory discrimination, inferior visual discrimination, and inferior judgment concerning time, number and other basic concepts; and 3) social group characteristics such as low socioeconomic status and membership in a minority group that has experienced social and economic discrimination.

Socially Disadvantaged and Educationally Disadvantaged

Passow and Elliott (1967) make the distinction between the terms "socially disadvantaged" and "educationally disadvantaged". They note that those who speak in terms of the "education-
ally disadvantaged" (e.g., Clark, 1965a; 1965b) see inept teachers and guidance counselors in depressed areas as the cause of the condition while those who speak in terms of the "socially disadvantaged" (e.g., Deutsch, 1960) see experiential deficits in early childhood as the cause of the condition.

Boocock (1979) and Hum (1985) observe that there has been a bitter controversy over the explanation for the relationship between family background and school performance. On one side are those arguing that the poor performance of disadvantaged children can be attributed to their early exposure to a "culture of poverty" that impairs their ability to profit from schooling. Such children are seen as deprived of a stimulating environment. Proponents of this interpretation (Riessman, 1963; Deutsch, 1963; Brooks, 1966, Hunt, 1964) argue that disadvantaged children are not exposed to environments that lead to the development of the skills necessary for the use of linguistic and mathematical symbols. Moreover, as Boocock (1979:62-63) notes:

Characteristic of the culture of poverty are fatalism, feelings of frustration and alienation from the larger society, a present- rather than future-time orientation, resulting in an inability to plan for the future, and preference for physical over mental activities and gratifications.

On the other side, critics of the theory of cultural deprivation (Clark, 1965a; 1972; Valentine, 1968, Baratz and Baratz, 1970) have argued that the poor performance of disadvantaged students is the result not of deficiencies in their families but of the poor schools they attend. Moreover, these critics charge that the cultural deprivation theorists have mistaken cultural differences for cultural deficits and have, in effect, created an explanation for the problem which blames the victims.

**Disadvantaged and Deprived**

Thus, the terms "socially disadvantaged" and "educationally disadvantaged" carry with them opposing theoretical orientations. These orientations suggest both different causes and different solutions to the plight of the disadvantaged. A similar distinction is suggested by Passow's (1970:16) use of the terms educationally "disadvantaged" and educationally "deprived":
Disadvantaged - A child is at a disadvantage if, because of social or cultural characteristics (e.g., social class, race, ethnic origin, poverty, sex, geographical location, etc.) he comes into the school system with knowledge, skills and attitudes which impede learning and contribute to a cumulative academic deficit. The disadvantage may persist throughout school life and contribute to restricting later economic and social opportunities.

Deprived - A child is deprived if, for social, political, or cultural reasons, the "normal" facilities of the school system are available to him only in restricted form.

The distinction made between school-related and non-school related factors in discussions of educationally disadvantaged versus socially disadvantaged and deprived versus disadvantaged populations is reflected in the problem of defining intended beneficiaries in the recent congressionally mandated evaluation of Chapter 1. The authors of that report note that:

Since the program's inception, policy makers have debated over who should be eligible to receive compensatory educational assistance. For some, the program was to focus on poor students, regardless of their educational achievement; for others it was to focus on low-achieving students regardless of their family's income (Kennedy, Jung, and Orland, 1986:2-3).

The authors of this Chapter 1 evaluation go on to examine the data related both to students who are poor and to those who have low achievement.

A still more recent definition of the disadvantaged by Levin (1986:1) pays little attention to the distinction between disadvantaged and deprived that earlier seemed so important. He notes that:

Pupils defined as educationally disadvantaged lack the home and community resources to fully benefit from recent educational reforms as well as from conventional schooling practices. Because of poverty, cultural differences, or linguistic differences, they tend to have low academic achievement and experience high secondary school drop-out rates. Such students are especially concentrated among minority groups, immigrants, non-English-speaking families and economically disadvantaged populations.

Disadvantaged and Deficient Families

A new distinction regarding the disadvantaged has arisen in the wake of changing social conditions. In discussing the family resources associated with children, Coleman and Hoffer
(1987) point out the difference between disadvantaged families and deficient families. They define "disadvantaged" family backgrounds as those marked by low income and low education levels, that is, families with relatively little human capital. These families fit the traditional notion of the disadvantaged.

However, in examining contemporary family conditions, such as single parent families and families in which both parents work outside the home, they identify the condition of "deficient" family background as one in which children have little access to their parents, no matter what the levels of parental human capital. Coleman and Hoffer point out that such families lack social capital, the cross-generational relations among family members that make for strong family units. As they note, in the absence of sufficient social capital, the human capital of the parents may be irrelevant to the educational growth of the child.

Thus, we see that the nature of the terms used to denote disadvantaged populations and the distinctions among subgroups within the disadvantaged population have changed with changes in the social conditions and the problems that accompany such conditions. At a time when the major questions of social and educational policy were concerned with basic access to educational services and the causes of disadvantaged status, distinctions between the educationally disadvantaged and the socially disadvantaged, or between the deprived and the disadvantaged, were paramount. As the interests of policy makers have shifted and social conditions have changed, that distinction has faded in discussions of the disadvantaged population. New distinctions such as that between disadvantaged and deficient families may become more important for both policy makers and researchers. In arriving at a definition of the disadvantaged for this analysis we have tried to be sensitive to these changing concerns and to develop an approach that may have some enduring utility.

A Working Definition

Our own definition of "educationally disadvantaged" borrows from the definitions of earlier
analysts, but places them within an emerging understanding of education as a process that takes place both inside and outside of schools. Following Bailyn (1960), Crensin (1976), and others (see Clifford, 1985), we view educational experiences as coming not only from formal schooling, but also from the family and the community. Students who are educationally disadvantaged have been exposed to insufficient educational experiences in at least one of these three domains. While the first assessment of the consequences of such experiences may surface in the schools, where student performance is formally assessed, the source of the problem may rest with the school and/or with the family and the community in which the student was reared.

There are several implications of this definition that deserve special comment. First, families and communities may be viewed as educationally deficient without necessarily being socially deficient. For example, a strong loving family may simply be unequipped to provide an educationally stimulating environment for its children. This may stem from cultural differences which make experiences in the family incompatible with those in U.S. schools or from economic limitations which leave families without sufficient resources beyond those necessary for survival.

Second, the deficiencies in any and all of these three domains may continue as students mature and move through the school system. Previous notions that children from poor families can be provided special services such as Headstart, brought up to grade level, and then let go to move through schools on their own seem to suggest that once students are in school, schools can do the entire job of educating students. Our view of schools as one of several educating institutions that simultaneously affect an individual's growth suggests that remediation cannot be confined to the school alone.

Finally, our definition of educationally disadvantaged allows for variation in the disadvantaged population. Some students will have suffered from a lack of appropriate formal educational experiences, others will have suffered from a lack of intellectual experiences in the family, and still others will have suffered from a lack of educational experiences in the community. The
results of these three types of deficiencies may all manifest themselves in the same way on standard measures of academic achievement, but the realization that the sources of the deficiencies may rest with the school, the family, or the community, or all three, will sensitize us as we move to identify the size and location of the educationally disadvantaged population.

II. Current Conditions of the Educationally Disadvantaged

Whatever definition of "educationally disadvantaged" one employs, it is not possible to measure the number of educationally disadvantaged children precisely. We must rely instead on a series of rather gross indicators. Such indicators produce broad categories which tend to contain either higher or lower numbers of children who typically perform poorly in school. Such categories are used by policy makers and educators to characterize populations of students and to plan educational programs. Nevertheless, almost everyone would agree that while they are useful for discussing the needs of groups of children, they are less than precise means for characterizing the educational fate of individual children.

Not all poor children are educationally disadvantaged, nor all minority children, nor all children from single-parent households. On average, though, each of these measurable characteristics is associated with low levels of educational achievement. Measures such as poverty status, racial/ethnic group identity, and family composition may signal not only limitations on family resources in support of education, but also limitations on the resources available to students from their schools and their communities. Some indicators, such as poverty, may be associated with inadequate resources for education in all of the major educating institutions to which young people are exposed: the family, the school and the community.

Indicators of Disadvantage

We shall consider five key indicators associated with the educationally disadvantaged: racial/ethnic identity, poverty status, family composition, mother's education, and language background. All are correlated with poor performance in school, although not always for
commonly understood or agreed-upon reasons. These indicators are not independent, so that a child likely to be classified as educationally disadvantaged on the basis of one indicator is more likely to be so classified on the basis of one of the other indicators. Some children may be classified as educationally disadvantaged on the basis of several indicators, a situation which puts them at greater risk of educational failure than children thought to be at risk on the basis of only one indicator.

Racial/ethnic group status is perhaps the best-known factor associated with the educationally disadvantaged. Historically, minority group members have failed to succeed in schools at the same levels as the majority of the white group. There is a vast amount of evidence documenting the poor performance of black and Hispanic children in schools relative to white children. Recent results from the National Assessment of Educational Progress, for instance, have shown that the reading and writing skills of minority children are substantially below those of white children, at each of grades 3, 7, and 11 (National Assessment of Educational Progress, 1985; Beaton, 1986). In addition, Hispanic and black youth are less likely to complete high school than white youth (Ekstrom, Goertz, Pollack, and Rock, 1986). It has been suggested that in some central cities, the school dropout rate of minority youngsters exceeds 60 percent (Aspira, 1983).

In 1982 the U.S. population aged 0 to 17 years old numbered approximately 62.8 million people. Of that total, 73.0%, or 45.9 million children, were non-Hispanic whites. About 14.7%, or 9.3 million children, were non-Hispanic blacks, and 9.3%, or 5.9 million children were Hispanic youth. An additional 2.9%, or 1.8 million children, were identified as some other racial group (usually Asian or Pacific Islander). This latter group typically is not regarded as being as educationally disadvantaged as the population of black and Hispanic children. Thus, in 1982 approximately 15.2 million children, or 24% of the 0 to 17 year old population, would be considered educationally disadvantaged, if we use racial/ethnic identity as a broad indicator. (1)

A major reason that black and Hispanic children are educationally disadvantaged is because they live in households below the poverty line. Economic status and educational achievement
are tightly linked. Children in poverty are several times more likely to drop out of school than children born into more advantaged economic circumstances (Pallas, 1987).

In 1984 approximately 21% of all children 0 to 17 years of age lived in families below the poverty line. This represents 12.9 million children in poverty. Minority children were much more likely to be living in poverty than white children. While the poverty rate for white children was 16.1%, for black youngsters the rate was 46.2%, and for Hispanic children the rate was 38.7%. Although blacks and Hispanics comprised one-quarter of the 0 to 17 year old population in 1984, they represented more than one-half of the children in poverty.

Family structure is closely linked to poverty. Ellwood (Russell Sage Foundation, 1986) has shown that long-term poverty is a phenomenon characteristic of single-parent households. His research indicates that children growing up continuously in a single-parent family have a 93% chance of living in poverty at least one year while growing up, and a 61% chance of being in poverty throughout the first ten years of life. In contrast, children living continuously in a two-parent, male-headed family have but a 20% chance of living in poverty at least one year while growing up, and only a 2% chance of being poor continuously from age 0 to 10. Family structure also is related to educational outcomes (Milne, Myers, Rosenthal, and Ginsberg, 1986, Shinn, 1978). Children living in single-parent families score lower on standardized tests and receive lower grades in school.

About 46 million children, or 73.9% of the 0-to-17-year-old population, were living in families with both parents present in 1985. About 13 million children lived in households with just a mother present. In addition, 1.6 million children lived in households with just a father present, and an equal number lived in households with neither parent present. In all, 16.4 million children were residing in households that did not have both parents, representing slightly more than one-quarter of the 0 to 17 year old population (U.S. Bureau of the Census, 1986a).

Family structure also is correlated with racial/ethnic origin. Minority children are much
more likely to live in a single-parent family than are white children. In 1985, approximately 60% of black children, and one-third of Hispanic children, were living in single-parent or neither-parent families. In contrast, only 18% of white children 0 to 17 years of age were living in single-parent families in 1985 (U.S. Bureau of the Census, 1986a).

The primary caretaker for most children is their mother. Hence mothers' characteristics are especially important in structuring the educational environment in the home. Mothers who are more highly educated themselves have more knowledge of their children's schooling, have more social contact with school personnel, and are better managers of their children's academic careers (Baker and Stevenson, 1986). Children of highly educated mothers do better in school, and stay in school longer, than children whose mothers have not completed high school.

More than one in every five children aged 0 to 17 in 1983 lived with mothers who had not completed high school, representing a total of 13.6 million children. These children were disproportionately black and Hispanic. Among black youth living in families where the mother was present, slightly more than two-thirds had mothers who had not finished high school. And among Hispanic children living in families with mothers present, just above 40% had mothers who were high school graduates. The educational attainments of white mothers are much higher. Almost 85% of the white children living in families with the mother present had mothers who had at least completed high school.

Students whose primary language is not English, or who have limited English proficiency, face special obstacles to success in school. The poorer school performance of non-English language students does not appear to be due to low cognitive skills (Steinberg, Blinde, and Chan, 1984). Both limited English language proficiency and growing up in a non-English language home environment are associated with low school achievement and high dropout rates. Steinberg et al. (1984) caution that, in the United States, having a primary language other than English, Hispanic ethnicity and low socioeconomic status all are closely woven together. It is difficult to measure the independent contribution of each to school achievement. There are, for
instance, few studies with sufficient numbers of non-Hispanic youngsters with a primary language other than English to distinguish between the effects of ethnic origin and those of language minority status.

There has been little agreement on how to measure language minority status. For this reason, estimates of the magnitude of the problem vary considerably. According to 1980 Census data, 9.7% of the total school-aged (5-17) population speak a language other than English at home. But a 1978 survey conducted by the Office of Civil Rights (OCR) in the U.S. Department of Education indicated that only 2.2% of the students in public elementary and secondary schools spoke a primary language other than English (Milne and Gombert, 1983).

The OCR data indicate that very few school-aged, non-Hispanic, white and black children had a primary language other than English (PLOTE). Only 0.2% of non-Hispanic whites and blacks were PLOTE. The figures are not reported separately for blacks and whites, but it is unlikely that they differ greatly. In contrast, 26.1% of the Hispanic school-aged population were PLOTE students. About 8.3% of American Indian or Alaskan native children were PLOTE students, and 14.7% of Asian youth were identified as PLOTE children (Milne and Gombert, 1983).

Geographic Distribution of the Disadvantaged

The educationally disadvantaged are not distributed randomly throughout the country. Some risk factors are concentrated in some parts of the country, while others are located in other parts of the country. The major geographic centers of educationally disadvantaged students are central cities, rural areas, the South, and the Southwest.

Poverty is most common in central cities and rural areas. While the overall poverty rate for children in 1983 was about 22 percent, the rate in central cities of metropolitan areas was 31 percent. The rate for children in nonmetropolitan (mainly rural) areas was 24 percent. In contrast, the poverty rate for children living in noncentral (mostly suburban) portions of
metropolitan areas was only 13 percent. Poverty rates do not vary substantially across regions of the country. The highest regional poverty rate for children, 24.3%, is in the South; the lowest regional rate, 20.2%, is found in the Northeast and Mid-Atlantic region (Committee on Ways and Means, 1985).

The Hispanic population is mainly concentrated in a few states. In 1980, nearly one-third of the roughly 5.5 million Hispanics under age 18 resided in California. An additional twenty percent lived in Texas. Ten percent more were living in New York. Illinois and Florida had smaller, but still sizable numbers of Hispanic children. A total of 4 million Hispanic children resided in these five states, representing 72.6% of the national population of Hispanic children in 1980 (Arias, 1986).

The black population is largely concentrated in the South and in central cities. The largest numbers of blacks enrolled in public elementary and secondary schools in 1980 were in New York, Texas, Illinois, and California. Other states with sizable numbers of black public school students include Florida, Georgia, North Carolina, and Louisiana (Grant and Snyder, 1986).

The largest public school systems in the country have predominantly black enrollments. New York City, Chicago, Detroit, and Philadelphia are the cities with the largest black populations in the country. The school systems in each of these cities are at least 70% minority, although in New York and Los Angeles the number of Hispanic students rivals or exceeds the number of black students (Arias, 1986).

Family structure patterns vary both according to the region of the country and whether the area is predominantly rural or urban. The regional variations are not large. According to data from the 1980 Census, 17.1% of children under age 18 in the U.S. were living in one-parent families in 1980, the last year for which detailed data are available. This proportion was slightly higher in the Middle Atlantic, South Atlantic and Pacific states, and somewhat lower in the westernmost Midwestern states and Mountain states. At the state level, the extremes are formed
by New York, where 21.8% of all children under 18 were living in one-parent families in 1980, and North Dakota, where just 9.5% of all children under 18 were living in one-parent families at that time (U.S. Bureau of the Census, 1986b).

Contrasting New York and North Dakota suggests that there might be substantial differences between urban and rural areas, as New York and the other Middle Atlantic states are more urbanized than North Dakota and the other western states. In fact, central cities do have very different family structure patterns than do suburban and rural (nonmetropolitan) areas. Children living inside central cities were almost twice as likely to be living in female-headed households with no husband present as were children living outside central cities in suburban and rural areas. There were, however, no differences between suburban and rural locations in the proportion of female-headed families with no husband present in 1980 (U.S. Bureau of the Census, 1986).

Published data on the geographic distribution of children whose mothers have not completed high school are scarce. The Census Bureau does, however, publish data from the Current Population Survey on the educational attainments of women of childbearing age (18 to 44 years old). Based on the 1981 figures (Bruno, 1984), women in this age group residing outside of central cities are somewhat more likely to have completed high school than similarly aged women living in central cities or nonmetropolitan areas. As with other risk factors, children living in suburbs appear to be somewhat better off than children living in heavily urban or rural areas.

Regional variations in the educational attainments of women of childbearing age boil down to the South versus the rest of the country. About 85% of the women aged 18-44 living in the Northeast, Midwest, and Western states report having completed high school. In contrast, only about 78% of similarly aged women residing in the South report finishing high school. Here too the evidence is cumulative that children living in the South are more likely to be exposed to educational risk factors than children living elsewhere in the country.
Students with a primary language other than English are concentrated in the Northeast and Southwest regions of the country. More than two thirds of the PLOTE population is in just three states: California, Texas, and New York. California and Texas each have more than one-quarter of the nation's PLOTE students. Smaller numbers of PLOTE students are found in New Jersey, Arizona, Florida, and New Mexico (Milne and Gombert, 1983).

A majority (55%) of PLOTE students are enrolled in central cities. About one-quarter are in suburban portions of metropolitan areas. Only about one-fifth of PLOTE students attend schools in nonmetropolitan areas (Milne and Gombert, 1983).

An Overall Estimate of the Size of the Disadvantaged Population

Despite the broad nature of the available indicators of the educationally disadvantaged population, it is clear that substantial numbers and troubling proportions of U.S. children may be classified as educationally disadvantaged. In terms of any single indicator, between 10 and 25 percent of the children between the ages of 0 and 17 may be classified as disadvantaged. Most indicators show that between 1 in 5 and 1 in 4 children are educationally disadvantaged. (An exception is language minority status, where far fewer disadvantaged children are indicated). Of course, as noted earlier, these indicators are not totally redundant so that single indicators underestimate the size of the educationally disadvantaged population.

The extent to which these five risk factors, taken singly, underestimate the extent of the educationally disadvantaged population may be seen by comparing the proportions of children predicted to be at risk in terms of one of the indicators to the proportion of children who may be currently classified as disadvantaged in terms of achievement. Data on the reading achievement of U.S. students reported by the National Assessment of Educational Progress suggest that 35.8% of all 9 year olds are reading below the expected level and 39.7% of all 13 year olds are reading below the expected level (Kennedy, et al., 1986:62-63). Thus, while most of the background indicators show that about 20-25 percent of children can be classified as disadvantaged on a
single indicator, NAEP reading tests show that about 35-40 percent of students can be classified as educationally disadvantaged.

Even conservative estimates put the proportion of educationally disadvantaged students at one-third. Of course, as indicated above, the educationally disadvantaged population is not randomly distributed. Some schools and classrooms will have far fewer than one-third disadvantaged students while others will have far more than one-third disadvantaged students. But if the figures reviewed thus far present a serious problem of large proportions for the schools, they only begin to suggest the size of the educationally disadvantaged population in the future.

**III. Projected Changes in the Educationally Disadvantaged Population**

In this section we examine the projected changes in the characteristics of the school-aged population between 1986 and 2020. These projections illustrate the changing composition of the school-aged population over the next 35 years.

The projections we examine are based on current and projected data reported by the U.S. Bureau of the Census. We use current and recent data to describe the present condition of educationally disadvantaged students. These current patterns are then projected into the future, based on the changing characteristics of the school-aged population over time.

The Census Bureau has reported projections of the population by age, sex, and racial/ethnic group for selected years between 1980 and 2080. Projections of the population by age and racial/ethnic group are the primary basis for describing the educationally disadvantaged of the future. Ideally, the various characteristics of the educationally disadvantaged might be projected into the future directly. But projections of social and economic characteristics are much more prone to error than projections of population counts, as there are many more factors which govern social trends than population trends, and these factors can change quickly over time.

The Census Bureau's projections are based on several assumptions regarding fertility,
mortality, and migration rates. For each racial/ethnic group, a total of 30 data series are produced, based on varying combinations of low, middle, and high levels of fertility, mortality, and migration. Of these, the three most common series are the high series (which assumes high levels of fertility, mortality, and migration), the middle series (which assumes medium levels of fertility, mortality, and migration), and the low series (which assumes low levels of fertility, mortality, and migration).

Our projections are based on middle series population projections for whites, blacks, and other races, and high series population projections for Hispanics (Spencer, 1986). Unlike the Census Bureau, we use racial/ethnic categories that are mutually exclusive, as Spanish origin is given precedence over racial categories1. The major reason for using the high series projections for Hispanics is that the fertility and immigration rates are more plausible than the corresponding rates in the middle series projections. The middle series assumes that the annual fertility rate per 1,000 Hispanic females will increase from 2.74 in 1982 to 2.81 in 1989, and decline thereafter, falling to 2.37 by the year 2020. In contrast, the high series assumes that the fertility rate per 1,000 Hispanic women will peak at 3.07 in 2000, and decline to 2.87 by the year 2020. We believe the higher figures are more likely, as there has been no evidence of a tapering off of the fertility of Hispanic women to date. (2)

The single most important factor in the school-aged population of the future is the expected increase in both the number and proportion of traditionally disadvantaged young people. Figure 1 shows trends in the size of the U.S. population of 0 to 17 year olds, projected forward from 1982 to 2020. The 0 to 17 population is expected to increase by about 17 percent over this period, as the number of children in this age group rises from 62.8 million in 1982 to 72.6 million in 2020.

Insert Figure 1 About Here
The overall increase in the population of 0 to 17 year olds represents two quite different forces. First, the number of white non-Hispanic youngsters is expected to decline about 13 percent over the period from 1982 to 2020. Second, the number of Hispanic children will more than triple over this period, increasing from 5.9 million in 1982 to 18.6 million in 2020. The expected increase in the Hispanic youth population of 12.7 million more than offsets the expected decline of 5.9 million in the white non-Hispanic population, and, in fact, accounts for most of the overall population growth expected between 1982 and 2020.

The anticipated changes in the size of the black and other race populations are not nearly as striking as those of the white and Hispanic groups. The population of black youth under the age of 18 is expected to rise from 9.3 million in 1982 to 11.9 million in 2020, an increase of 22 percent. Moreover, while a 69 percent increase in the population of other races is projected, this represents an increase of 1.2 million children over the 1982 figure of 1.8 million.

Figure 2 shows the projected racial and ethnic group distribution of the 0 to 17 year old population from 1982 to 2020. This figure shows quite clearly that white children form a declining share of the school-aged population, while Hispanic children form an ever-increasing share of U.S. children. In 1982, about 73 percent of the school-aged population were white. This share is expected to decline to 54.5 percent in the year 2020. By contrast, in 1982, Hispanics comprised 9.3 percent of the 0 to 17-year-olds in the population. By 2020, the Hispanic proportion of the youth population is expected to be 25.3 percent.
The black and other race proportions of the U.S. population of children are expected to increase slightly from 1982 to 2020. The fraction of blacks is anticipated to rise from 14.7 percent to 16.5 percent, and the proportion of other race groups from 2.9 percent to 4.2 percent. While these changes are comparatively slight, they do contribute to the remarkable transformation of the American youth population. While almost three in every four children in 1982 were white, only about one in two will be white in 2020. And while only one in ten children in 1982 were Hispanic, about one in four children will be Hispanic in 2020.

The projected change in the racial/ethnic composition of the school-aged population implies a substantial increase in the size of the educationally disadvantaged population. We have already shown that racial and ethnic group status are correlated with several other indicators of the educationally disadvantaged population. There is, unfortunately, little reason to expect those correlations to disappear over the next 40 years, and, in fact, they may not change very much at all. Thus, assuming a constant relationship between racial/ethnic group identity and poverty, as the number and proportion of black and Hispanic children increase, so too will the number and proportion of children in poverty.

The number of children in poverty, projected forward from 1984 to 2020, is shown in Figure 3. Over this approximately 35 year period, the number of children in poverty is expected to rise from 14.7 million children to 20.1 million children, an increase of 37 percent. The proportion of children in poverty will not increase nearly as much, rising from about 21 percent of all children in 1984 to about 27 percent of all children in 2020. But focusing on the change in the proportion of children in poverty over time neglects the fact that the number of children is increasing substantially over time. It probably is more important to be aware that our educating institutions will need to serve 5.4 million more children in poverty in 2020 than they served in 1984. (3)
Similar trends are observed for the other indicators of the educationally disadvantaged population as well. Projections of the number of children not living with both parents are shown in Figure 4. The number of children not living with both parents is expected to increase from 16.2 million, in 1984, to 21.1 million, in 2020, an increase of 30 percent. Our projections indicate that many more children will be living in families without both parents present in the future than are doing so today.

We also anticipate a sharp increase in the number of children living with mothers who have low levels of educational attainment. Figure 5 shows projections of the number of children living with mothers who have not completed high school, from 1983 to 2020. The number of such children is projected to increase by 7.6 million over the period 1983 to 2020, from 13.6 million to 21.2 million. This change represents a 56 percent increase in the number of children living with poorly educated mothers.

Earlier we noted that the vast majority of U.S. children whose primary language is not English are Hispanic. As the Hispanic population expands, we expect a corresponding increase in the numbers of children whose primary language is not English. Figure 6 shows projections of the number of children speaking a primary language other than English from 1982 to 2020. Among 0-17 year olds, just under two million children were estimated to be PLOTE students in 1982. The number of PLOTE children is projected to about triple, approaching 6 million students by 2020. The proportion of children who speak a primary language other than English is anticipated to rise from about 2.5 percent in 1982 to about 7.5 percent by 2020.
IV. Implications for Social and Educational Policy

There are at least two important implications to be drawn from our analysis of the coming changes in the disadvantaged population. First, the magnitude of the problem suggests that considerable additional public resources must be devoted to schooling if we hope to be able to address the problems of disadvantaged youth. Such resources will be necessary on an unprecedented scale if we are to mount a serious attack on the problems of the disadvantaged. This is chiefly an issue for social policy makers.

Although mobilizing public support for such increased expenditures on education may prove difficult, investments in education and the educationally disadvantaged are likely to have payoffs at least as great as other forms of investment this society may undertake. Elsewhere (McDill, Natriello, and Pallas, 1986) we have described the economic costs of one of the outcomes of failing to properly educate disadvantaged youngsters, dropping out of high school. We concluded that the estimated cost to the nation of the 500,000 students per year who leave school prior to graduation is about 50 billion dollars in foregone lifetime earnings alone. Accepting this figure as a low estimate of the total cost of failing to educate disadvantaged children, and comparing it to the total revenues of public elementary and secondary schools of 126 billion dollars (Stern and Williams, 1987), we see that even increasing national expenditures on elementary and secondary education by nearly 50% might still be a cost-effective social policy for the nation.

But simply throwing more money at the schools will not be enough to address the problems presented by disadvantaged children. The second implication of our analysis is that the magnitude of the problem will require new means for delivering educational services to the disadvantaged. Previous policies involving special programs for a relatively small group of disadvantaged students will not suffice when the majority of students will be disadvantaged in increasing numbers of districts and schools. This is chiefly an issue for educational policy makers and educators.
New school-wide and district-wide approaches to solving the educational problems of disadvantaged students will be necessary. Such approaches might include specific strategies to re integrate the school and the family and to relieve the overburdened school hierarchy through the involvement of multiple participants in school advisory committees (Comer, 1980) and across-the-board reorganization of schools to accelerate the progress of disadvantaged students (Levin, 1987). In addition, sociologists, policy-makers, and educators will require new theoretically grounded approaches to delivering educational services to students with varied and unpredictable educational problems (Natriello, 1987). Moreover, these new approaches must be developed and initiated while previous approaches to the educational problems of the disadvantaged in the form of special programs are maintained and strengthened.
Figure 3
PROJECTED NUMBER OF CHILDREN IN POVERTY
U.S. TOTAL, 1954-2020

Figure 4
PROJECTED NUMBER OF CHILDREN NOT LIVING WITH BOTH PARENTS
U.S. TOTAL, 1982-2020
Figure 5
PROJECTED NUMBER OF CHILDREN WITH MOTHERS NOT COMPLETING HIGH SCHOOL
U.S. TOTAL, 1833-2020 (MOTHER PRESENT)

Figure 6
PROJECTED NUMBER OF CHILDREN W/ PRIMARY LANGUAGE OTHER THAN ENGLISH
U.S. TOTAL, 1833-2020
Footnotes

1. Unfortunately, there are differences among administrative agencies in the way race and ethnic origin are reported. Even within agencies, reporting categories change. For instance, the reporting of race in the 1980 census differed from that in the 1970 census. Current practice in federal agencies is to use the racial categories of the Office of Management and Budget, which include "white," "black," "American Indian, Eskimo, or Aleut," and "Asian and Pacific Islander." Differing schemes have included the category "other." When the "other" category is available, about 40% of persons describing themselves as Hispanic origin chose the "other" category for their racial identification. Without the "other" category, more than 98% of the Hispanic population is identified as either white or black.

2. Spencer (1986:27) notes, "More important to the ultimate accuracy of these projections is our ignorance about the likely future trend of Hispanic birth rates. Because Hispanic fertility statistics have been collected for only a few years, we cannot tell if the current Hispanic birth rates will converge towards the fertility rates of other groups, stay in their present relationship, or even diverge away from the fertility patterns of other groups. In this projection, the assumption has been made that convergence of Hispanic fertility rates to those of other groups will occur."

Additional evidence on the plausibility of the high series projections is provided by a recent Census Bureau report on the Hispanic population (Pear, 1987). This report found that the Hispanic population grew at a rate five times faster than the non-Hispanic population from 1980 to 1987. Moreover, for the largest Hispanic subgroup, Mexican Americans, the high series projection assumptions for fertility and, hence, numbers of births may be too low. The fertility rate for Mexican American women substantially exceeds that of other subgroups, which in turn are, on average, much higher than the fertility rates for non-Hispanic women (Pear, 1987). Also, the median age of Mexican Americans in 1987 is 23.5, which is lower than the median age projected for the Hispanic population even in the high series projections. As a low median age implies larger numbers of women of childbearing age, the projected number of births may be
underestimated even in the high series projections.

A final reason to prefer the high series projections is the issue of undocumented immigration. Spencer (1986) reports, "Net immigration in the middle series also includes an assumption that there will be no permanent undocumented immigration in the future. This is probably not correct, but it is consistent with the Census Bureau's national population estimates and projections done before 1986. Until then, no allowance was made for undocumented immigration because there were no adequate measures of the component. As is true of our base-year population and fertility assumptions, the result of our net immigration assumptions is likely a tendency to make these projections of the Hispanic population somewhat conservative."

3. There has been substantial educational expansion, both in the United States and elsewhere, in this century, interpreted mainly as a function of the size of the available school-age population (Meyer, Ramirez, Rubinson, and Boli-Bennett, 1977). In the United States, however, there is little evidence that public school enrollment growth was due to the immigration of disadvantaged immigrant groups (Ralph and Rubinson, 1980). Hence, the projected increasing demand for education represented by the growth of the disadvantaged population may be unprecedented in this country.
References


and Nonschool Settings. 84th Yearbook of the National Society for the Study of Education. Chicago, ILL: University of Chicago Press.


