DOCUMENT RESUME

ED 294 972	UD 026 201

TITLE	Dropouts, Pushouts and Other Casualties. Hot Topics Series.
INSTITUTION	Phi Delta Kappa, Bloomington, IN. Center on Evaluation, Development, and Research.
PUB DATE	Mar 87
NOTE	238p.
AVAILABLE FROM	Phi Delta Kappa, Box 789, Bloomington, IN 47402.
PUB TYPE	Information Analyses (070) -- Reports - Descriptive (141) -- Collected Works - General (020)
EDRS PRICE	MF01/PC10 Plus Postage.
DESCRIPTORS	Data Analysis; *Definitions; *Dropout Characteristics; Dropout Programs; *Dropout Rate; *Dropouts; *Educational Change; Educational Research; Graduation; High Schools; *Information Needs; Social Influences

ABSTRACT

Members of the educational community are increasingly concerned that the dropout rate is too high. However, concerned educators and researchers do not agree who should be included in the data to determine the dropout rate. National definitions are needed so that accurate comparisons can be made. There is also a need to assess the effectiveness of dropout programs. The most recent information and research on the dropout problem are provided in this document of 13 papers collected in 1986. The volume is divided into the following five parts: (1) Defining the Dropout, which presents efforts by and suggestions for large urban districts to produce a single definition of dropout; (2) Dropout Rates, which addresses the challenge of using the correct methodology to measure the rate accurately; (3) Correlates of Dropouts, which is an attempt to identify student attributes that are related to dropping out; (4) Characteristics of Successful Dropout Prevention or Intervention Programs; and (5) School Reform, which discusses the possible impact of new reforms, proposes a model program for at risk students, and offers some solutions for dealing with the dropout problem. The papers each contain a list of references. (VM)

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Dropouts, Pushouts, and Other Casualties

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The Hot Topics series is prepared
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March 1987

INTRODUCTION

Students leave school for various reasons. The consequences of dropping out vary and have been well documented in educational literature. Members of the educational community are increasingly concerned that the dropout rate is too high. However, concerned educators do not agree about who should be included in the data to determine the dropout rate. Without a uniform definition of school dropouts and a standard formulation of the dropout rate, attempts to understand and respond to the problem of school dropouts are characterized by ambiguity. The dropout rate is also affected by both accidental and purposeful reporting errors at the school level. Comparisons across school districts and regions are thus rough estimates at best.

In 1983, we in Dallas abandoned a ten-year effort to report our dropout rate because of problems associated with the quality of the reported data. At that time, I hoped that we could improve the accuracy of our data by using new strategies found in the relevant literature. However, while a search of this literature did not provide solutions to our problem, it did produce information that should stimulate a new level of dialogue among educators who are concerned with the dropout rate.

I have two suggestions for improving the quality of dropout studies. First, high schools should all report graduation rates until definitions and procedures for reporting dropouts are standardized. These rates would have some variability from school to school because of student transiency, but would still be preferable to currently reported rates of dropout. Second, assessments of the effectiveness of dropout programs must be made in light of annually determined current dropout rates.

This volume was put together to provide the most recent information and research to concerned educators and interested parties. All of the papers included were either published or presented in 1986. Thirteen papers were selected from the large number of timely articles.

Section one, Defining the Dropout, looks at efforts of large urban school districts to define dropouts. These efforts failed to produce a single definition of dropouts. They did result in a number of suggestions that should stimulate the exchange of ideas among interested educators.

Section two, Dropout Rate, includes three papers that address the challenge of achieving an accurate dropout rate. Dropout rates are discussed in terms of the impact definitions of dropout make on the measured rate. Summer dropouts and returnees are examined as sources of confusion in the determination of dropout rates. The authors compare longitudinal and cross-sectional studies and note the necessity of accurate coding at the school level.

In section three, Correlates of Dropouts, the authors attempt to identify attributes that are related to dropping out. They argue that research efforts should be focused on the identification of variables that are related to dropping out with emphasis on variables that can be altered in the educational setting. Less attention should be directed toward establishing correlations with variables outside the influence of the schools such as social, family, and personal characteristics. The goal of research in the area should be the development of educational experiences that are rewarding for all students.

Characteristics of successful dropout prevention or intervention programs are summarized in section four, Dropout Prevention. Successful programs are those that are designed to: (a) improve the educational experience for all students, (b) develop and maintain a positive social bond with teachers and peers, (c) be easily accessible to all, and (d) provide a reasonable expectation for success.

In section five, School Reform, three papers discuss the possible impact of new reforms, needed reforms, and the need of knowing what has been done to whom. Among the suggested reforms are: (a) reduced class size, (b) individualized curriculum and instructional approach, (c) positive school climate, and (d) increased attention to all children, but especially at-risk children.

While this volume does not provide a formula for the determination of school dropouts, it does provide a sampling of the most recent research and writing on the topic of school dropouts. It is hoped that the materials will stimulate productive thinking about defining the problem as well as strategies to reduce the level of school dropouts.

—William T. Denton, editor

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NOTES

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Defining the Dropout

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Large School Systems' Dropout Reports: An Analysis of Definitions, Procedures, and Findings

FLOYD MORGAN HAMMACK
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One basic problem for both researchers and policymakers is obtaining accurate information about dropouts. In this article, Floyd Hammack examines school district reports on the dropout problem in Boston, Los Angeles, Miami, New York City, San Diego, and Chicago. Citing the great diversity in the processes for the classification of students as dropouts, he raises important concerns about the comparability of dropout rates between districts.

Although there is considerable concern about the proportion of young adults who have not completed high school, there have been few efforts to explore in detail how school systems define dropouts and how they arrive at rates of completion. Much of our data regarding rates of completion come from national data-gathering efforts such as the Census Bureau and the Department of Labor, which provide information on the proportion of those at specific years of age who have attained a high school diploma or higher education. Other sources of data include information school systems provide to the National Center for Education Statistics (NCES). The NCES data on dropouts are based on the yearly number of high school graduates compared with the number of freshmen enrolled four years earlier for each state, in addition to data it uses that are provided by other government agencies. This former figure does not, of course, take into consideration in- and out-migration or the number of students held back or advanced a grade during the period. These data, moreover, may not be comparable if districts do not use similar methods of defining dropouts or similar methods for calculating rates of completion. Cooke, Ginsberg, and Smith report on these and similar problems with national educational data.[1] Thus, while we have information,

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This article is part of a larger project on New York City dropouts sponsored by the New York City Alliance for the Public Schools. I would like to thank Gary Natriello, Lloyd Bishop, and Deborah Inman for their helpful comments. However, the views presented here are mine, and do not necessarily reflect those of my colleagues or the alliance.

for example, about the proportion of twenty-two-year-olds who have not received a high school diploma, we certainly cannot rely on national data for those who are sixteen.

As we begin to think seriously about ways to hold school systems accountable for their educational efforts, however, we need to pay strict attention to how they measure such important indicators as school completion rates. Relatively small differences in such calculations can produce large differences in rates. Are special education students, however they are identified, included in the rates? Are students attending night school treated as dropouts? These are just two examples of the differences in definition that can lead to rather large differences across systems and consequently different assessments of the degree to which systems are providing effective education for their students.

It is worth noting that research on dropping out seems, like most educational issues, to follow a cyclical pattern. Even a cursory search of the literature reveals considerable activity during the late fifties and early sixties, and a rather sharp decline since then. The problems of specific demographic groups have received attention, especially legislatively, but problems that cut across these and other groups have not been as assiduously attended to in the last fifteen years In the context of this article, the National Education Association's (NEA) publication *Dropout Studies: Design and Conduct* is illustrative of the noncumulative nature of educational knowledge.[2] Many of the problems of consistency and comparability of reporting found in the current report are also identified in this twenty-year-old NEA publication. Moreover, the 1965 document provides ample examples of how to overcome the limitations of existing (both then and now) data sources.

In an effort to begin the investigation of these differences, and the degree to which they exist, the following report presents information on how several large urban school systems define dropping out (or "early school leaving," as some systems describe it), and on how they process the information and arrive at rates of school completion. A summary of the major findings reported in the documents collected is also provided.

METHOD

School systems were contacted in order to obtain information regarding the nature of their definition of dropouts, the procedures for collecting the necessary information to determine dropout statistics, and the method used in determining the dropout rate. Appropriate school officials were contacted in the following cities to obtain the information reported here: Boston, Los Angeles, Miami, New York City, San Diego, and Chicago.

These cities were chosen because they are large, contain heterogeneous student populations, and have high proportions of students who were recent migrants or whose parents had recently immigrated. These criteria were chosen for several reasons. First, the dropout problem, although important in all districts, is especially acute in large, urban centers with heterogeneous populations. While national estimates of rates of leaving school before a diploma range from 18 to 25% of eighteen-year-olds,[3] estimates from large cities are often double these rates, and, for some subgroups of urban students, rates have been reported at 60% or higher.[4] Second, recent research emphasizes the importance of limited English proficiency as a factor associated with early school leaving.[5] Thus, districts with substantial numbers of immigrants from non – English speaking areas or large groups of non-native-English speaking students are likely to have greater problems with dropping out. Finally, reports prepared by research and/or evaluation offices of five of these systems were obtained and are discussed below. In the case of Chicago, I was referred by officials in the Department of Research and Evaluation, Chicago Board of Education, to a report prepared by the Chicago Panel on Public School Finances.[6] This report was prepared in cooperation with the Department of Research and Evaluation, and was held by them to be the most accurate information available on Chicago dropouts.[7] Additionally, I will refer to a study prepared by another external advocacy group in Chicago, Designs for Change, reported on in *Education Week*,[8] and found in the document *The Bottom Line: Chicago's Failing Schools and How to Save Them.*[9]

Clearly, not all districts that meet the criteria above are included in this paper. Although others were contacted, recent reports were not available or additional needed information could not be obtained by telephone interview. The districts included in this report, therefore, represent only themselves. Nevertheless, the problems they illustrate and the findings they provide are certainly common among districts across the country and can both illuminate what data districts can provide on the dropout phenomenon and point to directions that need to be pursued in improving the collection and use of dropout statistics.

DIFFERENCES IN THE DEFINITION OF A DROPOUT

The issue of noncompletion of high school courses of study has become one of considerable importance to all the school systems contacted. In some cases, it has become enmeshed in local politics and is currently very controversial. In other cases, where politicization has not gone far, the issue is still considered a high priority due to efforts of state education authorities to enhance the statewide performance of local schools. In any case, all those contacted expressed high levels of concern. At a time of increased public interest and legislative focus on education, the fact that a considerable proportion of enrolled students do not achieve what has become the expected minimum level of educational attainment — represented by the high school diploma — is being more closely scrutinized than before. This is especially the case as national and local evidence clearly demonstrates wide variations in completion rates among demographically identifiable groups. Not only, then, are questions of organizational effectiveness involved, but so too are questions of educational equity.

Under these circumstances, the question of how dropouts are identified and counted is important. Procedurally, all school systems contacted begin the process at the building level, where an attendance secretary, or the equivalent, maintains records of attendance of students enrolled at the school. When students formally leave a school, a notation is made regarding why the student is leaving. These notations are usually in the form of a code, perhaps with additional information. Such codes usually include: transferred to another school; entered a private school; moved out of district; entered the military; entered full-time work; and so on. Such codes are standard throughout each system and, along with other student records, are periodically transferred to the central office where systemwide data are collected and processed. However, the thoroughness of such centralized record keeping, its currency and ability to be used for student tracking and report generating, vary, as does the availability of personnel to utilize such systems.

An important issue arises when students do not formally withdraw from school. This can occur when students simply do not appear at the school to which they have been assigned. For example, a number of students who drop out do so during the summer, between academic years. Others stop attending without formal notification to the school that they have withdrawn. How school officials classify these long-truant students depends on the available codes and on their efforts to follow up on such students. "Not found," or a similar phrase, is frequently used for such students, and is usually one of the codes included in the dropout statistics. How long a student may be truant before being classified as a dropout, however, varies widely among districts.

The complexities do not stop here. As school systems have developed special schools, alternative programs, and the like, the collection of data for central record keeping has become very difficult. Consistency of reporting within districts as well as across them becomes problematic. For example, some districts include special education students in their reports, while others do not; some include all students enrolled in any type of program offered by the district, while others include only those enrolled in regular day high schools. The specific dropout codes that are used vary, so that in some districts, a transfer to a business or trade school is not registered as a dropout, while in others it is, at least if the school does not offer a high school diploma program. Finally, as the structure of educational systems varies both within districts and between them, there is no consistency in the grade levels included. Some districts have regular four-year high schools and junior or intermediate schools that include the ninth grade plus senior high schools, while others have only one or the other. The data reported in dropout reports sometimes includes only tenth through twelfth grades; others report ninth through twelfth grades, but only those from regular four-year high schools, leaving unreported ninth-grade students dropping out from junior high schools. The effects of these different definitions on rates reported for systems are not known but undoubtedly account for at least some of the variability between them.

That variability in dropout rates exists is aptly demonstrated by the information collected by Dale Mann and his colleagues at Teachers College, Columbia University, for the National Invitational Working Conference on Holding Power and Drop-outs, sponsored by the American Can Company Foundation and held during February 1985.[10] Dropout rates for eleven school districts varying widely in size and geographic location were presented in the conference report. As reported, the one-year, cross-sectional rates range from .8% in St. Cloud, Minnesota, to 16% in Fort Worth, Texas. Size of district, however, seems not to be directly related, as Houston (the seventh largest district in the country) is reported to have a 5.4% rate, and Cleveland (the twenty-eighth largest) reports a rate of 4.4%, while St. Louis (forty-second largest) reports a rate of 15%. It should be noted that the veracity of these data were questioned by both those who provided them and other conference participants.

School districts also vary in the formulas used to calculate their dropout rates. The most common procedure is simply to divide the number of dropouts by the total enrollment for the grade levels included during a single year (a cross-sectional rate). Other districts follow cohorts, usually across the secondary school years. Still others provide projections from cross-sectional data to four-year rates.

It is useful to note here that the context in which the data gathering and reporting processes just described take place has important implications for the quality of data collected. For example, I was told by a school official in one city that considerable pressure had been exerted on principals in the district to keep the dropout rate low. Performance evaluation systems for school managers used in this system were suggested as providing part of this pressure. One of the ways this was accomplished was for building-level personnel to intentionally mis-code students who were "not found," that is, who were most likely true dropouts. A proportion of such students were coded as "transferred to private schools." Because there was no mechanism to share data between public and private schools, such codes effectively meant that the school's codes could not be checked (had there been an effort to do so), and its dropout rate was recorded as lower than it actually was. Other students who had in fact dropped out were thought to have been coded as having moved out of the district. These suspicions led the district's central research office to be skeptical of the data being forwarded by the individual schools. The magnitude of distortion involved here may be sizable: One school in this system reported an "official dropout rate" of 1.9%, but its actual rate was calculated by the central office as 58.3%.[11]

The quality-of-data question is critical because, although a central office may utilize a definition of dropout, that definition must be adhered to at the point of generation, that is, at the school-building level. The degree of adherence is affected by intentional mis-codes as well as by errors of recording.

To the degree that state legislatures, their departments of education, local boards, and superintendents attempt to increase accountability and focus on attendance and retention, accuracy of data becomes even more problematic. While previously, the lack of data, of whatever quality, had been cited as a problem, educational leaders may now be creating the circumstances that produce plenty of data, but of questionable quality. Because dropouts come predominantly, though by no means entirely, from disadvantaged segments of the population, issues of equity are involved, and these, along with other issues, can lead to politicization. Such politicization can lead to action on this neglected problem, but it can also lead to subversion in data reporting. Designers of school record keeping systems need to be alert to problems of data integrity.

CITY-BY-CITY FINDINGS

BOSTON

Boston public schools, comprising the thirty-seventh largest district in the country, enrolled 62,989 students in the fall of 1981. Of this number, 30,733 were secondary school students.[12] During the 1978–1979 school year (the most recent for which data are available), the racial and ethnic composition of the student body was: 3% Asian, 12% Hispanic, 44% black, and 40% white A total of 11.5% of all students were identified as having limited English proficiency.[13]

In Boston, any student who leaves school before graduating for one of the following reasons is considered a dropout: work, military service, marriage, over age sixteen, did not report, and other. Special education students as well as those enrolled in alternative schools are included. The rate reported in the Office of Counseling and Pupil Services' "Drop-Out Information Paper"[14] is calculated by dividing the total number of high school (grades nine to twelve) dropouts for a school year by the total enrollment for that year. This cross-sectional rate for 1983–1984 was 14.2%. The rates for individual high schools vary from 0% at Boston Latin Academy (a selective public school) to 24.5% at Dorchester High School (a comprehensive high school). By far the largest number of dropouts were found in the "over age sixteen" category.

Considering only male dropouts, the rates by race were: white: 15.6%; black: 14.7%; Hispanic: 19.9%; Asian: 11.4%. The corresponding rates for females were 12.8%, 13.7%, 14.7%, and 7.6%.

LOS ANGELES

The Los Angeles Unified School District enrolled 540,903 students in the fall of 1981, 161,907 of whom were secondary school students. It is the second largest district, behind New York City, in the country.[15] The U.S. Department of Education reports that for the 1978–1979 school year, Asians comprised 6% of the student body; Hispanics, 38%; blacks, 25%; and whites, 30%. Those students with limited English proficiency comprised 16.5% of all students.[16]

The most recent data available from Los Angeles are for the academic year 1981–1982, and are reported in the document "Early School Leavers: High School Students Who Left before Graduating, 1981–1982."[17] Only senior high school students (grades ten to twelve) are included in the report. The term "dropout" is not employed by this school system; rather, they refer to "early school leavers." Those early school leavers who are included in the data are those whose codes were: overage, whereabouts unknown, full-time employment, institutionalized, medical exclusion, enlisted military, marriage, and other. The "other" category included such reasons as nonattendance or excessive absence, in custody of parent at home, or "dropped to parent, deceased, expelled, child care, and miscellaneous." Miscellaneous included undercover agents, no statement, emancipated minor, and runaway. The most frequent code was overage, with whereabouts unknown a very close second and all others far behind.

Overall, the proportion of early school leavers was 7% of the total school enrollment for the year. Included in these numbers are students attending all types of secondary school programs. Males comprised 55% of dropouts. Hispanic students constituted 43% of the early leavers, and their cross-sectional rate was 8.6%; white students constituted 26% of the early leavers and had a cross-sectional rate of 6.0%; black students also comprised 26% of those identified as early leavers and had a rate of 7.6%; Asian students were 4% of the leavers and had a rate of 7.4%.[18]

MIAMI

The Dade County school district enrolled 224,580 students in the fall of 1981, of whom 105,137 were enrolled in secondary schools. It is the fourth largest system in the country.[19] According to the U.S. Department of Education, the district's student body in 1978–1979 was comprised of 1% Asian students; 32% Hispanic students; 29% black students; and 38% white students. Students with limited English proficiency comprised 5.3% of the total enrollment.[20]

The Miami report was unique (except for the report prepared by a Chicago advocacy group, discussed below) among those examined in that it reported on a longitudinal study of the June 1980 eighth-grade cohort followed through February 1985.[21] All students who were in the eighth grade in June 1980 in the school system are included. The definition of dropout was any student who left the ninth-to-twelfth-grade program before completing a program of studies and receiving either a certificate of completion or a diploma. Exceptional students, retained students, "no shows" from one school year to another, and those whose parents are not citizens were included. Excluded from the data were those who graduated, are still enrolled, transferred to another school, died, were transferred to the court or a private agency for purposes of custody, or were expelled. Of the students followed, 29.5% had dropped out by the end of the follow-up period. The rate for whites was 26.4%, for blacks 33.9%, for Hispanics 29.3%, and for Asians 19.0%. For males, the rate was 32.1%; for females, 26.8%.[22]

There are several other findings from this study that are worth noting. For example, the researchers found that the largest proportion of dropouts left during the freshman and sophomore years;[23] that being overage in the eighth grade (a result, for example, of being held back in earlier grades) was *very* strongly associated with eventual dropping out;[24] and that of those students who do drop out, a large number do so between academic years, during the summer.[25] This report, however, does not provide information of school leaving codes used by schools to report data. Thus, there are no data from which to assess reasons for dropping out or what the young person did after leaving school.

NEW YORK CITY

The New York City school system, the largest by far in the country, enrolled 924,123 students in the fall of 1981, of whom 469,263 were at the secondary school level.[26] Data from the U.S. Department of Education for 1978–1979 reveal that 3% of New York's total enrollment was comprised of Asians, 30% Hispanics, 39% blacks, and 29% whites. Almost 10% of the total enrollment was classified as having limited English proficiency.[27]

The report prepared by the Educational Management Information Unit of the New York City Public Schools, "Dropouts from New York City Public Schools, 1982–1983," is the most thorough of those reviewed in providing details about how the data were collected and the procedures used for arriving at the statistics reported.[28] Where prior reports had included only students discharged as dropouts from day high schools, this report embraces as

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well all ninth- through twelfth-grade students who dropped out of intermediate and junior high schools, who left special education programs without a diploma, and who dropped out of retrieval settings such as pre-General Equivalency Diploma (GED) and GED programs, Schools for Pregnant Teens, Substance Abuse Programs, and Literacy Programs.

The term "dropout" is defined as any student who left the school system in the 1982–1983 school year prior to graduation, and who did not enter other educational settings leading to a high school diploma within the same year. Students who re-enrolled were not counted as dropouts, but those who, for example, entered a business school program that did not lead to a diploma were included. The discharge codes identifying dropouts are: age seventeen or over with parental consent (the New York City schools are mandated to provide up to high school diploma education for all residents up to the age of twenty-two, although the minimum age of voluntary withdrawal is seventeen with parental consent): employment (requires a certificate and parental consent and can be obtained after age sixteen); not found; transferred to business or trade school. Not included in the dropout category are students who graduated, transferred, were institutionalized, entered college early, entered high school equivalency programs, or attended other (auxiliary) board-sponsored programs. For students from schools below the high school level, the primary code was "not found"; a few left for work or were over seventeen.

The rates calculated in the report are "survival rates." For example, there were 39,040 dropouts during the 1982–1983 school year and a ninth- to twelfth-grade enrollment in the intermediate and high schools of 309,784. Thus, 12.6% dropped out, and 87.4% remained in school. Multiplying the survivor proportion by 4 yields a value of 58.4%, the survivor rate, and 41.6% as the projected four-year dropout rate. When only high school students are included, the rate drops somewhat, to 11.4% dropouts, and a four-year projected rate of 38.4%.[29]

By dropout code, the report finds that among the day high school dropouts, 9.4% entered employment, business or trade schools, or the military; 8.9% were reported to have transferred to auxiliary or outreach centers but did not enroll in them; 74.2% left at age seventeen or over; and 7.5% were not found, after a search by the attendance bureau.[30]

By grade level, the largest group left in the tenth grade, 31.4%; 25.2% left in the ninth grade; 20.8% left in the eleventh grade, and 14.6% were seniors when they dropped out. Of the remainder, 6.1% were special education students not categorized by grade level, and 1.9% did not have their grade level recorded.[31]

Males comprised 55.8% of these dropouts, and females accounted for 44.1%.[32] It is interesting to note that almost 20% of the dropouts were born in 1963 or before, which would have made them almost nineteen years old in September of 1983. Seventeen was the most common age of dropping out

(38.4%), but 17.6% were sixteen (born in 1966), and 23.8% were eighteen (born in 1964).[33]

The report includes no other personal information on students, so racial or ethnic differences are not available from this document. Although a racial and ethnic census is taken by the system, individual student records do not include such information. However, school-by-school dropout data are reported and range from a low of .5% at two selective high schools, Stuyvesant High School and Bronx High School of Science, to 24.9% at a comprehensive high school, Roosevelt.

SAN DIEGO

San Diego City Unified schools, the fourteenth largest system in the country, enrolled 110,904 students in the fall of 1981, of whom 33,465 were in secondary schools.[34] The U.S. Department of Education reported that, for 1978–1979, Asians comprised 7% of the total enrollment; Hispanics, 16%; blacks, 15%; and whites, 62%. A total of 4.5% of enrollees was classified as having limited English proficiency.[35]

The San Diego report was the only one to include student performance data and information about the special advantages and/or disadvantages that characterized its school leavers.[36] The report itself is based on data from 1982–1983, is cross-sectional in nature, reports a "school leaver" rate of 4.5%, and projects a cumulative attrition over four years of 16.5%.[37] The definition of "school leaver" employed includes any student who participated in any grade, nine to twelve, during the school year, had the ability to meet graduation requirements or pass the California High School Proficiency Examination, did not transfer to another school or certified program, and did not reenter the system by October 1983. Males comprised 54% of all school leavers. The rates for specific ethnic groups are as follows: Hispanics, 7.4%; whites, 3.8%; blacks, 5.1%; Asian/Pacific Islanders, 6.8%.[38]

School leavers were classified according to reason for leaving in the following categories: whereabouts unknown, 41.6% of all leavers; married, 3.6%; withdrew, under eighteen, 10.5%; withdrew, over eighteen, 13.4%; full-time employment, 17.0%; mental condition, 10.2%; hardship, 0.5%; pregnant, 3.1%.[39]

By age, of those leaving, 3.2% were thirteen to fourteen years old; 13.1% were fifteen; 23.7% were sixteen; 30.5% were seventeen; 26.0% were eighteen; and 3.4% were nineteen or twenty. By grade level, 3.8% of freshmen left school, 4.6% of sophomores, 6.6% of juniors, and 2.6% of seniors.[40]

Regarding student-performance data, the findings are consistent with previous research. Early leaving is far more characteristic of students who are not doing well in meeting academic expectations than those who are doing average or better. Seventy percent of those who left early had scholastic averages of 2.0 (on a four-point scale) or below; over one-half were below 1.5 and over one-fourth were below 1.0. On the other hand, 7% of leavers had averages over 3.0.[41]

Students with limited English proficiency had higher dropout rates than those who were fluent in English; their rate of leaving was 7.5%. Hispanic students comprised 15.5% of the students enrolled and had a leaving rate of 7.4%. Hispanic limited-English-proficiency students were .9% of the system's students, but left at a rate of 12.5%. The differences are also striking for Indochinese students. They comprised 6.3% of the system's students, and the Indochinese limited-English-proficiency students were 4.1% of the system's students. These limited-English-proficiency students left at a rate of 5.2%, while those fluent in English had a rate of 1.3%, the lowest for any group studied.[42]

Additional data are provided for students enrolled in special programs that were seen as advantageous (gifted, etc.) and for those who had disadvantages not elsewhere included in the report (handicapped, a record of suspension, bottom half of reading scores, etc.). The data for these groups are consistent with the labels associated with the variables: students in gifted, magnet, and other programs associated with success in the schools or those who had high grade-point averages (a sign of success in school) had low leaving rates. On the other hand, students who had been unsuccessful in meeting school expectations or had other disadvantages were far more prone to leave school before obtaining a diploma.

CHICAGO

The City of Chicago school system enrolled 442,889 students in the fall of 1981, of whom 125,255 were at the secondary level. It is the third largest school district in the country.[43] The U.S. Department of Education reported that for the 1978–1979 school year the student body of Chicago's public schools was 2% Asian, 16% Hispanic, 61% black, and 22% white.[44] Those students identified as having limited English proficiency were not reported.

As noted earlier, the dropout report for Chicago was prepared by the Chicago Panel on Public School Finances in cooperation with the Department of Research and Evaluation of the Chicago Board of Education.[45] It differs from the other reports discussed here in that it was prepared by an outside advocacy group. However, the report was cooperatively prepared and was recommended by personnel in the Board of Education who had aided in the data analysis for the report.[46]

Dropouts from Chicago Public Schools provides a longitudinal analysis of the high school classes of 1982, 1983, and 1984. The class of 1982 (which entered the high schools as freshmen in 1978) received the most attention, but comparisons are made between their rates and those of the later years. The 1982 class is studied most intensively because the researchers found that at the end of four years, 10% of this class was still active in the public schools. Thus, a complete analysis of the careers of this class required the inclusion of data from later years. The report follows the 1982 students until September of 1984, or over two years beyond the normal four years.

Because there has been controversy in Chicago about the dropout rate and the methods used to calculate it, this report is very explicit about which categories of students are counted as dropouts. Only those students who transferred to legitimate secondary schools outside of the public system are eliminated from the analysis. Even this exclusion, however, raises questions. The researchers report that the system's follow-up efforts to assure that such transfers actually took place are not vigorous, and thus this modification of the base may act to decrease the actual dropout rate (only slightly, however).[47] Nevertheless, 85% of all members of the class of 1982 attended only one school and remained in the public school system. The 1982 class was comprised of 33,142 students, of whom 140 were still enrolled in the system as of September 1984; 3,060 had transferred out of the system. Of the remaining 29,942, 12,804 were classified as dropouts, for a longitudinal rate of 42.8%, and 17,138 graduated, for a graduation rate of 57.2%.[48]

The report also provides data on dropouts by characteristics: age, race and ethnicity, reading score, and gender. It provides some rates calculated from combinations of these variables, but does not provide extensive multivariate analyses.

Age was found to be an important variable. Fourteen years of age is typical for high school freshmen, and those who entered high school at this age dropped out at a rate of 37%; for those thirteen years of age, the rate was 26%. These two age groups comprised 74.4% of the entering freshman class. However, for those fifteen years of age or older in 1978 (25.6% of the class), the eventual dropout rate was 59.9%, and for those sixteen or older, the rate was 68.8%. The proportion of the class who entered at these two age levels was 23% and 3%, respectively.[49]

By reading level, the rate of dropouts is linear. For those students at or above "normal" reading level (47% of the class) when they entered high school, 23% had dropped out (i.e., not graduated or transferred) by September 1984.[50] For those students whose eighth-grade reading scores were at the 4.7 to 6.7 grade level, the dropout rate was 49.9%, and for those whose scores were lower than that level, the rate was 67.8%. These two groups comprised, respectively, 33.6% and 13.1% of the entering freshman class in 1978.[51]

Considering gender, the differences were consistent with national and other cities' data. Males dropped out more frequently than did females (49.2% against 36.2%).

By race or ethnicity, while black students comprised 63% of the class, their dropout rate was 45.1%; whites were 22% of the class and had a rate of 34.5%; Hispanic students were 14% of the class and dropped out at a rate of 46.9%; Asian students were 2% of the class and dropped out at a rate of 19.4%.[52]

The report finds that entering high school overage, that is, at fifteen or older, is especially potent as a predictor of dropping out, and that this condition is more common for males than females. Holding students back a year or more in elementary school increases the probability of dropping out. The effect of being overage is increased if the student reads below grade level and/or is black. The rates of dropping out for black males who enter at age sixteen or over is 77%; for black males who enter at age fifteen, 63%. These two groups comprised 16.8% of the class of 1982, and provided 25% of the dropouts.[53]

Interestingly, the effects of entering high school at an older than normal age were not present for Hispanics, nor as dramatic for whites or Asians. The authors speculate that language difficulties for Hispanics might account for part of their being held back and that this reason did not carry the stigma or represent the degree of failure that being held back for non-language-related reasons did for black students.[54]

By schools, the dropout rates varied from 62.6% at a 100% black school where 37.6% entered overage, and only 40.3% entered with normal reading scores, to 10.8% at a school with 95.7% white students, 82.7% of whom were reading at or above grade level. As one might expect, the latter school had few students from poverty families (9.0%) while the former school had many (73.2%). Systematic analyses of student body characteristics and performance and dropout rates were not provided for the schools, but much individual school information is presented. From an inspection of these data, however, while the ranking of schools by dropout rates compares closely with the proportion of at-risk students they serve, there are schools that do better and worse than would be expected on the basis of student body characteristics alone. Clearly, these data, although underanalyzed, provide room for optimism about the possibilities of interventions at the school level that may lower the dropout rates.

A report prepared by Designs for Change, a nonprofit advocacy group in Chicago, reports that for "the system as overall, the High School Completion rate is 47%."[55] The rates for predominately black and Hispanic high schools were 65% and 64%.[56] Precise information about which school-leaving codes are included in dropout statistics is not available, nor is information about whether all groups of students and schools (e.g., alternative or special education schools) are included. These data, while lacking the precision of those provided by the Chicago Panel on Public School Finances reviewed here, are generally comparable with them.

CONCLUSIONS

The most important conclusion of this paper is that there is no single or standard definition utilized by the school systems contacted. Moreover, rates are calculated differently and include different data. Under these circumstances, comparisons across school districts must be made very carefully, and only when there is some assurance that data or rates have been adjusted to account for the differences noted here. Such adjustments are often impossible to make.

However, as this review shows, there is much to be learned from the reports of school districts — both about how they gather and process information and from the specifics of their reports. In this regard, special note can be made of the Miami and Chicago reports, which provide information not available elsewhere and may therefore be useful in stimulating thinking about ways to analyze data that inform policy and programs. Furthermore, the San Diego report, although cross-sectional, contains a variety of information not found in the other reports and provides an illustration of the analytical benefits to be derived from a full data base on students and an analysis informed by policy-relevant and explanatory hypotheses. Specifically, the availability of student background, achievement, and discipline data allows for more detailed analyses than were reported by other cities. It may well be that such data were available in at least some of the other systems, but not utilized in the reports. The Miami and Chicago reports illustrate the value of using such annual or periodic reports for more than accountability or evaluation purposes; they can also offer districts information that can be useful for program design and implementation as well as for generating basic research.

One substantive finding that has not received the attention it deserves needs to be highlighted: Students who are overage when they enter high school are far more likely to drop out than are their classmates of normal entering age. School policies of promotion and retention must be carefully examined for their negative effect on dropout propensity, with their positive educational effects better established and balanced against the negative effects shown in these reports. It is clear that being overage is associated with other indicators of problems with school and thus is not, by itself, a variable whose policy manipulation will result in large effects. Nevertheless, the evidence presented here casts doubt on the positive effects on holding students back. Moreover, except for those students who enter a system overage, students who are held back in elementary or junior high schools are known to school officials as already having difficulty in school. They can easily be identified as at risk and targeted for special attention.

Although, as noted, the reports summarized here are very difficult to compare, it is useful to keep in mind information on dropouts provided by national surveys. The November 1983 National Center for Educational Statistics' (NCES) *Bulletin*, entitled "High School Dropouts: Descriptive Information from High School and Beyond," reports data from a longitudinal study begun in 1980. It finds that about 14% of 1980 high school sophomores left school during or after their sophomore year before completing requirements for graduation. Of these, 24% left in their sophomore year, 47% left in their junior year, and 29% left in their senior year. Males had a 15% rate, while females left at a rate of 13%. American Indians and Alaskan natives had the highest rate, at over 29%; Hispanics, 18%; blacks, 17%; whites, 12%; and Asians left school early at a rate of 3.0%. Students whose self-reported grades were "mostly D's or below" had a 42.5% rate, "mostly C's," 18.5%, "mostly B's," 8.1% and "mostly A's," 2.9%.[57]

The survey also asked students for the reasons (post hoc) for dropping out. Of the male students, 36% reported, "I had poor grades; I was not doing well in school." The next largest response was "School was not for me; I did not like school," cited by 35% of the respondents. "I was offered a job and chose to work" was cited by 27%; "I couldn't get along with teachers" was the reason given by 21% of the dropouts; and "I was expelled or suspended" was cited by 13%. For females, the four most frequently cited reasons were "I got married or planned to marry" (31%); "school was not for me" (31%); "had poor grades" (30%); and "pregnancy" (23%).

It is clear that these data are generally comparable with the city school system reports summarized here. These national-sample survey data are useful for providing a measure against which to examine the city data, but explicit comparisons, again, must be made very carefully, especially when comparing the overall rate, as the student composition of the city systems examined here varies widely from that of the nation as a whole. Moreover, freshman students are not included in the NCES report. That exclusion may account for the difference between the figures cited above for the sophomores of 1980 and the percentage of eighteen to nineteen year olds who had dropped out of high school as of October 1981, as reported by the Bureau of the Census (from Current Population Reports). This latter figure was 16.0% for all, 17.9% for white males, 13.2% for white females, 18.9% for black males, and 19.7% for black females. For those twenty and twenty-one years old, the rates were: white males, 16.5%; white females, 12.8%; black males, 24.1%; black females, 22.6%.[58]

Given what we know from previous research about the characteristics of students at greatest risk of dropping out,[59] it is clear that the interpretation of dropout rates for school districts or, for that matter, individual schools must take into account the student body served. Reports of single variable analyses, for example, must be viewed with skepticism.[60]

Finally, the current emphasis on accountability of school managers and teachers and performance-based contracts must be seen as a double-edged sword. While it clearly directs attention to specific aspects of school operations and productivity, it also creates the incentive to misreport relevant data.

This article provides evidence of the problems and also the prospects of district-generated dropout research. We certainly need greater consistency in definitions, and specifically the operational definitions of discharge codes and the grades and categories of students included in the enrollment base used to calculate rates. California, among other states, is moving in this direction, requiring all districts to report data in a consistent fashion. While districts may prefer a particular method, the use of cohorts or at least projected four- or six-year longitudinal rates as provided in the Miami and Chicago reports or the New York City report should also be considered so as to provide both additional information and consistency across districts. The benefits of including demographic and performance data in such reports is clearly demonstrated by the San Diego and Chicago reports. Researchers should be cautious in interpreting data across districts and states, and should begin to build student composition variables into their models. Finally, administrators must be alert to intentional misreporting in the design of student information systems and in the use of accountability data.

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Dropout Rate

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School Dropouts in the United States

by Aaron M. Pallas

Overview

Substantial numbers of students drop out before graduating from high school Many never return to the educational system Dropouts are of concern to families, educators, and policymakers for a variety of reasons They may suffer economic and social disadvantages throughout their lives For the Nation as a whole, the costs of the dropout problem are reflected in higher welfare expenditures, lost tax revenues, and increased crime and crime prevention costs (Catterall, 1985) The intangible costs to individuals and society are also substantial

This paper presents a variety of information regarding school dropouts It examines national data and trends related to dropouts, and the reasons for dropping out In addition, it considers the consequences of dropping out, with particular attention to the frequency and results of later returns to the education system The major findings are.

Dropout Rates

- Calculating dropout rates is difficult because of definitional and data problems

- National data over time on the incidence of dropping out do not exist The available annual national data instead measure related phenomena—high school graduation or completion rates.

- Nationally, slightly less than three-quarters of all 18- and 19-year-olds have completed high school

- High school completion rates vary considerably across school districts and population groups. They are much lower than the national average in urban areas and for black and Hispanic youth.

Reasons for Dropping Out

- Poor academic performance is the best predictor of who drops out of school

- Students who are rebellious, delinquent, or chronically truant drop out of school at higher rates than those who are not.

- Substantial numbers of young women cite pregnancy or marriage as reasons for dropping out

The Consequences of Dropping Out

- Dropouts have more difficulty in finding and holding jobs The estimated unemployment rate for dropouts shortly after they leave school is more than twice that of high school graduates of the same age

- Those who do not finish high school earn less money annually than high school graduates In 1985, among year-round, full-time workers 25 years old and older, the typical high school graduate earned over $4,000 per year more than a comparable worker with 9 to 11 years of schooling

- The estimated lifetime earnings of high school graduates who do not attend college are approximately $200,000 higher than the earnings of those who do not complete high school

Returning to the Educational System

- An estimated 40 percent of the students who drop out of high school subsequently return to the educational system

- An estimated 30 percent of the students who drop out of school eventually receive a high school diploma or an alternative credential.

- National data show that the proportion of individuals who have not completed high school declines considerably with age. The noncompletion rate for 31- to 34-year-olds is approximately half that of 18- and 19-year-olds

- The decrease in the noncompletion rate with age is due to the graduation of some who were still in school at age 18-19 as well as the return to school and completion by others who were out of school as 18- and 19-year-olds

- Those who are more likely to return and complete include whites, those with higher test scores prior to dropping out, and those from families with a higher socioeconomic status

- Alternatives to regular day school programs have become more prevalent in the past 20

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years, and many people are using these routes to acquire high school credentials.

- Little is known about the social, economic, and educational consequences of obtaining high school graduation credentials outside of regular day school programs.

Implications

- A key to effective dropout prevention programs may be the early identification of potential dropouts, so that services can be provided to at-risk students prior to high school.
- Given the substantial proportion of dropouts who later return to the educational system, another approach to the dropout problem is greater efforts to bring young people back into the educational system after they have dropped out.
- Also helpful may be more flexible high school programs, such as those for expectant mothers and parents of young children, that allow youth to stay in school while meeting family or job responsibilities.
- It is important to know who receives alternative high school credentials, and what the consequences of obtaining these various credentials might be.

Data

Three sources of national data are used in this review: the Bureau of the Census' Current Population Survey (CPS), the Center for Statistics' (CS) Common Core of Data (CCD), and CS' High School and Beyond (HS&B) study. These are described in detail in the appendix to this paper.

Dropout Rates

Difficulties in Measuring Dropouts

How severe is the dropout problem? While the question is simple, the answer is not, because there is no standard definition of who is a dropout or how to calculate a dropout rate.

- Most education agencies (schools, school districts, and States) have their own unique ways of calculating dropout rates. There are no consistent definitions of who is considered a dropout, or what the appropriate baseline population is on which to calculate a dropout rate.
- Because definitions of the dropout rate vary so much from one locale to the next, it is difficult to compare dropout rates across schools, districts, and States.

Even the two major Federal producers of education data, the Bureau of the Census and the Center for Statistics in the U.S. Department of Education, collect data related to dropouts in quite different ways.

Many of the discrepancies in reported "dropout rates" stem from the fact that the data being collected do not directly pertain to dropouts, but to other related concepts.

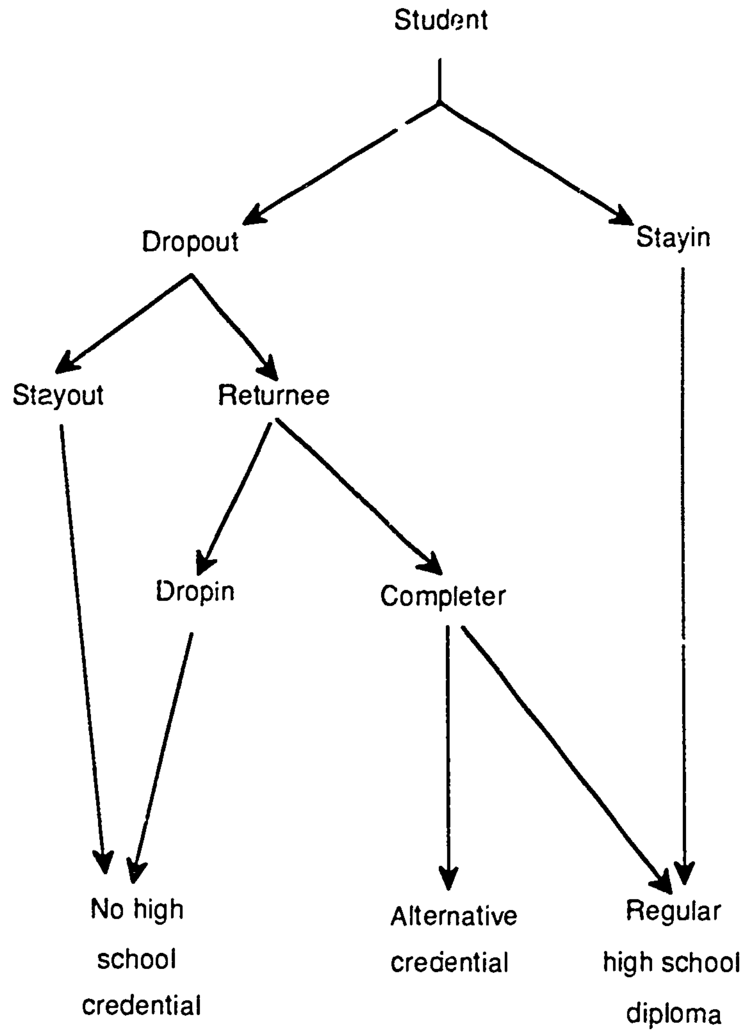
- National data on dropouts over time are not available. Data typically reported concern high school graduation or completion rates, which are not the same as a dropout rate.

The differences between a dropout rate and a graduation rate are illustrated by Figure 1, which traces alternative educational paths a student may pursue. Conceptually, a school dropout can be thought of as someone whose progress toward a high school diploma has been interrupted by a period of nonenrollment in school. All students, then, can be characterized as either dropouts or "stayins," with stayins having continuous school enrollment through high school graduation However, some dropouts eventually do graduate from high school or obtain an alternative credential.

Dropouts can be classified as either "stayouts" or "returnees " Stayouts are those dropouts who have never returned to the educational system, while returnees are dropouts who have returned to the educational system at least once. The "educational system" here refers not only to the same school as was previously attended, but also to other schools and settings, including alternative and nonregular day education programs, and to other credentialing procedures such as the General Educational Development examination (GED) or specific State equivalency tests.

There are two types of returnees· "dropins," who have come and gone again (perhaps repeatedly) without receiving a diploma (or other credential), and

FIGURE 1 -- Alternative educational paths through high school


Student
Dropout
Stayin
Stayout
Returnee
Dropin
Completer
No high school credential
Alternative credential
Regular high school diploma

"returnee-completers," who have returned and have eventually earned a diploma or its equivalent.[1] Included in the latter group are those students whose return to the system consists only of taking and passing an equivalency examination.

The Bureau of the Census publishes estimates of the proportion of different age groups who have completed high school (public and private) based on responses to a household survey. The Center for Statistics reports a graduation rate, derived from its Common Core of Data (CCD) collection, which represents the number of public high school graduates nationally in a given year as a fraction of the number of 9th grade students in public schools 3 school years earlier

- Graduation rates are calculated from both Bureau of the Census and Center for Statistics data, based on the number of high school graduates in a given cohort (an age cohort in the case of the Bureau of the Census and a grade cohort in the case of the Center for Statistics) at a specific point in time.

In either case returnee-completers who have gained their credentials through several different paths are included along with stayins in the count of graduates. However, stayins making slower than normal progress are implicitly considered dropouts, since they are not yet graduates.[2]

The Center for Statistics does have national data on dropouts from the High School and Beyond study, but those data are only for a single cohort of students, high school sophomores in 1980. Furthermore, because the students were surveyed during their sophomore year, the dropout rate is underestimated since it does not take into account those who had left school prior to that time.

Dropout and Completion Data

Although the Bureau of the Census' and Center for Statistics' methods for calculating high school graduation rates are very different, they produce rates for a similar age group that are quite similar. For those at the age when students are expected to graduate, both methods reveal that:

- Nationally for the past decade, slightly less than three-quarters have completed high school, and
- High school completion rates improved somewhat after 1982 (Table 1).

Completion rates have increased substantially in the period since World War II. The completion rate for 18- to 19-year-olds was 43 percent in 1947 (U.S Department of Commerce, 1948).

Dropout rates vary considerably across schools and population groups (Table 2).

- Students in urban areas are more likely to drop out than those in rural and suburban areas.
- Students in public schools drop out more than those in Catholic schools
- Blacks and Hispanics are more likely to drop out than whites.
- Men are more likely to leave school before graduation than women.
- Students from lower socioeconomic backgrounds are more likely to drop out (U.S. Department of Education, 1983).

Reasons for Dropping Out

Knowledge about why young people drop out of school can help schools, school districts and States in developing effective policies and practices for encouraging them to stay in or return to school.

- Students drop out of school for a variety of reasons, which are related to both in-school and out-of-school experiences.

There is no one reason why students drop out of school. But the reasons for, and factors associated with, dropping out can be grouped into a few basic categories: academic performance, social adjustment, and early transition into adulthood (Pallas, 1984). The most current data on reasons for dropping out are from the High School and Beyond study.

Academic Performance

Students' marks in school and, to a lesser extent, performance on standardized tests are salient indicators of academic success or failure. Students who ex-

Table 1

High school completion rates using Bureau of the Census and Center for Statistics data: 1974 to 1985

Year	Percent completing high school	
	Bureau of the Census[1]	Center for Statistics[2]
1974	73.4	75.7
1975	73.7	74.7
1976	73.1	75.1
1977	72.9	74.7
1978	73.5	73.7
1979	72.8	72.6
1980	73.7	71.9
1981	72.5	72.1
1982	72.0	72.8
1983	72.7	73.9
1984	73.3	74.1
1985	74.6	—

—Not available

[1] Proportion of 18- and 19-year-olds who have completed high school

[2] Public high school graduates as a proportion of public school 9th graders three school years earlier

SOURCE U S Department of Commerce, Bureau of the Census, Current Population Reports, Series P-20, *School Enrollment—Social and Economic Characteristics of Students October* (various years) and Current Population Survey, October 1985, special tabulations U S Department of Education, National Center for Education Statistics, *The Condition of Education* (various years) and *Digest of Education Statistics* (various years)

Table 2

Dropout rates for 1980 high school sophomores by sex and selected background characteristics

Background characteristic	Percent dropout rate		
	Total	Male	Female
All students	13 6	14 7	12 6
Race/ethnicity			
American Indian and Alaskan natives	29 2	27 2	31 8
Hispanic	18 0	18 1	18 0
Black	17 0	20 3	14.1
White	12 2	13 0	11.5
Asian American	3 1	3 5	2.7
Socioeconomic status			
High	5 2	7.0	3 2
Middle	9 0	9 6	8 3
Low	17 4	17 8	17 1
Unknown	31 6	32 3	30 9
Community type			
Urban	18 9	20 8	17 0
Suburban	11 8	12 5	11.0
Rural	12 8	13.6	12.0
Geographic region			
Northeast	11 3	13 4	9 0
North Central	12 0	12 2	11.7
South	15 2	16 4	14 0
West	16 6	17 0	16 3
School type			
Public	14 5	15 5	13 6
Catholic	2 3	3 2	1 6
Other private	—	—	—
High school program			
Academic	4 0	4 5	3 6
General	12 9	12 7	13 0
Vocational/technical	15 1	16 9	13 2

—Estimates not presented because of small sample size and high nonresponse in the base-year sample

SOURCE U S Department of Education, National Center for Education Statistics (1983), *High School Dropouts: Descriptive Information from High School and Beyond*, NCES 83–221b

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perience failure in school are more likely to drop out of the system.

- Poor academic performance is the best predictor of who drops out of school.
- Students with a "D" average are 5 times more likely to drop out than students with a "B" average (U.S. Department of Education, 1983).

Social Adjustment

Students experiencing difficulty negotiating the personal and social adjustments of adolescence are more likely to drop out of school.

- Students who are rebellious, delinquent or chronically truant drop out of school at higher rates than those who are not

Truancy and getting in trouble in school frequently foreshadow dropping out of school. Among high school sophomores, chronic truants are 40 percent more likely to drop out of high school than regularly attending students, everything else being equal, and delinquent youth are 25 percent more likely to drop out than are comparable nondelinquent youngsters (Pallas. 1984).

Early Transition into Adulthood

Adolescents who assume adult responsibilities at an early age may find it difficult to cope with both school and adulthood. Teenagers assuming adult family and work roles are more likely to drop out of school than youngsters who postpone those roles.

Adult family roles. Substantial numbers of young women claim pregnancy or marriage as reasons for dropping out of school.

- Among young women, only poor academic performance rivals the importance of adult family roles as a reason for dropping out of high school (U.S. Department of Education, 1983).

Among female dropouts from the sophomore class of 1980, 31 percent claimed they dropped out because they married or planned to marry, while 23 percent gave pregnancy as a reason for dropping out (students could give more than one reason).

Adult work roles. Many dropouts report that they left high school to go to work (U.S. Department of Education, 1983; Rumberger, 1983). Dropouts report leaving both because they had to support a family, and because they were offered jobs and chose to work (U.S. Department of Education, 1983).

- Working at a regular job while in high school increases by more than one-third the chances that a youth will drop out compared to youngsters who are not as involved in work (Pallas, 1984).
- High school students who work over 20 hours per week are more likely to drop out than those who do not work at all (D'Amico, 1984).

Working more than 20 hours per week may contribute to an increased likelihood of dropping out because of the drain on time and energy available for schoolwork. Alternatively, working may teach youngsters the importance of persistence and dependability, traits critical for successful schooling as well. This may account for the fact that those who work less than 20 hours per week are less likely to leave school than those who work more hours or do not work at all (D'Amico, 1984).

The Consequences of Dropping Out

Dropping out of school worsens the life chances of school leavers. Education is generally regarded as a means for social mobility, and youth who fail to complete high school tend to damage their chances of future success. Nongraduates do worse than high school graduates in the labor market and in overall economic well-being.

However, it is unclear how much of the differential between dropouts and stayins is attributable to dropping out as opposed to other factors, since dropouts have other disadvantages as well. They tend to come from disadvantaged families. They are disproportionately minority youngsters, and frequently have socially and economically deprived backgrounds (Pallas, 1984, Rumberger, 1983; Table 2). Furthermore, as was noted earlier, dropouts often have a history of academic failure.

Labor Market

School dropouts are less likely to participate in the labor force than high school graduates. Fourteen percent of male dropouts and about one-half of female dropouts age 16 to 24 were not participants in the labor force, that is, were neither employed nor looking for work, in 1985. Among high school graduates not enrolled in college, much lower proportions—6 percent of males and 20 percent of females—were not in the labor force in 1985 (U.S. General Accounting Office, 1986).

Among labor force participants, noncompleters also have higher rates of unemployment than high school graduates.

- In 1985 the unemployment rate for men and women age 16 to 24 who had not graduated from high school was more than double the rate for high school graduates (U.S. General Accounting Office, 1986).

- Those with fewer than 12 years of schooling comprise a large part of the long-term unemployed (Feldstein & Ellwood, 1982).

Income

Among those who work full time, people who do not graduate from high school earn less money than high school graduates. The median annual income of year-round full-time workers is reported annually by the Bureau of the Census.

- Among full-time, year-round workers 25 years or older in 1985, earnings of high school graduates with no college experience were higher than earnings of those with 9 to 11 years of school–26 percent for men and 31 percent for women (U.S. Department of Commerce, 1986).

- This earnings gap between persons with exactly 12 years of schooling and those with 9 to 11 years had increased between 1970 and 1985 In 1970 it was approximately 12 percent for men and 20 percent for women (U.S. Department of Education. 1986).

These figures actually underestimate the income differential between high school graduates and noncompleters, in that some individuals do not even complete 9 years of schooling The annual earnings of year-round, full-time workers who have completed fewer than 9 years of schooling are substantially lower than the earnings of those who have completed some high school The gap between the earnings of high school graduates obtaining no further schooling and the earnings of those completing less than 9 years of schooling is even greater than the discrepancies noted above—approximately one-third for those with 8 years of school and about 60 percent for those with under 8 years in 1985 (U.S. Department of Commerce, 1986).

The Bureau of the Census has reported estimates of lifetime (age 18 to 65) earnings by years of school completed, as of 1979 (U.S. Department of Commerce, 1983).

- The estimated lifetime earnings of high school graduates are approximately $200,000 higher than the earnings of those who do not complete high school.

It is estimated that a male who completes fewer than 12 years of school (stayouts and dropins) can expect to earn $601,000 between the ages of 18 and 65, while a male who completes exactly 12 years of school can expect to earn $861,000.[3] The difference in the expected lifetime earnings of male noncompleters and high school graduates who obtain no further education is thus $260,000. The differential is not as large for women: $170,000 ($381,000–$211,000).

In another sense, these income comparisons underestimate the cost of not finishing high school. High school graduates who attend college earn even more, both annually and over their working careers. than do high school graduates who obtain no further schooling. Comparisons between noncompleters and high school graduates not pursuing college do not reflect the sizable economic returns that many high school graduates derive from continuing their education in college.

Not all of the differences between the earnings of noncompleters and terminal high school graduates can be attributed solely to the presence or absence of a diploma. Noncompleters and graduates differ in many ways, with graduates showing more persistence, dependability and ability than stayouts and dropins.

- These and other factors that distinguish graduates from noncompleters are highly valued by employers. and account partly for the differences in earnings between the two groups.

- McDill. Natriello, and Pallas (1986) conclude that about one-half of the difference in lifetime earnings between noncompleters and graduates is due to differences between them in ability and other factors, and about one-half is due to dropping out.

Regardless of what adjustments are proposed, estimates of the economic consequences of not completing high school are substantial.

Nonmonetary Consequences

There are nonmonetary consequences of dropping out as well. While still in school, dropouts score considerably lower than stayins on standardized tests of cognitive performance (Pallas, 1984). There now is evidence that dropping out is associated with a further widening of the gap in achievement between dropouts and stayins.

- Students who drop out show less cognitive growth than students who persist to graduation.

A battery of cognitive tests was administered to High School and Beyond sophomores in the spring of 1980, and again 2 years later, when some had dropped out and the stayins were about to graduate from high school. Alexander, Natriello, and Pallas (1985) showed that, all else being equal, the students who had stayed in school improved their test performance during the 2-year period more than students who had dropped out. These tests were not closely linked to a specific high school curriculum, but tapped more general knowledge.

Other nonmonetary consequences of dropping out include poorer health, decreased political participation, and lessened social mobility. However, there are no recent and reliable estimates of these social costs of dropping out (Lyke, 1986)

Returning to the Educational System

Most dropouts, even when surveyed shortly after dropping out, believe that leaving school short of graduation was a poor decision (Peng, 1985) Many return to school at some point.

- An estimated 40 percent of high school dropouts return to the educational system (i.e., become returnees).

A recent study estimated that, of the approximately 100,000 dropouts from the California high school class of 1983, almost 40 percent either received a diploma equivalent or entered trade school or community college immediately after leaving high school (California Legislature Assembly Office of Research, 1985). California is somewhat unusual in allowing 18-year-olds without a high school diploma or the equivalent to enroll in community colleges, so the national proportion could be somewhat lower. On the other hand, the 40 percent in California refers only to returns immediately after leaving high school, rather than eventual return to the educational system.

Many of those returning to school ultimately complete high school or receive an alternative credential (returnee-completer).

- An estimated 30 percent of the students who drop out eventually receive a high school diploma or alternative credential (Kolstad & Owings, 1986).
- Students who drop out later in their high school careers are more likely to return to and complete high school than are early dropouts (Kolstad & Owings, 1986).

Based on data from the High School and Beyond study, generally the same groups of students who are most prone to drop out are the ones least likely to return and complete high school or receive an alternative credential within two years of the time most of them would have graduated from high school

- Fewer black and Hispanic dropouts return and finish than white dropouts.
- Dropouts from low socioeconomic backgrounds are less likely to complete high school than those from more advantaged backgrounds.
- Low test scores make it less likely a dropout will later complete a high school education.
- Dropouts living in rural and urban areas do not complete high school as frequently as those from suburban areas.

While males drop out more than females, once they have dropped out they are more likely to return and complete than females (Kolstad & Owings, 1986).

Older returnees typically do not reenter regular day high school programs. Alternative programs have become more prevalent in the past 20 years Many States and school districts have developed adult basic education programs to serve the needs of adults seeking secondary schooling. These programs lead to a variety of certification schemes, including passing an equivalency examination.

The most frequent way to obtain an equivalency credential is through the General Educational Development (GED) examination

- The number of persons taking the GED examination increased more than tenfold from 1961 to 1985 (Figure 2).[4]
- The number of credentials issued has followed a similar course peaking in the early 1980's at just over 500,000 per year
- Over 440,000 persons met State requirements for passing the GED examination in 1985 (GED Testing Service, 1986)

The GED and other credentialing systems designed for adults help to explain age patterns in graduation and completion rates

- National data show that the proportion of individuals who have completed high school increases considerably after age 18 (Table 3)
- The magnitude of the noncompletion problem differs substantially depending on whether one considers 18-year-olds or 30-year-olds In 1985, the proportion of 31- to 34-year-olds who had not completed high school was 12.6 percent, as compared to 25.5 percent for 18- and 19-year-olds

The increase in completion rates with age reflects several phenomena students still in school at age 18-19 completing high school, plus dropouts returning to school and completing regular graduation requirements or passing the GED or other equivalency examination

The effects of obtaining alternative high school graduation credentials have not been studied carefully Little is known about the social, economic and educational consequences of obtaining high school graduation credentials outside of regular day school programs However, there is some indication that holders of alternative credentials may not do as well after high school as regular day school graduates.

- Researchers at the University of Wisconsin have found that GED holders who enrolled in college were much less likely to graduate than regular day high school graduates (Tugend, 1986)

A high school equivalency credential may represent an intermediate status between high school dropout and regular day school graduate The Wisconsin data indicate that many GED recipients have serious academic shortcomings, and perform academically at relatively low levels At the same time, though, obtaining a high school equivalency credential shows a degree of persistence and ambition exceeding that of the typical high school dropout

Further research is needed on the characteristics and experiences of holders of high school equivalency credentials, and differences in the consequences of alternative routes to high school completion. While the alternative credential holder may not be as successful as a regular day school graduate, he or she may be more successful than a dropout who never returns to the educational system.

Implications

The analyses of high school dropouts reported here have several implications for educational policy and research. Two important issues informed by this discussion are dropout prevention/intervention programs and the significance of a high school diploma

Table 3

Proportion who have completed high school by age, October 1985

Age	Proportion who have completed high school
18	67.6
19	81.5
20	84.7
21 to 25	85.4
26 to 30	85.8
31 to 34	87.4

SOURCE U S Department of Commerce Bureau of the Census, Current Population Survey October 1985 School Enrollment Supplement, special tabulations

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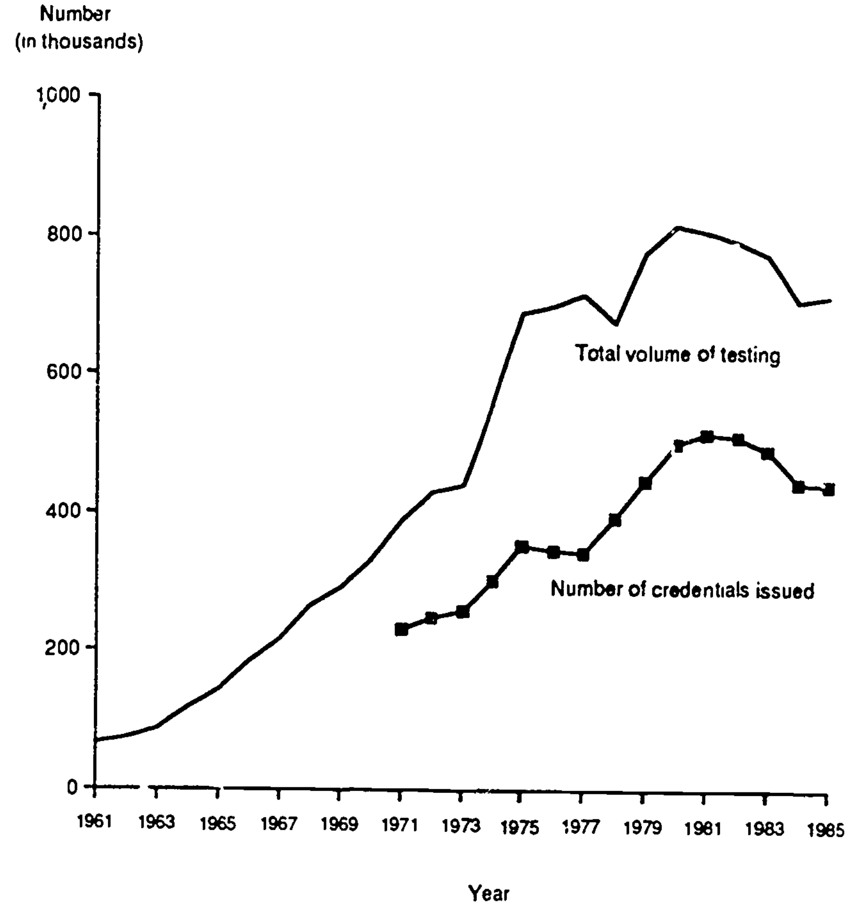
FIGURE 2 -- **Total volume of testing and number of credentials issued by the General Educational Development (GED) Testing Service: 1961 to 1985**



SOURCE General Educational Development Testing Service of the American Council on Education
The 1985 GED Statistical Report

Dropout Prevention/Intervention Programs

Three key facts about the process of dropping out, which were highlighted earlier in the paper, are relevant to the implementation of dropout prevention and intervention programs.

- Many of the processes involved in dropping out, such as poor grades and delinquent behavior, begin long before the high school years.

- A substantial number of students drop out of school for reasons apparently unrelated to their schooling experiences, such as assuming adult family and work roles.

- Many dropouts later return to the educational system to complete high school.

Schooling is a cumulative phenomenon, and programs in the 10th or 11th grade may not counterbalance longstanding academic problems. Programs targeting high school-aged youth may be too late to have much of an effect on schooling plans. On the other hand, patterns of behavior in the elementary grades are good predictors of patterns in later grades (Bloom, 1964)

- Since poor academic performance and social adjustment are among the best predictors of who drops out of school, it is possible to identify youngsters at-risk of dropping out before the high school years

- Dropout prevention programs may need to deliver services to at-risk youngsters in the early grades.

Not all students who drop out do so because of school problems, however. Many drop out because of economic and family considerations. For some of these students, dropping out may be a rational decision in the short term in the face of less desirable alternatives. The high school completion rate for these students may be raised by strategies that either allow them to stay in school while meeting their other obligations or facilitate their later return to the educational system Examples of programs that might encourage such students to remain in school include:

- Cooperative arrangements that combine school with work experience or childrearing (Lotto, 1982), and

- Programs that allow for a more flexible use of time, perhaps by lengthening a 4-year program to 5 years (Dill et al., 1986).

However, a demonstration program that provided part-time jobs during the school year and full-time jobs during the summer to dropouts or potential dropouts on the condition they stay in or return to school did not decrease the likelihood of dropping out (Borus, 1985).

Since many dropouts come to believe that leaving school was a bad decision (Peng, 1985) and a substantial share of them return to school, another area where additional effort might be productive is alternative programs. The success of efforts to encourage dropouts to become returnees hinges on identifying the target population of out-of-school youngsters who lack a high school diploma, and understanding why they left school.

- Interventions designed to bring young people back to school need to be fashioned in light of the dropouts' previous educational histories as well as their current needs.

Alternative High School Credentials

In contemporary society a high school diploma signifies successful completion of a program of studies that many believe provides at least minimal preparation for adult roles and responsibilities. A high school diploma is also thought to certify certain levels of academic performance, persistence, and dependability Employers may require a high school diploma of prospective employees as a screening device, to ensure minimum levels of these valued traits

The ways of completing high school have expanded considerably beyond regular day school programs to include the GED examination and other equivalency examinations.

- Little is known about the implications of obtaining varying types of credentials.

- It would be desirable to understand better who receives which credentials, and what the consequences of obtaining these various high school credentials might be.

If different credentials signify different skills, aptitudes, and traits, then it is important for employers, policymakers, and school officials to be aware of these differences.

Footnotes

[1] Figure 1 is drawn from the standpoint of the completion of the path (in other words, where an individual ends up) At any given time, an individual may be in progress, which means that an individual's status can change over time The figure does not reflect an intermediate status for returnees, perhaps called "reenrollees," who are currently enrolled but whose eventual status is unknown. Returnee-completers may enter and leave the educational system more than once before completing

[2] Other problems with Census and CS data are detailed in Pallas and Verdugo (1986) and Verdugo and Pallas (1985)

[3] The data were derived from earnings reported in 197^ but they have been converted to constant dollars based upon consumer prices in 1981

[4] People of all ages take the GED, but approximately three-quarters are between 18 and 34 (GED Testing Service, 1986) That age group grew by about 80 percent between 1961 and 1985, while GED test-takers were increasing more than tenfold

Appendix

Data Sources

Current Population Survey (CPS) The CPS is a household sample survey conducted monthly by the Bureau of the Census The October CPS asks household informants about the school enrollment and educational attainment of household members The education items of interest elicit the highest grade of school attended, whether that grade was completed, current enrollment status, and for high school graduates age 14-34, the year of high school graduation. The CPS surveys approximately 60,000 households each month, which represent about 150,000 household members.

Common Core of Data (CCD) The CCD program is a coordinated effort administered by the Center for Statistics (CS) to acquire and maintain data on States and local public school districts The CCD program includes a universe survey of State education agencies and education agencies of the District of Columbia and outlying areas The survey collects data on enrollments by grade and numbers of high school graduates in regular day programs each year for each of the State education agencies The CCD collects data only from public schools The data reported here refer only to regular day school graduates, and not to the GED or other nonregular day school credentials

High School and Beyond (HS&B) HS&B is part of CS' Longitudinal Studies Program, which is designed to study the educational and career development of high school students. In the spring of 1980, CS surveyed more than 30,000 high school sophomores in more than 1,000 public and private high schools across the country When properly weighted, the sample projects to the population of 3,800,000 high school sophomores enrolled in U S. schools in the spring of 1980 CS subsequently has resurveyed a sample of these students in the spring of 1982 and again in the spring of 1984 The study also retrieved the high school transcripts of a large sample of respondents. From these various pieces of information, it is possible to reconstruct fairly completely the enrollment histories of these youngsters. For those who left school at any time during the survey period, the study can identify when they left school, whether they returned, and whether they eventually obtained a regular high school diploma or equivalent. The major drawback to this study is that students were originally surveyed late in the sophomore year of high school, and hence it provides no information about those who had already left school by that point

Reliability of Estimates

The data reported in Tables 1 and 3 of this report are from the Current Population Survey conducted by the Bureau of the Census. Because these proportions are derived from a sample survey, they are subject to sampling variability The methodology for estimating the sampling errors for CPS data is presented in most of the publications in the Current Population Reports series published by the Bureau of the Census. All comparisons cited in the text are statistically significant at the 0.05 level of significance This means that the difference between two sample estimates is greater than 1.96 times the standard error of the difference.

A generalized standard error has been estimated for the CPS percentages in Table 1. The approximate standard error for the estimated percentages is 0.8 percent. The chances are about 95 out of 100 that an estimate from the sample would differ from a complete census by less than twice the standard error, or 1.6 percent This implies that, for 1985, the chances are about 95 out of 100 that the estimated percentage (74.6 percent) of 18- and 19-year-olds who have completed high school is within 1.6 percent of the result from a complete census.

Tables A1 and A2 show estimated standard errors for Tables 2 and 3 respectively For Table 3, the chances are about 95 out of 100 that the estimated proportion (85 4 percent) of 21- to 25-year-olds who have completed high school is within 0 8 percent of the result from a complete census

Table A1

Standard errors and sample sizes for Table 2: Dropout rates for 1980 high school sophomores by sex and selected background characteristics

Background characteristic	Standard error in percent (Sample size)		
	Total	Male	Female
All students	.32 (28,119)	.48 (13,905)	.45 (14,214)
Race/ethnicity			
American Indian and Alaskan natives	4 22 (297)	5 65 (159)	6.34 (138)
Hispanic	.87 (5,039)	1.21 (2,589)	1.24 (2,450)
Black	.99 (3,712)	1.55 (1,721)	1.25 (1,991)
White	.38 (18,545)	.56 (9,162)	.53 (9,383)
Asian American	1.34 (426)	2.01 (213)	1.78 (213)
Socioeconomic status			
High	.45 (6,312)	.70 (3,356)	.52 (2,956)
Middle	.42 (12,139)	.61 (5,931)	.56 (6,208)
Low	.76 (6,318)	1.15 (2,819)	1.02 (3,499)
Unknown	1.29 (3,350)	1.76 (1,799)	1.88 (1,551)
Community type			
Urban	.78 (6,384)	1 17 (3,080)	1.05 (3,304)
Suburban	.44 (13,750)	.64 (6,799)	.60 (6,961)
Rural	.60 (7,975,	.86 (4,026)	.83 (3,944)
Geographic region			
Northeast	.64 (6,262)	.98 (3,092)	.81 (3,189)
North Central	.58 (7,986)	.83 (3,960)	.81 (4,026)
South	.61 (8,802)	.90 (4,303)	.83 (4,499)
West	.84 (5,050)	1.17 (2,550)	1 18 (2,500)
School type			
Public	.36 (24,611)	.52 (12,000)	.49 (12,411)
Catholic	.47 (2,616)	.82 (1,167)	.53 (1,449)
High school program			
Academic	.3[illegible] (8,831,	.52 (4,144)	.44 (4,687)
General	.50 (11,359)	.71 (5,608)	.71 (5,751)
Vocational/technical	.80 ([illegible],119)	1 17 (2,622)	1.08 (2,497)

SOURCE U S Department of Education, National Center for Education Statistics (1983), *High school dropouts Descriptive Information from High School and Beyond*, NCES 83–221b

Table A2

Standard errors for Table 3: Proportion of high school completers by age, October 1985

Age	Standard error in percent
18	1
19	.9
20	.8
21 to 25	4
26 to 30	.4
31 to 34	.4

SOURCE U S Department of Commerce, Bureau of the Census, Current Population Survey, October 1985, School Enrollment Supplement, special tabulations

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A STUDY OF THE LONGITUDINAL DROPOUT RATE: 1980 EIGHTH-GRADE COHORT FOLLOWED FROM JUNE, 1980 THROUGH FEBRUARY, 1985

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INTRODUCTION

This study reports dropout rates for a group of 18,829 DCPS students followed across a four and-one-half year period (June 1980 - February 1985). This group, called a "cohort," consists of *all* students who were eighth graders in June 1980, prior to the time promotions to the next grade were made. Membership, dropout, transfer, and other records used in this report were taken from the district's computerized student files (ISIS).

The designation "dropout" as used in this report is believed to be as accurate and exhaustive as could be developed. For example, exceptional students, students whose parents are not U.S. citizens, retained students, and students who simply disappeared between the end of one school year and the beginning of the next - the "no shows" - are included in this study.*

For current purposes, a dropout is any student who leaves the K-12 program before completing a program of studies and receiving either a certificate of completion or a diploma. Excluded from the dropout category are students who were graduated, are (as of 2/22/85) still in the K-12 programs, were transferred to another non-DCPS school, who died, were transferred to the Court or a private agency for purposes of custody, or who were expelled.

As will subsequently be seen, any rate - dropout or otherwise - is essentially a fraction composed of a numerator and a denominator (see Appendix). To interpret a rate, one must know what goes into the numerator and into the denominator. Without this information it is easy to be "mislead by statistics." Some districts, for example, do not include the summer "no shows" in the dropout numerator, even when they are counted in the denominator; other districts exclude exceptional students, or students whose parents are non-resident aliens, and so on.

The tracking for several (4 1/2) years of the 18,829, 1980 eighth graders involved a different approach than has been used in developing all other DCPS dropout rates. Apart from different ways of defining the composition of the numerators and denominators, there are two fundamentally different, accepted approaches to calculating dropout rates. These are the annual/cross-sectional and the longitudinal approaches. The differences in these two approaches are described in detail in the Appendix, the reading of which is required for understanding this report and the reasons its results differ from previously reported DCPS dropout rates. For current purposes it is sufficient to state that

1. the results of the two approaches differ in mathematically predictable ways, the longitudinal method used here always yielding higher results;
2. the two approaches address and answer different questions, and have different sets of advantages and disadvantages, and;
3. that despite these differences the two approaches are equally accurate/inaccurate because accuracy depends on the accuracy of the student records, on the specificity with which the numerator/denominator components are defined, and on the completeness with which these components are "made known" when the rate is reported.

Before turning to the results, two notes should be made. One is that every dropout rate contains a component of error, errors produced because the student records on which the rates are based are not entirely accurate. As noted in an earlier 1983 OEA study on dropout reporting procedures, there is reason to believe that file errors could easily produce overall rates which are over or understated by five to ten percent of their actual value; that is, a true 20% rate might be reported in a range from 18 to 22 percent.

Secondly, the current study's rates for the first (and to a lesser extent the second) year of the follow-up period are *probably* too high. The basis for this belief is that it is very easy for a student, the summer "no show" in particular, to get his/her report card from the end of one year, "transfer" to another non-DCPS school, show the report card and register, without anyone notifying the district of the student's attendance in a new school. For this reason, and because 1980 and 1981 were times of large immigration (Cuba, Haiti), and times of perhaps atypical levels of middle-class out-migration, the rates reported here may be overly high.

RESULTS SECTION

The 18,829 students, who were eighth graders in June of 1980, were followed for a period of four-and-one-half years through the first semester of the 1984-85 school year. Results are shown in Table 1 below where the students' status at the end of the period is displayed.

Table 1*

Cohort Status at the End of Follow-up Period:
By Ethnicity, By Gender, and for Total Cohort

	WHITE	BLACK	HISPANIC	ASIAN	MALE	FEMALE	TOTAL
No.Grad	3,382	2,361	3.180	81	4.152	4.853	9,005
% Grad.	51 6	44.1	46.8	66.9	43.0	53.0	47.8%
No. Transfer	1,245	596	1,264	12	1,669	1,449	3,118
% transfer	19.0	11.1	18.6	9.9	17.3	15.8	16.6%
No. Still in school	199	577	354	5	737	398	1,135
% Still in school	3.0	10.8	5.2	4.1	7.6	4.3	6.0%
No. Dropping out	1,730	1,813	1,922	23	3,107	2,456	5,563
% Dropping out	26.4	33.9	29.3	19.0	32.1	26.8	29.5%

*Excepting the Total column, the status percents are for the ethnic gender portion of the cohort, e g , 3,382, or 51 6%, of the 6,559 white cohort had been graduated by Feb , 1985 Note also that records for eight students were uninterpretable and could not be classified into one of these categories, and that American Indians are counted in the totals but are not displayed separately because of their small numbers

As is indicated in Table 1, slightly less than half (47.8%) of the 18,829 students had been graduated by the end of the 4.5 year period; about one in six (16.6%) had transferred out of the district; six percent were still in school, and 29.5% had dropped out.

Concerning the four ethnic groups, the graduation rates were highest for Asians (66.9%), and lowest for Blacks (44.1%), with rates for Whites and Hispanics in between (51.6% and 46.8% respectively).

Concerning transfers out of the district, almost one in five of the White and the Hispanic students transferred to a non-DCPS school; rates for Blacks and Asians were considerably lower.

Considering the number of students still enrolled in the K-12 program, the numbers are comparatively small, ranging from three percent of the White to 10.8% of the Black students. The students still in school were, of course, retained at least one time over the follow-up period.

Consider next the dropout rates for the four ethnic groups. Over the follow-up period these rates were somewhat variable, being lowest for Asian (19.0%) and highest for Black (33.9%) students, with White (26.4%) and Hispanic (29.3%) students again following in between these two extremes. Thus, the dropout and graduation rates for all ethnic groups appear to be offsetting, despite the comparatively large numbers of White and Hispanic students transferring out of the district.

Consider next the rates for males and females. Concerning graduation, somewhat less than half of the males (43.0%) and slightly more than half of the females (53.0%) had been graduated by the end of the 4.5 year period. About one of six of both groups had transferred, and less than one in ten were still enrolled in the K-12 program.

n terms of dropout rates, the rate for females was lower than that for males (26.8% vs. 32.1%). Females have higher graduation and lower dropout rates than males. Generally, about 20% more females than males graduate and about 10% more males than females dropout.

The graduation, transfer, and retention rates in Table 1 were displayed to provide background for the reader. In all following tables, only dropout information will be presented.

Consider next the annual, longitudinal rates for the entire cohort followed from June 1980 to February 1985. In reviewing those annual rates, note that they sum to the 29.5% dropout rate for the entire follow-up period. These rates are shown in Table 2 below.

Table 2*

Numbers and Percents of Dropouts
Leaving During Each Year of the Follow-up Period

	1980-81	1981-82	1982-83	1983-84	1985	TOTAL
Number	1,609	1,548	1,126	758	522	5,563
% of 5,563	28.9	27.8	20.2	13.6	9.4	100%
% of 18,829	8.5	8.2	6.0	4.0	2.8	29.5%

*In this and later tables, "1985" means "through the first semester of the 1984-85 school year."

As indicated in Table 2, and consistent with the dropout information in Table 1, about three of every ten 1980 eighth graders had, according to district records, dropped out over the 4.5 year period.

This rate may seem particularly high when compared to the historical, cross-sectional rates of about 15-18%. This perceived difference is due almost entirely to the mathematically predictable differences between the cross-sectional rates and longitudinal methods (see the Appendix).

In considering the annual information in Table 2, perhaps the most interesting pattern is the progressive decrease in the annual rates. Of those 5,563 students who dropped out, almost 60% (56.7%) did so in the first two years of the follow-up. After 1981-82, the successive year's rates decrease markedly. In the last year-and-a-half of the follow-up, only 1,280 (6.8%) of the full cohort dropped out.

While not shown in Table 2, the percents of dropouts occurring between school years and during school were compared. Over the summer of 1980, just after the cohort was established and before the beginning of school in late August 1980, 957 of the 1,609 students dropping out that year failed to show. That is, more dropouts (59.5%) occurred over the summer than occurred during the remainder of the school year. In subsequent years, the percentage of summer "no shows" declined to 46.8, 30.9, and 38.2 percent (for summer 1983) of those dropping out during a particular school year. During the summer of 1984, after most students had been graduated, the summer rate increased markedly, and almost twice as many dropouts occurred (442 vs. 289) over the summer of 1984 as over the preceding summer. Overall and across the entire follow-up period, 49.6% of the dropouts took place between the end of one and the beginning of the next school year.

Consider next Table 3 on the following page. This table shows the annual and total rates for males and for females. In reviewing the Table 3 data it will be noted that there are four rates for each sex group. These rates each answer a different question and are changed simply by using a different number in the denominator of the ratio. Side headings are intended to make the various rates clearly distinguishable.

As indicated in Table 3, of the 5,563 dropouts, 55.9% were male and 44.1% were female (row 4). Thus, while males compose a slightly larger proportion of the cohort than females (51.3% vs. 48.7%), they compose an even larger proportion of the dropouts (55.9% vs. 44.1%). And, as earlier noted, the proportion of males dropping out (row 3 - 32.1%) is larger than that for females (row 3 - 26.8%).

These annual patterns follow closely that of the total cohort displayed in Table 2. More males and females dropout in the first two years than in the last two-and-one-half years of the follow-up. While the proportion of dropouts occurring each year (row 2) is reasonably consistent for the two cohorts there is one slight variation. Slightly more male dropouts occur during the first two years and last half year, while slightly more of the female dropouts occur during the third and fourth year - the years at which most students in the cohort would be eleventh and twelfth graders.

Table 3*

Numbers and Percents of Male and of Female Dropouts
Leaving Each Year of the Follow-up Period

MALE	1980-81	1981-82	1982-83	1983-84	1985	TOTAL
1) No. of male dropouts	907	876	598	417	309	3,107
2) % of 3,107 Male dropouts	29.2	28 2	19.2	13.4	9 9	100%
3) % of 9,667 Male cohort	9.4	9.1	6.2	4.3	3.2	32.1%
4) % of 5,563 dropouts	16.3	15.7	10.7	7.5	5.6	55.9%
5) % of 18,829 cohort	4.8	4 7	3.2	2.2	1.6	16.5%
FEMALE						
1) No. of female dropouts	702	672	528	341	213	2,456
2) % of 2,456 Female dropouts	28.6	27 4	21.5	13.9	8.7	100%
3) % of 9,162 Female cohort	7.7	7.3	5.8	3.7	2.3	26.8%
4) % of 5,563 dropouts	12.6	12.1	9.5	6 1	3.8	44.1%
5) % of 18,829 cohort	3.7	3 6	2.8	1.8	1.1	13.0%

*"1)" denotes the number of M/F dropouts. "2)" shows this number as a percent of the total number of M/F dropping out. "3)" shows this number as a percent of the M/F membership. "4)" shows this number as a % of the total (5,563) dropouts. "5)" shows this number as a percent of the total (18,829) cohort. The numbers and percents of male and females in the cohort are respectively, 9667 (51.3%) and 9162 (48.7%)

Consider next the annual rates for the four ethnic groups. These rates are displayed in Table 4.

As noted earlier, the overall dropout rate is lowest for Asians (19.0%), then Whites (26.4%), followed by Hispanics (29.3%), and then Blacks (33.9%) - see row 3.

The annual patterns for the three large ethnic groups show some comparatively strong variations. For White students, more than one-third of the dropouts (row 2) occurred in the first year (and most of these over the summer of 1980). It is believed, but cannot be proven, that this large number/percent was *in part* a response to large Cuban/Haitian influx that occurred during this period. The higher rate for Hispanic students (row 2) in 1981-82 may also be, in part, a more delayed response to this influx; but again the interpretation is speculative and cannot be proven. Note that for both White and Hispanic students the year after the high rate shows a large drop in the rate, from 34.9% to 26.1% for White students and from 30.2% to 19.6% for Hispanic students.

Table 4*

Numbers and Percents of White, Black, and Hispanic Dropouts During Each of the Four Years and for the First Semester of the Fifth Year

WHITE	1980-81	1981-82	1982-83	1983-84	1985	TOTAL
1) No. of White dropouts	603	452	349	206	120	1,730
2) % of 1,730 White dropouts	34.9	26.1	20.1	11 9	6 9	100%
3) % of 6,559 White cohort	9.2	6 9	5 3	3.1	1 8	26.4%
4) % of 5,563 dropouts	10 8	8.1	6 3	3.7	2.2	31.1%
5) % of 18,829 cohort	3.2	2.4	1.9	1.1	0.6	9.2%
BLACK						
1) No. of Black dropouts	443	487	380	304	199	1,813
2) % of 1,813 Black dropouts	24.4	26 9	21 0	16.8	11.0	100%
3) % of 5,350 Black cohort	8 3	9 1	7 1	5 7	3 7	33.9%
4) % of 5,563 dropouts	8 0	8.8	6 8	5.5	3.6	32.6%
5) % of 18,829 cohort	2.4	2 6	2 0	1 6	1 1	9.6%
HISPANIC						
1) No. of Hisp. dropouts	552	601	391	247	201	1,992
2) % of 1,992 Hispanic dropouts	27 7	30.2	19.6	12.4	10 1	100%
3) % of 6,792 Hispanic cohort	8 1	8.8	5.8	3.6	3.0	29 3%
4) % of 5,563 dropouts	9 9	10.8	7 0	4.4	3.6	35.8%
5) % of 18,829 cohort	2 9	3.2	2 1	1.3	1.1	10.6%
ASIAN/PACIFIC ISLANDERS**						
1) No of As/PI dropouts	-	-	-	-	-	23
2) % of 23 As/PI dropouts	-	-	-	-	-	100%
3) % of 121 As/PI cohort	-	-	-	-	-	19.0%
4) % of 5,563 dropouts	-	-	-	-	-	0.4%
5) % of 18,829 cohort	-	-		-	-	0.0%

*The row designations in this table are analogous to those in Table 3 Some numbers and percents will not total to those used in Table 1 because "American Indian" is also used as an ethnic designation but, because of its small membership, rates are not displayed in this table Of the total cohort (18,829), 34 8% were White, 28 4% were Black, 36 1% were Hispanic, and 0 6% were Asian/Pacific Islanders (As/PI)

**Because of their small numbers, only overall rates are shown for the 121 Asian/Pacific Islanders

For Black students the percent of dropouts occurring each year shows a still different pattern. In general, this pattern is less variable across the years than is that for White or Hispanic students. A smaller percentage (row 2) of Black dropouts occur during the first two years and a higher percentage occurs in the last year-and-a-half. Thus, when compared to White and Hispanics dropouts, Blacks *who dropout* are more likely to do so late in the follow-up period and are somewhat less likely to dropout early in the period.

In addition to the information on the four ethnic groups discussed above, the dropout rates for Cuban and Haitian students are also of interest and are next considered.

For current purposes, "Cuban" or "Haitian" means place of birth In terms of the earlier ethnic designations, Cubans are part of the Hispanic cohort and Haitians part of the Black cohort.

Consider first the rates for Cuban-born Hispanics, i.e., those 1980, eighth-grade Hispanic students whose records list Cuba as the place of birth. These students compose 3,041 (44.8%) of the 6,792 students identified as Hispanic. Pertinent data for these students are shown in Table 5 below; note that the students are subdivided into three groups based on the time-period in which they first entered DCPS.

Table 5

Numbers of Cuban-born, 1980 Eighth Grade Students and
Percent Dropping Out, By DCPS Entry Period

ENTRY PERIOD	NO. OF STUDENTS	NO. DROPPING OUT	PERCENT DROPPING OUT
1) Prior to 1976	2,216	646	29 2%
2) Between 1976-78	294	92	31.3%
3) Between 1979 and June 1980	531	175	33.0%
4) TOTAL	3,041	913	30.0%

Perhaps the most striking feature of these data is the overall dropout rate (row 4) of 30.0% This rate is only slightly higher than that (30.0 vs. 29.3%) for the entire Hispanic cohort of 6,792 students. When rates (not shown in Table 5) are compared for the Cuban-born vs. the other 3,751 Hispanic students, the difference is only slightly larger (30.0% vs. 28.8%). When the Cuban-born rates are considered by period of entry to DCPS, the rates are slightly higher for the more recent enrollees. Overall, the dropout rates for those Cuban-born students enrolling in DCPS around the time of the "Mariel boat lift" (or during the previous year) have about the same overall dropout rate as Black students (33.0% vs. 33.9%). Cuban-born students having enrolled in the district before 1976 have an overall rate that is all but indistinguishable from that for other Hispanic students (29.2 vs. 28.8). Thus, the language and cultural shock problems that might be thought to affect the immigrating students do not appear to be associated with substantially higher dropout rates.

Consider next the dropout rates for Haitian students. Of the 5,350 Black students in the 1980 eighth grade cohort, 85 are identified as Haitian. Across the four-and-one-half years of the follow-up, 33 (38.8%) dropped out. This rate is higher than that for any other ethnic group considered in this report. It is, however, only five to six percentage points higher than that for all Black students (38.8% vs. 33.9%). As was the case with the Cuban-born students, the potential language and cultural shock problems that these students may have encountered appear to be associated with a dropout rate differential of four to six percentage points.

Next, consider the dropout rates for exceptional (but not gifted) students. Appropriate data for exceptional students and students by ethnicity are shown in Table 6.

As is obvious from Table 6, exceptional students dropout rates are higher than those for "regular" students, and this pattern holds with reasonable accuracy for the individual ethnic groups as well. Rates, not shown, were calculated from the ethnic groups with exceptional students removed. In every case, those rates for "regular" students were from 0.5 to 0.9 percentage points lower than the comparable rate for the total ethnic cohort and for the overall cohort. Rather than nearly triple the number of rates already contained in this report (all students, regular students, exceptional students) the decision was made to use the estimating procedures discussed above - and described in the footnote below. Use of these procedures results in rates which are well within the accuracy limits of the basic data.

Table 6

Exceptional Student Dropout Rates,
Also by Ethnicity

	WHITE	BLACK	HISPANIC	ASIAN*	ALL EXC. STUDENTS
1) No. of Students	441	498	404	4	1,351
2) No. of Dropouts	167	220	153	1	541
3) % of Dropouts	37.9	44.2	37.5	25	40.0%

*To use the rates from Table 2 to estimate the comparable rate for exceptional students, simply increase the Table 2 value by one-third, e g , a 30% rate becomes 40% To estimate the rate for "only regular students," subtract 0 7% from the Table 6 value

Consider next dropout rates by birth year. These rates are important because they provide an indirect estimation of the relationship between grade retention and dropout rates. The relationship is indirect because the current data do not include retention indices.* However, birth-date data should bear a reasonably close relationship to grade retention.

To conduct this part of the analysis three age groups were constructed: students born before 1965, during 1965, and those born after 1965. Generally, 1980 eighth graders born after 1965 have progressed through school at the typical pace. Those students born in 1965 have probably been retained at one grade, but some may be late entry students, exceptional students, or emigres who were placed back one or more years because of both poor English language facility and weak educational programming. Students born before 1965 have almost certainly been retained at least once and perhaps more.

Below, in Table 7, data for the three age groups, by ethnic group, are displayed.

Table 7**

Dropout Rates by Birth Date and Ethnic Membership
1980 Eighth Grade Cohort Followed Four-and-One-Half-Years

	WHITE	BLACK	HISPANIC	TOTAL
BORN BEFORE 1965				
No. of Students	325	592	848	1,779
No. of Dropouts	187	386	404	980
% of Dropouts	57.5	65.2	47.6	55.1%
BORN IN 1965				
No. of Students	1,216	1,669	2,279	5,200
No. of Dropouts	483	813	797	2,104
% of Dropouts	39.7	48.7	35.0	40.4%
BORN AFTER 1965				
No. of Students	5,018	3,089	3,665	11,850
No. of Dropouts	1,060	614	791	2,479
% of Dropouts	21.1	19.9	21.6	20.9%

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*To calculate the actual number of times a student had been retained would have required programming and file matching well beyond the scope and time allocated to the current study

**The "Total" includes Asian/Pacific Islanders and American Indians

As indicated by the data in Table 7, birth year has a strong relationship with dropout rate. More than half of the cohort dropouts (55.4%, or 3,084 of the 5,563) have probably been retained one or more years *by June 1980*. Moreover, and even for this group, students most likely to have been retained two or more times (born before 1965) have a dropout rate almost fifteen percentage points (55.1% vs. 40.4%) higher than those probably retained only one year (born in 1965). Further, students born after 1965 (who have progressed at the usual, one-year-one grade pace) have an overall dropout rate of about half of that characteristic of students born one year earlier.*

Note, however, that despite the strong relationship between birth date and dropping out, nearly half of the students who ultimately dropped out had progressed "normally" to the eighth grade. Secondly, some six percent (1,135 students) of the cohort had not been graduated by the end of the 1983-84 school year, but were still in school as of February 1985; they had been retained at least once after grade eight and had not dropped out.

Consider next the dropout-birth-year relationships for the three ethnic groups. Three features of the data stand out. The first has to do with the percentage of each ethnic cohort being one or more years out of age-grade phase, that is, being in the eighth grade in 1980 and having been born during or before 1965. Slightly over one-third (37.0%) of the total cohort is out of phase by one year or more. However, the percentages for the three ethnic cohorts differ considerably; 25.5% of the White, 42.3% of the Black, and 46.0% of the Hispanic students who were eighth graders in 1980, were born during or before 1965.

Secondly, the dropout rate for the out-of-phase students in the total cohort is 43.0%. However, by ethnic cohort, the rate for Blacks is highest at 53.0%, and is lowest for Hispanics at 38.4%, the White dropout rate being 43.5%.

The third feature of the data is perhaps the most striking. The dropout rates for those students *who were not out of phase*, are almost identical for the three ethnic cohorts. Quite simply, students who are *not* out of phase by grade eight are equally likely to drop out regardless of ethnic membership, and are less than half as likely to drop out as students who are out of phase by that time.

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*The reader should not conclude that retention per se causes higher dropout rates More likely is the occurrence that low achievement causes both being retained and dropping out Even more likely is the occurrence that low interest in school, little extra school support for school accomplishment, and a host of other factors cause low achievement which ultimately causes "dropping out"

APPENDIX

There are two generally accepted approaches to calculating dropout rates. These approaches will produce different, but equally accurate, rates because calculations of the rates are made on different bases. One method, currently required by state law, may be called the *one-year, cross-sectional* method; the other may be called the *multi-year, longitudinal* method

In the cross-sectional method, the number of students (perhaps those 16 years or older) within a given school year is calculated and of this set the number dropping out is also calculated. The dropout rate is the latter count divided by the former, expressed as a percentage. This rate essentially states, "of all students in membership in a given year, xx percent dropped out." This is the type of rate historically reported by the district.

The longitudinal method approaches the rate calculations quite differently and with different intents. In this method, all students of appropriate age or grade at a specific point in time (e.g., 7/1/80) are identified and followed for a predetermined number of years. The percent having dropped out at the end of that period (and perhaps at yearly intervals within the period) is calculated. The calculation is the number dropping out divided by the number identified originally, expressed as a percent. In this method, the original group, called the "initial cohort," is never modified, i.e., students are not added to or subtracted from the initial cohort.

The intent of the longitudinal procedure is to take a precisely defined group and make accurate statements about its status at the end of a meaningful period(s) of time. This intent is, of course, quite different from that of the cross-sectional method. And this difference leads to the advantage and disadvantage of each method.

In the Illustration on the following page, the computations for each of the methods and an example of the differences in their results are provided. The discussion following the Illustration presumes familiarity with all aspects of the example.

ILLUSTRATION

The data below are fictitious; for computational simplicity, they assume a perfectly stable system where the rates are constant over time and no students enter or leave, except by dropping out after the beginning of grade 10.

GRADE	NO OF STUDENTS AT FIRST OF YEAR	PERCENTAGE DROPPING OUT	NO DROPPING OUT	NO. GOING TO NEXT GRADE/GRADUATIONS
10	1,000	30	300	700
11	700	20	140	560
12	560	10	56	504

A. THE *CROSS-SECTIONAL* METHOD, GRADE 10-12 STUDENTS FOR ONE YEAR

A.1	Total students in grades 10-12 for one year: beginning	- 2,260
	end	- 1,764
A.2	Number dropping out in grades 10-12 during one year, (2,260 - 1,764)	496
A.3	Dropout rate for grades 10-12 for one year: (496/2,260)	21.95%

B. THE *LONGITUDINAL METHOD*, GRADE 10 STUDENTS FOLLOWED THROUGH GRADE 12.

B.1	Total students at beginning of grade 10	1,000
B.2	Total dropping out by end of grade 12, three years later	496
B.3	Dropout rate from beginning of 10 to end of 12: (496/1,000)	49.6%

C. *OTHER CONSIDERATIONS*

C.1 Both the A3 and B3 dropout rates are accurate, but unequal;

C.2 The A3 and B3 rates are not equal because of a factor analogous to interest compounding.

This "compounding" yields a larger denominator for the cross sectional than for the longitudinal rate calculations. Note in the illustration that the numerators (number of dropouts) are the same (496) in both calculations; the denominators, however, differ (2,260 vs. 1,000). In effect, the denominator of the cross-sectional rate includes all students after grade ten who do not drop out (1,260 in grades 11 and 12). The longitudinal denominator, however, remains the same, including only the 1,000 students from the beginning of grade ten.

C.3 B3, the longitudinal rate, is not three times as large as the annual cross-sectional rate, i.e., 3 X 21.95 ≠ 49.6; the longitudinal rate is, in this example, slightly over two times larger than the cross-sectional rate;

C.4 Neither A3 or B3 equals the average rate (20%) for the three grades; the A3 rate is the weighted average of the three grade-rates.

In terms of effects, the principal difference between the two procedures is that the annual/cross-sectional method will always produce (except as noted later) lower rates than the multi-year, longitudinal method. This higher rate is due to the compounding in the denominators of those students who at each higher grade do not drop out. Thus, while both rates are correct, they produce different results because they address different problems and use different divisors in the rate calculations.

Each method has its own liabilities and advantages. The principal advantages of the cross-sectional method are:

(1) it is sensitive to year-to year changes in rates, and can provide rapid feedback on these changes;

(2) it accounts for changes in population membership, i.e., in- and out- migration; and

(3) because it uses a very broad definition of the base student population, it is the only method that can provide accurate rates for all students in membership, irrespective of when they enter the system or how long they stay.

The principal disadvantage of the cross-sectional method is that it cannot provide an accurate longitudinal rate; for example, it cannot accurately represent the percent of students dropping out from the beginning-to-end of a three-year high school program.

The principal advantage of the longitudinal method is that it can provide an accurate answer to the "long-term" questions, given that the initial cohort and follow-up period are precisely and accurately defined.

The principal disadvantages of the longitudinal method are:

(1) the results represent only the initial cohort and cannot reflect those for late entries;

(2) complete, end-of-the-follow-up-period results are available only after the period has expired;

For both methods, the results are meaningfully comparable only to those from other "cohorts" defined the same way and followed for the same period and intervals of time. For example, single year, cross-sectional rates cannot be meaningfully compared to those from a multi-year, longitudinal study; a comparison of the longitudinal dropout rates for high schools with a 10-12 grade configuration with those from schools with a 9-12 configuration is not proper because periods differ for the two sets of schools.

In stable or reasonably stable systems, it is a mathematical fact that the longitudinal dropout rate will always exceed the cross-sectional rate when the two methods cover similar cohorts and grade/year spans, e.g., three years and three grades.* When the cross-sectional rate covers three grades, and the longitudinal rate three years at the same grades, and when the annual cross-sectional rate is around 10-20%, the longitudinal rate will be 1 1/2 to 2 1/2 times higher than the cross-sectional rate.

In unstable systems, it is possible for the cross-sectional rate to exceed the longitudinal rate. But this event is unlikely in that it will occur only when a proportionally large number of students migrate in, *after* the longitudinal cohort is defined, and then dropout.

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*The only exception to this statement is when the dropout rate is 0%, or 100%, or when all dropouts occur at a single year and grade

Unlike annual, cross-sectional rates, annual rates computed separately for each year of the longitudinal follow-up period may be added, and the sum will equal the total rate across the entire follow-up period.

For longitudinal dropout rates, the longer the follow-up period, the higher will be the overall rate. for example, a three-year period will yield higher dropout rates than a two-year period on the same cohorts. The only time this will not happen is when no one drops out in the third year. It is for this reason that longitudinal rates for a high school with a 9-12 grade configuration should not be compared to those for a 10-12 school.

When this report is read, it will probably be noted that by-school rates for the four-year period are not included. Such rates were not calculated and this for three reasons. First, and as noted above, the longitudinal rates will differ because of schools' grade configurations. Schools with the wider grade configurations have the students for more years of the follow-up period, i.e., the longer the period, the higher the rate. Secondly, the rates will differ because schools which have students in only the first and/or second year of the follow-up should have higher rates than schools having the students only in the later years of the follow-up. This occurs because the dropout rate is highest in the first two years of the follow-up. (See the results section of this report.)

Third is the problem of "which school should be charged with a student's dropping out." The analysis indicates that a large percent of students drop out between the end of one school year and the beginning of the next. Suppose that the dropping out occurs at the time/grade when the student should matriculate from one school to another, e.g., from a junior to a senior high. In this case, the student completes the junior high but "never shows" at the senior high. To which school should the dropout be allocated for calculation purposes? There is, of course, no equitable answer to this question. In the traditional cross-sectional calculations, this dropout has been attributed to the receiving school. But the longitudinal method, where students are followed across time, quite clearly identifies this as a problem area, and one which cannot be equitably resolved with conventional procedures (methods of identification and of calculation).

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HIGH SCHOOL DROPOUTS WHO CHANGE THEIR MINDS ABOUT SCHOOL

by

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April 16, 1986

Objective. Previous studies have used national survey data to show how many high school students drop out before graduation, what kinds of students drop out, why they say they drop out, what social and economic characteristics are associated with dropping out, and how unsuccessful the dropouts have been in getting jobs. The evidence of these studies shows not only that dropouts experience a good deal of difficulty in finding good jobs, but also shows that many of the dropouts consider their decision to have been a mistake. Some of them take action to correct this mistake.

The objective of this study is to describe, using national survey data, how many dropouts attempt to change the course of their lives by

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returning to complete their diploma requirements, what kinds of dropouts return and complete their requirements, and how the subsequent activities of those dropouts who returned to complete the diploma requirements differ from those of dropouts who remained out of school.

Perspective. This section of the paper reviews two distinct perspectives on the acquisition of schooling by young people, deriving from research orientations called "educational attainment" and "human capital." This section then reviews the approaches of these two orientations to the problem of dropping out of high school and to the reasons for returning. It reviews the evidence on what kinds of students drop out, on the consequences of dropping out for later careers, and on the dropouts' own views of their decisions.

The orientation provided by the educational attainment literature emphasizes the role of ambition, or educational expectations, in overcoming the limitations of socioeconomic background and academic ability on the level of schooling eventually attained by an individual. (For an overview, see Bielby, 1981, or Campbell, 1983.) The educational attainment approach directs attention to the social psychological processes that influence the career decisions of young people. Among these processes the most theoretical attention has been paid to that of social influence by significant others (parents, teachers, and peers) on the development of educational expectations and other attitudes and personality factors. The social-psychological approach of this orientation conceives of aspirations as part of the self-concept, and as developing through role models, the expectations held by others, and one's own expectations based on past performance.

The orientation provided by the human capital literature emphasizes the investment aspect of schooling decisions and considers schooling to be valuable because the skills imparted make the schooled individual more productive than the unschooled. (For an overview, see Becker, 1964.) The human capital approach directs attention to the economic life cycle, in which a rational individual continues to buy more schooling until the marginal cost of the additional investment equals the marginal return, and then the individual enters the labor market to obtain the return for which the investment was made.

The investment imagery of the human capital orientation provides no theoretical or independent role for aspirations, attitudes, or tastes for schooling. Based on a human capital orientation, subjective factors would be interpreted as assessments of the anticipated costs and benefits of further schooling, but not as significant factors independent of school investment decisions. Unlike the educational attainment orientation, however, the human capital orientation does provide for a constraint on schooling investments. Given sufficient ability and resources, a student might leave school at some point to take advantage of better investment opportunities elsewhere.

Neither orientation is centered on the problem of dropping out of high school; instead, they focus in different ways on the relationship of school to work. Nevertheless, these orientations ought to be useful in understanding the behavior of dropping out as well as what happens when students change their minds and return to complete high school.

The educational attainment orientation would lead to an interpretation of dropping out of school at any point--high school, college, and even beyond college--as a failure of resources, motivation, encouragement, or the socialization process. Students who leave school, according to the educational attainment orientation, may return late, provided they had intended to go further when they left school (or that their aspirations increase), or provided that they are influenced by others with the goal of further schooling. Based on their background and ability, students who should not have dropped out are more likely to return than those whose action fit their resources and abilities.

The human capital approach looks for economic rationality behind the decision to leave high school; the decision should depend on the balance between the expected wage premium attributable to the completion of high school and the expected opportunity cost of staying in school. The same reasoning applies to dropouts. Marcus (forthcoming), for example, argues that wage disadvantages often experienced by high school dropouts compared to high school graduates ought to bring about a return of dropouts to the educational system for further schooling.

The two orientations to the acquisition of schooling have been fruitful in generating empirical research, both in general terms and in terms of application to the problem of dropping out of high school. As applied generally to the process of schooling, the educational attainment literature has shown the importance of relatively unchanging social background and academic ability factors in constraining educational attainment, as well as the independent contribution of certain important attitudes and motivations on career decisions. For example, Sewell and Hauser (1975) have documented the importance of socioeconomic background; Marini (1980) has documented the importance of gender differences; Howell and Freese (1982) have examined the importance of racial and ethnic origins; and Rehberg and Rosenthal (1976) have examined the role of ability in educational attainment. From a theoretical point of view it is unfortunate that the survey data typically used to study the educational attainment process have not often included data that would permit a close look at the social psychological process of aspiration formation.

The research coming from the human capital orientation, like that of the educational attainment literature, demonstrates the significant role played by family resources and ability in schooling. When researchers from the human capital orientation have used data to examine the problem of high school dropouts, they have found economic rationality behind the decision to leave high school (e.g., Freeman, 1978; Hill, 1979). Blakemore and Low (1984), for example, presented evidence that higher wages can pull students out of high school, but that the higher wages initially earned by high school dropouts soon change into a wage disadvantage compared to high school graduates.

Government statistics based on longitudinal data provide additional information on dropping out of high school. For example, a study of dropouts by the National Center for Education Statistics, based on a follow-up survey two years later of the High School and Beyond sophomores, reported that Hispanics and blacks were more likely to drop out than whites, that males were more likely to drop out than females (except among Hispanic and Native American ethnic groups), that students from a family with fewer socioeconomic resources were more likely to drop out, that students with poorer grades were more likely to drop out, that students living in the South and West were more likely to drop out than those in the Midwest and Northeast, and that students in rural and urban areas were more likely to drop out than those in suburban areas (Peng, 1983).

Another study, based on longitudinal data sponsored by the U.S. Department of Labor, showed similar relationships between student characteristics and the rate of dropping out of high school (Rumberger, 1981). It also found that older students were more likely to drop out than younger students, that Hispanics and blacks were more likely to drop out than whites, and that males were more likely to drop out than females (except among Hispanics).

Two previous studies have used national survey data and a multivariate statistical approach that adjusts for covariation among student characteristics to address the problem of dropping out of high school. In the first study, Rumberger (1981) found three categories of factors to be associated with dropping out: 1) family background (educational level of parents, economic resources, family size, housing conditions, and geographic location), 2) experiences in school (performance, relationships with teachers and classmate, and school climate), and 3) other non-school factors (ability and aspirations, early marriage and childbirth, and local employment conditions). The multivariate model showed that after adjusting for background differences in resources, minority men and women drop out at rates similar to majority men and women. Further, the greater the amount of reading material in the household, the lower the rate of dropping out; this relationship was stronger for those from disadvantaged backgrounds.

In the second study, Pallas (1984) described three somewhat different categories of factors, in addition to the standard socioeconomic background measures, as associated with dropping out of high school: 1) academic performance (grades and test scores), 2) social disability (delinquency, lack of relationships with teachers and classmates, anxiety, rebelliousness, and other personality traits), and 3) accelerated transitions to adult roles (full-time jobs, early marriage and childbirth).

Federally-funded longitudinal surveys have asked the dropouts directly why they left school. The dropouts' answers are to some extent self-serving in that they avoid failure as a reason. In general, young men give economic reasons (job offers, wanted to enter military, home responsibilities, and financial difficulties) more often than young women, young women give family reasons more often than young men (marriage and pregnancy), and both volunteer school-related reasons (do not like school, lack of ability, poor grades, expulsions or suspensions) and health reasons (illness or disability). (Peng, 1983; Rumberger, 1981.)

Research has verified common opinions that dropouts have difficulties after leaving school. Dropouts experience higher unemployment rates and lower earnings than others (Rumberger, 1981), are more likely to require public assistance (Levin, 1972), and are more likely to engage in criminal behavior than more educated citizens (Erlich, 1975). While dropouts who become homemakers may not experience directly the effects of high unemployment and low earnings, compared to students, workers, and military enlistees, homemakers were the only group in a longitudinal study of high school graduates not to show gains in self-esteem after leaving high school (Malone, 1977).

Although a few careers do not require advanced schooling, and high school graduation is not compulsory, educational researchers and practitioners are fairly unanimous in deploring the decision to drop out. Many of the high school dropouts themselves thought it was not a good decision (53 percent, according to High School and Beyond follow-up data on dropouts; Peng, 1983). While our society may need a certain minimum number of low-skill workers, individual students can generally improve their futures by remaining in high school to graduate.

Data Source. The findings reported in this paper derive from the High School and Beyond project (HS&B), sponsored by the U.S. Department of Education's Center for Statistics (CS). HS&B is a longitudinal study that has tracked a national sample of high school sophomores for four years and will keep tracking this group for many years to come. Such a study is well suited to reporting what happens afterwards to students who drop out of high school.

The details of the HS&B project can be summarized briefly. In spring 1980, the National Opinion Research Center (NORC), under contract to CS, conducted an initial HS&B survey of 30,000 sophomores in 1,015 high schools. In spring 1982, NORC conducted a follow-up survey to which about 28,000 sophomores responded. Some members of the initial sample were dropped, but all sophomores who remained in the same high school, and about 50 percent of those sophomores who had left the schools they attended in 1980, including dropouts, transfers, and early graduates, were retained in the first follow-up sample. In fall 1982, NORC requested transcripts of HS&B students from the sampled high schools. About 16,000 sophomore transcripts were received and their contents systematically coded. Some members of the HS&B sample were dropped from the transcript study. In spring 1984, NORC conducted a second follow-up survey and about 15,000 sophomores responded. Cases of special policy interest were retained in the sample with a greater likelihood than that of cases occurring more frequently in the population, but of lesser policy interest. Sample weights were designed to compensate for the unequal probabilities of participation in the HS&B project in order to obtain population estimates. Further information on sample design and survey content can be found in Jones, et al., (forthcoming); further details on the transcript data can be found in Jones, et al., (1983).

The present study is based on 1984 follow-up data from the former sophomores, obtained two years after most of them would have graduated from high school. The current data shows that many of the high school dropouts changed their minds about school, and returned to graduate or complete their general equivalency diploma (GED) requirements. (The questions asked on the survey forms linked diplomas and GEDs in the same questions, so it was not possible to distinguish the two modes of high school completion.)

The proportion of dropouts in the HS&B sophomore sample was 14 percent (Peng, 1983). This proportion is smaller than the proportion of non-graduates reported annually by the Center for Statistics, which collects administrative data that show the ratio of high school graduates to the 18-year old population to have remained constant at about 72 percent since 1978-1979. The ratio was slightly higher in earlier years--about 76 percent in 1970-71 (Gerald, 1984). If one considers all non-graduates to be dropouts, the dropout percentage based on administrative data would be 28 percent, much larger than the HS&B estimate. About half the difference between the two estimates can be attributed to the shortened time at risk of dropping out in the HS&B data--the study began in the middle of tenth grade, so students who dropped out prior to that time are missing from both the numerator and the denominator of the HS&B dropout rate. (For a discussion of sources of the remaining difference, see Verdugo and Pallas, forthcoming.)

Techniques. This section first describes measurement procedures used to identify dropouts, to date their leaving school and to classify their later activities. Next, it describes the subsample of the HS&B data used as the basis of the findings and the weights used to compensate for unequal sample selection probabilities. This section then describes the tabulations and statistical graphics used to present the findings.

A possible source of difficulty in comparing dropout studies is the definition of dropouts and graduates. The present study defined dropping out among the sophomores as an event, not as a status--here dropping out means any prolonged absence from school. The absences were detected in the survey data in several ways. If students were no longer enrolled in 1982 at the time of the spring follow-up survey; were shown by transcripts collected in the fall not to have graduated in June or later; reported that they dropped out for a while before transferring to another school; were shown by transcripts collected in the fall to have been absent for at least a semester; or reported that they had not finished high school in 1984 at the time of the second follow-up survey, the students were identified as dropouts.

This study identified high school graduates on the basis of both self-reports and evidence from school transcripts. If students reported that they had received a GED or a high school diploma, in either the 1982 or the 1984 follow-up survey, or if their transcripts showed that they had graduated by 1982, they were classified as high school graduated.

Students who returned to high school after dropping out but had not yet graduated as of the 1984 follow-up survey were excluded from the group of dropouts classified as never having returned to high school. Since in most of the results reported below, the non-graduating returnees as a group were intermediate between those dropouts who later graduated and those who never returned to school, they are not shown in the summary results below. The figures on this group are available in the unpublished tabulations on which the present report is based (Owings and Kolstad, 1985).

For this study, the sample is restricted to those students who dropped out of high school. In the tables to be presented below, the sample size ranges from about 1951 to 2528 cases, depending on the number excluded because of missing data on a particular variable. All estimates in the tables were weighted using the second follow-up weight, FU2WT, in order to obtain population estimates. Percentage standard errors may be estimated using the unweighted sample sizes and a design effect factor of 1.65 to adjust for loss of efficiency due to sample clustering and stratification (for further details on sample design, see Jones and Spencer, 1985).

The data were analyzed in a series of cross-tabulations and bar graphs showing the percentage of dropouts who received a diploma or GED by 1984 among groups defined by various background factors. Cross-tabulations provide an advantage in describing the average experiences of dropouts and in allowing different relationships of background factors to dropout experiences within important groups of policy interest. The disadvantage of the descriptive approach lies in its inability to sort out factors which are directly related to later dropout experiences from factors that are incidentally related to later experiences. For example, racial and ethnic minorities look more different from the white majority in cross-tabulations than they would in a multivariate approach that adjusts for covariation between family resources, academic performance, and race/ethnicity. Later research using multivariate methods would be useful in understanding the experiences dropouts have after they leave school.

Results. The major finding of this study is that a substantial minority of dropouts in the High School and Beyond study returned and completed high school or obtained a general equivalency diploma (G.E.D.). Overall, four out of ten dropouts (38 percent) completed their diploma requirements by spring of 1984, a time when their classmates were two years out of high school. An additional one out of ten dropouts (13 percent) had returned to school but either failed to graduate or were still enrolled at that time.

The High School and Beyond study, because its design begins with and follows a class of tenth graders, does not represent all high school students. Table 1 and its associated bar graph show that those students who dropped out early were less likely to return: 27 percent of those who dropped out as sophomores completed their graduation requirements, compared to 37 percent of junior-year dropouts and 41 percent of senior-year dropouts. The table and bar graph leave an empty place for figures on freshman-year dropouts to emphasize that no data are available on students who dropped out before the middle of their sophomore year. Students who dropped out prior to the spring of their sophomore year were not part of the HS&B study (as noted in the data source section above). While it is always unwise to extrapolate trends to a time with no data, it seems reasonable to assume that students who dropped out as freshmen or in the fall of their sophomore year would be less likely to return and graduate than those who dropped out in their junior or senior year of high school. A study design that tracked students through all of high school beginning at the start of ninth grade would be likely to find a high school completion rate among dropouts lower than the 38 percent figure found by the HS&B study. (An approximate guess for the full four years would be about 30 percent, or three in ten dropouts returning to school.)

Since young women typically have different career patterns and expectations from men, most of the remaining tables present separate results for men and women. Table 1 shows that young men and young women who dropped out of high school later returned to complete high school at about the same rate, except that among those who left school in their senior year, men were about six percentage points more likely to complete their requirements than women (44 percent compared to 38 percent).

Table 1 and most of the remaining tables also show, for reference purposes, the proportion of high school sophomores who dropped out. The proportion of young men who dropped out of school is larger than that of young women (15 percent compared to 13 percent). Since the percentage of dropouts in most categories has already been reported in previous publications (e.g., Peng, 1983), the percentage from different groups dropping out of high school will not be discussed in the text.

Table 2 and its associated bar graph show the racial/ethnic distribution of the return rates among dropouts. Hispanic and black dropouts were less likely to return and complete high school than were majority whites (30 and 33 percent compared to 41 percent). Among majority whites, young male and young female dropouts were about equally likely to return and complete high school, but among Hispanics and blacks, young male dropouts were about 10 percentage points more likely to return and complete high school than young female dropouts.

One reason that racial/ethnic differences in dropout-return rates exist is that the racial ethnic groups differ greatly in socioeconomic status. Table 3 shows the racial/ethnic distribution within socioeconomic groups of the percent of dropouts who returned to complete high school. In the HS&B study, the measurement of socioeconomic status was based on student reports of parental education, occupation, and income and an index of eight household-possession items (see Jones, et al., forthcoming). The distribution of the index was broken into quartiles, and in Table 3 and its associated bar graph, the upper two quartiles were combined. The table shows that in each socioeconomic quartile, blacks were less likely to return than majority whites. In the lowest quartile, Hispanics and majority white dropouts were equally likely to return and complete high school. Overall, the grouping by socioeconomic status did not eliminate the racial/ethnic differences.

Another factor on which racial/ethnic groups differ is academic test scores. Table 4 and its associated bar chart shows the racial/ethnic distribution within test score groups of the percent of dropouts who returned to complete high school. In the HS&B study, the combined academic test score is an average of reading, vocabulary, and math standardized scores on tests developed by the Educational Testing Service and administered in the sophomore year (see Jones, et al., forthcoming). The distribution of the average test scores was divided into quartiles, and in Table 4 and its associated bar graph, the upper two quartiles were combined. In this case the results are dramatically different. In the upper three test score quartiles, the Hispanic and black minority dropouts were more likely to return to complete their high school requirements than were majority white dropouts.

Previous studies of dropouts have shown geographical differences in high school dropout rates; the rates were higher in the South and West than in the Northeast and Central regions, and dropout rates were higher in urban than in suburban and rural areas.

The results in Table 5 and its associated bar graph show that among dropouts, the regional pattern of return and completion rates is not the same as the regional pattern of the droput rates. The South and the Northeast had return/completion rates around 40 percent, compared to a 35 percent rate in the West and the North Central regions. The return and completion rates among dropouts in the North Central region was unlike those of the Northeast and South in another respect: In the North Central region, young female dropouts were more likely to return to complete high school than young male dropouts (39 percent compared to 30 percent), while in the Northeast and South, the reverse was true. In the latter regions young male dropouts were more likely to return to complete high school than were young female dropouts (43 and 46 percent of men in the Northeast and South, compared to 36 and 35 percent of women).

The results in Table 6 and its associated bar graph show that among dropouts, the pattern of return and completion rates by type of community was similar to the pattern of the dropout rates by type of community in that suburban dropouts were more likely to return to school. High school dropouts in urban areas had dropout/return rates around 35 percent, compared to 37 percent in rural areas and to 42 percent in suburban areas. The pattern of return/completion rates is rather different for male and female dropouts in the different community types. In rural areas, young female dropouts are more likely to return to complete high school than young male dropouts (42 percent compared to 32 percent), while in urban areas, the reverse is true: young male dropouts are more likely to return to complete high school than young female dropouts (43 percent compared to 25 percent). In suburban areas, there was no sex difference (42 percent of male dropouts returned and completed high school, compared to 42 percent of female dropouts).

Table 7 and its associated bar graph present the relationship between postsecondary educational plans, reported when the dropouts were still in high school as sophomores, and rates of return and completion of high school. Those who expected to go to college, but dropped out of high school, are more likely to return and complete high school than those dropouts who had no further educational plans for after high school (61 percent compared to 27 percent). Among those who had an intermediate level of educational expectations (junior college or vocational/technical school), male dropouts were more likely than female dropouts to return and complete school (51 percent compared to 44 percent for those who expected vocational technical training, and 64 percent compared to 46 percent for those who expected to attend junior college).

Table 8 and its associated bar graphs are different from the previous tables in that they examine what high school dropouts were doing four years after their sophomore year, by comparing the dropouts who later completed high school with those who dropped out but never returned. The HS&B 1984 follow-up survey found the dropouts and determined their activities as of February 1984. For this study, the categories of later activities were classified so as to be mutually exclusive, based on the hierarchical order shown in the table; for example, respondents in school were not considered to have jobs or to be unemployed. Because young women typically have different career patterns and expectations from those of young men, this table presents the later activities separately for male and female dropouts.

The later activities of male dropouts differ depending upon whether or not they returned to complete high school. Male dropouts who returned and completed high school were more likely to have enlisted in military service, where they can obtain vocational training as well as avoid being unemployed, than those dropouts who stayed out of school (11 percent compared to 2 percent). Male dropouts who returned and completed high school were also more likely to have enrolled in a postsecondary educational institution, where they can invest in their future productivity, than those dropouts who stayed out of school (15 percent compared to 2 percent). On the other hand, male dropouts who returned and completed high school were less likely to be employed than those dropouts who stayed out of school (69 percent compared to 79 percent), and less likely to be looking for work (11 percent compared to 16 percent).

Although the nature of the activities typically pursued by young men and young women at this age differ substantially, the kind of later activities of female dropouts also differ depending upon whether or not they returned to complete high school. Like male dropouts, female dropouts who returned and completed high school were more likely to have enrolled in a postsecondary educational institution than those dropouts who stayed out of school (19 percent compared to 2 percent). Unlike male dropouts, female dropouts who returned and completed high school were more likely to be employed than those dropouts who stayed out of school (53 percent compared to 37 percent). Female dropouts who returned and completed high school were less likely to be looking for work (11 percent compared to 16 percent). Female dropouts who returned and completed high school were much less likely to be a homemaker with no other activities than those dropouts who stayed out of school (19 percent compared to 41 percent).

Summary of Findings. Those groups shown by previous research to be most likely to drop out are also least likely to complete their diploma requirements. This study found that Hispanics and black dropouts were less likely to finish high school than were majority white dropouts, that dropouts from a family with below average socioeconomic resources were less likely to finish high school than those from above average backgrounds, that dropouts with poorer test scores were less likely to finish than those with better test scores, and dropouts living in the West and Midwest were less likely to finish high school than those in the South and Northeast, and that students in rural and urban areas were less likely to finish high school than those in suburban areas.

Unlike previous studies of dropping out that found women somewhat less likely to dropout out of high school than men, this study found that in general, male dropouts were more likely to return and finish high school than female dropouts (except among whites, where they were equally likely). Perhaps this finding indicates that homemaking and childrearing reduce the alternatives for changing career choices.

The results of the fourth year follow-up survey indicate that completing high school is associated with more promising futures. Among dropouts, those who completed their diploma requirements were more likely to be enrolled in postsecondary educational institutions, more likely to have enlisted in military service, more likely to be employed full time, and less likely to be unemployed and looking for work than non-completers (as of February 1984).

Importance of the Study. Studying the consequences of dropping out requires a long-term project, to observe both when students drop out and what they do afterwards. This paper reports new findings from a recent follow-up survey of high school sophomores, four years later. The results indicate that a substantial proportion of high school dropouts return to complete their diploma requirements. Dropping out is a reversible decision. Many programs exist at local levels that aim to bring dropouts up to a level of knowledge and competence such that they can graduate or receive a GED. The completion rates from this study indicate either that many of these programs are working or that dropouts change their minds on their own. There seem to be good chances for success in working with dropouts to complete their schooling.

Table 1.--Later graduation of high school dropouts who were sophomores in 1980, by sex and year left school: spring 1984

Year left school	Total	Sex	
		Men	Women
	Percent who dropped out		
Total	13.6	14.6	12.6
	Percent of dropouts who graduated		
Total	38.1	39.7	36.0
Freshman	--	--	--
Sophomore	27.2	27.4	26.9
Junior	37.3	36.5	38.4
Senior	41.4	43.9	37.8
	Dropout sample size		
Total	1951	1049	902
Freshman	--	--	--
Sophomore	401	208	193
Junior	854	450	404
Senior	696	391	305

Note: The date a student left high school was based on high school transcript data. Students who dropped out as freshmen or in the first half of their sophomore year were excluded from the HS&B study.

SOURCE: High School and Beyond study (1982 transcript data and 1984 follow-up data), unpublished tabulations.

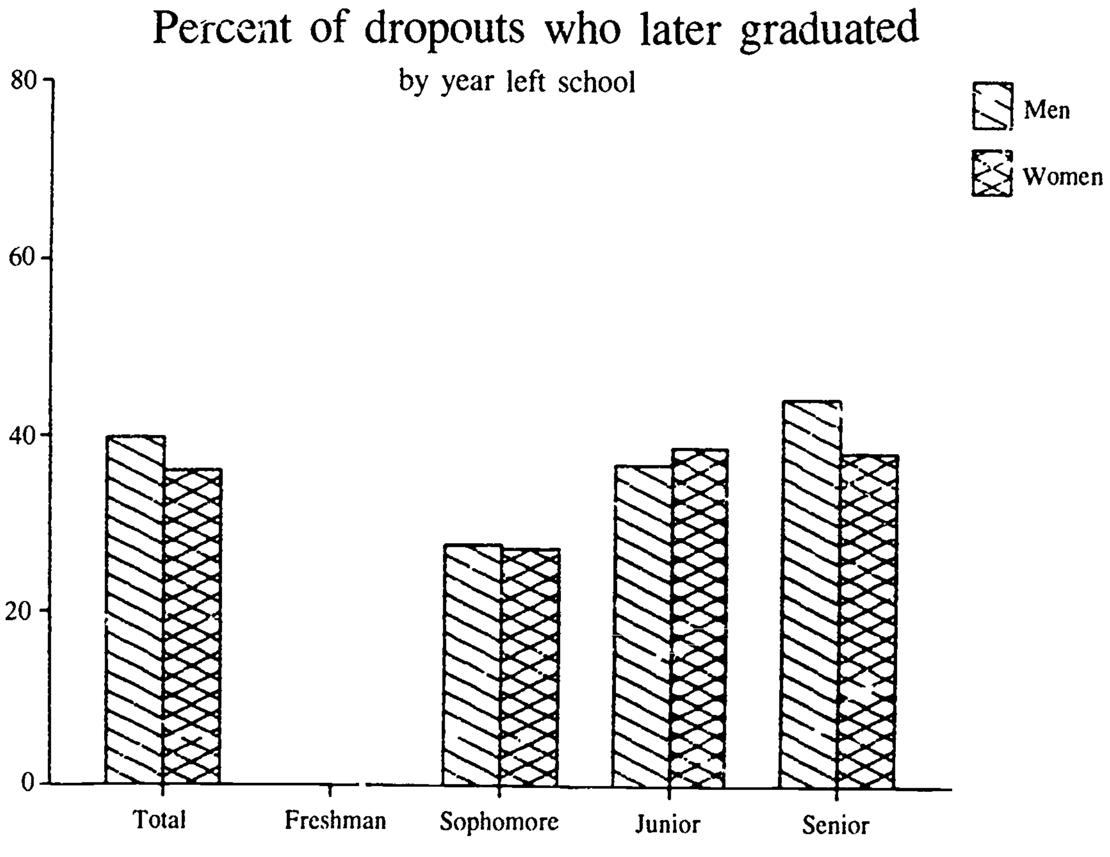

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Table 2.--Later graduation of high school dropouts who were sophomores in 1980, by sex and race/ethnicity: spring 1984

Race/ethnicity	Total	Sex Men	Sex Women
	Percent who dropped out		
Total	13.6	14.6	12.6
Hispanic	18.7	18.8	18.6
Black	16.8	20.1	13.8
White	12.2	13.0	11.5
	Percent of dropouts who graduated		
Total	38.1	39.7	36.0
Hispanic	30.3	34.1	25.7
Black	33.1	38.2	26.1
White	41.4	41.5	41.2
	Dropout sample size		
Total	2528	1327	1201
Hispanic	503	251	252
Black	461	262	199
White	1432	738	694

SOURCE: High School and Beyond study (1982 transcript data and 1984 follow-up data), unpublished tabulations.

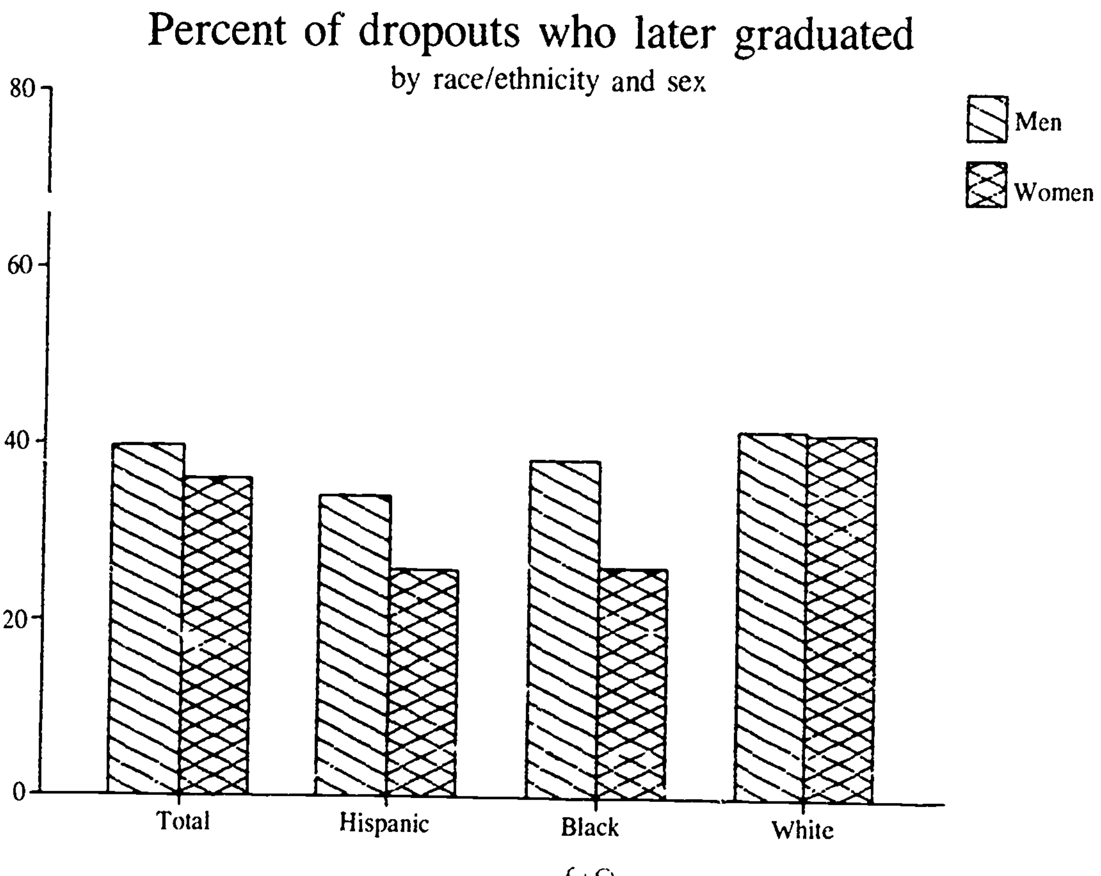

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Table 3.--Later graduation of high school [illegible] who were sophomores in 1980, by socioeconomic status quartile and race/ethnicity: Spring 1984

		Socioeconomic status quartile		
Race/ethnicity	Total	1(low)	2	3&4(high)
	Percent who dropped out			
Total	14.4	22.3	13.2	8.9
Hispanic	19.1	23.1	19.5	11.0
Black	17.2	18.0	10.3	14.7
White	13.0	23.7	12.6	6.8
	Percent of dropouts who graduated			
Total	39.0	30.3	37.1	53.[illegible]
Hispanic	34.5	32.4	33.4	41.8
Black	31.8	24.9	33 7	44.1
White	42.4	31.9	39.5	56.3
	Dropout sample size			
Total	2169	943	576	650
Hispanic	427	241	99	87
Black	359	184	84	91
White	1285	482	364	439

Note: Socioeconomic status quartile is based on student reports of parental education, occupation, and income and an index of eight household-possession items (see Jones, et al., forthcoming). The upper two quartiles were combined.

SOURCE: High School and Beyond study (1982 transcript data and 1984 follow-up data), unpublished tabulations.

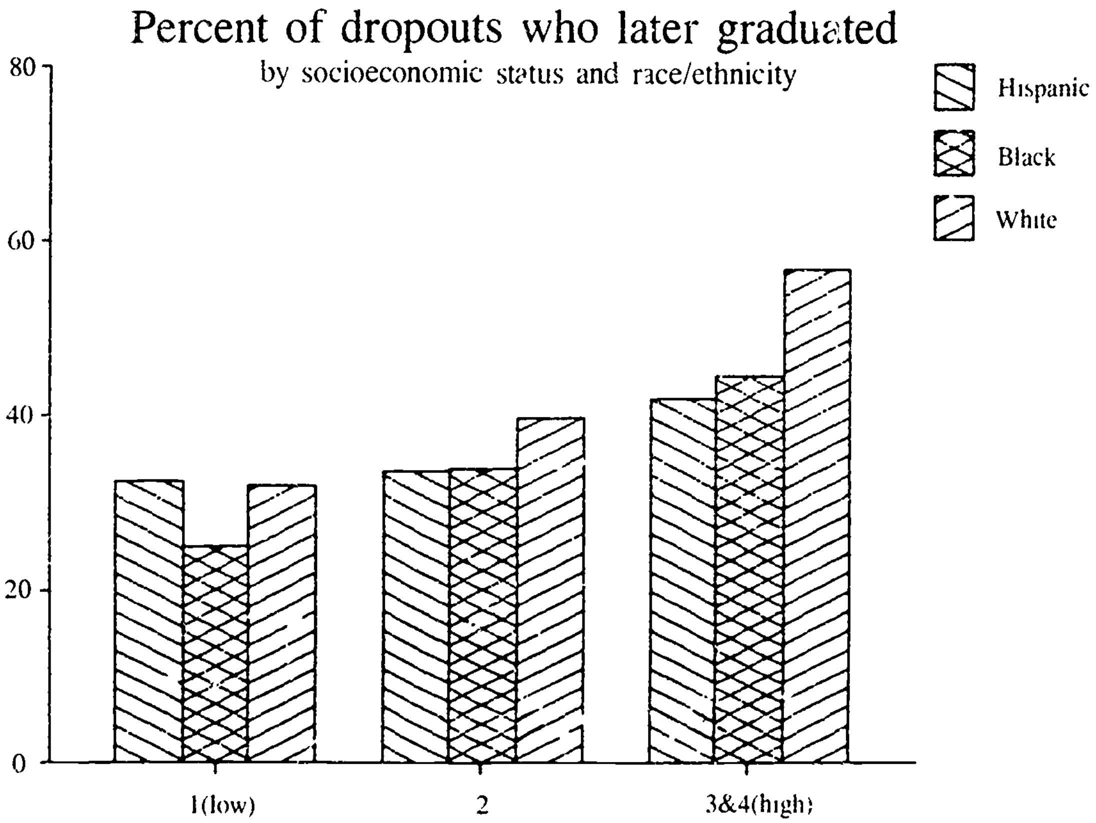


Table 4.--Later graduation of high school dropouts who were sophomores in 1980, by test score quartile and race/ethnicity: spring 1984

		Test score quartile		
Race/ethnicity	Total	1(low)	2	3&4(high)
		Percent who dropped out		
Total	14.4	26.5	14.7	9.0
Hispanic	19.1	25.0	11.2	8.7
Black	17.2	23.6	7.4	7.5
White	13.0	29.3	16.4	3.9
	Percent of dropouts who graduated			
Total	36.3	21.9	50.1	54.8
Hispanic	32.2	17.5	58.9	69.2
Black	33.1	25.3	54.9	58.1
White	40.2	22.3	49.7	54.5
		Dropout sample size		
Total	2327	1213	634	480
Hispanic	484	327	95	62
Black	449	336	67	46
White	1394	550	472	372

Note: Test score quartile is an average of reading, vocabulary, and math standardized scores or tests developed by the Educational Testing Service and administered in the sophomore year (see Jones, et al., forthcoming). The upper two quartiles were combined.

SOURCE: High School and Beyond study (1982 transcript data and 1984 follow-up data), unpublished tabulations.

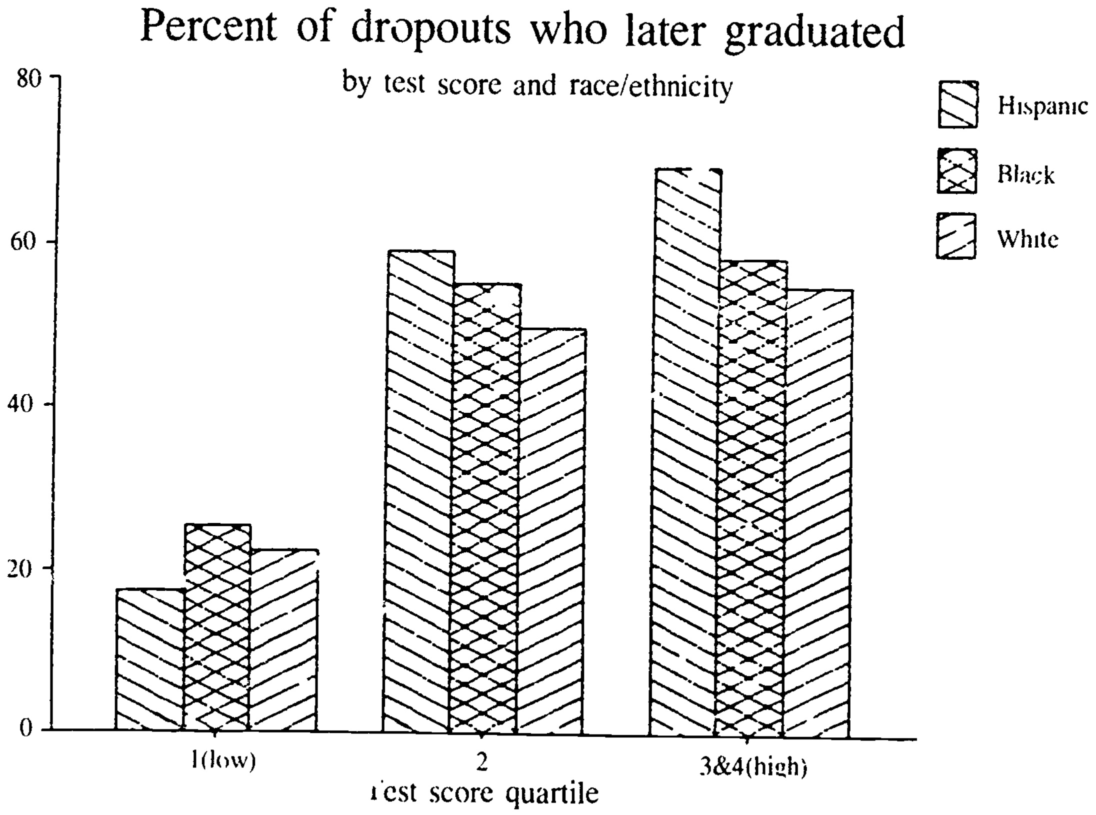


Table 5.--Later graduation of high school dropouts who were sophomores in 1980, by region and sex: spring 1984

Region	Total	Sex: Men	Sex: Women
	Percent who dropped out		
Northeast	11.9	12.8	10.9
North Central	12.3	12.0	12.7
South	16.6	18.3	15.0
West	16.5	17.7	15.1
	Percent of dropouts who later graduated		
Northeast	40.3	43.1	36.0
North Central	34.2	30.0	39.2
South	40.6	45.5	35.1
West	35.7	37.2	34.0
	Dropout sample size		
Northeast	451	246	205
North Central	596	307	289
South	985	509	476
West	496	265	231

SOURCE: High School and Beyond study (1982 transcript data and 1984 follow-up data), unpublished tabulations.

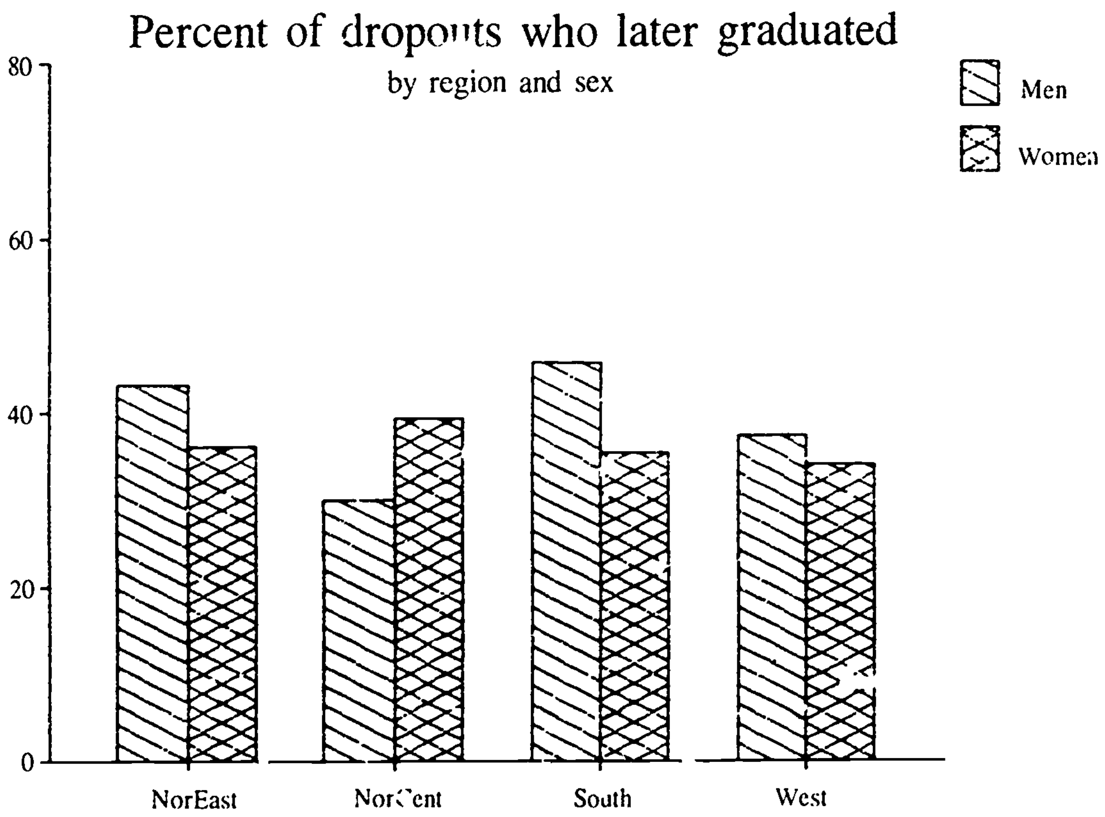
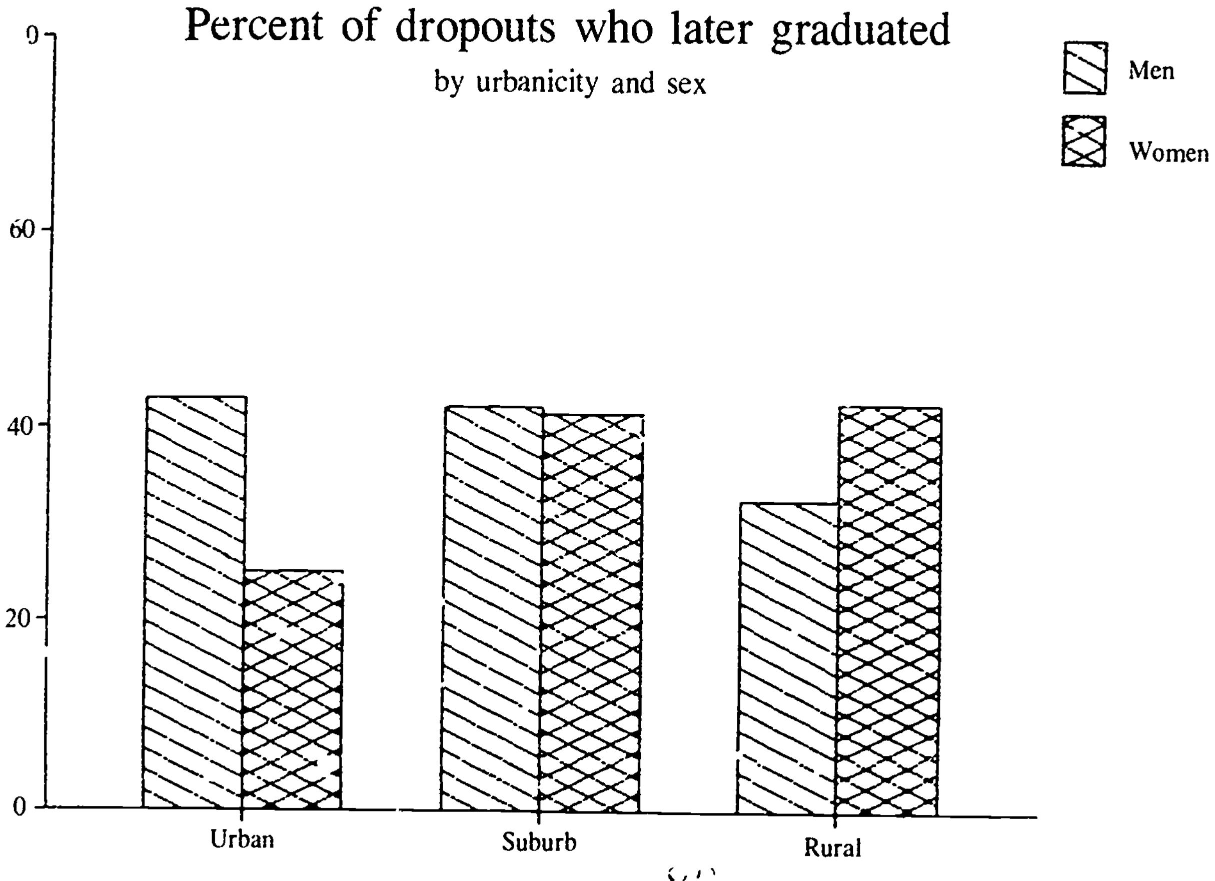


Table 6.--Later graduation of high school dropouts who were sophomores in 1980, by urbanicity and sex: spring 1984

Urbanicity	Total	Sex	
		Men	Women
	Percent who dropped out		
Urban	18.1	19.0	17.2
Suburban	12.8	14.1	11.5
Rural	14.3	14.7	14.0
	Percent of dropouts who later graduated		
Urban	34.6	42.8	24.8
Suburban	41.7	42.0	41.3
Rural	36.8	32.4	42.2
	Dropout sample size		
Urban	787	418	369
Suburban	1021	538	483
Rural	720	371	349

SOURCE: High School and Beyond study (1982 transcript data and 1984 follow-up data), unpublished tabulations.



Percent of dropouts who later graduated

by urbanicity and sex

Table 7.--Later graduation of high school dropouts who were sophomores in 1980, by postsecondary educational plans in 1980: spring 1984

Sex	None	Voc/Tech	Jr Coll	Coll Grad
	Postsecondary educational plans			
	Percent of dropouts who graduated			
Total	26.6	48.1	56.7	60.6
Male	26.4	51.2	63.5	60.1
Female	26.8	44.2	46.4	61.1
	Dropout sample size			
Total	1304	531	282	288
Male	685	292	138	139
Female	619	239	144	149

Note: Postsecondary educational plans were reported when the students were sophomores.

SSOURCE: High School and Beyond study (1982 transcript data and 1984 follow-up data), unpublished tabulations.

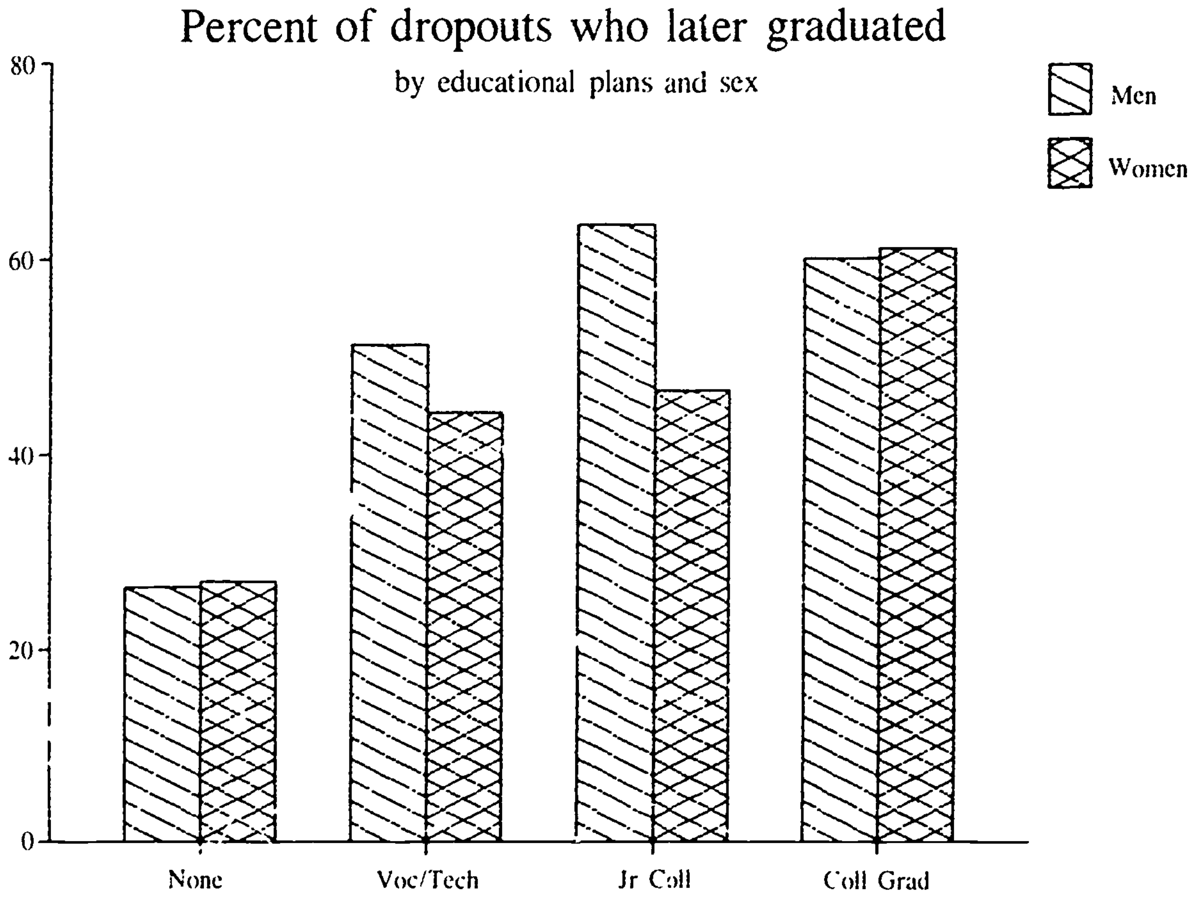
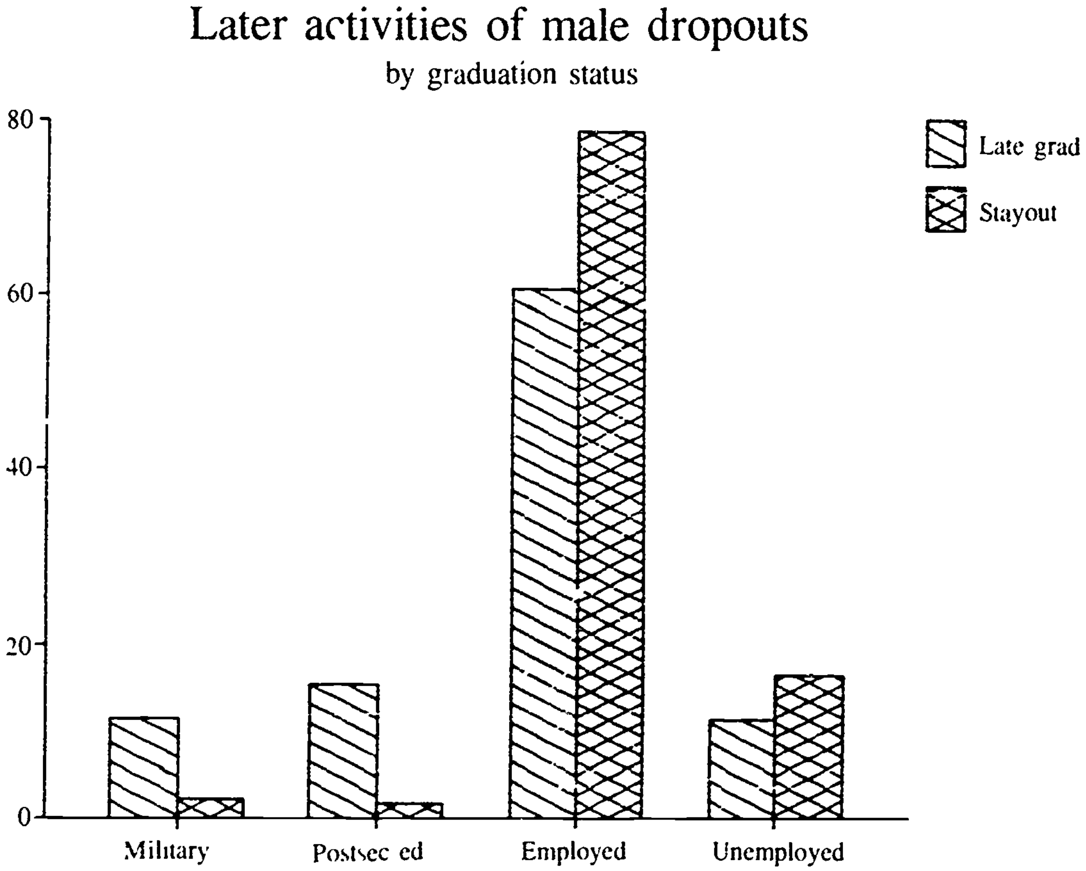


Table 8.--Later activities of high school dropouts who were sophomores in 1980, by sex and graduation status: spring 1984

Later Activities	Sex and graduation status					
	Male			Female		
	Total	Late Grad	Stayout	Total	Late Grad	Stayout
	Percent who engaged in activity					
Total	100.0	100.0	100.0	100.0	100.0	100.0
Military	6.4	11.4	2.3	.0	.0	.0
Postsec education	7.9	15.3	1.6	9.6	19.4	2.1
Civilian job	68.7	60.6	78.8	44.2	52.9	36.9
Prof, clerical	5.4	6.7	5.3	12.8	16.9	9.3
Craft	13.8	14.1	14.5	.7	1.0	.5
Operative	10.6	7.4	12.6	3.6	3.2	4.7
Laborer	18.5	13.7	[illegible]	2.0	.9	1.4
Sales	10.7	9.2	12.5	16.9	19.8	15.2
Other	9.8	9.5	10.7	8.3	11.2	5.9
Unemployed	15.9	11.3	16.2	16.1	9.2	20.1
Homemaker	1.2	1.4	1.1	30.0	18.5	40.9
	Dropout sample size					
Total	1251	491	641	1118	404	585

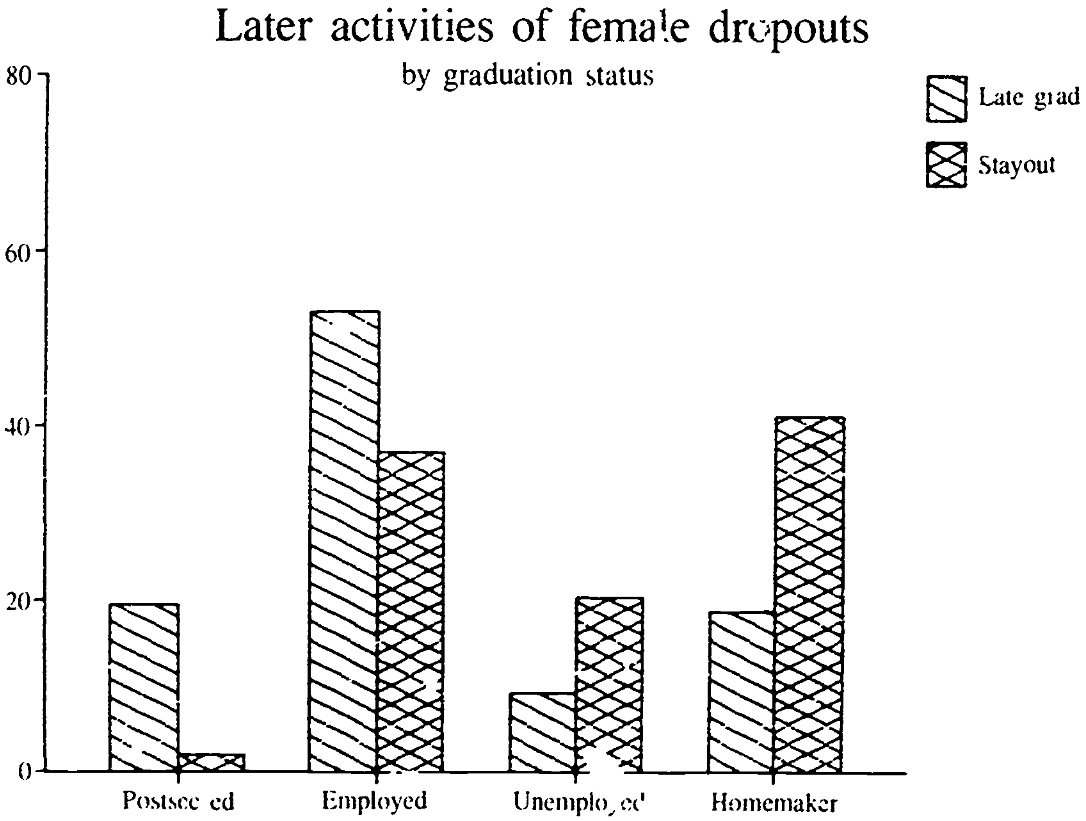
Notes: Categories of later activities are mutually exclusive and listed in a hierarchical order; for example, respondents in school were not considered to have jobs or to be unemployed. Activities were reported in spring 1984, four years after the sophomore year.

SOURCE: High School and Beyond study (1982 transcript data and 1984 follow-up data), unpublished tabulations.



Later activities of male dropouts

by graduation status



Later activities of female dropouts

by graduation status

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Correlates of Dropout

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The Association of Dropout Rates with Student Attributes

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The Association of Dropout Rates with Student Attributes

INTRODUCTION

The high school dropout rate has become a critical problem in the public school systems of large cities. Over 40 percent of students enrolling as freshmen in the Chicago public high schools during the years 1978 to 1980 dropped out (Hess and Lauber, 1985). The present study was undertaken to assess the association of the dropout rate with attributes of these students.

Two of the attributes, reading achievement (RGE) and age upon entry to high school (hereafter referred to as entry-age), are of particular interest. These attributes are alterable. They may be affected by system-wide policies and by specialized dropout prevention programs.

The other attributes, race and sex, are treated differently in our study because they are not alterable. They are of no use, by themselves, as explanatory variables in dropout studies. If race and gender are associated with dropout rates, one can only conduct further research to find alterable variables that mediate this association. Only by directing the search for alterable, underlying variables, can the association of race or gender with dropout rates be of any practical value in dropout prevention.

The retention of students in primary grades whose academic progress is considered inadequate for higher level coursework is one policy that is likely to affect the alterable student attributes considered in this study. Presumably, retention increases students' achievement upon their eventual entry to high school, but increases their entry-age as well. The dropout rate decreases with achievement, but increases with entry-age (Hess and Lauber, 1985). One objective of this study is to determine what the net affect of retention policies on the dropout rate is likely to be.

DATA SOURCE

Approximately 98,000 students enrolled as freshmen in the Chicago public high schools during the 1978 to 1980 period. Two groups of students were drawn from this population. One group consisted only of students who enrolled in 1978. The other group consisted of students who enrolled anytime during the entire 1978 to 1980 period. Sample sizes were reduced due to the omission of some groups of students, such as American Indians, who were too few in number to yield reliable results for their group. Students with missing data were also deleted from the study. The final sample sizes were approximately 26,600 for the 1978 sample, and 77,000 for the 1978/80 sample.

The samples included only students who had either graduated or dropped out. Leave status was checked after 6 years for students who enrolled in 1978, and after 4 years for students who enrolled in 1979 and 1980. Students who had transferred out of the public school system (approximately 8 percent) or who were still active (less than 1 percent) were omitted from the study.

The demographics of the total number (33,142) of entering students in 1978 were as follows: 50.8% male, 49.2% female; 3.2% entry-age of 13 or less, 71.3% entry-age of 14, 22.5% entry-age of 15, 3.0% entry-age of 16 or more; 0.1% American Indian, 1.9% Asian, 62.6% Black, 21.4% White; 61.9% in reading stanine 4 or lower, 26.5% in reading stanine 5 or higher, and 11.6% with no reading achievement score indicated. Reading achievement was based on the Iowa Tests of Basic Skills scores from the students' eighth-grade year.

METHODS

Both loglinear and multiple regression programs (SAS LOGIST and GLM) were used to assess the association between student attributes and dropout rates in the 1978 sample. Students were the unit of analysis. The dropout variable was dichotomous: '0' if the student graduated, '1' if the student dropped out. Reading achievement was a continuous, independent variable. Race was entered either as a class variable, or as a set of indicator (0/1) variables, depending on the analysis. Indicator variables were used to designate gender (1 = males) and entry-age (1 = overage). Overage students had an entry-age of 15 or more years. The probability that a student will dropout, as determined by the regression model, is the student's dropout "potential".

The GLM procedure was used to derive the sequential sums of squares for effects as they were added to the model. Reading achievement, entry-age, and the interaction of reading achievement and entry-age were entered first, followed by gender, race, and all interactions.

The 1978 to 1980 sample was divided into normal-age (13.8 to 14.7 years) and over-age (14.8 to 15.7 years) groups. Students were then subgrouped into RGE intervals, 0.5 grade levels wide. The dropout rate was computed for each subgroup. This was done over a restricted range of RGEs because group sizes at extreme levels of RGEs were too small to yield reliable estimates of dropout rates. Weighted linear regression analyses were conducted on the data. The weighting variable was the square root of group size. Dropout rate was the dependent variable and the midpoint of RGE intervals was the independent variable. Regression analyses were also performed separately for Whites, Blacks and Hispanics.

RESULTS

There were no notable differences between the logistic and ordinary least square regression models in terms of predictive accuracy and the relative size and significance of regression coefficients. Both methods produced an R-sqaure of approximately 0.48, based on the full model. Dropouts and graduates could be identified with 70 percent accuracy. The results from the ordinary least squares regression analysis will be presented here.

Table 1 shows the sequential sums of squares attributable to student attributes. The full model accounts for slightly less than half of the total variance in the dropout variable. The total sum of squares is 10,994 and the model sums of squares is 5236; the R-square is thus about 0.48. The F-value for the full model is 951, with 26 and 26,239 degrees of freedom, (p<.0001).

Most of the variation in the dropout variable is accounted for by reading achievement (RGE), entry-age, and the interaction of RGE and entry-age. When these variables are entered first into the regression equation, they accumulate 4141 of the 5236 sums of squares attributable to the model. They account for over 80% of the predictable variance in the dropout variable. The F-values for these effects are highly significant (p<.0001).

Gender and race account for significant amounts of variance in the dropout variable even after the effects of RGE and entry-age are removed. The F-value for Race, with 3 degrees of freedom (4 races) in the numerator, is 1332 (p<.0001). The F-value for gender, with 1 d.f. in the numerator, is 1066 (p<.0001). Together, main effects of gender and race account for about 20 percent of the predicted variation in the dropout variable.

The association of dropout rates with RGE and entry-age is illustrated in Figure 1. Dropout rates are plotted against RGE separately for normal-age and overage students. Tables 2 and 3 supplied the data for these plots. Weighted regression analysis of dropout rates on the midpoints of RGE intervals produced an R-square of 0.99 for the normal-age group and 0.97 for the overage group. Thus, there is a linear relationship between reading achievement and dropout rates.

The effect of entry-age on dropout rates is evident from the separation of the two lines in Figure 1, and from the comparison of the dropout rates of normal-age (Table 2) and overage (Table 3) students who have the same RGE. On average, the dropout rate of overage students is about 13 percentage points higher than the dropout rate of normal-age students with the same RGE. Students with an RGE of about 5.7, for example, have a dropout rate of 46.8 percent if they are normal-age, or 60.6 percent if they are overage.

The effect on dropout rates of the interaction of RGE and entry age is apparent from the difference between the slopes of the regression lines in Figure 1. The slopes are -6.66 and -6.04 for normal-age and overage students, respectively. As entry-age increases, dropout potential becomes less dependent on RGE. The t-statistic for the difference between slopes is 1.98, ($p<.05$). This significance level is far below the significance level of the corresponding F value in Table 1, probably because in the 1978/80 sample the distributions of entry-age and achievement were restricted, and achievement groups were the unit of analysis in the 1978/80 sample.

According to the regression equations derived from Tables 2 and 3, the RGE predicting a 50% chance of graduating (a 50% dropout rate) is 5.22 for normal-age students and 7.45 for overage students. This is a difference of 2.23 grade levels. The difference is about the same among Blacks, Whites and Hispanics. The difference is 2.82 grade levels among Whites, 2.16 grade levels among Blacks, and 2.33 grade levels among Hispanics. The data of Asian students was not analyzed separately.

The effects of the interactions of student attributes on the dropout variable are small in comparison to main effects. Apart from the interaction of RGE and entry-age, the sums of squares due to interaction effects amount to only 22 of the 5236 model sums of squares (Table 1). Several of these interaction effects, however, did achieve statistical significance. The parameter estimates for these effects, along with the parameter estimates for the main effects of race and gender, are shown in Table 4.

The parameter estimates and standard errors in Table 4 represent effects of the variables when they are the last to enter the regression equation. Parameter estimates of this kind are not shown for RGE, entry-age, and the interaction of RGE and entry-age because these variables enter the regression equation first, a priori.

Attributes associated with greater dropout potential have higher positive coefficients in Table 4. Hispanics have a significantly lower dropout potential (0.70) than Whites (0.85) or Blacks (0.84). The dropout potential of Asians (0.47) is significantly less compared to any other race. The dropout potential of males (0.11 for gender) is significantly greater than the dropout potential of females.

The increase in dropout potential with entry-age is greater among Blacks than among other races. The coefficient in Table 4 for 'overage Blacks' is +0.057 (p<.0004).

Dropout potential is more strongly associated with RGE among Whites and Blacks than among Asians and Hispanics. Coefficients for the interaction of race with RGE were -0.022 for Blacks and -0.016 for Whites (p<.0001, both coefficients). These coefficients mean that the regression slope of dropout rate on RGE is steeper among Whites and Blacks. This stands to reason, since RGE is dependent upon exposure to written English, and a larger proportion of Chicago's Black and White populations than of Chicago's Hispanic and Asian populations are exposed to written English from birth.

The difference between the males' and females' dropout potential is not as great among Whites as among other races. In general, males are much more likely to dropout than females. The coefficient for gender is 0.11, (p<.0001). The coefficient for White males (-0.066) reduces the 'net' coefficient for gender to +0.044 among Whites.

DISCUSSION

Reading achievement and entry-age, in contrast to race and gender, can account for most of the predictable variation in students' dropout rates. When RGE, entry-age and their interaction are entered first in the regression analysis of the dropout variable, they account for eighty percent of the modeled variance. Race, gender, and interactions involving race and gender accounted for the remaining twenty percent of the modeled variance.

These findings are indicated by the tabulation of dropout rates, RGE and entry-age by race. In the 1978 sample, the dropout rate was 46.9% among Hispanics, 45.1% among Blacks, 34.5% among Whites and 19.4% among Asians. The percent of students with low reading achievement (RGE in stanine 4 or less) in the 1978 sample was 78% for Blacks and Hispanics and 42% for Whites and Asians. The percent of overage students in the 1978 sample was 31% for Hispanics, 25% for Blacks, 23% for Asians and 15% for Whites. From these figures, the high dropout rates among Hispanics and Blacks can be attributed to low reading achievement and the effect of being overage.

It is not clear, however, just what the effects of race (or gender) are after controlling for RGE and entry-age. The regression analyses in this study allow these effects to be estimated. Of particular importance, it is seen that Whites are at least as inclined as Blacks and Hispanics to dropout when differences in reading achievement and entry-age are removed. This suggests that the dropout rate among Blacks and Hispanics could be as low as that of Whites if the reading achievement of these minority races could be made comparable to that of

Whites, and in their entry to high school were accelerated.

Rather than allowing race or gender to continue to account for significant differences in dropout potential, effective program planners should attempt to discover additional alterable variables that dispose males and students of particular races to dropout, and change these variables. Reading achievement and entry-age are good examples of variables that vary with race and are associated with dropout rates. Additional variables with similar usefulness might include students' attitudes toward school, and students' perception of the relevance of high school curricula to their futures.

Our results suggest that the retention of students in primary grades increases the dropout rate at the high school level. Overage students are far more likely to dropout than normal-age students. The dropout rate is about 13 percentage points higher among overage students than among normal-age students with identical reading achievement scores. Overage students must have reading scores over 2 grade levels higher than normal-age students in order to have the same chance of graduating. The rate of progress of low-achieving students is less than one grade level per year by definition. A year of remedial study cannot possibly increase such students' achievement by over 2 grade levels.

We recommend dropout prevention policies that will 1) increase students' reading achievement before entry to high school, without retention, and 2) promote the entry of students into high school at an earlier age. In addition, studies should be undertaken to identify additional alterable variables that dispose males and students of particular races to drop out.

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TABLE 1: Sequential Sums of Squares Due to Student Attributes
Dropout Variable 0/1 From 1978 Sample

Student Attribute	D. F.	Sequential Sum of Squares	M.S.E.	F-value
RGE	1	3244	3244	15302
Entry Age	1	729	729	3438
RGE * Entry Age	1	168	168	793
Gender	1	226	226	1066
Race	3	847	282	1332
Other	19	22	1.15	5
Model SS	26	5236	202	
Error SS	26,239	5558	0.21	
		10794		

Figure 1

PLOT OF DROPOUT RATE AGAINST READING ACHIEVEMENT
ENTERING FRESHMEN, 1978 to 1980

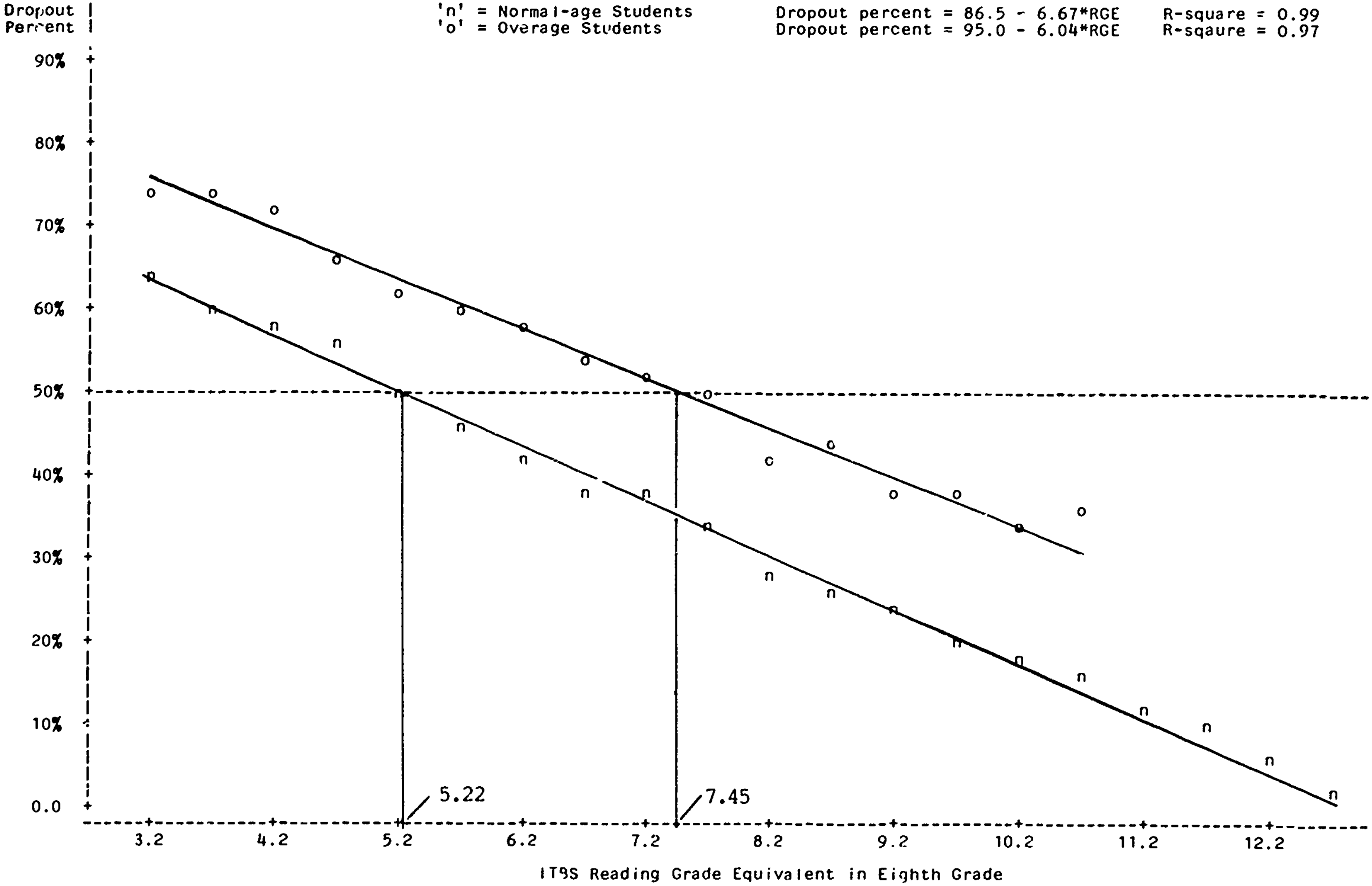

Table 2: Dropout Rate by RGE among Normal Age Students
1978 to 1980 Classes of Freshmen

RGE Midpoint	Dropouts plus Graduates	Dropouts	Dropout Rate (%)
3.2	362	232	64.1
3.7	614	372	60.6
4.2	1282	737	57.5
4.7	1674	946	56.5
5.2	2650	1351	51.0
5.7	3396	1582	46.6
6.2	4216	1773	42.1
6.7	4593	1789	39.0
7.2	5556	2088	37.6
7.7	4992	1714	34.3
8.2	4626	1330	28.7
8.7	4179	1056	25.2
9.2	3853	908	23.6
9.7	2705	560	20.7
10.2	2361	414	17.5
10.7	1775	288	16.2
11.2	1212	149	12.3
11.7	364	38	10.4
12.2	277	16	5.8
12.7	86	2	2.3

Table 3: Dropout Rate by RGE among Overage Students
1978 to 1980 Classes of Freshmen

RGE Midpoint	Dropouts plus Graduates	Dropouts	Dropout Rate (%)
3.2	536	399	74.4
3.7	766	564	73.6
4.2	1358	979	72.1
4.7	1445	949	65.7
5.2	1800	1132	62.9
5.7	1812	1096	60.5
6.2	1725	985	57.1
6.7	1428	759	53.1
7.2	1450	753	51.9
7.7	1010	515	51.0
8.2	681	285	41.9
8.7	434	195	44.9
9.2	276	106	38.4
9.7	189	70	37.0
10.2	107	36	33.6
10.7	62	22	35.5

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Table 4: Parameter Estimates for Effects of Student Attributes On Dropout Potential: 1978 Sample.

Student Attribute	Parameter Estimate	Std. Error of Estimate
Gender = Male	0.11	0.006
Race = White	0.85	0.028
Race = Black	0.84	0.016
Race = Hispanic	0.70	0.028
Race = Asian	0.47	0.041
RGE * Whites	-0.016	0.004
RGE * Blacks	-0.022	0.004
Black and overage	0.057	0.016
White and male	-0.066	0.014

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A Study of Variation in Dropout Rates Attributable to Effects of High Schools

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In the shadow of *A Nation At Risk* (1983), school reform moved to the top of the domestic policy agenda. Many school districts stiffened high school graduation requirements to include more mathematics, science, foreign language, English, and social science. A review of policy initiatives since 1983 reveals that 70 percent of the states have enacted or approved stiffer graduation requirements and 58 percent have placed a greater emphasis on academic enrichment programs (U.S. Department of Education, 1983). Secondary educators across the United States are striving to inject new rigor and higher standards into their curriculum.

At the same time, some observers object to curricular policy that requires more academic courses and fewer electives without permitting the substitution of practical or vocationally oriented courses for core requirements. They contend that such policy ignores the differences that exist among children—it poses a threat to minority students who need job training, it may cause dropout rates of school districts to rise, and it neglects the general need for courses that are immediately practical in the job market.

This disagreement over course requirements presupposes, among other things, that the characteristics of a high school affect its dropout rate. If this proposition is true—and it does seem likely—a school's dropout rate becomes an indicator of school performance. However, the use of a school's dropout rate as a performance indicator depends in turn on other presuppositions about low dropout rates (how good is a school with a low rate?) or high ones (how bad?). Are the characteristics of a school with a low dropout rate significantly different from the characteristics of a school with a high dropout rate? It is possible that schools with high dropout rates have characteristics which prevent their rates from being even higher and that schools with low dropout rates have characteristics which prevent their rates from being even lower. If raising standards while preventing a parallel increase in

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dropout rates is an acceptable school system policy, then isolating school characteristics which have a positive or negative effect on dropout decisions is important.

A school's dropout rate is predicted by two general categories of variables: (a) attributes of students, and (b) characteristics of high schools. Before a school's dropout rate can be considered a true indicator of school performance, the influence of student attributes must be divorced from other influences. The objective of this paper is to report the results of our attempt to identify school effects on school dropout rates, and to suggest ways in which the resulting unbiased indicator of school performance can be used to direct further research into the effects of school characteristics on dropout decisions.

Method

The following information was obtained from the records of 33,142 students who entered 63 Chicago public high schools in 1978: (1) high school entered as freshman, (2) gender, (3) race, (4) entry-age (age when entering high school), (5) eighth grade reading grade-equivalent score, and (6) leave status. Leave status was coded as active (still enrolled), transferred, graduated, or dropped out.

A logistic regression equation was estimated for the probability that a student would drop out (Schulz, et al., 1986) based only on the attributes of the student. Students with missing data were excluded from the regression analysis, leaving 26,168 students for which parameters were computed. The regression model produced an R-square of approximately .48, and predicted dropouts and graduates with 70 percent accuracy.

The estimated probabilities of dropping out, computed from the logistic regression, were summed over students within high schools. The sums yielded the predicted number of dropouts for high schools, based on the attributes of enrolling students. In addition, the number of dropouts was predicted for subgroups of students, e.g., overage white females with high reading achievement, within each high school. Students were grouped according to race, gender, entry-age, and achievement level. There were two levels of reading achievement: scores lower than 8.1 (Low) and scores higher than 8.1 (High). Chi Square statistics were calculated from the difference between the actual number of dropouts and the predicted number.

Results

The observed and expected number of high school dropouts are shown in Table 1. The high schools are listed in order of graduation rank, from those with the lowest dropout rate to those with the highest. High schools will be referred to by their graduation rank. For example, H S.01 has the lowest dropout rate (10.7 percent) and the highest graduation rank (01).

The observed dropout rate is used by many officials as an indicator of school performance. Under this premise high schools H.S.01 through H.S.10 are the Chicago high schools with the best performance. However, we will show that the dropout rate is, for some schools, a biased indicator of school performance. The column labeled "Expected Dropout Rate" contains each school's predicted dropout rate, computed from the regression of student attributes. For each school we computed the difference (residual) between its observed and expected dropout rate. A plot of the residual upon the expected dropout rate revealed a possible linear trend with a correlation of .17. This trend indicates that an important explanatory variable was excluded from our student attribute regression. To correct this trend we regressed the expected dropout rate upon the residual and added a correction factor to the expected dropout rate. The resulting correlation between corrected prediction rate and residual was near zero.

Table 1

Observed and Expected Number of Dropouts

	School			Dropout Rate			Rank
Num.	Type	Mem.[1]	Obs.	Exp.	Adj.[2]	Grad.	Adj.[2]
01	GEN	252	10.7	25.4	24.7	1	1
02	TEC	777	15.4	14 9	10.5	2	53
03	GEN	432	16.7	24.3	23.2	3	8
04	GEN	348	16 7	19.2	16.4	4	35
05	GEN	298	18 5	23.8	22.6	5	17
06	GEN	385	19.0	23.1	21 6	6	22
07	TEC	451	20.4	18.9	15.8	7	50
08	GEN	312	21.5	30.4	31.5	8	4
09	VOC	410	22.2	29.8	30.6	9	5
10	VOC	263	23.2	22.8	21.2	10	40
11	VOC	917	26 4	27.9	28.1	11	26

Table 1 (continued)

Observed and Expected Number of Dropouts

School			Dropout Rate				Rank
Num.	Type	Mem.[1]	Obs.	Exp.	Adj.[2]	Grad.	Adj.[2]
12	GEN	414	26.6	34.5	37.1	12	3
13	VOC	532	27.6	28.0	28.2	13	31
14	GEN	315	27.9	29.5	30.1	14	23
15	GEN	536	28.5	30.6	31.7	15	20
16	GEN	255	29.8	32.2	33.8	16	18
17	GEN	488	30.1	35.2	38.0	17	6
18	GEN	219	52.0	32.9	34.8	18	21
19	GEN	519	32.4	34.7	37.3	19	13
20	VOC	148	32.4	31.1	32.4	20	34
21	GEN	402	32.6	31.6	33.1	21	32
22	VOC	417	32.8	33.1	35.1	22	24
23	GEN	218	35.3	34.4	36.9	23	27
24	GEN	270	37.8	31.5	32.9	24	52
25	GEN	358	38.0	39.1	43.3	25	12
26	GEN	633	38.1	33.5	35.6	26	43
27	VOC	161	38.5	34.8	37.4	27	38
28	GEN	44	40.9	20.5	18.0	28	63
29	GEN	263	42.6	34.6	37.2	29	56
30	GEN	246	42.7	39.0	43.1	30	33
31	GEN	588	42.7	42.2	47.4	31	15
32	GEN	223	43.1	43.1	48.6	32	10
33	GEN	302	45.7	44.4	50.4	33	16
34	GEN	462	45.9	45.2	51.6	34	9
35	GEN	356	46.6	47.2	54.2	35	7
36	GEN	584	46.9	42.3	47.6	36	30
37	GEN	535	47.1	40.0	44.5	37	45
38	GEN	442	48.2	40.9	45.8	38	44
39	GEN	264	48.5	44.3	50.3	39	25
40	GEN	729	48.7	36.6	39.9	40	59
41	GEN	380	48.9	43.9	49.8	41	29
42	GEN	465	49.3	44.3	50.3	42	28

1. Number of enrolled freshmen, exclusive of those who later transferred or are still active. Represents only those who graduated or dropped out.
2. Adj. = Dropout rate after correction to expected (Exp.) dropout rate.

Table 1 (continued)

Observed and Expected Number of Dropouts

School			Dropout Rate				Rank
Num.	Type	Mem.[1]	Obs.	Exp.	Adj.[2]	Grad.	Adj.[2]
43	GEN	214	50.0	40.3	45.4	43	51
44	GEN	491	50.1	47.7	54.9	44	14
45	GEN	312	50.3	34.6	37.2	45	61
46	GEN	321	50.5	38.0	41.8	46	58
47	GEN	466	50.6	47.4	54.5	47	19
48	VOC	185	50.8	53.5	62.8	48	2
49	GEN	584	51.4	40.6	45.3	49	57
50	GEN	617	51.7	44.4	50.5	50	39
51	GEN	282	51.8	34.4	36.9	51	62
52	GEN	398	52.0	43.2	48.8	52	46
53	GEN	391	52.2	49.6	57.5	53	11
54	GEN	456	53.5	45.0	51.2	54	42
55	GEN	442	54.2	46.4	53.1	55	36
56	GEN	801	54.9	44.6	50.7	56	49
57	GEN	506	54.9	44.1	50.0	57	54
58	GEN	467	55.7	47.5	54.7	58	37
59	GEN	755	56.3	47.0	54.0	59	41
60	GEN	555	56.6	46.5	53.3	60	47
61	VOC	67	56.7	46.3	53.0	61	48
62	GEN	731	59.9	47.6	54.8	62	55
63	GEN	514	62.1	43.6	49.3	63	60

1. Number of enrolled freshmen, exclusive of those who later transferred or are still active. Represents only those who graduated or dropped out.
2. Adj. = Dropout rate after correction to expected (Exp.) dropout rate.

An important explanatory variable that was excluded from our student attribute regression is an indicator of family background. Students from low income families are more likely to drop out of high school than are students from middle or upper income families. More important here is the fact that sociodemographic factors determine the kinds of schools and educational processes to which students have access. As a result, in most big city school systems, students from middle or upper income families usually attend schools with other students from middle or upper income families. Conversely students from low income families generally attend schools with other low income students. The result is that most of our schools with high dropout rates are schools with high poverty indexes, while schools with low dropout rates are schools with low poverty indexes. Even though this phenomenon often derives from housing patterns rather than school policy, school recruitment efforts which emphasize selected school characteristics may attract students with similar interests and similar backgrounds. If a reliable individual-level indicator of family background had been available for inclusion in our student attribute regression model, the magnitude of the trend line might have diminished, and our computed expected dropout rate would have reflected accurately the effects of student-level variables upon a school's dropout rate.

The second set of residuals which resulted from our correction reflects the effects of schools, with student attributes and linear trend removed. A ranking of schools based on the impact of school effects is found in the column labeled "Adjusted Rank," Table 1. A comparison of a school's actual graduation rank with its adjusted rank yields valuable information about schools whose dropout rates are better or worse than expected, given the school's attributes such as course offerings, administrative policies and leadership climate. Among the schools with the highest graduation ranks (1-10), two schools show very large differences between graduation and adjusted ranks. These are technical schools which also offer courses to prepare students to attend college. After we corrected our predicted dropout rate, H.S.02 shifted from a graduation rank of 2 to an adjusted rank of 53 and H.S.07 shifted to a rank of 50. This means that for H.S.02, which had an observed dropout rate of 15.4 percent, our corrected model adjusted the expected dropout rate to 10.5 percent. Similarly, H.S.07's observed dropout rate was 20.4 percent, but our corrected expected dropout rate was 15.8 percent. These shifts indicate that although these high schools have low dropout rates their rates ought to be even lower. It is possible that school characteristics at these schools are contributing to a higher dropout rate than is expected.

The two technical high schools in our district are considered by most observers to be very good high schools. It is possible that the technical schools' poor showing relative to our adjusted ranks represents a ceiling effect. Both technical schools' adjusted expected dropout rates are very low. For H.S.02 we are predicting, with our correction, a dropout rate of only 10 percent, and for H.S.07 we are predicting a rate of 15.8 percent. Their actual rates are 15 percent for

H.S.02 and 20 percent for H.S.07, a difference of only five percent for each school. It may be that an 85-90 percent graduation rate is an unrealistic expectation given the complexity and diversity of today's student body and the variety of non-school related pressures that influence students. However, this argument is not totally convincing. If a dropout rate of 10 percent is an unrealistic expectation for H.S.02, how do we explain H.S.01's 10.7 percent observed dropout rate, especially when our student attribute regression plus correction predicts a dropout rate of 24.7 percent for H.S.01?

Table 2

Observed and Expected Number of Dropouts
Vocational High Schools

			Dropouts		
Unit Num.	**Reading**	**Mem.**	**Observed**	**Adjusted Expected**	**Chi Square**
11	8.29	917	242	258	.99
48	5.29	185	94	116	4.17
13	8.10	535	147	150	.06
27	6.48	161	62	60	.06
61	5.88	67	38	36	.11
10	8.94	263	61	56	.45
22	7.10	148	48	48	.00
21	7.65	417	137	146	.56
09	7.97	410	91	125	9.25
Total/Ave.	7.30	3,100	920	995	5.65

While the technical schools seem to be doing worse than they could do, H.S.48, a vocational school, clearly seems to be doing better than expected. This school had an observed dropout rate of 50.8 percent. The corrected model predicted a dropout rate of 62.8 percent, which shifted H.S.48 from a graduation rank of 48 to an adjusted rank of 2. The characteristics of H.S.48 seem to contribute to students' decisions to stay in school rather than to drop out. In addition to H.S.48, one other vocational school is in the top ten adjusted ranks, H.S.09. Its graduation rank was 9 and its adjusted rank is 5.

The appearance of two vocational schools within the top ten adjusted ranks provides tentative support for those who argue that vocational or practical courses that stress job-entry skills are necessary to prevent or reduce dropouts. The observed dropout rate for vocational schools is 27 percent while the dropout rate for general high schools is 37 percent. From Table 2 we can see that our corrected model over-predicts the dropout rate for all vocational high schools (chi square 5.65 with 1 degree of freedom). However, nearly all the over-prediction is accounted for within two schools, H.S.09 and H.S.48. This finding suggests that what is unique about H.S.09 and H.S.48 may extend beyond the fact that they offer vocational courses.

Discussion

Our analysis has identified schools whose characteristics (as distinct from student characteristics) have positive, neutral or negative effects upon dropout rates. In order better to understand why the characteristics of one school may have a negative impact on dropout rates (rates are higher than expected) while those of another have a positive impact (rates are lower than expected), a comparison of schools must be conducted.

The basis for these comparisons becomes apparent from Table 1. Of the top ten ranked (graduation) schools, the adjusted ranks of H.S.01, H.S.03 and H.S.08 shifted only slightly after the correction to our student attributes regression, while H.S.04 and H.S.06 moved to the middle ranks. In other words, much of the variation in dropout rates for H.S.01, H.S.03 and H.S.08 is attributable to school characteristics, while knowledge of student attributes is enough to predict dropout rates for H.S.04 and H.S.06. A systematic study of these two groups of schools could uncover the school characteristics that distinguish H.S.01, H.S.03 and H.S.08 from H.S.04 and H.S.06.

Another important comparison would involve H.S.09 and H.S.10. This comparison might reveal why the characteristics of one vocational school, H.S.09, have a positive effect on dropout rates while the characteristics of another, H.S.10, have generally neutral effects.

A three-way comparison involving H.S.25, whose characteristics have a positive effect (adjusted rank 12), H.S.30, whose characteristics have a neutral effect (adjusted rank 33) and H.S.29, whose characteristics have, in general, a negative impact (adjusted rank 56) on dropout rates, would also be very informative. All three of these schools have dropout rates near the district average, but their performance ratings are very different.

What characteristics might a comparative study focus upon? The apparent differences between selected schools are a good starting point. For our suggested comparison between H.S.01-H.S.03-H.S.08 and H.S.04-H.S.06, one difference involves the attendance boundaries of the schools. Schools in the H.S.01-H.S.03-H.S.08 group have neighborhood attendance boundaries while those in the H.S.04-H.S.06 group have system-wide attendance boundaries. This suggests that community or neighborhood support for schools is an important variable to include in a comparative study. Closely associated with a cohesive, supportive community is a cohesive student body. A cohesive community or student body might provide the support necessary to persuade students who are considering dropping out to change their minds. Other possible variables include community support, school safety, school discipline, course grading policies, amount of homework assigned, and type and degree of support for less able students.

Summary

We have demonstrated that the ranking of schools according to their dropout rate provides a biased ranking of school performance. Before we could evaluate a school's impact on dropout rates we had first to correct the observed dropout rate by removing the effects of student attributes. The result was an unbiased ranking of school performance. A comparison between the ranking of schools based on the observed dropout rate and the ranking of schools based on unbiased school performance revealed significant shifts for several schools. Some schools that had low dropout rates had poor performance rankings, while some schools with high dropout rates had good performance rankings. The differences between dropout rank and performance rank could be used to select schools for comparative study aimed at identifying characteristics that make a school effective.

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Research funded by Lloyd A. Fry Foundation. This article is extracted from "Dropouts From the Chicago Public Schools." Chicago Panel on Public School Policy and Finance, 1985.

EDUCATIONAL TRIAGE AND DROPOUT RATES

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Paper Prepared For:
American Educational Research Association
San Francisco
April 1986

Based on a study of Dropouts from
The Chicago Public Schools

Funded by the
Lloyd A. Fry Foundation

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EDUCATIONAL TRIAGE AND DROPOUT RATES

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PREFACE

Most recent longitudinal studies of dropouts have been based on survey data collected from high school students or recent high school leavers. This approach focuses on the characteristics of students, attempting to identify how they differ from graduates, and the resulting dropout prevention programs are designed to change those distinguishing characteristics. Other studies have sought to identify the scope of the dropout phenomenon by using aggregate enrollment data, often at the state level. Both approaches suffer from serious data problems. Survey data depends upon both the accuracy and perceptiveness of the respondents, and further, must justify the representativeness of the sample. In addition, several of the recent surveys have problemmatic beginning and ending points. On the other hand, aggregate enrollment data often overstates the size of the freshman class (including retained students from previous classes) and ignores both transfers and those still enrolled after a class graduates. Further, aggregate data, whether survey based or enrollment based, often fails to discriminate between realities prevalent in urban areas with high dropout rates and other school communities. The impression often conveyed is that all schools have a quarter of their students who are dropout prone and the vast majority who are likely to graduate.

In this study, the authors analyze student records encompassing the whole universe of students in three enrolling freshmen classes of one urban school system. The focus is upon schools and the organizational policy of the school system. The data examined is "hard" data, taken directly from individual student records. Data problems still exist (input errors, missing data, falsified records), but are more easily identified and accounted for, less dependent upon perceptual sophistication, and devoid of problems of representativeness. Further, the data lead towards social structural interpretations rather than psychological ones.

SUMMARY

In this paper, the author traces the inordinately high dropout rate in one urban public school system, Chicago, to an effective policy of educational triage, in which the better prepared students are provided a set of elite or selective high schools while the least prepared students are congregated into a set of schools from which more than 50% drop out. He also examines the effects of pre-high school retention which is found to increase the likelihood of a student dropping out.

The research perspective of this paper reflects the sponsoring organization, a non-profit, independent agency which is concerned for the quality of education offered in the public schools of Chicago. The research project was designed to analyze a particular school problem, the scope and dimensions of dropouts from the Chicago school system, and to seek the sources of that problem, with particular interest in policy relevant arenas within the control of the Board of Education.

The method employed in this study involved the computer tracking of all newly enrolled ninth graders in three classes, the graduating classes of 1982, 1983, and 1984. Over 100,000 student records were examined longitudinally, tracking their entrance and final departure from the public school system. This study was done in cooperation with the Department of Research and Evaluation of the Chicago Board of Education. The data were drawn from individual student identification records and reading score records and were manipulated on the Board's mainframe computers in response to job requests from the independent researchers. The data were examined, cleaned, and recategorized to fit the definitions developed in the study: "transfers" being students who transferred from the Chicago Public Schools to another legitimate diploma granting school/system; "dropouts" being all those, exclusive of transfers, who left school without graduating; "graduates" being those who graduated from a Chicago Public School. These definitions required considerable cleaning and recategorizing of the student data. The Chicago Public Schools have had nearly 30 different "leave codes" for use on student records, only one of which was "Dropout". However, a number of other codes indicated students left without graduating; these codes were all recategorized as dropouts. In addition, the Chicago system has not verified the validity of student transfers to other high schools. On examination, half of the recorded transfers were to inappropriate or non-existent locations. These students were also recategorized as dropouts.

The study found that 9% of all entering freshmen in the Class of 1982 transferred out of the Chicago Public Schools. Of the remaining students, 43% dropped out before graduation. Thus, the graduation rate was 57% (the reciprocal). The dropout rate was analyzed by characteristics of the students. By race and ethnicity, 47% of Hispanics dropped out, 45% of Blacks, 35% of Whites, and 19% of Asians. Males had higher dropout rates (49%) than did females (36%). Those students who entered high school one year overage were much more likely to dropout than normal aged students (60% vs. 37%), and those entering two or more years overage dropped out at a 69% rate. As might be expected, the dropout rate is inversely correlated with reading scores. Among entering students with eighth grade reading scores in the first stanine, 68% dropped out; for those in stanine six or above, the dropout rate was 19%, still high, but dramatically different from stanine one. The dropout rate steadily decreased as the reading level of students went up. The school system's student records do not contain data on socio-economic status, but poverty levels of individual high schools do increase with dropout rates.

In a finding significant for evaluation of the effects of retention, the study found that overage students, even if reading at higher levels than their normal aged peers, are 7% to 10% more likely to dropout. If grade retention were a successful strategy, one would expect students to gain in their reading level during the repeated year. As has already been observed, students with higher reading scores are less likely to dropout. But, when overage entrants were compared with normal aged entrants, it was discovered that overage students not only drop out more frequently than do normal aged students reading at the same level, they drop out more frequently than do normal aged students reading at a lower stanine level! Thus, even if a student were to gain a whole stanine through retention (a condition not studied but of dubious likelihood), he still would be more likely to dropout than would his peers entering high school at normal age with a lower reading score. Thus, it appears a tougher retention policy, even if successful in raising reading scores, is likely to increase the number of students dropping out.

The study also examined student outcomes on a school by school basis. Among the 63 full-service high schools in Chicago (including two technical high schools and 9 vocational high schools), half of all dropouts were enrolled in just 21 schools. At each of these schools, more than half of all entering students dropped out. The highest dropout rate at any school was 63%. A third of the students entered overage, and at one school, over half the entrants were overage. At these 21 schools, 70% of the entering students had reading scores considered below normal for high school level work (Stanine 3 or lower) or were missing reading scores. At two schools, 80% of the entering students were reading below normal. The students at these schools were 94% minority, with 16 of the schools being all minority in composition. The poverty rate was over 40% at all but 5 of these schools.

At the other extreme, only 25% of the students at the 21 schools with the lowest rates dropout. These schools produced 47% of all graduates in the Class of 1982. Bogan High School had the lowest dropout rate at 11%. Only 13% of the entering students in these 21 schools were overage, with one school (Lane Tech) having only 3% of its entrants overage. Similarly, 72% of the entering students had reading scores at the fourth stanine or above, with one school (again, Lane) at 97% with normal or higher reading scores. White enrollment at these 21 schools was 34% (systemwide, 21% of the Class of 1982 was White). Only three of these schools had a poverty index over 40%, and each of these was selective of its entering students. In fact, ten of the fourteen schools with the lowest dropout rates had selective entrance criteria, and the other four schools were located in middle class neighborhoods on the fringes of the city.

What has appeared, as a result of the analysis of dropout data, is that the public school system's emphasis on creating selective schools for the best prepared students has become, effectively, a policy of educational triage. Relatively effective schools are designed and available for the best prepared students. These schools are either selective of their entering students or are located in solidly middle class neighborhoods, only accessible to those inner city students whose families are most concerned to seek out educational opportunities and willing to bear the burden of transportation to avail themselves of those opportunities. Not one of these schools with the lowest dropout rates is a general purpose high school in the inner city. Meanwhile, the least well prepared students are shunted into a few schools with the least challenging programs, with few successful peer role models, schools which are little more than holding pens until students reach the age when they can legally drop out. While this result may not have been the intent of the school board's focus on creating some school of educational excellence, it does appear to be the effective outcome of that policy.

I. INTRODUCTION

Nationwide, the number of students who enter high school but do not graduate has declined for nearly a century. National statistics indicate that 73% of all high school students graduate(U.S. Education Department, 1985). However, that figure represents a slight decrease since 1968. In an economy in which jobs for non-high school graduates were plentiful, the Dropout Rate was accorded only moderate significance. On the other hand, in an economy in which reasonably compensated unskilled jobs are disappearing, Dropouts become a major factor in public policy. Dropouts earn significantly less than high school graduates and pay significantly less in taxes. Dropouts are far more dependent on welfare and unemployment assistance, and much more likely to participate in criminal activity than high school graduates. The 12,804 Dropouts from the Chicago Public Schools Class of 1982 will cost taxpayers about $60 million each year for the next 40 years, or $2.5 billion over their lifetime. Perhaps more importantly, individual Dropouts have significantly fewer opportunities open to them, and run a higher risk of facing a life of poverty. Yet little is known about the extent of the Dropout problem nor the places to attack the problem if the political will were present to do so. This study brings some precision to defining the scope and locus of the problem.

The recent spate of education reports has focused the attention of the nation on reform which will produce excellence in the nation's schools. Lost in this movement are the students most at risk of failing in, and being failed by, the American education system. During the previous two decades, there was much attention given to assuring equality of access to an adequate education for all young people. Many changes happened in the schools of the nation, but it can hardly be maintained that equality of educational opportunity has been achieved. Falling test scores and other problems have led to shifting the emphasis to issues of excellence. Yet even this strategy seems curiously short-sighted. The quickest way to improve reading capacities of the nation's young people is to help those currently at the lower levels. Large gains among presently poorly performing students will raise the functional literacy of the citizenry, which is more significant than small gains among the students already doing well. In the process, Dropout Rates might also be reduced, accomplishing two goals at once.

Dropout rates are generally conceded to be much higher for urban centers with high concentrations of economically disadvantaged and non-white students. School systems in these areas are also generally more strapped for resources than are surrounding suburban systems, despite the 1971 Sorrano California court decision which required equity in school funding. Cibulka, in a study of the schools of Wisconsin ("State Level Policy Options for Dropout Prevention," 1985), recently found that systems which were short of resources generally required additional funds to significantly reduce their Dropout Rates.

But determining what the Dropout Rate is is one of the first problems facing those seeking to reduce it. Current methods of determining the Dropout Rate hide, rather than highlight, the problem. The Chicago Board of Education had used an official Dropout Rate which included only some of the students who leave school without graduating (those leaving to take a job or to have a baby or simply because they are "needed at home" had not been recorded as Dropouts). Further, the Dropout Rate was calculated by dividing the few students categorized as Dropouts by the entire high school enrollment, producing an annual rate which only reflects the percent of all high school students who "drop out" in a given year. This study employed a more inclusive definition: all those who, without a valid transfer to another legitimate high school, left the public schools before graduating were considered Dropouts.

Further, annualized rates generally produce single digit Dropout Rates and hide the extent of the problem. The true picture is only presented when the rate reflects the proportion of entering freshmen who leave school without graduating. Therefore, the objective of this study was to do a longitudinal study of all entering freshmen who belonged to the Classes of 1982, 1983, and 1984; to track their high school careers to final departure from the Chicago public school system; to determine how many legitimately transferred out of the system; and of those remaining, to identify how many were graduates and how many were Dropouts. This study also sought to identify the schools with the highest Dropout Rates, and the characteristics of the students who most frequently were Dropouts, so that efforts to reduce the Dropout Rate might be more effective.

II. SYSTEMWIDE FINDINGS

The study tracked student characteristics and outcomes both systemwide and for each individual high school. In the fall of 1978, 33,142 students entered Chicago high schools. Six years later, 140 students were still actively enrolled; 3,060 (9.5%) had transferred out of the Chicago system to other legitimate high schools. Thus, the base number of continuing students in the Class of 1982 was 29,942.

Among the entering students in the Class of 1982, there were a few more males (50.6%) than females. Most of the students were 14 years old (71%), but 23% were 15 at entrance, and 3% were 16. Less than half (47%) entered high school reading at the low average level of higher (Stanine 4 or above) deemed necessary to do high school level work (11.6% had no recorded reading test score). Of the entering students, 63% were Black, 22% were White, 14% were Hispanic, and 2% were Asian. When student outcomes were analyzed, the following findings appeared:

THE DROPOUT RATE IN THE CLASS OF 1982 WAS 43%.

The Dropout Rate in the Chicago Public Schools in the Class of 1982 was 43%. This means that, exclusive of transfers to other accredited high schools outside of the Chicago school system, 12,804 students, more than two out of five, left school before graduation. The Graduation Rate is the reciprocal of this figure, 57%.

HISPANICS AND BLACKS ARE MOST LIKELY TO DROP OUT. AMONG THESE GROUPS, MALES WHO ENTER HIGH SCHOOL OVERAGE AND WITH BELOW NORMAL READING SCORES, ARE MOST AT RISK.

Among the major racial groups in Chicago, Hispanics (47%) and Blacks (45%) had the highest proportion of students drop out. Whites had 35% drop out, but only 19% of Asians did so. Nearly half of all males (49%) drop out, and more than a third of all females (36%) who entered high school in September 1978 left school before graduation. Hispanic males had the highest Dropout Rates (54%), followed closely by Black males (53%). The older a student is when entering high school, the more likely he/she is to drop out; sixteen year olds (two years over normal entry age) had a 69% Dropout Rate, while fifteen year olds (one year overage) drop out at a 60% rate; normal age studetns drop out at a 36% rate. A quarter of all entering students (26%) enter high school overage. Hispanic overage students dropout less frequently (60% for 15 year olds) than do overage Black students (77%). The more poorly prepared a student is, the more likely it is he/she will drop out; two-thirds of all Dropouts entered high school with reading scores more than two years below normal or missing reading scores. Of the entering class, 53% had reading scores missing or below normal levels. Thus, Hispanic and Black male students, who enter high school overage and with below normal reading scores are most likely to drop out.

III. SCHOOL LEVEL ANALYSIS OF OUTCOMES
The Class of 1982

More telling than the systemwide statistics, however, was the pattern of Dropout Rates among the high schools in the system. The Dropout Rate at Crane was 63%, while the rate at Bogan was only 11%. This study also explored the major differences in rates among the city's high schools.

Sixty-three high schools were analyzed for the classes entering in September 1978, 1979, and 1980. The characteristics of students attending these schools vary significantly by entry age, race, reading scores, and areas of residence in the city. These schools have varied programs for dealing with students: some are technical schools with high scholastic entry requirements, some are vocational schools, some are specialized schools, but most are general high schools. Similarly, these schools have varying success in educating their students. Two primary measures of their success are the Dropout rate and the Graduation rate. When the outcomes of students were analyzed by high school, one conclusion became overwhelmingly clear:

CONCLUSION: THE CHICAGO PUBLIC SCHOOL SYSTEM OPERATES A TWO-TIERED HIGH SCHOOL SYSTEM WHICH CONCENTRATES DROPOUT PRONE STUDENTS INTO INNER CITY BLACK AND HISPANIC HIGH SCHOOLS.

The picture that emerged in this study is that the Chicago Public Schools have two separate and distinct systems:

--High schools for the best prepared students, located in middle-class neighborhoods or drawing the best achieving students away from Inner City neighborhood schools, and

--High schools for the Inner City which receive a disproportionately high number of overage students reading below normal levels.

It appears that, for the freshmen entering high school in September 1978, the system was functioning under an operative policy of EDUCATIONAL TRIAGE, in which some schools were designed to save the best students, some were designed to be holding pens for the worst prepared students, and a small mid-range just plodded along.

A. THE 21 SCHOOLS WITH THE HIGHEST DROPOUT RATES

The third of all schools with the highest Dropout Rates account for nearly half (49%) of all Dropouts from the system. All of these schools had more than half of their continuing students dropout. Crane had the highest Dropout Rate in the system for the Class of 1982 at 63%, followed closely by Austin at 62% (see Table 3). In the aggregate, 56% of the students who entered these 21 schools dropped out! That means only 44% graduated. Two of these schools were Vocational schools: Cregier (Dropout Rate: 55%) and New North Career Magnet (60%); however, it must be noted that for the Class of 1982, Near North was known as Cooley, and now runs a completely different kind of program, attracting a different group of students. The other 19 schools were general high schools, primarily enrolling students from their immediate neighborhood.

DROP OUT STUDY OF CHICAGO PUBLIC SCHOOLS
School Level Data - Class of 1982
SIX YEAR TIME FRAME

HIGH SCHOOLS RANKED BY DROPOUT RATE
The Worst 21 Schools

TABLE 3

RANK	UNIT #SCHOOL NAME	DIST	TYPE	ENTERING FRESHMEN	DROPOUT RATE	WHITE	BLACK	ASIAN	HISPANIC	OVER AGE	COMPLETED ORIG SCH	PERCENT W/ NORMAL SCORES
1	1270 Crane	9	Gen	628	62.6%	0.0%	100.0%	0.0%	0.0%	37.6%	82.0%	40.3%
2	1220 Austin	7	Gen	882	62.1%	0.1%	99.7%	0.0%	0.2%	27.4%	69.5%	18.4%
3	1050 Near No. Career Magn	3	Voc	87	59.7%	0.0%	100.0%	0.0%	0.0%	38.4%	78.2%	27.6%
4	1280 DuSable	13	Gen	632	58.5%	0.0%	99.8%	0.0%	0.0%	36.8%	89.2%	27.7%
5	1510 Phillips	11	Gen	858	57.4%	0.1%	99.5%	0.0%	0.3%	38.2%	85.5%	23.5%
6	1320 Robeson	16	Gen	658	57.4%	0.3%	99.5%	0.0%	0.0%	50.2%	84.5%	44.1%
7	1470 Marshall	9	Gen	546	57.3%	0.0%	99.6%	0.0%	0.0%	36.6%	77.7%	22.2%
8	1310 Fenger	20	Gen	558	56.3%	0.2%	99.1%	0.0%	0.7%	29.7%	86.2%	26.9%
9	1840 Clemente	6	Gen	1,067	56.1%	7.3%	10.8%	0.6%	81.1%	30.6%	88.9%	26.3%
10	1640 Wells	6	Gen	769	55.6%	12.1%	25.8%	0.0%	61.7%	34.9%	84.5%	30.8%
11	1300 Farragut	10	Gen	549	55.3%	0.9%	76.4%	0.2%	22.5	32.4%	79.3%	30.2%
12	1020 Cregier Voc	9	Voc	217	54.8%	0.9%	99.1%	0.0%	0.0%	40.3%	63.6%	32.7%
13	1360 Harper	15	Gen	457	53.6%	0.0%	99.8%	0.0%	0.2%	35.2%	74.8%	21.2%
14	1680 Englewood	16	Gen	594	53.5%	0.0%	99.0%	0.0%	0.2%	40.2%	83.0%	34.8%
15	1250 Calumet	16	Gen	752	53.4%	0.0%	100.0%	0.0%	0.0%	37.2%	80.6%	36.3%
16	1550 South Shore	17	Gen	723	53.3%	0.0%	99.6%	0.0%	0.1%	23.9%	83.8%	38.0%
17	1460 Manley	8	Gen	573	53.2%	0.0%	99.8%	0.0%	0.2%	36.4%	80.3%	19.7%
18	1400 Kelly	8	Gen	416	52.6%	73.1%	0.0%	1.0%	26.0%	22.4%	94.2%	49.8%
19	1430 Lakeview	3	Gen	452	52.1%	40.3%	11.1%	6.0%	41.2%	26.4%	83.6%	43.6%
20	1590 Tilden	13	Gen	563	51.8%	10.1%	75.7%	0.2%	13.9%	31.7%	86.0%	24.6%
21	1890 Juarez	8	Gen	508	50.9%	4.7%	1.8%	0.0%	92.1%	46.8%	93.3%	25.0%
	TOP THIRD TOTALS			12,309	55.8%	5.9%	75.7%	0.3%	17.8%	34.5%	82.9%	30.1%
	SYSTEMWIDE TOTALS			33,142	42.8%	21.4%	62.6%	1.9%	13.5%	25.5%	85.0%	47.1%

The eight schools with the highest Dropout Rates were all more than 99% Black. Eight more of these 21 schools were majority Black; three were majority Hispanic; one was mixed Hispanic and White (Lakeview); and one was majority White (Kelly). Of the students entering these 21 schools, 76% were Black, 18% were Hispanic, and only 6% were White. The Whites were primarily located in two schools, Kelly and Lakeview, with a few in Wells, Tilden, and Juarez.

A third of the students entering these schools were overage. Only 30% entered with recorded scores at or above normal reading levels. That means that more than two-thirds of the students entering these schools were reading more than two years behind grade level or were missing scores. Only at Juarez (35%), Kelly (23%), Wells (19%), Lakeview (17%), and Clemente (15%), all with large Hispanic enrollments, did significant numbers of students have no recorded test scores. Thus, these schools receive a disproportionate share of the students most likely to become Dropouts: overage Blacks and Hispanics with below normal reading scores.

Still, some of these schools do remarkably well, considering the needs of the students they enrolled.

-Juarez graduated 49%, though only 25% of its entering students read at or above normal levels; 40% enter reading two years behind grade level and 35% had no recorded test scores; nearly half (47%) of Juarez' entering freshmen were overage (the second highest percent in the system, behind Robeson).

-Tilden graduated 48%, though only 25% of its students read at normal levels, and a third (32%) of its entrants were overage.

-Manley graduated 47% though receiving 80% below normal readers and 36% overage.

-Harper graduated 46% with statistics like Manley's (79% below normal and 35% overage).

Some schools do worse than might be expected. Crane had the worst Dropout Rate (63%) though they received a higher proportion of students reading at or above normal levels than all but three of these 21 schools. Robeson, Kelly, and Lakeview all received more than 40% of their students reading at normal levels. Austin also performed poorly, considering the proportion of entering students who were 14 years old.

B. THE 21 SCHOOLS WITH THE LOWEST DROPOUT RATES

Each of the 21 best schools graduated more than 65% of their students, with 10 schools above the national norm (73% according to Department of Education figures) and 5 (Bogan, Lane, Taft, Young, and Kenwood) graduated more than 80% of their continuing students. At the top three schools (Bogan, Lane, and Taft), more than 90% of the entering students completed their high school career (graduated or dropped out) at the school in which they originally enrolled. Thus, these schools enjoyed great stability among their student body.

DROP OUT STUDY OF CHICAGO PUBLIC SCHOOLS
School Level Data - Class of 1982
SIX YEAR TIME FRAME

HIGH SCHOOLS RANKED BY DROPOUT RATE
The 21 Schools with the Lowest Rates

TABLE 4

RANK	UNIT #SCHOOL NAME	DIST	TYPE	ENTERING FRESHMEN	DROPOUT RATE	WHITE	BLACK	ASIAN	HISPANIC	OVER AGE	COMPLETED ORIG SCH	PERCENT W/ NORMAL SCORES
1	1230 Bogan	15	Gen	300	10.8%	95.7%	0.0%	0.3%	3.7%	19.3%	96.7%	82.7%
2	1440 Lane	3	Tech	882	15.9%	64.9%	12.1%	11.9%	10.8%	2.7%	90.2%	96.6%
3	1580 Taft	1	Gen	509	18.2%	91.0%	6.7%	0.6%	1.8%	8.5%	95.9%	79.0%
4	1810 Young	9	Gen	559	19.0%	27.5%	52.2%	5.5%	12.2%	7.9%	83.4%	63.1%
5	1710 Kenwood	14	Gen	516	19.4%	17.8%	72.9%	2.7%	1.6%	9.5%	80.4%	70.3%
6	1480 Mather	2	Gen	382	21.9%	74.3%	10.2%	11.5%	2.9%	14.9%	93.2%	71.2%
7	1450 Lindblom	15	Tech	616	22.0%	0.2%	95.8%	3.7%	0.3%	4.9%	82.1%	81.3%
8	1160 Westinghouse Voc	7	Voc	433	22.1%	0.2%	99.8%	0.0%	0.0%	13.0%	82.7%	85.0%
9	1070 Prosser Voc	4	Voc	386	22.9%	54.7%	22.0%	1.3%	21.2%	8.3%	88.1%	72.8%
10	1630 Washington	20	Gen	369	23.5%	83.5%	0.3%	0.8%	13.8%	19.8%	97.8%	71.0%
11	1490 Morgan Park	18	Gen	459	27.1%	35.4%	63.1%	0.2%	0.6%	27.6%	92.5%	60.8%
12	1010 Chicago Voc.	11	Voc	1,031	27.1%	0.0%	99.5%	0.0%	0.5%	9.5%	87.4%	85.3%
13	1030 Dunbar Voc	11	Voc	606	28.0%	0.0%	99.7%	0.0%	0.2%	11.3%	89.1%	82.9%
14	1820 Curie	12	Gen	735	29.0%	57.3%	25.7%	1.1%	15.4%	15.6%	91.0%	57.1%
15	1420 Kennedy	12	Gen	370	29.5%	73.2%	24.6%	0.0%	2.2%	16.8%	91.9%	69.5%
16	1610 Von Steuben	1	Gen	346	30.8%	46.5%	22.8%	12.7%	17.3%	22.3%	91.6%	52.6%
17	1870 Julian	18	Gen	573	32.5%	0.0%	99.8%	0.0%	0.2%	17.5%	89.2%	56.5%
18	1110 Richards Voc	11	Voc	182	33.3%	26.4%	23.6%	0.0%	46.2%	19.8%	74.2%	56.0%
19	1860 Corliss	20	Gen	621	33.0%	0.0%	99.7%	0.0%	0.0%	15.3%	86.6%	55.7%
20	1150 Simeon Voc	16	Voc	484	34.1%	0.0%	100.0%	0.0%	0.0%	20.2%	86.0%	75.8%
21	1570 Sullivan	2	Gen	325	34.9%	43.7%	32.0%	9.5%	12.6%	22.5%	84.0%	48.0%
	TOP THIRD TOTALS			10,696	25.2%	33.5%	56.7%	2.9%	6.1%	13.3%	88.4%	72.2%
	SYSTEMWIDE TOTALS			33,142	42.8%	21.4%	62.6%	1.9%	13.5%	25.5%	85.0%	47.1%

The entering classes at two of the top three schools were more than 90% White (Bogan and Taft), and six others were majority White. Thus, half (8) of the system's schools with a majority White entering class were among the 21 schools with the best graduating rates. Seven of the top 21 schools were all Black, three others were majority Black. Three schools (Von Steuben, Richards Vocational, and Sullivan) were racially mixed. Over half of all White and all Asian freshmen enrolled in these schools, while less than 30% of Blacks did so.

DROPOUT GROUPINGS BY PERCENT OF RACE ENROLLED

	Lowest D/O Rate Schools	Mid-Range D/O Rate Schools	Highest D/O Rate Schools	Total
White	51%	39%	10%	=100%
Black	29%	25%	45%	=100%
Hispanic	15%	35%	50%	=100%
Asian	51%	43%	6%	=100%

Only 13% of the students enrolling at these schools were overage. Only one school, Morgan Park (28%), had more than a quarter overage. Seventy-two percent were reading at or above normal levels. Thus, most of these schools are doing well, at least in part because they are getting the best students (e.g., Lane, ranked #2, had 97% of its students reading at or above normal levels; the rest were missing test scores). All but three of these schools either were selective of their entering class or served middle-class neighborhoods. Among the top ten schools, only Young had fewer than 70% entering with normal or higher reading scores, and Young had 31% without recorded scores. Still, some of these schools did well even though receiving less well prepared students. Some had more than 40% with low or missing scores, but graduated about two-thirds of their students (Sullivan - 52%, Von Steuben - 47%, Corliss - 44%, Richards Vocational - 44%, Julian - 44%, and Curie - 43%). Morgan Park had 39% at this low/missing level and 28% overage and still graduated 73% (the national norm).

Some schools do not do as well as might be expected: Simeon received 76% of its entering class reading at normal or higher levels, but graduated only 66% of its entering class. Similarly, Chicago Vocational (CVS) and Dunbar Vocational received 85% and 83% reading at normal levels, but graduated only 73% and 72% respectively. Westinghouse Vocational also received 85% reading at normal rates and graduated 78%. Clearly, when compared with other schools in the system, these schools are not doing poorly, but given the high level of preparation of students enrolling at these schools, something more could be expected of them.

C. THE MID-RANGE SCHOOLS

In the 21 mid-range schools, between half and two thirds of the students graduate. Seven of these schools had all Black entering classes, and five others were majority Black; four were three quarters White and two majority White; two were majority Hispanic; and one (Senn) was mixed. In the aggregate, students entering these schools were slightly disproportionately White (28% vs. 21.5% systemwide); a majority (53%) were Black; 16% were Hispanic; and 3% were Asian.

DROP OUT STUDY OF CHICAGO PUBLIC SCHOOLS
School Level Data - Class of 1982
SIX YEAR TIME FRAME

HIGH SCHOOLS RANKED BY DROPOUT RATE
The 21 Mid-Range Schools

TABLE 5

RANK	UNIT #SCHOOL NAME	DIST	TYPE	ENTERING FRESHMEN	DROPOUT RATE	WHITE	BLACK	ASIAN	HISPANIC	OVER AGE	COMPLETED ORIG SCH	PERCENT W/ NORMAL SCORES
22	1520 Roosevelt	1	Gen	435	50.4%	67.8%	6.4%	9.2%	15.4%	20.9%	89.0%	52.2%
23	1760 King,M.L.	14	Gen	454	50.2%	0.7%	99.3%	0.0%	0.0%	34.0%	83.5%	28.0%
24	1620 Lincoln Park	3	Gen	274	49.4%	8.8%	65.7%	0.7%	23.0%	28.9%	73.0%	36.5%
25	1340 Gage Park	12	Gen	503	48.9%	38.9%	52.3%	0.8%	8.0%	18.3%	86.3%	40.8%
26	1530 Schurz	4	Gen	940	48.9%	61.3%	3.7%	2.7%	30.6%	23.8%	90.3%	51.6%
27	1850 Carver	20	Gen	616	48.4%	0.0%	100.0%	0.0%	0.0%	31.0%	83.6%	45.1%
28	1880 Collins	8	Gen	440	48.1%	0.0%	99.8%	0.0%	0.0%	33.4%	79.8%	26.1%
29	1830 Orr	5	Gen	589	48.0%	3.1%	69.1%	0.8%	25.5%	30.5%	74.9%	21.7%
30	1240 Bowen	19	Gen	773	47.7%	1.7%	58.7%	0.1%	38.7%	32.5%	87.8%	30.9%
31	1370 Harrison +	8	Gen	322	47.3%	4.7%	37.3%	0.3%	57.1%	36.1%	81.1%	30.7%
32	1380 Hirsh	17	Gen	359	45.7%	0.0%	100.0%	0.0%	0.0%	35.4%	77.7%	37.3%
33	1210 Amundsen	2	Gen	398	45.7%	74.9%	4.0%	7.5%	10.6%	26.4%	89.7%	43.2%
34	1410 Kelvyn Park	5	Gen	347	44.4%	34.0%	1.2%	1.7%	62.8%	30.3%	88.2%	39.2%
35	1350 Harlan	19	Gen	696	43.6%	0.1%	99.7%	0.0%	0.1%	26.3%	05.2%	38.4%
36	1040 Flower Voc	7	Voc	200	42.6%	0.0%	100.0%	0.0%	0.0%	19.1%	69.0%	38.0%
37	1540 Senn	2	Gen	597	42.4%	36.0%	19.6%	21.7%	21.7%	32.7%	84.1%	29.0%
38	1670 Hubbard	15	Gen	341	40.4%	85.3%	2.9%	1.2%	9.7%	22.6%	93.5%	68.0%
39	1800 Metro, Chicago	11	Gen	48	40.0%	25.0%	64.6%	0.0%	8.3%	4.2%	87.5%	91.7%
40	1390 Hyde Park	14	Gen	724	37.6%	0.0%	100.0%	0.0%	0.0%	15.5%	84.7%	57.7%
41	1330 Foreman	4	Gen	311	37.6%	85.5%	1.0%	0.6%	12.2%	22.5%	92.3%	56.9%
42	1560 Steinmetz	4	Gen	524	35.0%	76.1%	15.1%	4.0%	4.0%	18.5%	94.1%	57.4%
	MID THIRD TOTALS			9,891	45.2%	27.7%	52.9%	2.7%	15.9%	26.7%	05.2%	41.8%

A quarter (the systemwide average) of the entering students in these schools were overage, with a few schools showing more than a third overage (Harrison, Hirsch, King, and Collins). Of these students, 58% were reading more than two years below normal or had no recorded test scores. Schools with over 60% Graduation Rates, in this range (Hubbard, Metro, Hyde Park, Foreman, and Steinmetz), all had significantly more students with normal test scores.

Again, some schools do better than others. 78% of Orr's entering students were at least two years behind in reading, but 52% graduated (compared with Carver which also graduated about 52% but only had 55% so far behind at entrance). Similarly, Collins received 74% with below normal or missing scores and graduated 52%, and Senn received 70% below or missing scores and graduated 58%. On the other hand, only 8% of Metro's students did not have normal reading scores, but 40% dropped out.

D. INCIDENCE OF SIGNIFICANT STUDENT CHARACTERISTICS

1. OVERAGE

26% of all entering freshmen in the Class of 1982 were overage. Of these, 61% drop out (vs. 38% of normal age students); overage students represent more than a third (37%) of all Dropouts.

Generally speaking, the higher the concentration of overage students, the worse schools do with these students. Accordingly, the overage Dropout Rate for the 21 schools with the highest concentration of overage students was 65%. These schools varied from 33% overage to a high of 50% (at Robeson). Only one of these schools, Senn (49%) has an overage Dropout Rate below 50%. But for the 21 schools with the fewest overage students (all below 20% and as few as 3% at Lane, 4% at Metro, and 5% at Lindbloom), the aggregate overage Dropout Rate was 48%, and for several of these schools the rate was below 40%. Bogan had the lowest Dropout Rate for overage students at 25%, but few other schools did particularly well with overage students.

Some schools, with low concentrations of overage students, did significantly worse than their counterparts. Metro, with only 4% overage, had half drop out. CVS, with less than 10% overage, had 52% of them drop out. Similarly, Dunbar with only 11% also lost 52%. Richards Vocational, Flower, Steinmetz, Julian, Kennedy, Curie, Hyde Park, and Corliss all had fewer than 20% of their entering students overage, but lost more than half of these older students.

DROP OUT STUDY OF CHICAGO PUBLIC SCHOOLS
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SIX YEAR TIME FRAME

RANK ORDER BY PERCENT OVERAGE

TABLE 9

RANK	UNIT # SCHOOL NAME	DIST	CATEGORY	ENTERING FRESHMEN	PERCENT OVERAGE	OVERAGE TRANSFER RATE	OVERAGE DROPOUT RATE	NORM AGE TRANSFER RATE	NORM AGE DROPOUT RATE
1	1320 Robeson	16	Gen	654	50.2%	14.6%	65.0%	16.9%	49.4%
2	1890 Juarez	8	Gen	504	46.8%	12.3%	56.0%	15.3%	46.3%
3	1020 Cregier Voc	9	Voc	216	40.3%	2.3%	74.1%	4.7%	41.5%
4	1680 Englewood	16	Gen	505	40.2%	5.1%	60.5%	7.1%	40.6%
5	1050 Near No. Career Mgn	3	Voc	86	38.4%	12.1%	75.9%	9.4%	50.0%
6	1510 Phillips	11	Gen	849	38.2%	5.6%	69.9%	4.8%	49.8%
7	1270 Crane	9	Gen	620	37.6%	2.6%	76.7%	8.0%	53.7%
8	1250 Calumet	16	Gen	749	37.2%	8.6%	65.9%	11.3%	45.8%
9	1200 DuSable	13	Gen	628	36.8%	4.8%	71.0%	3.0%	50.8%
10	1470 Marshall	9	Gen	543	36.6%	4.5%	71.1%	4.7%	49.4%
11	1460 Manley	8	Gen	568	36.4%	3.9%	66.3%	5.3%	45.6%
12	1370 Harrison +	8	Gen	321	36.1%	19.0%	60.6%	12.7%	40.2%
13	1380 Hirsch	17	Gen	359	35.4%	7.1%	54.2%	9.5%	41.0%
14	1360 Harper	15	Gen	455	35.2%	6.3%	67.3%	9.2%	45.9%
15	1640 Wells	6	Gen	560	34.9%	14.6%	65.7%	15.4%	50.2%
16	1760 King, M.L.	14	Gen	453	34.0%	6.5%	63.9%	5.0%	43.3%
17	1880 Collins	8	Gen	440	33.4%	4.1%	60.3%	4.8%	41.9%
18	1540 Senn	2	Gen	596	32.7%	11.8%	50.0%	14.7%	38.6%
19	1240 Bowen	19	Gen	770	32.5%	8.8%	60.1%	7.5%	41.8%
20	1300 Farragut	10	Gen	564	32.4%	6.0%	70.9%	6.6%	47.8%
21	1590 Tilden	13	Gen	558	31.7%	9.6%	58.8%	8.7%	48.9%
22	1850 Carver	20	Gen	613	31.0%	5.3%	68.3%	5.2%	39.4%
23	1840 Clemente	6	Gen	1,058	30.6%	13.0%	64.2%	11.0%	52.7%
24	1830 Orr	5	Gen	586	30.5%	14.5%	62.7%	9.6%	41.8%
25	1410 Kelvyn Park	5	Gen	346	30.3%	17.1%	51.7%	14.5%	41.3%
26	1310 Fenger	20	Gen	558	29.7%	12.0%	73.3%	11.2%	49.1%
27	1620 Lincoln Park	3	Gen	273	28.9%	8.9%	58.3%	12.9%	45.6%
28	1490 Morgan Park	18	Gen	467	27.6%	7.8%	44.5%	6.2%	20.5%
29	1220 Austin *	7	Gen	878	27.3%	4.6%	75.5%	6.0%	57.0%
30	1210 Amundsen	2	Gen	397	26.4%	14.3%	56.7%	14.7%	41.8%
31	1430 Lakeview	3	Gen	451	26.4%	19.3%	59.4%	14.5%	49.6%
32	1350 Harlan	19	Gen	692	26.3%	5.5%	55.8%	7.3%	39.1%
33	1550 South Shore	17	Gen	720	23.9%	5.8%	71.0%	8.0%	47.6%
34	1530 Schurz	4	Gen	937	23.8%	10.3%	59.0%	13.4%	45.6%
35	1670 Hubbard	15	Gen	341	22.6%	11.7%	60.3%	11.4%	34.6%
36	1330 Foreman	4	Gen	311	22.5%	24.3%	52.8%	18.3%	33.5%
37	1570 Sullivan	2	Gen	325	22.5%	19.2%	37.3%	22.2%	34.2%
38	1400 Kelly	8	Gen	412	22.3%	14.1%	59.5%	9.4%	50.7%
39	1610 Von Steuben	1	Gen	345	22.3%	22.1%	38.3%	15.7%	28.0%
40	1520 Roosevelt	1	Gen	435	20.9%	16.5%	60.5%	13.1%	47.8%
41	1150 Simeon Voc	16	Voc	404	20.2%	3.1%	42.1%	7.5%	31.9%
42	1630 Washington	20	Gen	369	19.8%	6.8%	45.6%	8.1%	18.0%
43	1110 Richards Voc	11	Voc	182	19.8%	5.6%	52.9%	8.2%	28.4%
44	1230 Bogan	15	Gen	300	19.3%	10.3%	25.0%	7.0%	7.6%
45	1040 Flower Voc	7	Voc	199	19.1%	0.0%	50.0%	6.8%	40.7%
46	1560 Steinmetz	4	Gen	523	18.5%	9.3%	51.1%	10.6%	31.2%
47	1340 Gage Park	12	Gen	503	18.3%	9.8%	68.7%	6.8%	44.6%
48	1870 Julian	18	Gen	572	17.5%	2.0%	50.0%	7.8%	28.5%
49	1420 Kennedy	12	Gen	370	16.0%	4.8%	50.8%	6.8%	25.1%
50	1820 Curie	12	Gen	731	15.6%	7.9%	55.2%	9.2%	24.1%
51	1390 Hyde Park	14	Gen	722	15.5%	7.1%	59.6%	5.6%	33.7%
52	1860 Corliss	20	Gen	614	15.3%	9.6%	56.5%	11.5%	29.3%
53	1480 Mather	2	Gen	382	14.9%	10.5%	37.3%	10.2%	19.2%
54	1160 Westinghouse Voc	7	Voc	431	13.0%	1.8%	38.2%	3.7%	19.7%
55	1030 Dunbar Voc	11	Voc	608	11.3%	10.1%	51.6%	6.5%	25.1%
56	1010 Chicago Voc.	11	Voc	1,029	9.5%	9.2%	51.7%	6.2%	24.6%
57	1710 Kenwood	14	Gen	515	9.5%	6.5%	36.1%	13.7%	17.9%
58	1580 Taft	1	Gen	508	8.5%	7.0%	42.5%	6.0%	16.0%
59	1070 Prosser Voc	4	Voc	386	8.3%	9.4%	41.4%	9.6%	21.3%
60	1810 Young	9	Gen	557	7.9%	6.8%	39.0%	10.5%	17.2%
61	1450 Lindblom	15	Tech	614	4.9%	20.0%	33.3%	9.9%	21.5%
62	1800 Metro, Chicago	11	Gen	48	4.2%	0.0%	50.0%	6.5%	39.5%
63	1440 Lane	3	Tech	882	2.7%	20.8%	15.8%	9.1%	15.9%
	SYSTEM WIDE TOTALS			33,000	25.5%	9.2%	60.9%	9.3%	36.6%
	TOP THIRD TOTALS			11,086	37.0%	8.1%	65.0%	8.7%	46.5%
	MID THIRD TOTALS			10,998	26.0%	11.1%	60.3%	10.7%	42.4%
	LOW THIRD TOTALS			10,676	12.2%	8.6%	49.2%	8.3%	24.2%
	SPECIAL SCHOOL TOTALS			240	59.6%	8.4%	63.4%	26.8%	38.0%

2. READING SCORES

Schools vary significantly on the proportion of their entering freshmen who have normal or above reading scores. Dropout Rates generally vary inversely with this proportion. Thus, Lane Tech., with 97% of its students reading at or above normal, has one of the lowest Dropout Rates in the system (16%); conversely, Austin receives only 18% of its students reading at normal levels and has a Dropout Rate of 62% (second worst to Crane at 63%).

Seven schools had more than 80% of their entering students at or above normal reading levels. Except for Metro, all graduated more than 70% of their students, and two (Bogan - 89%, and Lane - 84%) graduated over 80%. However, only Bogan had a Graduation Rate higher than the percent of its students reading at or above normal levels. Among the next six schools receiving over 70% reading at normal rates, Taft, Prosser, Mather, Washington, and Kenwood all graduated higher proportions of the class. Schools with high proportions of well-prepared students are quite stable. Among the 13 schools with the highest proportion of their students reading at normal levels, only Kenwood (80%), Lindbloom (80%) and Westinghouse (83%) had less than 85% of their students finish at the school where they originally enrolled.

The Dropout Rate for the 21 schools with the highest proportions of entrants reading at or above normal levels was 26%, while the rate for the mid-range schools was 47%, and that of the lowest schools was 54%. Not surprisingly, only three of the 21 schools with the most well-prepared students had more than 15% of their entering students overage (Bogan - 19%, Washington - 20%, and Simeon Vocational - 20%).

At the other end of the scale, seven schools had fewer than a quarter of their entering students with normal or above reading scores. However, Graduation Rates at all of these schools exceeded the proportion of normally reading entrants by at least 19 percentage points. In fact, the Graduation Rate at each of the schools in the lowest third (ranked by proportion with normal reading scores) exceeded the normal reading rate by at least 10 percentage points! Thus the schools receiving the most poorly prepared students seem to do more with those students than do the schools receiving the highest proportion of adequately prepared students. Some of these lowest schools did quite well, considering the preparation of the students they received. Though only one received more than a third of its students at normal reading rates, Senn (58%), Harrison - before it closed (53%), Bowen (52%), Orr (52%), and Collins (52%), all graduated more students than dropped out.

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HIGH SCHOOLS RANKED BY PERCENT NORMAL READING SCORES

TABLE 11

RANK	SCHOOL NAME	DIST	TYPE	ENTERING FRESHMEN	TRANSFER RATE	DROPOUTS	DROPOUT RATE	WHITE	BLACK	ASIAN	HISPANIC	OVER AGE	COMPLETED ORIG SCH	PERCENT W/ NORMAL SCORES	PERCENT W/O SCORES	PERCENT BELOW NORM SCORES
1	Lane	3	Tech	882	9.4%	127	15.9%	64.9%	12.1%	11.9%	10.8%	2.7%	90.2%	96.6%	3.2%	0.2%
2	Metro, Chicago	11	Gen	48	6.3%	18	40.0%	25.0%	64.6%	0.0%	8.3%	4.2%	87.5%	91.7%	2.1%	6.3%
3	Chicago Voc.	11	Voc	1,031	6.5%	261	27.1%	0.0%	99.5%	0.0%	0.5%	9.5%	87.4%	85.3%	4.8%	9.9%
4	Westinghouse Vo	7	Voc	433	3.5%	92	22.1%	0.2%	99.8%	0.0%	0.0%	13.0%	82.7%	85.0%	2.1%	12.9%
5	Dunbar Voc	11	Voc	608	6.7%	159	28.0%	0.0%	99.7%	0.0%	0.2%	11.3%	89.1%	82.9%	5.9%	11.2%
6	Bogan	15	Gen	300	7.7%	30	10.8%	95.7%	0.0%	0.3%	3.7%	19.3%	96.7%	82.7%	9.7%	7.7%
7	Lindblom	15	Tech	616	10.4%	121	22.0%	0.2%	95.8%	3.7%	0.3%	4.9%	82.1%	81.3%	17.0%	1.6%
8	Taft	1	Gen	509	6.1%	87	18.2%	91.0%	6.7%	0.6%	1.8%	8.5%	95.9%	79.0%	10.0%	11.0%
9	Simeon Voc	16	Voc	484	6.6%	154	34.1%	0.0%	100.0%	0.0%	0.0%	20.2%	86.0%	75.8%	5.8%	18.4%
10	Prosser Voc	4	Voc	306	9.6%	80	22.9%	54.7%	22.0%	1.3%	21.2%	8.3%	88.1%	72.8%	24.4%	2.8%
11	Mather	2	Gen	302	10.2%	75	21.9%	74.3%	10.2%	11.5%	2.9%	14.9%	93.2%	71.2%	14.1%	14.7%
12	Washington	20	Gen	369	7.9%	80	23.5%	83.5%	0.3%	0.0%	13.8%	19.8%	97.8%	71.0%	8.7%	20.3%
13	Kenwood	14	Gen	516	14.9%	85	19.4%	17.0%	72.9%	2.7%	1.6%	9.5%	88.4%	70.3%	12.2%	17.4%
14	Kennedy	12	Gen	370	6.5%	102	29.5%	73.2%	24.6%	0.0%	2.2%	16.8%	91.9%	65.5%	9.2%	21.4%
15	Hubbard	15	Gen	341	11.4%	122	40.4%	85.3%	2.9%	1.2%	9.7%	22.6%	93.5%	68.0%	11.1%	20.8%
16	Young	9	Gen	559	10.2%	95	19.0%	27.5%	52.2%	5.5%	12.2%	7.5%	83.4%	63.1%	31.1%	5.7%
17	Morgan Park	18	Gen	469	6.6%	118	27.[illegible]%	35.4%	63.1%	0.2%	0.6%	27.6%	92.5%	60.8%	4.7%	34.5%
18	Hyde Park	14	Gen	724	5.8%	256	37.6%	0.0%	100.0%	0.0%	0.0%	15.5%	84.7%	57.7%	6.4%	35.9%
19	Steinmetz	4	Gen	529	10.3%	164	35.0%	76.1%	15.1%	4.0%	4.0%	18.5%	94.1%	57.4%	13.7%	28.8%
20	Curie	12	Gen	735	9.0%	193	29.0%	57.3%	25.7%	1.1%	15.4%	15.6%	91.0%	57.1%	10.2%	24.6%
21	Foreman	4	Gen	311	19.6%	94	37.6%	85.5%	1.0%	0.6%	12.2%	22.5%	92.3%	56.9%	13.8%	29.3%
22	Julian	18	Gen	573	6.8%	173	32.5%	0.0%	99.8%	0.0%	0.2%	17.5%	89.2%	56.5%	5.9%	37.5%
23	Richards Voc	11	Voc	182	7.7%	56	33.3%	26.4%	23.6%	0.0%	46.2%	19.8%	74.2%	56.0%	8.2%	35.7%
24	Corliss	20	Gen	621	11.1%	183	33.6%	0.0%	99.7%	0.0%	0.0%	15.3%	86.6%	55.7%	3.9%	40.4%
25	Von Steuben	1	Gen	346	17.1%	88	30.8%	46.5%	22.8%	12.7%	17.3%	22.3%	91.6%	52.6%	13.3%	34.1%
26	Roosevelt	1	Gen	435	13.8%	189	50.4%	67.8%	6.4%	9.2%	15.4%	20.9%	89.0%	52.2%	16.6%	31.3%
27	Schurz	4	Gen	940	12.7%	400	48.9%	61.3%	3.7%	2.7%	30.6%	23.8%	90.3%	51.6%	10.7%	37.7%
28	Kelly	8	Gen	416	10.3%	194	52.6%	73.1%	0.0%	1.0%	26.0%	22.4%	94.2%	49.8%	23.3%	26.9%
29	Sullivan	2	Gen	325	21.5%	89	34.9%	43.7%	32.0%	9.5%	12.6%	22.5%	84.0%	48.0%	17.5%	34.5%
30	Carver	20	Gen	616	5.2%	281	48.4%	0.0%	100.0%	0.0%	0.0%	31.0%	83.6%	45.1%	8.4%	46.4%
31	Robeson	16	Gen	658	15.7%	316	57.4%	0.3%	99.5%	0.0%	0.0%	50.2%	84.5%	44.1%	7.4%	48.5%
32	Lakeview	3	Gen	452	15.7%	198	52.1%	40.3%	11.1%	6.0%	41.2%	26.4%	83.6%	43.6%	17.0%	39.4%
33	Amundsen	2	Gen	398	14.6%	155	45.7%	74.9%	4.0%	7.5%	10.6%	26.4%	89.7%	43.2%	21.4%	35.4%
34	Gage Park	12	Gen	503	7.4%	228	48.9%	38.9%	52.3%	0.8%	8.0%	18.3%	86.3%	40.8%	5.8%	53.5%
35	Crane	9	Gen	628	5.9%	395	62.6%	0.0%	100.0%	0.0%	0.0%	37.6%	82.0%	40.3%	9.2%	50.5%
36	Kelvyn Park	5	Gen	347	15.3%	130	44.[illegible]%	34.0%	1.2%	1.7%	62.8%	30.3%	88.2%	39.2%	17.6%	43.2%
37	Harlan	19	Gen	696	6.8%	281	43.6%	0.1%	99.7%	0.0%	0.1%	26.3%	85.2%	38.4%	8.5%	53.2%
38	South Shore	17	Gen	723	7.5%	355	53.3%	0.0%	99.6%	0.0%	0.1%	23.9%	83.8%	38.0%	10.7%	51.3%
39	Flower Voc	7	Voc	200	5.5%	80	42.6%	0.0%	100.0%	0.0%	0.0%	19.1%	69.0%	38.0%	9.0%	53.0%
40	Hirsch	17	Gen	359	8.6%	150	45.7%	0.0%	100.0%	0.0%	0.0%	35.4%	77.7%	37.3%	6.7%	56.0%
41	Lincoln Park	3	Gen	274	11.7%	119	49.4%	8.8%	65.7%	0.7%	23.0%	28.9%	73.0%	36.5%	10.9%	52.6%
42	Calumet	16	Gen	752	10.2%	359	53.4%	0.0%	100.0%	0.0%	0.0%	37.2%	80.6%	36.3%	7.8%	55.9%
43	Englewood	16	Gen	594	6.2%	293	53.5%	0.0%	99.0%	0.0%	0.2%	40.2%	83.0%	34.8%	10.3%	54.9%
44	Cregier Voc	9	Voc	217	3.7%	114	54.8%	0.9%	99.1%	0.0%	0.0%	40.3%	63.6%	32.7%	7.4%	59.9%
45	Bowen	19	Gen	773	7.9%	338	47.7%	1.7%	58.7%	0.1%	38.7%	32.5%	87.8%	30.9%	17.6%	51.5%
46	Wells	6	Gen	569	15.1%	268	55.6%	12.1%	25.8%	0.0%	61.7%	34.9%	84.5%	30.8%	18.5%	50.8%
47	Harrison +	8	Gen	322	14.9%	129	47.3%	4.7%	37.3%	0.3%	57.1%	36.1%	81.1%	30.7%	16.5%	52.8%
48	Farragut	10	Gen	569	6.3%	292	55.3%	0.9%	76.4%	0.2%	22.5%	32.4%	79.3%	30.2%	9.5%	60.3%
49	Senn	2	Gen	597	13.7%	218	42.4%	36.0%	19.6%	21.7%	21.7%	32.7%	84.1%	29.8%	30.2%	40.0%
50	King, M L.	14	Gen	454	5.5%	215	50.2%	0.7%	99.3%	0.0%	0.0%	34.0%	83.5%	28.0%	9.9%	62.1%
51	DuSable	13	Gen	632	4.1%	352	58.5%	0.0%	99.8%	0.0%	0.0%	36.8%	89.2%	27.7%	7.1%	65.2%
52	Near No. Career	3	Voc	87	10.3%	46	59.7%	0.0%	100.0%	0.0%	0.0%	38.4%	78.2%	27.6%	13.8%	58.6%
53	Fenger	20	Gen	558	11.5%	278	56.3%	0.2%	99.1%	0.0%	0.7%	29.7%	86.2%	26.9%	10.8%	62.4%
54	Clemente	6	Gen	1,067	11.5%	525	56.1%	7.3%	10.6%	0.6%	81.1%	30.6%	88.9%	26.3%	14.0%	59.0%
55	Collins	8	Gen	440	4.5%	202	48.1%	0.0%	99.8%	0.0%	0.0%	33.4%	79.8%	26.1%	9.3%	64.5%
56	Juarez	8	Gen	508	13.8%	221	50.9%	4.7%	1.8%	0.0%	92.1%	46.8%	93.3%	25.0%	35.0%	40.0%
57	Tilden	13	Gen	563	8.9%	264	51.8%	10.1%	75.7%	0.2%	13.9%	31.7%	86.0%	24.6%	8.5%	67.0%
58	Phillips	11	Gen	858	5.0%	463	57.4%	0.1%	99.5%	0.0%	0.3%	38.2%	85.5%	23.5%	5.9%	70.5%
59	Marshall	9	Gen	546	4.6%	297	57.3%	0.0%	99.6%	0.0%	0.0%	36.6%	77.7%	22.2%	9.5%	68.3%
60	Orr	5	Gen	589	11.0%	250	48.0%	3.1%	69.1%	0.0%	25.5%	30.5%	74.9%	21.7%	11.4%	66.9%
61	Harper	15	Gen	457	8.1%	224	53.6%	0.0%	99.8%	0.0%	0.2%	35.2%	74.8%	21.2%	7.0%	71.8%
62	Manley	8	Gen	573	4.7%	288	53.[illegible]%	0.0%	99.8%	0.0%	0.2%	36.4%	80.3%	19.7%	7.0%	73.3%
63	Austin	7	Gen	882	5.6%	515	62.1%	0.1%	99.7%	0.0%	0.2%	27.4%	69.5%	18.4%	9.9%	71.8%
523	SYSTEMWIDE TOTALS			33,142	9.2%	12,804	42.8%	21.4%	62.6%	1.9%	13.5%	25.5%	85.0%	47.1%	11.6%	41.3%
AVE CLASS SIZE																
504	TOP THIRD TOTALS			10,597	8.6%	2,513	26.0%	39.6%	51.9%	2.5%	5.3%	13.2%	89.0%	73.5%	10.8%	15.7%
497	MID THIRD TOTALS			10,444	10.7%	4,309	47.3%	22.4%	63.4%	2.0%	11.5%	27.3%	85.1%	44.9%	10.8%	44.4%
568	LOW THIRD TOTALS			11,942	8.5%	5,000	53.5%	4.5%	71.6%	1.2%	22.4%	34.3%	82.3%	26.[illegible]%	13.0%	60.9%
	SPECIAL SCHOOLS TOTALS			159	7.5%	94	65.3%	6.9%	61.0%	0.0%	30.2%	71.8%	22.6%	3.8%	22.6%	73.6%

PERCENT OF RACE IN EACH THIRD OF CLASS				
Top Third	59.2%	26.5%	30.3%	42.7%
Mid Third	33.0%	31.9%	45.5%	34.4%
Low Third	7.6%	41.2%	21.2%	22.9%
Spec. Sch.	0.2%	0.5%	3.0%	0.0%

Several other schools had Graduation Rates below their normal reading rates: Hubbard (-8%), Roosevelt (-2%), Schurz (-1%), Kelly (-3%), Robeson (-1%), and Crane (-2%). All these schools but Hubbard were in the mid-range of the normal reading rates (between 36% and 57% of the entering class with normal or above reading scores)

Other schools which did significantly better than their normal reading rates (17 points higher) were Hirsch, Flower, Harlan, Sullivan, and Young.

Fifty-nine percent of all White students enrolled in the 21 schools with the highest proportion of normal reading rates, while only 27% of Blacks were in these schools; 43% of all Hispanics were in these schools. Only 7% of Whites, 23% of Hispanics, and 21% of all Asians were enrolled in the lowest third of schools ranked by reading scores. These last two groups also had high proportions of students without any recorded reading scores (students with limited English proficiency are not tested on English reading). However, the largest proportion of Black students (41%) were enrolled in those schools which received the most poorly prepared students. In fact, 12 of these schools were all Black, and four others were majority Black. Four were majority Hispanic (Juarez, Clemente, Wells, and Harrison).

While these comments relate 8th grade reading scores to eventual Graduate/Dropout Rates, no conclusion is available on the reading rates of graduates of these schools.

3. RACE

A. Whites

White students entering high school in 1978 overwhelmingly entered schools with other White students. 65% of all White students went to schools whose entering class was more than 60% White. Further, these Whites predominantly encountered Hispanics and Asians in the minority population in their schools. In only three of these 23 schools did Blacks outnumber Hispanics and Asians.

Dropout Rates in the heavily White schools were significantly lower than in the schools with few Whites. In the schools more than two-thirds White, more than two-thirds graduated, and almost that many graduated from the schools which were between one-third and two-thirds White in the entering class. In the schools less than a third White, the Dropout Rate rose to 46%. Schools with no Whites had a slightly higher Dropout Rate of 47%.

DROP OUT STUDY OF CHICAGO PUBLIC SCHOOLS
School Level Data - Class of 1982
SIX YEAR TIME FRAME

STUDENT OUTCOMES
RANK ORDERED BY PERCENT WHITE

TABLE 12

RANK	UNIT #SCHOOL NAME	DIST	TYPE	ENTERING FRESHMEN	DROPOUT RATE	WHITE	BLACK	ASIAN	HISPANIC	OVER AGE	COMPLETED W/ ORIG SCH	PERCENT NORMAL SCORES	PERCENT W/O SCORES	PERCENT BELOW NORM SCORES
1	1230 Bogan	15	Gen	300	10.8%	95.7%	0.0%	0.3%	3.7%	19.3%	96.7%	82.7%	9.7%	7.7%
2	1590 Taft	1	Gen	509	18.2%	91.0%	6.7%	0.6%	1.8%	8.5%	95.9%	79.0%	10.0%	11.0%
3	1330 Foreman	4	Gen	311	37.6%	85.5%	1.0%	0.6%	12.2%	22.5%	92.3%	56.9%	13.8%	29.3%
4	1670 Hubbard	15	Gen	341	40.4%	85.3%	2.9%	1.2%	9.7%	22.6%	93.5%	68.0%	11.1%	20.8%
5	1630 Washington	20	Gen	369	23.5%	83.5%	0.3%	0.8%	13.8%	19.8%	97.0%	71.0%	8.7%	20.3%
6	1560 Steinmetz	4	Gen	524	35.0%	76.1%	15.1%	4.0%	4.0%	18.5%	94.1%	57.4%	13.7%	28.0%
7	1210 Amundsen	2	Gen	398	45.7%	74.9%	4.0%	7.5%	10.6%	26.4%	89.7%	43.2%	21.4%	35.4%
8	1480 Mather	2	Gen	302	21.9%	74.3%	10.2%	11.5%	2.9%	14.9%	93.2%	71.2%	14.1%	14.7%
9	1420 Kennedy	12	Gen	370	29.5%	73.2%	24.6%	0.0%	2.2%	16.8%	91.9%	69.5%	9.2%	21.4%
10	1400 Kelly	8	Gen	416	52.6%	73.1%	0.0%	1.0%	26.0%	22.4%	94.2%	49.8%	23.3%	26.9%
11	1520 Roosevelt	1	Gen	435	50.4%	67.8%	6.4%	9.2%	15.4%	20.9%	89.0%	52.2%	16.6%	31.3%
12	1440 Lane	3	Tech	802	15.9%	64.9%	12.1%	11.9%	10.0%	2.7%	90.2%	96.6%	3.2%	0.2%
13	1530 Schurz	4	Gen	940	48.9%	61.3%	3.7%	2.7%	30.6%	23.8%	90.3%	51.6%	10.7%	37.7%
14	1820 Curie	12	Gen	735	29.0%	57.3%	25.7%	1.1%	15.4%	15.6%	91.0%	57.1%	18.2%	24.6%
15	1070 Prosser Voc	4	Voc	386	22.9%	54.7%	22.0%	1.3%	21.2%	8.3%	88.1%	72.8%	24.4%	2.8%
16	1610 Von Steuben	1	Gen	316	30.8%	46.5%	22.8%	12.7%	17.3%	22.3%	91.6%	52.6%	13.3%	34.1%
17	1570 Sullivan	2	Gen	325	34.9%	43.7%	32.0%	9.5%	12.6%	22.5%	84.0%	48.0%	17.5%	34.5%
18	1430 Lakeview	3	Gen	452	52.1%	40.3%	11.1%	6.0%	41.2%	26.4%	83.6%	43.6%	17.0%	39.4%
19	1340 Gage Park	12	Gen	503	48.9%	38.9%	52.3%	0.8%	8.0%	18.3%	86.3%	40.0%	5.8%	53.5%
20	1540 Senn	2	Gen	597	42.4%	36.0%	19.6%	21.7%	21.7%	32.7%	84.1%	29.8%	30.2%	40.0%
21	1490 Morgan Park	18	Gen	469	27.1%	35.4%	63.1%	0.2%	0.6%	27.6%	92.5%	60.8%	4.7%	34.5%
22	1410 Kelvyn Park	5	Gen	347	44.4%	34.0%	1.2%	1.7%	62.8%	30.3%	88.2%	39.2%	17.6%	43.2%
23	1810 Young	9	Gen	559	19.0%	27.5%	52.2%	5.5%	12.2%	7.9%	83.4%	63.1%	31.1%	5.7%
24	1110 Richards Voc	11	Voc	182	33.3%	26.4%	23.6%	0.0%	46.2%	19.8%	74.2%	56.0%	8.2%	35.7%
25	1800 Metro, Chicago	11	Gen	48	40.0%	25.0%	64.6%	0.0%	8.3%	4.2%	87.5%	91.7%	2.1%	6.3%
26	1710 Kenwood	14	Gen	516	19.4%	17.8%	72.9%	2.7%	1.6%	9.5%	80.4%	70.3%	12.2%	17.4%
27	1640 Wells	6	Gen	569	55.6%	12.1%	25.8%	0.4%	61.7%	34.9%	84.5%	30.8%	18.5%	50.8%
28	1590 Tilden	13	Gen	563	51.8%	10.1%	75.7%	0.2%	13.9%	31.7%	86.0%	24.6%	8.5%	67.0%
29	1620 Lincoln Park	3	Gen	274	49.4%	8.8%	65.7%	0.7%	23.0%	28.9%	73.0%	36.5%	10.9%	52.6%
30	1840 Clemente	6	Gen	1,067	56.1%	7.3%	10.8%	0.6%	81.1%	30.6%	88.9%	26.3%	14.6%	59.0%
31	1890 Juarez	8	Gen	508	50.9%	4.7%	1.8%	0.0%	92.1%	46.8%	93.3%	25.0%	35.0%	40.0%
32	1370 Harrison +	8	Gen	322	47.3%	4.7%	37.3%	0.3%	57.1%	36.1%	81.1%	30.7%	16.5%	52.8%
33	1830 Orr	5	Gen	589	48.0%	3.1%	69.1%	0.8%	25.5%	30.5%	74.9%	21.7%	11.4%	66.9%
34	1240 Bowen	19	Gen	773	47.7%	1.7%	58.7%	0.1%	38.7%	32.5%	87.8%	30.9%	17.6%	51.5%
35	1020 Cregier Voc	9	Voc	217	54.8%	0.9%	99.1%	0.0%	0.0%	40.3%	63.6%	32.7%	7.4%	59.9%
36	1300 Farragut	10	Gen	569	55.3%	0.9%	76.4%	0.2%	22.5%	32.4%	79.3%	30.2%	9.5%	60.3%
37	1760 King,M.L.	14	Gen	454	50.2%	0.7%	99.3%	0.0%	0.0%	34.0%	83.5%	28.0%	9.9%	62.1%
38	1320 Robeson	16	Gen	658	57.4%	0.3%	99.5%	0.0%	0.0%	50.2%	84.5%	44.1%	7.4%	48.5%
39	1160 Westinghouse Voc	7	Voc	433	22.1%	0.2%	99.8%	0.0%	0.0%	13.0%	82.7%	85.0%	2.1%	12.9%
40	1310 Fenger	20	Gen	558	56.3%	0.2%	99.1%	0.0%	0.7%	29.7%	86.2%	26.9%	10.8%	62.4%
41	1450 Lindblom	15	Tech	616	22.0%	0.2%	95.8%	3.7%	0.3%	4.9%	82.1%	81.3%	17.0%	1.6%
42	1350 Harlan	19	Gen	696	43.6%	0.1%	99.7%	0.0%	0.1%	26.3%	85.2%	38.4%	8.5%	53.2%
43	1510 Phillips	11	Gen	850	57.4%	0.1%	99.5%	0.0%	0.3%	38.2%	85.5%	23.5%	5.9%	70.5%
44	1220 Austin	7	Gen	882	62.1%	0.1%	99.7%	0.0%	0.2%	27.4%	69.5%	18.4%	9.9%	71.8%
45	1380 Hirsch	17	Gen	359	45.7%	0.0%	100.0%	0.0%	0.0%	35.4%	77.7%	37.3%	6.7%	56.0%
46	1850 Carver	20	Gen	616	48.4%	0.0%	100.0%	0.0%	0.0%	31.0%	83.6%	45.1%	8.4%	46.4%
47	1860 Corliss	20	Gen	621	33.6%	0.0%	99.7%	0.0%	0.0%	15.3%	86.6%	55.7%	3.9%	40.4%
48	1460 Manley	8	Gen	573	53.2%	0.0%	99.8%	0.0%	0.2%	36.4%	80.3%	19.7%	7.0%	73.3%
49	1150 Simeon Voc	16	Voc	484	34.1%	0.0%	100.0%	0.0%	0.0%	20.2%	86.0%	75.8%	5.8%	18.4%
50	1550 South Shore	17	Gen	723	53.3%	0.0%	99.6%	0.0%	0.1%	23.9%	83.0%	38.0%	10.7%	51.3%
51	1040 Flower Voc	7	Voc	200	42.6%	0.0%	100.0%	0.0%	0.0%	19.1%	69.0%	38.0%	9.0%	53.0%
52	1250 Calumet	16	Gen	752	53.4%	0.0%	100.0%	0.0%	0.0%	37.2%	80.6%	36.3%	7.8%	55.9%
53	1010 Chicago Voc.	11	Voc	1,031	27.1%	0.0%	99.5%	0.0%	0.5%	9.5%	87.4%	85.3%	4.8%	9.9%
54	1680 Englewood	16	Gen	594	53.5%	0.0%	99.0%	0.0%	0.2%	40.2%	83.0%	34.8%	10.3%	54.9%
55	1880 Collins	8	Gen	410	40.1%	0.0%	99.8%	0.0%	0.0%	33.4%	79.8%	26.1%	9.3%	64.5%
56	1360 Harper	15	Gen	457	53.6%	0.0%	99.8%	0.0%	0.2%	35.2%	74.8%	21.2%	7.0%	71.0%
57	1390 Hyde Park	14	Gen	724	37.6%	0.0%	100.0%	0.0%	0.0%	15.5%	84.7%	57.7%	6.4%	35.9%
58	1470 Marshall	9	Gen	546	57.3%	0.0%	99.6%	0.0%	0.0%	36.6%	77.7%	22.2%	9.5%	68.3%
59	1270 Crane	9	Gen	628	62.6%	0.0%	100.0%	0.0%	0.0%	37.6%	82.0%	40.3%	9.2%	50.5%
60	1030 Dunbar Voc	11	Voc	608	20.0%	0.0%	99.7%	0.0%	0.2%	11.3%	89.1%	82.9%	5.9%	11.2%
61	1870 Julian	18	Gen	573	32.5%	0.0%	99.8%	0.0%	0.2%	17.5%	89.2%	56.5%	5.9%	37.5%
62	1200 DuSable	13	Gen	632	58.5%	0.0%	99.8%	0.0%	0.0%	36.8%	89.2%	27.7%	7.1%	65.2%
63	1050 Near No. Career Magn	3	Voc	87	59.7%	0.0%	100.0%	0.0%	0.0%	30.4%	78.2%	27.6%	13.8%	50.6%
	SYSTEMWIDE TOTALS			33,142	42.0%	21.4%	62.6%	1.9%	13.5%	25.5%	85.0%	47.1%	11.6%	41.3%
	SCHOOLS TWO THIRDS WHITE			4,355	33.2%	79.6%	6.9%	3.5%	9.1%	19.0%	93.5%	63.3%	13.9%	22.8%
	SCHOOLS ONE THIRD WHITE			5,982	35.5%	49.5%	22.2%	6.4%	21.0%	19.8%	88.6%	56.5%	13.9%	29.7%
	LESS THAN A THIRD WHITE			11,911	47.2%	5.2%	70.2%	0.7%	23.2%	29.0%	82.6%	37.4%	13.1%	49.5%
	SCHOOLS WITHOUT WHITES			10,648	45.3%	0.0%	99.8%	0.0%	0.1%	26.6%	83.4%	46.8%	7.4%	45.0%
	SPECIAL SCHOOLS TOTALS			159	65.3%	6.9%	61.0%	0.0%	30.2%	71.8%	22.6%	3.8%	22.6%	73.6%

Two Thirds	48.8%	1.5%	24.2%	24.5%
One Third	41.7%	6.4%	45.5%	61.8%
Third Less	8.8%	40.3%	18.2%	13.7%
None	0.3%	51.2%	9.1%	0.0%
Spec. Sch.	0.2%	0.5%	3.0%	0.0%

While most of the 11 schools with two-thirds White enrollments graduated over 65%, two (Kelly - 47%, and Roosevelt - just under 50%) had fewer Graduates than Dropouts. Amundsen (54%) Hubbard (60%), nd Foreman (62%) were also below 65%. Foreman (20%), Amundsen (15%), and Roosevelt (14%) all had high Transfer Rates (students leaving the system).

Among the 11 schools with more than one-third White entering students, Lane (65% White) had an 84% Graduation Rate, and five others were above 65%. Lakeview (48%), had the lowest Graduation Rate. Among the schools with less than a third Whites entering, Young (81%) and Kenwood (80%) had high Graduation Rates.

The schools more than one-third White had fewer than 20% of their entering students overage, while schools with less than a third White entrants had more than a quarter of entering students overage. Only Amundsen (26%), Lakeview (26%), Kelvyn Park (30%), and Senn (33%) had more than a quarter overage, and the later three had significant numbers of Hispanics, among whom it is less unusual to begin high school overage. Some schools, with less than a third White entering students, had low levels of entering students overage: Metro (4%), Lindbloom (5%), Young (8%), Kenwood (10%), and CVS (10%).

Schools more than two-thirds white had 94% of their students remain for their whole high school career in the schools in which they originally enrolled. Students in schools more than a third White remained 89% of the time. Students at schools with less than a third White had higher levels of transfers.

Schools more than two-thirds White received 73% of their students with normal or above normal reading scores. Those with a third White had 56% with normal scores. Schools with less than a third White entering students had only 37% with normal reading scores, while those with no Whites had 47% with normal scores. The higher level of students with below normal or missing scores in the less than a third White schools is probably the result of the number of Hispanics in those schools without reading scores (students with limited proficiency in English who are not tested for English reading skills).

Among the schools which were two-thirds White, Bogan received 83% reading at or above normal rates. However, two schools (Amundsen - 57%, and Kelly - 50%) had more than half their entering students reading below normal rates or missing scores. Among the schools more than a third White, Lane had 97% of its students reading at or above normal rates, while

DROP OUT STUDY-CHICAGO PUBLIC SCHOOLS — RANK ORDER BY PERCENT WHITE — TABLE 13

School Level Data - Class of 1982

SIX YEAR TIME FRAME

RANK	SCHOOL NAME	DIST	TYPE	ENTERING FRESHMEN	WHITE ENROLLED	BLACK ENROLLED	AM IND ENROLLED	ASIAN ENROLLED	HISPANIC ENROLLED	WHITE DROPOUT RATE	BLACK DROPOUT RATE	ASIAN DROPOUT RATE	HISPANIC DROPOUT RATE	OVERALL DROPOUT RATE
1	Bogan	15	Gen	299	[illegible]	0.0%	0.0%	0.3%	3.7%	10.9%	ERR	0.0%	9.1%	10.8%
2	Taft	1	Gen	508	90.9%	6.7%	0.0%	0.6%	1.8%	17.1%	31.3%	0.0%	33.3%	18.2%
3	Hubbard	15	Gen	339	85.8%	2.9%	0.3%	1.2%	9.7%	39.4%	33.3%	50.0%	50.0%	40.3%
4	Foreman	4	Gen	310	85.8%	1.0%	0.3%	0.6%	12.3%	37.4%	0.0%	0.0%	46.7%	37.8%
5	Washington	20	Gen	364	84.6%	0.3%	0.3%	0.8%	14.0%	22.6%	0.0%	33.3%	24.0%	23.1%
6	Steinmetz	4	Gen	519	76.7%	15.2%	0.0%	4.0%	4.0%	36.0%	34.2%	16.7%	33.3%	34.0%
7	Amundsen	2	Gen	388	76.5%	4.1%	0.8%	7.7%	10.8%	47.9%	61.5%	30.8%	29.4%	45.7%
8	Mather	2	Gen	378	75.1%	10.3%	0.0%	11.6%	2.9%	21.5%	38.9%	9.8%	22.2%	21.9%
9	Kelly *	8	Gen	412	73.3%	0.0%	0.0%	1.0%	25.7%	56.6%	ERR	25.0%	40.7%	52.6%
10	Kennedy	12	Gen	370	73.2%	24.6%	0.0%	0.0%	2.2%	25.2%	41.7%	ERR	37.5%	29.5%
11	Roosevelt	1	Gen	432	68.3%	6.5%	0.5%	9.3%	15.5%	51.6%	57.1%	22.6%	54.5%	50.1%
12	Lane	3	Tech	881	64.9%	12.1%	0.2%	11.9%	10.8%	15.6%	21.2%	3.3%	25.3%	15.9%
13	Schurz	4	Gen	921	62.4%	3.6%	0.0%	2.7%	31.1%	48.4%	58.1%	13.0%	50.2%	48.3%
14	Curie	12	Gen	728	57.6%	25.8%	0.1%	1.1%	15.4%	22.9%	35.4%	14.3%	43.8%	29.1%
15	Prosser Voc	4	Voc	386	54.7%	22.0%	0.8%	1.3%	21.2%	27.5%	15.4%	0.0%	19.2%	22.9%
16	Von Steuben	1	Gen	343	46.6%	23.0%	0.0%	12.8%	17.5%	30.9%	34.7%	21.2%	31.0%	30.8%
17	Sullivan	2	Gen	319	44.5%	32.6%	0.3%	9.7%	12.9%	35.1%	43.5%	12.5%	28.6%	34.9%
18	Lakeview	3	Gen	448	40.4%	11.2%	0.9%	6.0%	41.5%	60.5%	59.0%	33.3%	44.4%	52.1%
19	Gage Park *	12	Gen	501	38.9%	52.3%	0.0%	0.8%	8.0%	54.1%	47.0%	25.0%	37.8%	48.7%
20	Morgan Park	18	Gen	464	35.0%	63.4%	0.0%	0.2%	0.6%	23.5%	28.4%	0.0%	66.7%	26.9%
21	Senn *	2	Gen	593	35.6%	19.4%	2.2%	21.4%	21.4%	42.3%	50.5%	30.5%	37.2%	42.3%
22	Kelvyn Park	5	Gen	346	33.8%	1.2%	0.3%	1.7%	63.0%	50.0%	66.7%	16.7%	41.7%	44.4%
23	Young	9	Gen	543	28.4%	53.4%	0.0%	5.7%	12.5%	27.0%	14.7%	3.4%	23.8%	18.6%
24	Richards Voc	11	Voc	175	27.4%	24.6%	0.0%	0.0%	48.0%	42.2%	26.8%	ERR	29.9%	32.5%
25	Metro, Chicago	11	Gen	48	25.0%	64.6%	2.1%	0.0%	8.3%	36.4%	41.4%	ERR	25.0%	40.0%
26	Kenwood	14	Gen	409	18.6%	76.9%	0.0%	2.9%	1.6%	6.7%	22.2%	16.7%	0.0%	18.9%
27	Wells	6	Gen	568	12.1%	25.9%	0.4%	0.0%	61.6%	78.9%	47.7%	ERR	54.8%	55.6%
28	Tilden	13	Gen	559	10.2%	75.7%	0.0%	0.2%	14.0%	77.1%	48.0%	100.0%	54.7%	51.7%
29	Lincoln Park	3	Gen	270	8.9%	66.3%	0.7%	0.7%	23.3%	89.5%	43.8%	0.0%	54.0%	49.2%
30	Clemente	6	Gen	1,056	7.4%	10.8%	0.1%	0.6%	81.2%	66.2%	55.1%	16.7%	55.7%	56.1%
31	Juarez	8	Gen	497	4.0%	1.6%	0.0%	0.0%	93.6%	77.8%	28.6%	ERR	49.4%	50.2%
32	Harrison +	8	Gen	319	4.7%	37.6%	0.3%	0.3%	57.1%	54.5%	41.1%	ERR	51.0%	47.1%
33	Orr	5	Gen	577	3.1%	[illegible]	0.0%	0.9%	26.0%	78.6%	44.4%	33.3%	52.8%	47.3%
34	Bowen	19	Gen	764	1.7%	[illegible]	0.0%	0.1%	38.9%	61.5%	52.4%	0.0%	39.0%	47.7%
35	Cregier Voc	9	Voc	216	0.9%	99.1%	0.0%	0.0%	0.0%	0.0%	55.3%	ERR	ERR	54.0%
36	Farragut	10	Gen	564	0.9%	76.2%	0.0%	0.2%	22.7%	50.0%	53.6%	0.0%	61.7%	55.3%
37	King, M.L.	14	Gen	453	0.7%	99.3%	0.0%	0.0%	0.0%	0.0%	50.6%	ERR	ERR	50.2%
38	Robeson	16	Gen	653	0.3%	99.7%	0.0%	0.0%	0.0%	ERR	57.3%	ERR	ERR	57.3%
39	Westinghouse Voc	7	Voc	431	0.2%	99.8%	0.0%	0.0%	0.0%	0.0%	22.2%	ERR	ERR	22.1%
40	Fenger	20	Gen	558	0.2%	99.1%	0.0%	0.0%	0.7%	0.0%	56.2%	ERR	100.0%	[illegible]
41	Lindblom	15	Tech	614	0.2%	95.8%	0.0%	3.7%	0.3%	0.0%	22.0%	19.0%	100.0%	22.0%
42	Harlan	19	Gen	692	0.1%	99.7%	0.0%	0.0%	0.1%	0.0%	43.5%	ERR	100.0%	43.6%
43	Phillips	11	Gen	849	0.1%	99.6%	0.0%	0.0%	0.2%	100.0%	57.4%	ERR	50.0%	57.4%
44	Austin *	7	Gen	878	0.1%	99.7%	0.0%	0.0%	0.2%	100.0%	62.0%	ERR	100.0%	62.1%
45	Crane	9	Gen	587	0.0%	100.0%	0.0%	0.0%	0.0%	ERR	62.6%	ERR	ERR	62.6%
46	Marshall	9	Gen	542	0.0%	99.8%	0.2%	0.0%	0.0%	ERR	57.2%	ERR	ERR	57.3%
47	Chicago Voc.	11	Voc	1,029	0.0%	99.5%	0.0%	0.0%	0.5%	ERR	27.1%	ERR	40.0%	27.1%
48	Simeon Voc	16	Voc	484	0.0%	100.0%	0.0%	0.0%	0.0%	ERR	34.1%	ERR	ERR	34.1%
49	Hirsch	17	Gen	359	0.0%	100.0%	0.0%	0.0%	0.0%	ERR	45.7%	ERR	ERR	45.7%
50	Near No. Career Magn	3	Voc	86	0.0%	100.0%	0.0%	0.0%	0.0%	ERR	59.7%	ERR	ERR	59.7%
51	Manley	8	Gen	568	0.0%	99.8%	0.0%	0.0%	0.2%	ERR	53.2%	ERR	ERR	53.2%
52	Flower Voc	7	Voc	199	0.0%	100.0%	0.0%	0.0%	0.0%	ERR	42.6%	ERR	ERR	42.6%
53	DuSable	13	Gen	627	0.0%	100.0%	0.0%	0.0%	0.0%	ERR	50.4%	ERR	ERR	50.4%
54	Carver	20	Gen	613	0.0%	100.0%	0.0%	0.0%	0.0%	ERR	48.4%	ERR	ERR	48.4%
55	Calumet	16	Gen	749	0.0%	100.0%	0.0%	0.0%	0.0%	ERR	[illegible]	ERR	ERR	53.4%
56	Corliss	20	Gen	613	0.0%	99.8%	0.2%	0.0%	0.0%	ERR	[illegible]	ERR	ERR	33.5%
57	Harper	15	Gen	455	0.0%	99.8%	0.0%	0.0%	0.2%	ERR	53.5%	ERR	100.0%	53.6%
58	Julian	18	Gen	572	0.0%	99.8%	0.0%	0.0%	0.2%	ERR	32.5%	ERR	0.0%	32.5%
59	South Shore	17	Gen	719	0.0%	99.7%	0.1%	0.0%	0.1%	ERR	53.2%	ERR	0.0%	53.2%
60	Englewood	16	Gen	580	0.0%	99.8%	0.0%	0.0%	0.2%	ERR	53.0%	ERR	100.0%	53.1%
61	Hyde Park	14	Gen	722	0.0%	100.0%	0.0%	0.0%	0.0%	ERR	37.6%	[illegible]	ERR	37.6%
62	Collins	8	Gen	439	0.0%	100.0%	0.0%	0.0%	0.0%	ERR	48.1%	ERR	ERR	48.1%
63	Dunbar Voc	11	Voc	607	0.0%	99.8%	0.0%	0.0%	0.2%	ERR	28.0%	ERR	0.0%	27.9%
	SYSTEMWIDE TOTALS			32,810	21.6%	62.8%	0.1%	1.9%	13.6%	34.6%	45.1%	19.4%	46.9%	42.7%

# OF CLASS		ENTERING FRESHMEN	WHITE ENROLLED	BLACK ENROLLED	AM IND ENROLLED	ASIAN ENROLLED	HISPANIC ENROLLED	WHITE DROPOUT RATE	BLACK DROPOUT RATE	ASIAN DROPOUT RATE	HISPANIC DROPOUT RATE	OVERALL DROPOUT RATE
392	SCHOOLS TWO-THIRDS WHITE	4,319	80.1%	7.0%	0.2%	3.5%	9.2%	32.5%	39.7%	19.5%	38.5%	[illegible]
539	SCHOOLS ONE-THIRD WHITE	5,930	49.7%	22.3%	0.4%	6.5%	21.1%	34.3%	36.9%	20.0%	40.1%	35.4%
518	SCHOOLS LESS THAN A THIRD WHITE	10,895	5.7%	60.3%	0.1%	0.8%	25.2%	47.5%	44.4%	13.2%	50.7%	45.9%
571	SCHOOLS WITH NO WHITES	11,428	.0%	99.9%	.0%	0.0%	0.1%	100.0%	46.6%	ERR	50.0%	46.6%

PERCENT OF RACE IN EACH GROUPING		WHITE	BLACK	AM IND	ASIAN	HISPANIC
	Two-thirds White	48.9%	1.5%	18.6%	24.5%	8.9%
	One-third White	41.7%	6.4%	58.1%	61.8%	28.0%
	Less than a third	8.8%	36.1%	14.0%	13.7%	61.6%
	No Whites	.0%	55.4%	7.0%	0.0%	0.3%

seven schools had more below or without scores than at normal rates, with Senn (70%) and Kelvyn Park (61%) the worst. Among schools less than a third White, only Metro (92%), CVS (85%), Westinghouse (85%), Dunbar (83%), and Lindbloom (81%) had high levels of students entering with normal reading rates.

Dropout Rates for White students did not vary significantly for schools more than two-thirds White and those between one-third and two-thirds White (33% and 34% respectively). Whites in schools with less than a third White entrants drop out more frequently (48%). However, rates at individual schools vary significantly within each group. Among the predominantly White schools, Bogan had only 11% of its White students drop out and Taft only 17%. At the same time, Kelly (57%) and Roosevelt (52%) had more Whites drop out than graduate. Among schools one-third White, four had 16% of their Whites drop out. Three schools, all with 40% or fewer Whites, had more than half the Whites drop out (Lakeview - 61%, Gage Park - 54%, and Kelvyn Park - 50%). The Dropout Rate for all students at these three schools was lower than that for Whites - which was also the case at Kelly and Roosevelt. For the 8 schools between 1% and 12% White, Dropout Rates for Whites were all over 50%; one (Lincoln Park) was at 90% and four above 75% (Wells, Orr, Juarez, and Tilden).

Minorities attending predominantly White schools do better than members of their race systemwide. The Black Dropout Rate at these schools was 40% (7% higher than for Whites), compared with 45% systemwide; Hispanics were at 39%, compared with 47% systemwide. Black Dropout Rates were lower (37%) at schools one-third White (versus White rates of 34%), but Hispanic rates increased to 40%. Among schools less than a third White, Dropout Rates for all these groups increased: Whites - 48%, Blacks - 44%, and Hispanics, 46%. Black and Hispanic rates were 47% and 50% at all minority schools. Thus, Hispanics and Blacks clearly do better at schools with at least a third White students. Black and Hispanic Dropout Rates were lowest at Prosser Vocational (15% and 19% respectively), lower than the White rate (28%) and the overall Dropout Rate (23%).

Whites ([illegible]) transferred out of the Chicago Public School system more than Blacks (7%) but less than Hispanics (14%). The overall Transfer Rate is 9%. Generally, as the proportion of Whites decreased, the Transfer Rate increased. For schools over two-thirds White, the Transfer Rate was 10%; for one-third White schools, 12%; for less than a third White, 14%. Among schools with more than 10% Whites, the highest Transfer Rates for Whites were at Sullivan (45% White, Transfer Rate 22%), Foreman (86% White, Transfer Rate 20%), Kenwood (19% White, Transfers 18%), and Wells (12% White, Transfers 17%). Lincoln Park (21%), Juarez (25%), Harrison (27%), and Orr (22%) had between 3% and 10% White entering students and high Transfer Rates among those few White students. Only Clemente (9%) had a low White Transfer Rate in this group. Hispanic Transfer Rates were generally higher than White Transfer Rates, particularly in schools more than a third White. Hispanic Transfer Rates were highest at Sullivan (32%), Von Steuben (30%), and Foreman (21%). Black Transfer Rates were generally lower than White rates.

B. BLACKS

Black students, like White students, overwhelmingly entered high school with members of their own race. Three-fourths (76%) went to schools in which the entering class was more than 95% Black. Another 15% went to majority Black schools; only 9% went to schools in which the entering class was not majority Black. In 6 of the 25 schools with less than a majority of Black entering students, Hispanics were the largest racial group; at the other 19, Whites predominated.

Dropout Rates were higher in all Black (46%) and majority Black (41%) schools than in schools with between 10% and 49% Blacks (36%). The Dropout Rate in schools with less than 10% entering Blacks was 40%. However, Dropout Rates varied significantly among all Black and majority Black schools. Some all Black schools had quite low Dropout Rates: Lindbloom Tech. (22%), Westinghouse (22%), CVS (27%), and Dunbar Vocational (28%). However, a majority of the all Black schools (15 of 28) had more students drop out than graduate. The worst Dropout Rates were at Crane (63%) and Austin (62%). Among the majority Black schools, Young (19%), Kenwood (19%), and Morgan Park (27%), had low Dropout Rates. Two schools, Farragut (55%) and Tilden (52%), had more drop out than graduated.

Surprisingly, overage statistics varied only moderately between all Black, majority Black, and minority Black schools (28%, 25%, and 20% respectively). But individual schools varied dramatically. All Black schools go from half of the entering class being overage (Robeson, 50%) to less than 5% overage (Lindbloom). Cregier Vocational and Englewood (both at 40%) also had very high proportions of overage entrants. CVS (10%), Dunbar Vocational (11%), Westinghouse Vocational (13%), Corliss (15%), Hyde Park (16%), Julian (18%), and Flower Vocational (19%) all had low numbers of overage entrants among the all Black schools. None of the majority Black schools had more than a third of entering students overage. Four had low proportions of overage entrants: Metro (4%), Young (8%), Kenwood (10%), and Gage Park (18%).

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DROP OUT STUDY OF CHICAGO PUBLIC SCHOOLS
School Level Data - Class of 1982
SIX YEAR TIME FRAME

STUDENT OUTCOMES
RANK ORDERED BY PERCENT BLACK

TABLE 14

RANK	UNIT #SCHOOL NAME	DIST	TYPE	ENTERING FRESHMEN	DROPOUT RATE	WHITE	BLACK	ASIAN	HISPANIC	OVER AGE	COMPLETED w/ ORIG SCH	PERCENT NORMAL SCORES	PERCENT w/o SCORES	PERCENT BELOW NORM SCORES
1	1850 Carver	20	Gen	616	48.4%	0.0%	100.0%	0.0%	0.0%	31.0%	83.6%	45.1%	8.4%	46.4%
2	1390 Hyde Park	14	Gen	724	37.6%	0.0%	100.0%	0.0%	0.0%	15.5%	84.7%	57.7%	6.4%	35.9%
3	1250 Calumet	16	Gen	752	53.4%	0.0%	100.0%	0.0%	0.0%	37.2%	80.6%	36.3%	7.8%	55.9%
4	1150 Simeon Voc	16	Voc	484	34.1%	0.0%	100.0%	0.0%	0.0%	20.2%	86.0%	75.8%	5.8%	13.4%
5	1380 Hirsch	17	Gen	359	45.7%	0.0%	100.0%	0.0%	0.0%	35.4%	77.7%	37.3%	6.7%	56.0%
6	1270 Crane	9	Gen	628	62.6%	0.0%	100.0%	0.0%	0.0%	[illegible]	82.0%	40.3%	9.2%	50.5%
7	1040 Flower Voc	7	Voc	200	42.6%	0.0%	100.0%	0.0%	0.0%	19.1%	69.0%	38.0%	9.0%	53.0%
8	1050 Near No. Career Magn	3	Voc	87	59.7%	0.0%	100.0%	0.0%	0.0%	30.4%	78.2%	27.6%	13.8%	58.6%
9	1280 DuSable	13	Gen	632	58.5%	0.0%	99.8%	0.0%	0.0%	36.8%	89.2%	27.7%	7.1%	65.2%
10	1870 Julian	18	Gen	573	32.5%	0.0%	99.8%	0.0%	0.2%	17.5%	89.2%	56.5%	5.9%	37.5%
11	1460 Manley	8	Gen	573	53.2%	0.0%	99.8%	0.0%	0.2%	36.4%	80.3%	19.7%	7.0%	73.3%
12	1360 Harper	15	Gen	457	53.6%	0.0%	99.8%	0.0%	0.2%	35.2%	74.8%	21.2%	7.0%	71.8%
13	1800 Collins	8	Gen	440	48.1%	0.0%	99.8%	0.0%	0.0%	33.4%	79.8%	26.1%	9.3%	64.5%
14	1160 Westinghouse Voc	7	Voc	433	22.1%	[illegible]	99.8%	0.0%	0.0%	13.0%	82.7%	85.0%	2.1%	12.9%
15	1350 Harlan	19	Gen	696	43.6%	0.1%	99.7%	0.0%	0.1%	26.3%	85.2%	38.4%	8.5%	53.2%
16	1860 Corliss	20	Gen	621	33.6%	0.0%	99.7%	0.0%	0.0%	15.3%	86.6%	55.7%	3.9%	40.4%
17	1030 Dunbar Voc	11	Voc	608	28.0%	0.0%	99.7%	0.0%	0.2%	11.3%	89.1%	82.9%	5.9%	11.2%
18	1220 Austin	7	Gen	802	62.1%	0.1%	99.7%	0.0%	0.2%	27.4%	69.5%	18.4%	9.9%	71.8%
19	1470 Marshall	9	Gen	546	57.3%	0.0%	99.6%	0.0%	0.0%	36.6%	77.7%	22.2%	9.5%	68.3%
20	1550 South Shore	17	[illegible]	723	53.3%	0.0%	99.6%	0.0%	0.1%	23.9%	83.8%	38.0%	10.7%	51.3%
21	1320 Robeson	16	Gen	[illegible]	57.4%	0.3%	99.5%	0.0%	0.0%	50.2%	84.5%	44.1%	7.4%	48.5%
22	1510 Phillips	11	Gen	858	57.4%	0.1%	99.5%	0.0%	0.3%	38.2%	85.5%	23.5%	5.9%	70.5%
23	1010 Chicago Voc.	11	Voc	1,031	27.1%	0.0%	99.5%	0.0%	0.5%	9.5%	87.4%	85.3%	4.8%	9.9%
24	1760 King,M.L.	14	Gen	454	50.2%	0.7%	99.3%	0.0%	0.0%	34.0%	83.5%	28.0%	9.9%	62.1%
25	1310 Fenger	20	Gen	558	56.3%	0.2%	99.1%	0.0%	0.7%	29.7%	86.2%	26.9%	10.8%	62.4%
26	1020 Cregier Voc	5	Voc	217	54.8%	0.9%	99.1%	0.0%	0.0%	40.3%	63.6%	32.7%	7.4%	59.9%
27	1680 Englewood	16	Gen	594	53.5%	0.0%	99.0%	0.0%	0.2%	40.2%	83.0%	34.8%	10.3%	54.9%
28	1450 Lindblom	15	Tech	616	22.0%	0.2%	95.8%	3.7%	0.3%	4.9%	82.1%	81.3%	17.0%	1.6%
29	1300 Farragut	10	Gen	569	55.3%	0.9%	76.4%	0.2%	22.5%	32.4%	79.3%	30.2%	9.5%	60.3%
30	1590 Tilden	13	Gen	563	51.8%	10.1%	75.7%	0.2%	13.9%	31.7%	86.0%	24.6%	8.5%	67.0%
31	1710 Kenwood	14	Gen	516	19.4%	17.8%	72.9%	2.7%	1.6%	9.5%	80.4%	70.3%	12.2%	17.4%
32	1830 Orr	5	Gen	589	48.0%	3.1%	69.1%	0.8%	25.5%	30.5%	74.9%	21.7%	11.4%	66.9%
33	1620 Lincoln Park	3	Gen	274	49.4%	8.8%	65.7%	0.7%	23.0%	28.9%	73.0%	36.5%	10.9%	52.6%
34	1800 Metro, Chicago	11	Gen	48	40.0%	25.0%	64.6%	0.0%	8.3%	4.2%	87.5%	91.7%	2.1%	6.3%
35	1490 Morgan Park	18	Gen	469	27.1%	[illegible]	63.1%	0.2%	0.6%	27.6%	92.5%	60.8%	4.7%	34.5%
36	1240 Bowen	19	Gen	773	47.7%	1.7%	58.7%	0.1%	38.7%	32.5%	87.8%	30.9%	17.6%	51.5%
37	1340 Cope Park	12	Gen	503	48.9%	38.9%	52.3%	0.8%	8.0%	18.3%	86.3%	40.8%	5.8%	53.5%
38	1810 Young	9	Gen	559	19.0%	27.5%	52.2%	5.5%	12.2%	7.9%	83.4%	63.1%	31.1%	5.7%
39	1370 Harrison +	8	Gen	322	47.3%	4.7%	37.3%	0.3%	57.1%	36.1%	81.1%	30.7%	16.5%	52.8%
40	1570 Sullivan	2	Gen	325	34.9%	43.7%	32.0%	9.5%	12.6%	[illegible]	84.0%	48.0%	17.5%	34.5%
41	1640 Wells	6	Gen	569	55.6%	12.1%	25.8%	0.0%	61.7%	34.9%	84.5%	30.8%	18.5%	50.8%
42	1820 Curie	12	Gen	735	29.0%	57.3%	25.7%	1.1%	15.4%	15.6%	91.0%	57.1%	18.2%	24.6%
43	1420 Kennedy	12	Gen	370	29.5%	73.2%	24.6%	0.0%	2.2%	16.8%	91.9%	69.5%	9.2%	21.4%
44	1110 Richards Voc	11	Voc	182	33.3%	26.4%	23.6%	0.0%	46.2%	19.8%	74.2%	56.0%	8.2%	35.7%
45	1610 Von Steuben	1	Gen	346	30.8%	46.5%	22.8%	12.7%	17.3%	22.3%	91.6%	52.6%	13.3%	34.1%
46	1070 Prosser Voc	4	Voc	306	22.9%	54.7%	22.0%	1.3%	21.2%	8.3%	88.1%	72.8%	24.4%	2.8%
47	1540 Senn	2	Gen	597	42.4%	36.0%	19.6%	21.7%	21.7%	32.7%	84.1%	29.8%	30.2%	40.0%
48	1560 Steinmetz	4	Gen	524	35.0%	76.1%	15.1%	4.0%	4.0%	18.5%	94.1%	57.9%	13.7%	28.8%
49	1440 Lane	3	Tech	882	15.9%	64.9%	12.1%	11.9%	10.8%	2.7%	90.2%	96.6%	3.2%	0.2%
50	1430 Lakeview	3	Gen	452	52.1%	40.3%	11.1%	6.0%	41.2%	26.4%	83.6%	43.6%	17.0%	39.4%
51	1840 Clemente	6	Gen	1,067	56.1%	7.3%	10.8%	0.6%	81.1%	30.6%	88.9%	26.3%	14.6%	59.0%
52	1480 Mather	2	Gen	382	21.9%	74.3%	10.2%	11.5%	2.9%	14.9%	93.2%	71.2%	14.1%	14.7%
53	1580 Taft	1	Gen	509	18.2%	91.0%	6.7%	0.5%	1.8%	8.5%	95.5%	79.0%	10.0%	11.0%
54	1520 Roosevelt	1	Gen	435	50.4%	67.8%	6.4%	9.2%	15.4%	20.9%	89.0%	52.2%	16.6%	31.3%
55	1210 Amundsen	2	Gen	398	45.7%	74.9%	4.0%	7.5%	10.6%	26.4%	89.7%	43.2%	21.4%	35.4%
56	1530 Schurz	4	Gen	940	48.9%	61.3%	3.7%	2.7%	30.6%	23.8%	90.3%	51.6%	10.7%	37.7%
57	1670 Hubbard	15	Gen	341	40.4%	85.3%	2.9%	1.2%	9.7%	22.6%	93.5%	68.0%	11.1%	20.8%
58	1890 Juarez	8	Gen	508	50.9%	4.7%	1.8%	0.0%	92.1%	46.8%	93.3%	25.0%	35.0%	40.0%
59	1410 Kelvyn Park	5	Gen	347	41.4%	34.0%	1.2%	1.7%	62.8%	30.3%	88.2%	39.2%	17.6%	43.2%
60	1330 Foreman	4	Gen	311	37.6%	85.5%	1.0%	0.6%	12.2%	22.5%	92.3%	56.9%	13.8%	29.3%
61	1630 Washington	20	Gen	369	23.5%	83.5%	0.3%	0.8%	13.8%	19.8%	97.8%	71.0%	8.7%	20.3%
62	1400 Kelly	8	Gen	416	52.6%	73.1%	0.0%	1.0%	26.0%	22.4%	94.2%	49.8%	22.3%	26.9%
63	1230 Bogan	15	Gen	300	10.8%	95.7%	0.0%	0.3%	3.7%	19.3%	96.7%	82.7%	9.7%	7.7%
	SYSTEMWIDE TOTALS			3,142	42.8%	21.4%	62.6%	1.9%	13.5%	25.5%	85.0%	47.1%	11.6%	41.3%
	SCHOOLS 95% BLACK			16,020	46.4%	0.1%	[illegible]	0.1%	0.1%	27.5%	82.6%	44.4%	7.9%	47.6%
	SCHOOLS 50% - 94% BLACK			4,063	41.1%	15.1%	65.0%	1.2%	17.3%	24.5%	83.2%	41.7%	12.8%	45.5%
	SCHOOLS 10% - 49% BLACK			7,139	36.9%	43.0%	19.1%	5.9%	31.3%	21.4%	88.1%	52.6%	15.5%	32.0%
	SCHOOLS LESS THAN 10% BLACK			4,874	39.8%	66.3%	2.9%	2.4%	27.4%	24.1%	92.5%	54.9%	16.1%	29.0%
	SPECIAL SCHOOLS TOTALS			159	65.3%	6.9%	61.0%	0.0%	30.2%	71.8%	22.6%	3.8%	22.6%	73.6%

95% Black	0.2%	76.9%	9.1%	3.7%
50% Black	10.4%	15.2%	9.1%	9.7%
10% Black	43.2%	6.6%	51.5%	67.6%
Less	[illegible]	0.7%	27.3%	19.0%

Transfers within the Chicago system were much more common in all Black and majority Black schools (18%) than in schools with few (12%) or no Blacks (7%). At some schools, nearly one of three students transferred to another Chicago Public School: Cregier Vocational (36%), Flower Vocational (31%), and Austin (30%). On the other hand, some majority Black schools had relatively few transfers: Morgan Park (7%), Julian (10%), and Dunbar Vocational (10%).

All Black (56%) and majority Black (50%) schools received more than half their students with below normal or missing reading scores. At schools in which Blacks were a minority, this rate fell to 47%; and in schools with less than 10% Black, the rate was 45%. However, within these groups, schools varied widely. Among the all Black and majority Black schools, Metro received 92% reading at or above normal rates, and CVS (85%), Westinghouse Vocational (85%), Dunbar Vocational (83%), and Lindbloom (81%) also did well. But seven schools had more than three-fourths of their students reading below normal levels or missing scores: Austin (82%), Manley (80%), Harper (79%), Orr (78%), Marshall (78%), Phillips (77%), and Tilden (75%).

Thus, the picture that emerges is that there are two, quite different, types of all Black or majority Black schools. Some received well prepared students, few of whom were overage (Metro, CVS, Westinghouse Vocational, Dunbar Vocational, Lindbloom Tech.). Close behind were schools like Simeon Vocational (76% normal or above but only 20% overage) and Kenwood (70% normal, 10% overage). Except for Metro (60%) and Simeon (66%), all of these schools graduated more than 70% of their students. Quite different were schools like Austin, Manley, Harper, Orr, Marshall, Phillips and Tilden, all of which received more than three-fourths of their students unprepared for high school level work. 19 other schools had less than half their entering students reading at normal or above rates. Thus 26 of 38 all Black or majority Black schools started out with a majority of their students unprepared for high school work, and with more than half of these students already overage. Five other schools (Young - 63%, Morgan Park - 61%, Hyde Park - 58%, Julian - 56%, and Corliss - 56%) had between half and two-thirds of their students adequately prepared. Among the 25 schools in which Blacks were a minority, only 10 have more than half their students enter with below normal or missing scores, and five of these schools had large Hispanic populations. Six of the 25 have more than 70% at or above normal reading scores.

Black Dropout Rates were highest in all Black schools (46%) and in schools with virtually no Blacks (47%). Only small differences existed in majority Black and minority Black schools (41% vs. 39%). But, as already noted, Dropout Rates

RANK ORDER BY PERCENT BLACK

TABLE 15

DROP OUT STUDY-CHICAGO PUBLIC SCHOOLS
School Level Data - Class of 1982
SIX YEAR TIME FRAME

RANK	SCHOOL NAME	DIST	TYPE	ENTERING FRESHMEN	WHITE ENROLLED	BLACK ENROLLED	ASIAN ENROLLED	HISPANIC ENROLLED	WHITE DROPOUT RATE	BLACK DROPOUT RATE	ASIAN DROPOUT RATE	HISPANIC DROPOUT RATE	OVERALL DROPOUT RATE
1	Crane	9	Gen	587	0.0%	100.0%	0.0%	0.0%	ERR	62.6%	ERR	ERR	62.6%
2	Near 'b. Career Mbgn	3	Voc	86	0.0%	100.0%	0.0%	0.0%	ERR	59.7%	ERR	ERR	59.7%
3	DuSable	13	Gen	627	0.0%	100.0%	0.0%	0.0%	ERR	58.4%	ERR	ERR	58.4%
4	Calumet	16	Gen	749	0.0%	100.0%	0.0%	0.0%	ERR	53.4%	ERR	ERR	53.4%
5	Carver	20	Gen	613	0.0%	100.0%	0.0%	0.0%	ERR	48.4%	ERR	ERR	48.4%
6	Collins	8	Gen	439	0.0%	100.0%	0.0%	0.0%	ERR	48.1%	ERR	ERR	48.1%
7	Hirsh	17	Gen	359	0.0%	100.0%	0.0%	0.0%	ERR	45.7%	ERR	ERR	45.7%
8	Flower Voc	7	Voc	199	0.0%	100.0%	0.0%	0.0%	ERR	42.6%	ERR	ERR	42.6%
9	Hyde Park	14	Gen	722	0.0%	100.0%	0.0%	0.0%	ERR	37.6%		ERR	37.6%
10	Simeon Voc	16	Voc	484	0.0%	100.0%	0.0%	0.0%	ERR	34.1%		ERR	34.1%
11	Corliss	20	Gen	613	0.0%	99.8%	0.0%	0.0%	ERR	33.5%	ERR	ERR	33.5%
12	Dunbar Voc	11	Voc	607	0.0%	99.8%	0.0%	0.2%	ERR	28.0%	ERR	0.0%	27.9%
13	Englewood	16	Gen	580	0.0%	99.8%	0.0%	0.2%	ERR	53.0%	ERR	100.0%	53.1%
14	Julian	18	Gen	572	0.0%	99.8%	0.0%	0.2%	ERR	32.5%	ERR	0.0%	32.5%
15	Manley	8	Gen	568	0.0%	99.8%	0.0%	0.2%	ERR	53.2%	ERR	ERR	53.2%
16	Marshall	9	Gen	542	0.0%	99.8%	0.0%	0.0%	ERR	57.2%	ERR	ERR	57.3%
17	Harper	15	Gen	455	0.0%	99.8%	0.0%	0.2%	ERR	53.5%	ERR	100.0%	53.6%
18	Westinghouse Voc	7	Voc	431	0.2%	99.8%	0.0%	0.0%	0.0%	22.2%	ERR	ERR	22.1%
19	South Shore	17	Gen	719	0.2%	99.7%	0.0%	0.1%	ERR	53.2%	ERR	0.0%	53.2%
20	Harlan	19	Gen	692	0.1%	99.7%	0.0%	0.1%	0.0%	43.5%	ERR	100.0%	43.6%
21	Robeson	16	Gen	653	0.3%	99.7%	0.0%	0.0%	ERR	57.3%	ERR	ERR	57.3%
22	Austin	7	Gen	878	0.1%	99.7%	0.0%	0.2%	100.0%	62.0%	ERR	100.0%	62.1%
23	Phillips	11	Gen	849	0.1%	99.6%	0.0%	0.2%	100.0%	57.4%	ERR	50.0%	57.4%
24	Chicago Voc.	11	Voc	1,029	0.0%	99.5%	0.0%	0.5%	ERR	27.1%	ERR	40.0%	27.1%
25	King,M.L.	14	Gen	453	0.7%	99.3%	0.0%	0.0%	0.0%	50.6%	ERR	ERR	50.2%
26	Fenger	20	Gen	558	0.2%	99.1%	0.0%	0.7%	0.0%	56.2%	ERR	100.0%	56.3%
27	Cregier Voc	9	Voc	216	0.9%	99.1%	0.0%	0.0%	0.0%	55.3%	ERR	ERR	54.8%
28	Lindblom	15	Tech	614	0.2%	95.8%	3.7%	0.3%	0.0%	22.0%	19.0%	100.0%	22.0%
29	Kenwood	14	Gen	489	18.6%	76.9%	2.9%	1.6%	6.7%	22.2%	16.7%	0.0%	18.9%
30	Farragut	10	Gen	564	0.9%	76.2%	0.2%	22.7%	50.0%	53.6%	0.0%	61.7%	55.3%
31	Tilden	13	Gen	559	10.2%	75.7%	0.2%	14.0%	77.1%	48.0%	100.0%	54.7%	51.7%
32	Orr	5	Gen	577	3.1%	70.0%	0.9%	26.0%	78.6%	44.4%	33.3%	52.0%	47.3%
33	Lincoln Park	3	Gen	270	8.9%	66.3%	0.7%	23.3%	89.5%	45.0%	0.0%	54.0%	49.2%
34	Metro, Chicago	11	Gen	48	25.0%	64.6%	0.0%	8.3%	36.4%	41.4%	ERR	25.0%	40.0%
35	Morgan Park	18	Gen	464	35.8%	63.7%	0.2%	0.6%	23.5%	28.4%	0.0%	66.7%	26.9%
36	Bowen	19	Gen	764	1.7%	59.3%	0.1%	38.9%	61.5%	52.4%	0.0%	39.8%	47.7%
37	Young	9	Gen	543	28.4%	53.4%	5.7%	12.5%	27.0%	14.7%	3.4%	23.8%	18.6%
38	Gage Park	12	Gen	501	38.9%	52.3%	0.8%	8.0%	54.1%	47.0%	25.0%	37.8%	48.7%
39	Harrison +	8	Gen	319	4.7%	37.6%	0.3%	57.4%	54.5%	41.1%	ERR	51.0%	47.1%
40	Sullivan	2	Gen	319	44.5%	32.6%	9.7%	12.9%	35.1%	43.5%	12.5%	28.6%	34.9%
41	Wells	6	Gen	568	12.1%	25.9%	0.0%	61.6%	78.9%	47.7%	ERR	54.9%	55.6%
42	Curie	12	Gen	728	57.6%	25.8%	1.1%	15.4%	22.9%	35.4%	14.3%	43.8%	2[illegible].1%
43	Kennedy	12	Gen	570	73.2%	24.6%	0.0%	2.2%	25.2%	41.7%	ERR	37.5%	29.5%
44	Richards Voc	11	Voc	175	27.4%	24.6%	0.0%	48.0%	42.2%	26.8%	ERR	29.9%	32.5%
45	Von Steuben	1	Gen	343	46.6%	23.0%	12.0%	17.5%	30.9%	34.7%	21.2%	31.0%	30.8%
46	Prosser Voc	4	Voc	386	54.7%	22.0%	1.3%	21.2%	27.5%	15.4%	0.0%	19.2%	22.9%
47	Senn	2	Gen	593	35.6%	19.4%	21.4%	21.4%	42.3%	50.5%	38.5%	37.2%	42.3%
48	Steinmetz	4	Gen	519	76.7%	15.2%	4.0%	4.0%	36.0%	34.2%	16.7%	33.3%	34.8%
49	Lane	3	Tech	881	64.9%	12.1%	11.9%	10.8%	1 6%	21.2%	3.3%	25.3%	15.9%
50	Lakeview	3	Gen	448	40.4%	11.2%	6.0%	41.5%	60.5%	59.0%	33.3%	44.4%	[illegible]
51	Clemente	6	Gen	1,056	7.4%	10.8%	0.6%	81.2%	66.2%	55.1%	16.7%	55.7%	56.1%
52	Mather	2	Gen	378	75.1%	10.3%	11.6%	2.9%	21.5%	38.9%	9.8%	22.2%	21.9%
53	Taft	1	Gen	508	90.9%	6.7%	0.6%	1.8%	17.1%	31.3%	0.0%	33.3%	18.2%
54	Roosevelt	1	Gen	432	68.3%	6.5%	9.3%	15.5%	51.6%	57.1%	22.6%	54.5%	50.1%
55	Amundsen	2	Gen	388	76.5%	4.1%	7.7%	10.0%	47.9%	61.5%	30.8%	29.4%	45.7%
56	Schurz	4	Gen	921	62.4%	3.8%	2.7%	31.1%	48.4%	58.1%	13.0%	50.2%	48.3%
57	Hubbard	15	Gen	339	85.8%	2.9%	1.2%	9.7%	39.4%	33.3%	50.0%	50.0%	40.3%
58	Juarez	8	Gen	497	4.8%	1.6%	0.0%	93.6%	77.0%	28.6%	ERR	49.4%	50.2%
59	Kelvyn Park	5	Gen	346	33.8%	1.2%	1.7%	63.0%	50.0%	66.7%	16.7%	41.7%	44.4%
60	Foreman	4	Gen	310	85.8%	1.0%	0.6%	12.3%	37.4%	0.0%	0.0%	46.7%	37.0%
61	Washington	20	Gen	364	84.6%	0.3%	0.8%	14.0%	22.6%	0.0%	33.3%	24.0%	23.1%
62	Bogan	15	Gen	299	96.0%	0.0%	0.3%	3.7%	10.9%	ERR	0.0%	9.1%	10.0%
63	Kelly	8	Gen	412	73.3%	0.0%	1.0%	25.7%	56.6%	ERR	25.0%	40.7%	52.6%
	SYSTEMWIDE TOTALS			32,810	21.6%	62.8%	1.9%	13.6%	34.6%	45.1%	19.4%	46.9%	42.7%
AVE CLASS													
567	SCHOOLS 95+% BLACK			15,894	0.1%	99.6%	0.1%	0.1%	18.2%	46.4%	19.0%	61.1%	46.4%
[illegible]	SCHOOLS 50% - 94% BLACK			4,779	15.4%	65.7%	1.3%	17.6%	38.0%	40.7%	11.1%	46.0%	41.0%
505	SCHOOLS 10% - 49% BLACK			7,083	43.2%	19.2%	5.9%	31.3%	30.7%	39.2%	19.0%	47.3%	36.9%
437	SCHOOLS LESS THAN 10% BLACK			4,816	66.9%	2.9%	2.5%	27.5%	37.3%	46.5%	22.3%	45.6%	39.5%

PERCENT OF RACE IN EACH GROUPING		WHITE	BLACK	ASIAN	HISPANIC
	95+% Black	0.2%	76.0%	3.7%	0.5%
	50% - 94% Black	10.4%	15.2%	9.7%	18.8%
	10% - 49% Black	43.2%	6.6%	67.6%	49.7%
	Under 10% Black	45.5%	0.7%	19.0%	29.8%

among individual all Black schools and majority Black schools varied significantly. At the all Black schools, the overall Dropout Rate and the Dropout Rate for Blacks was obviously identical. Thus, Lindbloom (22%), Westinghouse Vocational (22%), CVS (27%), and Dunbar Vocational (28%) all have low rates. Fifteen schools had more Dropouts than Graduates. However, in majority Black schools, Black and Overall Dropout Rates diverged. In most of these schools, Black Dropout Rates were lower than the overall rates when Hispanics, rather than Whites, were the next largest group. When Whites were the next largest group, Black rates were usually higher than the overall rates. However, at Bowen (59% Black, 39% Hispanic) the Dropout Rate for Blacks was 12 points higher than for Hispanics (52% vs. 40%). In the aggregate, White Dropout Rates were two points lower than Black rates, but at half the schools, Black rates were lower than White rates, often by a large margin (e.g., Tilden by 29 points, Lincoln Park by 46 points, and Gage Park by 7 percentage points). In schools in which Blacks were a minority, Blacks generally do better than the systemwide average (45% for Blacks), and quite well at Prosser Vocational (15%) and Lane (21%). In schools with less than 10% Black entrants, Dropout rates varied from 29% (Juarez) to 67% (Kelvyn Park).

The Transfer Rate (out of the Chicago system) was quite low (7%) in all Black schools, but Robeson (16%) stands out from the rest. Among majority Black schools, only Kenwood had a high Black Transfer Rate (14%). But Whites and Hispanics had high rates at a number of these schools: Orr (White - 22%, Hispanic - 17%), Lincoln Park (White - 21%, Hispanic - 21%), Kenwood (White - 18%, Hispanic - 15%), and Tilden (White - 16%, Hispanic - 18%). Black Transfer Rates in minority Black schools were high only at Lakeview (22%) and Sullivan (18%, but White - 22%, and Hispanic - 32%, rates were even higher).

C. Hispanics

Half of all Hispanic students went to school in the five schools which were majority Hispanic in the 1978 entering freshman class. A fourth went to schools between 25% and 49% Hispanic, and a fourth went to schools whose entering classes were 5% to 24% Hispanic. Thus, Hispanics attended school with members of other racial groups more than either Whites or Blacks. 98% of all Hispanics were enrolled in only 28 of the system's 63 regular high schools.

The Dropout Rate progressively declined with the declining concentration of Hispanic students. More than half (53%) of all students attending majority Hispanic schools dropped out, while just under half (48%) of students in schools more than 25% Hispanic did. Only 36% dropped out from schools 5% to 24% Hispanic; but schools with less than 5% Hispanic, which

DROP OUT STUDY OF CHICAGO PUBLIC SCHOOLS
School Level Data - Class of 1982
SIX YEAR TIME FRAME

STUDENT OUTCOMES
RANK ORDERED BY PERCENT HISPANIC

TABLE 16

RANK	UNIT #SCHOOL NAME	DIST	TYPE	ENTERING FRESHMEN	DROPOUT RATE	WHITE	BLACK	ASIAN	HISPANIC	OVER AGE	COMPLETED W/ ORIG SCH	PERCENT NORMAL SCORES	PERCENT W/O SCORES	PERCENT BELOW NORM SCORES
1	1890 Juarez	8	Gen	508	50.9%	4.7%	1.8%	0.0%	92.1%	46.8%	93.3%	25.0%	35.0%	40.0%
2	1810 Clemente	6	Gen	1,067	56.1%	7.3%	10.8%	0.6%	81.1%	30.6%	88.9%	26.3%	14.6%	59.0%
3	1410 Kelvyn Park	5	Gen	347	44.4%	34.0%	1.2%	1.7%	62.8%	30.3%	88.2%	39.2%	17.6%	43.2%
4	1640 Wells	6	Gen	569	55.6%	12.1%	25.8%	0.0%	61.7%	34.9%	84.5%	30.0%	18.5%	50.0%
5	1370 Harrison *	8	Gen	322	47.3%	4.7%	37.3%	0.3%	57.1%	36.1%	81.1%	30.7%	16.5%	52.8%
6	1110 Richards Voc	11	Voc	182	33.3%	26.4%	23.6%	0.0%	46.2%	19.8%	74.2%	56.0%	8.2%	35.7%
7	1430 Lakeview	3	Gen	452	52.1%	40.3%	11.1%	6.0%	41.2%	26.4%	83.6%	43.6%	17.0%	39.4%
8	1240 Bowen	19	Gen	773	47.7%	1.7%	58.7%	0.1%	38.7%	32.5%	87.8%	30.9%	17.6%	51.5%
9	1530 Schurz	4	Gen	940	48.9%	61.3%	3.7%	2.7%	30.6%	23.8%	90.3%	51.6%	10.7%	37.7%
10	1400 Kelly	8	Gen	416	52.6%	73.1%	0.0%	1.0%	26.0%	22.4%	94.2%	49.8%	23.3%	26.9%
11	1830 Orr	5	Gen	509	48.0%	3.1%	69.1%	0.0%	25.5%	30.5%	74.9%	21.7%	11.4%	66.9%
12	1620 Lincoln Park	3	Gen	274	49.4%	8.0%	65.7%	0.7%	23.0%	28.9%	77.0%	36.5%	10.9%	52.6%
13	1300 Farragut	10	Gen	569	55.3%	0.9%	76.4%	0.2%	22.5%	32.4%	79.3%	30.2%	9.5%	60.3%
14	1540 Senn	2	Gen	597	42.4%	36.0%	19.6%	21.7%	21.7%	32.7%	84.1%	29.8%	30.2%	40.0%
15	1070 Prosser Voc	4	Voc	306	22.9%	54.7%	22.0%	1.3%	21.2%	8.3%	88.1%	72.8%	24.4%	2.8%
16	1610 Von Steuben	1	Gen	346	30.8%	46.5%	22.8%	12.7%	17.3%	22.3%	91.6%	52.6%	13.3%	34.1%
17	1520 Roosevelt	1	Gen	435	50.4%	67.8%	6.4%	9.2%	15.4%	20.9%	89.0%	52.2%	16.6%	31.3%
18	1820 Curie	12	Gen	735	29.0%	57.3%	25.7%	1.1%	15.4%	15.6%	91.0%	57.1%	18.2%	24.6%
19	1590 Tilden	13	Gen	563	51.0%	10.1%	75.7%	0.2%	13.9%	31.7%	86.0%	24.6%	8.5%	67.0%
20	1630 Washington	20	Gen	369	23.5%	83.5%	0.3%	0.8%	13.8%	19.8%	97.8%	71.0%	8.7%	20.3%
21	1570 Sullivan	2	Gen	325	34.9%	43.7%	32.0%	9.5%	12.6%	22.5%	84.0%	48.0%	17.5%	34.5%
22	1330 Foreman	4	Gen	311	37.6%	85.5%	1.0%	0.6%	12.2%	22.5%	92.3%	56.9%	13.8%	29.3%
23	1810 Young	9	Gen	559	19.0%	27.5%	52.2%	5.5%	12.2%	7.9%	83.4%	63.1%	31.1%	5.7%
24	1440 Lane	3	Tech	882	15.9%	64.9%	12.1%	11.9%	10.8%	2.7%	90.2%	96.6%	3.2%	0.2%
25	1210 Amundsen	2	Gen	398	45.7%	74.9%	4.0%	7.5%	10.6%	26.4%	89.7%	43.2%	21.4%	35.4%
26	1670 Hubbard	15	Gen	341	40.4%	85.3%	2.9%	1.2%	9.7%	22.6%	93.5%	68.0%	11.1%	20.8%
27	1800 Metro, Chicago	11	Gen	48	40.0%	25.0%	64.6%	0.0%	8.3%	4.2%	87.5%	91.7%	2.1%	6.3%
28	1340 Gage Park	12	Gen	503	48.9%	38.9%	52.3%	0.8%	8.0%	18.3%	86.3%	40.8%	5.8%	53.5%
29	1560 Steinmetz	4	Gen	524	35.0%	76.1%	15.1%	4.0%	4.0%	18.5%	94.1%	57.4%	13.7%	28.8%
30	1230 Bogan	15	Gen	300	10.0%	95.7%	0.0%	0.3%	3.7%	19.3%	96.7%	82.7%	9.7%	7.7%
31	1480 Mather	2	Gen	382	21.9%	74.3%	10.2%	11.5%	2.9%	14.9%	93.2%	71.2%	14.1%	14.7%
32	1420 Kennedy	12	Gen	370	29.5%	73.2%	24.6%	0.0%	2.2%	16.8%	91.9%	69.5%	9.2%	21.4%
33	1580 Taft	1	Gen	509	18.2%	91.0%	6.7%	0.6%	1.3%	8.5%	95.9%	79.0%	10.0%	11.0%
34	1710 Kenwood	14	Gen	516	19.4%	17.8%	72.9%	2.7%	1.6%	9.5%	80.4%	70.3%	12.2%	17.4%
35	1310 Fenger	20	Gen	558	56.3%	0.2%	99.1%	0.0%	0.7%	29.7%	86.2%	26.9%	10.8%	62.4%
36	1490 Morgan Park	18	Gen	469	27.1%	35.4%	63.1%	0.2%	0.6%	27.6%	92.5%	60.0%	4.7%	34.5%
37	1010 Chicago Voc.	11	Voc	1,031	27.1%	0.0%	99.5%	0.0%	0.5%	9.5%	87.4%	85.3%	4.8%	9.9%
38	1510 Phillips	11	Gen	858	57.4%	0.1%	99.5%	0.0%	0.3%	38.2%	85.5%	23.5%	5.9%	70.5%
39	1450 Lindblom	15	Tech	616	22.0%	0.2%	95.8%	3.7%	0.3%	4.9%	82.1%	81.3%	17.0%	1.6%
40	1220 Austin	7	Gen	802	62.1%	0.1%	99.7%	0.0%	0.2%	27.4%	69.5%	18.4%	9.9%	71.8%
41	1360 Harper	15	Gen	457	53.6%	0.0%	99.8%	0.0%	0.2%	35.2%	74.8%	21.2%	7.0%	71.8%
42	1760 Manley	8	Gen	573	53.2%	0.0%	99.8%	0.0%	0.2%	36.4%	80.3%	19.7%	[illegible]	73.3%
43	1670 Julian	16	Gen	573	32.5%	0.0%	99.8%	0.0%	0.2%	17.5%	89.2%	56.5%	5.9%	37.5%
44	1680 Englewood	16	Gen	594	53.5%	0.0%	99.0%	0.0%	0.2%	40.2%	83.0%	34.8%	10.3%	54.9%
45	1030 Dunbar Voc	11	Voc	603	20.0%	0.0%	99.7%	0.0%	0.2%	11.3%	89.1%	82.9%	5.9%	11.2%
46	1350 Harlan	19	Gen	696	43.6%	0.1%	99.7%	0.0%	0.1%	26.3%	85.2%	38.4%	8.5%	53.2%
47	1550 South Shore	17	Gen	723	53.3%	0.0%	99.6%	0.0%	0.1%	23.9%	83.8%	38.0%	10.7%	51.3%
48	1050 Near No. Career Met.	3	Voc	87	59.7%	0.0%	100.0%	0.0%	0.0%	38.4%	78.2%	27.6%	13.8%	58.6%
49	1300 Hirsch	17	Gen	359	45.7%	0.0%	100.0%	0.0%	0.0%	35.4%	77.7%	37.3%	6.7%	56.0%
50	1050 Carver	20	Gen	616	48.4%	0.0%	100.0%	0.0%	0.0%	31.0%	83.6%	45.1%	8.4%	46.4%
51	1040 Flower Voc	7	Voc	200	42.6%	0.0%	100.0%	0.0%	0.0%	19.1%	69.0%	38.0%	9.0%	53.0%
52	1150 Simeon Voc	16	Voc	484	34.1%	0.0%	100.0%	0.0%	0.0%	20.2%	86.0%	75.8%	5.8%	18.4%
53	1760 King, M.L.	14	Gen	454	50.2%	0.7%	99.3%	0.0%	0.0%	34.0%	83.5%	28.0%	9.9%	62.1%
54	1250 Calumet	16	Gen	752	53.4%	0.0%	100.0%	0.0%	0.0%	37.2%	80.6%	36.3%	7.8%	55.9%
55	1280 DuSable	13	Gen	632	58.5%	0.0%	99.8%	0.0%	0.0%	36.8%	89.2%	27.7%	7.1%	65.2%
56	1160 Westinghouse Voc	7	Voc	433	22.1%	0.2%	99.0%	0.0%	0.0%	13.0%	82.7%	85.0%	2.1%	12.9%
57	1860 Corliss	20	Gen	621	33.6%	0.0%	99.7%	0.0%	0.0%	15.3%	86.6%	55.7%	3.9%	40.4%
58	1880 Collins	8	Gen	440	48.1%	0.0%	99.8%	0.0%	0.0%	33.4%	79.0%	26.1%	9.3%	64.5%
59	1470 Marshall	9	Gen	546	57.3%	0.0%	99.6%	0.0%	0.0%	36.6%	77.7%	22.2%	9.5%	68.3%
60	1270 Crane	9	Gen	628	62.6%	0.0%	100.0%	0.0%	0.0%	37.6%	82.0%	40.3%	9.2%	50.5%
61	1320 Robeson	16	Gen	658	57.4%	0.3%	99.5%	0.0%	0.0%	50.2%	84.5%	44.1%	7.4%	48.5%
62	1390 Hyde Park	14	Gen	724	37.6%	0.0%	100.0%	0.0%	0.0%	15.5%	87.7%	57.7%	6.4%	35.9%
63	1020 Cregier Voc	9	Voc	217	54.8%	0.9%	99.1%	0.0%	0.0%	40.3%	63.6%	32.7%	7.4%	59.9%
	SYSTEMWIDE TOTALS			33,142	42.8%	21.4%	62.6%	1.9%	13.5%	25.5%	85.0%	47.1%	11.6%	41.3%
	SCHOOLS 50% HISPANIC			2,013	52.7%	10.8%	14.0%	0.5%	74.2%	35.0%	87.0%	29.1%	19.7%	51.3%
	SCHOOLS 25% - 49% HISPANIC			3,352	48.4%	34.0%	29.5%	1.9%	33.3%	26.9%	85.7%	40.5%	14.7%	44.8%
	SCHOOLS 5% - 24% HISPANIC			7,641	36.2%	47.5%	31.0%	5.7%	14.8%	19.8%	87.5%	54.3%	15.0%	30.7%
	SCHOOLS LESS THAN 5% HISPANIC			19,090	42.8%	10.3%	88.3%	0.6%	0.5%	25.7%	84.1%	48.4%	8.4%	43.2%
	SPECIAL SCHOOLS TOTALS			159	65.3%	6.9%	61.0%	0.0%	30.2%	71.0%	22.6%	3.8%	22.6%	73.6%

50% Hispanic	4.3%	1.9%	12.1%	2.1%
25% Hispanic	16.0%	4.0%	12.1%	10.0%
5% Hispanic	51.1%	11.4%	63.6%	70.6%
Less	0.0%	81.3%	9.1%	17.3%

enrolled 58% of all students in the system, equalled the systemwide Dropout Rate of 43%. Among the five majority Hispanic schools, three (Clemente - 56%, Wells - 56%, and Juarez - 51%) had more Dropouts than Graduates. Harrison (47%) and Kelvyn Park (44%) did slightly better. Among the six schools with sizable Hispanic minorities, two (Kelly - 53%, and Lakeview - 52%) had more Dropouts than Graduates. Richards Vocational, however, had a significantly lower Dropout Rate of 33%. Two of these schools were majority White (Schurz and Kelly), two majority Black (Orr and Bowen) and two mixed but with more Hispanics than others (Richards Vocational and Lakeview). Only two of the 17 schools between 5% and 24% Hispanic had Dropout Rates over 50% (Farragut - 55%, and Tilden - 52%). Lane (15%), Young (19%), and Prosser (23%) had low Dropout Rates. Six of these schools were majority Black, eight were majority White, and three were mixed.

Schools over 50% Hispanic had the highest proportion of overage entering students in the system, 35%. Schools with only 5-24% Hispanics had the lowest figure (20%), while schools with significant Hispanic minorities and schools without Hispanics were close to the systemwide average of 26%. Juarez led all Hispanic schools with 47% entering overage (second systemwide only to Robeson), and none of the majority Hispanic schools received less than 30% overage.

Hispanic schools varied in their retention of their originally entering students. Juarez had a high transfer rate for students leaving the system (14%), but had only 7% transfer to another Chicago school. At the other extreme, Harrison had 15% transfer out of the system and 19% transfer to other Chicago schools. Richards Vocational had only 8% leave the system, but 26% transfer to other Chicago schools, which looks suspiciously like students are being pushed out of Richards into the general high schools. Orr also had about 25% transfer to other Chicago schools.

Majority Hispanic schools received 71% of their students with below normal reading scores or without scores. It must be remembered that students in level A of Bilingual education programs are not tested for English reading proficiency. 60% of students in heavily minority Hispanic schools are in the same category. Juarez received only 25% of its students with normal reading scores; 40% were below normal and 35% had no recorded scores. Clemente received only 26% with normal scores (59% were below normal, 15% without scores). By comparison, Kelvyn Park looked good at only 61% below or missing, but that figure was close to the proportion of entering students who were Hispanic (63%); 43% were reading below normal and 18% were without scores. Among the minority Hispanic schools, Richards Vocational had only 44% below normal or missing scores, but Orr had 78%, though only 26% of

DROP OUT STUDY-CHICAGO PUBLIC SCHOOLS RANK ORDER BY PERCENT HISPANIC TABLE 17
School Level Data - Class of 1982
SIX YEAR TIME FRAME

RANK	SCHOOL NAME	DIST	TYPE	ENTERING FRESHMEN	WHITE ENROLLED	BLACK ENROLLED	ASIAN ENROLLED	HISPANIC ENROLLED	WHITE DROPOUT RATE	BLACK DROPOUT RATE	ASIAN DROPOUT RATE	HISPANIC DROPOUT RATE	OVERALL DROPOUT RATE
1	Juarez	8	Gen	497	4.8%	1.6%	0.0%	93.6%	77.0%	28.6%	ERR	49.4%	50.2%
2	Clemente	6	Gen	1,056	7.4%	10.8%	0.6%	81.2%	66.2%	55.1%	16.7%	55.7%	56.1%
3	Kelvyn Park	5	Gen	346	33.8%	1.2%	1.7%	63.0%	50.0%	66.7%	16.7%	41.7%	44.4%
4	Wells	6	Gen	568	12.1%	25.9%	0.0%	61.6%	78.9%	47.7%	ERR	54.0%	55.6%
5	Harrison +	8	Gen	319	4.7%	37.6%	0.3%	57.4%	54.5%	41.1%	ERR	51.0%	47.1%
6	Richards Voc	11	Voc	175	27.4%	24.6%	0.0%	48.0%	42.2%	26.8%	ERR	29.9%	32.5%
7	Lakeview	3	Gen	448	40.4%	11.2%	6.0%	41.5%	60.5%	59.0%	33.3%	44.4%	52.1%
8	Bowen	19	Gen	764	1.7%	59.3%	0.1%	38.9%	61.5%	52.4%	0.0%	39.0%	47.7%
9	Schurz	4	Gen	921	62.4%	3.0%	2.7%	31.1%	48.4%	58.1%	13.0%	50.2%	48.3%
10	Orr	5	Gen	577	3.1%	70.0%	0.9%	26.0%	78.6%	44.4%	33.3%	52.8%	47.3%
11	Kelly	8	Gen	412	73.3%	0.0%	1.0%	25.7%	56.6%	ERR	25.0%	40.7%	52.6%
12	Lincoln Park	3	Gen	270	8.9%	66.3%	0.7%	23.3%	89.5%	43.8%	0.0%	54.0%	49.2%
13	Farragut	10	Gen	564	0.9%	76.2%	0.2%	22.7%	50.0%	53.6%	0.0%	51.7%	55.3%
14	Senn	2	Gen	593	35.6%	19.4%	21.4%	21.[illegible]%	42.3%	50.5%	38.5%	37.2%	42.3%
15	Prosser Voc	4	Voc	386	54.7%	22.0%	1.3%	21.2%	27.5%	15.4%	0.0%	19.2%	22.9%
16	Von Steuben	1	Gen	343	46.6%	23.0%	12.8%	17.5%	30.9%	34.7%	21.2%	31.0%	30.8%
17	Roosevelt	1	Gen	432	68.3%	6.5%	0.3%	15.5%	51.6%	57.1%	22.6%	54.5%	50.1%
18	Curie	12	Gen	728	57.6%	25.8%	1.1%	15.4%	22.9%	35.4%	14.3%	43.0%	29.1%
19	Washington	20	Gen	364	84.6%	0.3%	0.0%	14.0%	22.6%	0.0%	33.3%	24.0%	23.1%
20	Tilden	13	Gen	559	10.2%	75.7%	0.2%	14.0%	77.1%	48.0%	100.0%	54.7%	51.7%
21	Sullivan	2	Gen	319	44.5%	32.6%	9.7%	12.9%	35.1%	43.5%	12.5%	28.6%	34.9%
22	Young	9	Gen	543	28.4%	53.4%	5.7%	12.5%	27.0%	14.7%	3.4%	23.8%	18.6%
23	Foreman	4	Gen	310	85.8%	1.0%	0.6%	12.3%	37.4%	0.0%	0.0%	46.7%	37.8%
24	Amundsen	2	Gen	388	76.5%	4.1%	7.7%	10.8%	47.9%	61.5%	30.8%	29.4%	45.7%
25	Lane	3	Tech	881	64.9%	12.1%	11.9%	10.8%	15.6%	21.2%	3.3%	25.3%	15.9%
26	Hubbard	15	Gen	39	85.8%	2.9%	1.2%	9.7%	39.4%	33.3%	50.0%	50.0%	40.3%
27	Metro, Chicago	11	Gen	48	25.0%	64.6%	0.0%	8.3%	36.4%	41.4%	ERR	25.0%	40.0%
28	Gage Park	12	Gen	501	38.9%	52.3%	0.8%	8.0%	54.1%	47.0%	25.0%	37.8%	48.7%
29	Steinmetz	4	Gen	519	76.7%	15.2%	4.0%	4.0%	36.0%	34.2%	16.7%	33.3%	34.8%
30	Bogan	15	Gen	299	96.0%	0.0%	0.3%	3.7%	10.9%	ERR	0.0%	9.1%	10.8%
31	Mather	2	Gen	378	75.1%	10.3%	11.6%	2.9%	21.5%	38.9%	9.8%	22.2%	21.9%
32	Kennedy	12	Gen	370	73.2%	24.6%	0.0%	2.2%	25.2%	41.7%	ERR	37.5%	29.5%
33	Taft	1	Gen	508	90.9%	6.7%	0.6%	1.8%	17.1%	31.3%	0.0%	33.3%	18.2%
34	Kenwood	14	Gen	489	18.6%	76.9%	2.9%	1.6%	6.7%	22.2%	16.7%	0.0%	18.9%
35	Fenger	20	Gen	558	0.2%	99.[illegible]%	0.0%	0.7%	0.0%	56.2%	ERR	100.0%	56.3%
36	Morgan Park	18	Gen	464	35.8%	63.4%	0.2%	0.6%	23.5%	28.4%	0.0%	66.7%	26.9%
37	Chicago Voc.	11	Voc	1,029	0.0%	99.5%	0.0%	0.5%	ERR	27.1%	ERR	40.0%	27.1%
38	Lindblom	15	Tech	614	0.2%	95.8%	3.7%	0.3%	0.0%	22.0%	19.0%	100.0%	22.0%
39	Phillips	11	Gen	849	0.1%	99.6%	0.0%	0.2%	100.0%	57.4%	ERR	50.0%	57.4%
40	Austin	7	Gen	878	0.1%	99.7%	0.0%	0.2%	100.0%	62.0%	ERR	100.0%	62.1%
41	Harper	15	Gen	495	0.0%	99.8%	0.0%	0.2%	ERR	53.5%	ERR	100.0%	53.6%
42	Manley	8	Gen	568	0.0%	99.8%	0.0%	0.2%	ERR	53.2%	ERR	ERR	53.2%
43	Julian	18	Gen	572	0.0%	99.8%	0.0%	0.2%	ERR	32.5%	ERR	0.0%	32.5%
44	Englewood	16	Gen	530	0.0%	99.8%	0.0%	0.2%	ERR	53.0%	ERR	100.0%	53.1%
45	Dunbar Voc	11	Voc	607	0.0%	99.8%	0.0%	0.2%	ERR	28.0%	ERR	0.0%	27.9%
46	Harlan	19	Gen	692	0.1%	99.7%	0.0%	0.1%	0.0%	43.5%	ERR	100.0%	43.6%
47	South Shore	17	Gen	719	0.0%	99.7%	0.0%	0.1%	ERR	53.2%	ERR	0.0%	53.2%
48	Near No. Career Mgn	3	Voc	86	0.0%	100.0%	0.0%	0.0%	ERR	59.7%	ERR	ERR	59.7%
49	Simeon Voc	16	Voc	484	0.0%	100.0%	0.0%	0.0%	ERR	34.1%	ERR	ERR	34.1%
50	DuSable	13	Gen	627	0.0%	100.0%	0.0%	0.0%	ERR	58.4%	ERR	ERR	58.4%
51	Calumet	16	Gen	749	0.0%	100.0%	0.0%	0.0%	ERR	53.4%	ERR	ERR	53.4%
52	Flower Voc	7	Voc	199	0.0%	100.0%	0.0%	0.0%	ERR	42.6%	ERR	ERR	42.6%
53	Crane	9	Gen	587	0.0%	100.0%	0.0%	0.0%	ERR	62.6%	ERR	ERR	62.6%
54	Collins	8	Gen	439	0.0%	100.0%	0.0%	0.0%	ERR	48.1%	ERR	ERR	48.1%
55	Carver	20	Gen	613	0.0%	100.0%	0.0%	0.0%	ERR	48.4%	ERR	ERR	48.4%
56	Hyde Park	14	Gen	722	0.0%	100.0%	0.0%	0.0%	ERR	37.6%	ERR	ERR	37.6%
57	Hirsch	17	Gen	359	0.0%	100.0%	0.0%	0.0%	ERR	45.7%	ERR	ERR	45.7%
58	Corliss	20	Gen	613	0.0%	99.8%	0.0%	0.0%	ERR	33.5%	ERR	ERR	33.5%
59	Marshall	9	Gen	542	0.0%	99.8%	0.0%	0.0%	ERR	57.2%	ERR	ERR	57.3%
60	Westinghouse Voc	7	Voc	431	0.2%	99.8%	0.0%	0.0%	0.0%	22.2%	ERR	ERR	22.1%
61	Robeson	16	Gen	653	0.3%	99.7%	0.0%	0.0%	ERR	57.3%	ERR	ERR	57.3%
62	King,M.L.	14	Gen	453	0.7%	99.3%	0.0%	0.0%	0.0%	50.6%	ERR	ERR	50.2%
63	Cregier Voc	9	Voc	216	0.7%	99.1%	0.0%	0.0%	0.0%	55.3%	ERR	ERR	54.8%
	SYSTEMWIDE TOTALS			32,810	21.6%	62.0%	1.9%	13.6%	34.6%	45.1%	19.4%	46.9%	42.7%
AVE CLASS													
557	SCHOOLS MORE THAN 50% HISPANIC			2.786	10.9%	14.1%	0.5%	74.4%	63.2%	47.6%	16.7%	52.2%	52.5%
549	SCHOOLS 25% - 49% HISPANIC			3.297	34.5%	29.9%	1.9%	33.6%	52.8%	48.4%	23.6%	44.2%	48.1%
445	SCHOOLS 5% - 24% HISPANIC			7,568	47.0%	31.1%	5.8%	14.9%	33.7%	40.6%	20.4%	39.7%	36.1%
540	SCHOOLS LESS THAN 5% HISPANIC			18,921	10.4%	88.5%	0.6%	0.5%	21.8%	45.4%	13.4%	33.7%	42.8%

PERCENT OF RACE IN EACH GROUPING		WHITE	BLACK	ASIAN	HISPANIC
	50+% Hispanic	4.3%	1.9%	2.1%	46.5%
	25%-49% Hispanic	16.1%	4.0%	10.0%	24.9%
	5%-24% Hispanic	51.1%	11.4%	70.6%	25.3%
	Under 5% Hispanic	27.9%	81.2%	17.3%	2.1%

its entrants were Hispanic. Thus, heavily Hispanic high schools received high concentrations of students who were ill-equipped to do high school work in English, and were already overage. It is not surprising that their Dropout Rates exceed their Graduation Rates.

The Dropout Rate for Hispanics in majority and minority Hispanic schools closely followed the overall Dropout Rates for these schools in the aggregate. However, White students in majority Hispanic schools dropped out more frequently (63% vs. 52% for Hispanics), while Blacks did better than Hispanics (48%). Whites also did worse in heavily minority (25%-49%) Hispanic schools (53%), with Blacks still at 48%, but Hispanic Dropout Rates dipped to 44%. Hispanic Dropout Rates continue to decline with declining concentrations, to 40% (for 5%-24% Hispanic schools) and 34% in schools with less than 5% Hispanics enrolled. Among the majority Hispanic schools, Kelvyn Park Hispanics had the lowest Dropout Rate (42%) with Juarez next (49%). Clemente (56%), Wells (55%), and Harrison (51%) all had more Hispanics drop out than graduate. All of these schools also had high rates of transfers to other school systems. The outcomes of these transfers out of the system are unknown. At some heavily minority Hispanic schools, Hispanics did better: Richards Vocational (30%), Bowen (40%), and Kelly (41%). The lowest Hispanic Dropout Rates at schools with more than 5% Hispanic were at Prosser Vocational (19%), Metro (25%), and Lane Tech. (25%).

4. DISTRICT ANALYSIS

Districts with the best Graduation Rates received the best students. A district's Graduation Rate correlates highly with its percent of entering students reading at or above normal ranges. Four of the six districts graduating less than half of their students (Districts 16, 8, 17, 13, 10, and 6) had more than 70% of their entering students with reading scores more than two years behind grade level or missing. Similarly, in these six districts over a quarter of the entering students (over a third in 5 of the 6) were overage. Thus, the high schools in these districts were receiving students who were already in trouble academically.

The districts with the best Graduation Rates are located on the outer fringe of the city or along the lakefront. Only District 11, among Inner City districts, ranked higher than a Fringe district (# 4), and special conditions make these distinctions fuzzy. District 11 has a number of non-geographic high schools, while District 4 is a mixture of inner city and fringe areas. All of these inner city districts are overwhelmingly minority in their student enrollments. The Dropout Rates in these inner city districts range from 38% to 57%.

DROP OUT STUDY OF CHICAGO PUBLIC SCHOOLS
School Level Data - Class of 1982
SIX YEAR TIME FRAME

DISTRICTS RANKED BY DROPOUT RATE

TABLE 19

RANK	DISTRICT	TYPE	GEOG	ENTERING FRESHMEN	TRANSFER RATE	DROPOUT RATE	WHITE	BLACK	ASIAN	HISPANIC	OVER AGE	COMPLETED ORIG SCH	PERCENT W/ NORMAL SCORES	PERCENT W/O SCORES	PERCENT BELOW NORM SCORES
1	6	Inncty	NW	1,696	12.7%	56.6%	9.0%	16.0%	0.4%	74.3%	33.7%	85.1%	27.1%	16.6%	56.3%
2	10	Inncty	W	579	6.4%	56.1%	0.9%	76.3%	0.2%	22.5%	33.6%	79.6%	29.7%	10.4%	59.9%
3	13	Inncty	S	1,195	6.4%	55.4%	4.8%	88.5%	0.1%	6.5%	34.4%	87.7%	26.2%	7.8%	66.0%
4	17	Inncty	S	1,082	7.9%	50.8%	0.0%	99.7%	0.0%	0.1%	27.7%	81.8%	37.8%	9.3%	52.9%
5	8	Inncty	W	2,259	9.2%	50.8%	15.1%	50.6%	0.2%	33.7%	35.5%	85.8%	29.3%	18.1%	52.6%
6	16	Inncty	S	2,488	10.0%	50.5%	0.1%	99.6%	0.0%	.0%	38.0%	83.2%	45.7%	7.9%	46.4%
7	7	Inncty	W	1,516	4.9%	48.0%	0.1%	99.7%	0.0%	0.1%	22.3%	73.2%	40.0%	7.6%	52.4%
8	9	Inncty	W	2,037	7.5%	47.5%	9.6%	84.5%	1.5%	3.6%	29.4%	78.6%	40.3%	16.3%	43.4%
9	5	Inncty	NW	936	12.6%	46.7%	14.5%	43.9%	1.2%	39.3%	30.5%	79.8%	28.2%	13.7%	50.1%
10	19	Inncty	S	1,549	7.2%	46.3%	0.9%	79.1%	0.1%	19.5%	31.2%	82.4%	32.8%	12.7%	54.5%
11	20	Inncty	S	2,164	9.0%	41.9%	14.3%	82.7%	0.1%	2.5%	24.3%	87.6%	47.9%	7.8%	44.4%
12	4	Fringe	NW	2,163	12.6%	39.2%	67.2%	9.3%	2.5%	19.8%	19.6%	91.1%	57.5%	14.3%	28.2%
13	11	Inncty	S	2,551	6.0%	37.8%	0.7%	98.7%	0.0%	0.5%	19.6%	87.2%	63.9%	5.6%	30.5%
14	2	Lakfnt	N	1,702	14.6%	37.0%	55.3%	16.2%	13.7%	13.1%	25.3%	87.4%	45.7%	22.1%	32.2%
15	14	Lakfnt	S	1,694	8.5%	36.0%	5.6%	91.6%	0.8%	0.5%	18.6%	83.1%	53.6%	9.1%	37.3%
16	12	Fringe	SW	1,790	7.9%	35.2%	52.3%	32.7%	0.7%	13.7%	17.0%	88.2%	55.0%	11.8%	33.2%
17	3	Lakfnt	N	1,695	11.5%	32.7%	45.9%	25.0%	7.9%	20.3%	15.1%	85.1%	69.2%	8.7%	22.1%
18	15	Fringe	SW	1,714	9.5%	32.1%	33.8%	61.6%	1.6%	2.7%	19.0%	85.0%	62.9%	11.9%	25.2%
19	1	Fringe	N	1,290	11.6%	32.0%	71.2%	10.9%	6.7%	10.5%	16.4%	92.4%	62.9%	13.1%	24.0%
20	18	Fringe	SW	1,042	6.7%	30.0%	15.9%	83.3%	0.1%	0.4%	22.0%	90.7%	58.4%	5.4%	36.2%
				33,142	9.2%	42.8%	21.4%	62.6%	1.9%	13.5%	25.5%	85.0%	47.1%	11.6%	41.3%

DROP OUT STUDY OF CHICAGO PUBLIC SCHOOLS
School Level Data - Class of 1982
SIX YEAR TIME FRAME

DISTRICTS ORGANIZED BY AREA OF CITY AND RANKED BY DROPOUT RATE

TABLE 20

RANK	DISTRICT	TYPE	GEOG	ENTERING FRESHMEN	TRANSFER RATE	DROPOUT RATE	WHITE	BLACK	ASIAN	HISPANIC	OVER AGE	COMPLETED ORIG SCH	PERCENT W/ NORMAL SCORES	PERCENT W/O SCORES	PERCENT BELOW NORM SCORES
1	18	Fringe	SW	1,042	6.7%	30.0%	15.9%	83.3%	0.1%	0.4%	22.0%	90.7%	58.4%	5.4%	36.2%
2	1	Fringe	N	1,290	11.6%	32.0%	71.2%	10.9%	6.7%	10.5%	16.4%	92.4%	62.9%	13.1%	24.0%
3	15	Fringe	SW	1,714	9.5%	32.1%	33.8%	61.6%	1.6%	2.7%	19.0%	85.0%	62.9%	11.9%	25.2%
4	12	Fringe	SW	1,790	7.9%	35.2%	52.3%	32.7%	0.7%	13.7%	17.0%	88.2%	55.0%	11.8%	33.2%
5	4	Fringe	NW	2,163	12.6%	39.2%	67.2%	9.3%	2.5%	19.8%	19.6%	91.1%	57.5%	14.3%	28.2%
1	3	Lakfnt	N	1,695	11.5%	32.7%	45.9%	25.0%	7.9%	20.3%	15.1%	85.1%	69.2%	8.7%	22.1%
2	14	Lakfnt	S	1,694	8.5%	36.0%	5.6%	91.6%	0.8%	0.5%	18.6%	83.1%	53.6%	9.1%	37.3%
3	2	Lakfnt	N	1,702	14.6%	37.0%	55.3%	16.2%	13.7%	13.1%	25.3%	87.4%	45.7%	22.1%	32.2%
1	11	Inncty	S	2,551	6.0%	37.8%	0.7%	98.7%	0.0%	0.5%	19.6%	87.2%	63.9%	5.6%	30.5%
2	20	Inncty	S	2,164	9.0%	41.9%	14.3%	82.7%	0.1%	2.5%	24.3%	87.6%	47.9%	7.8%	44.4%
3	19	Inncty	S	1,549	7.2%	46.3%	0.9%	79.1%	0.1%	19.5%	31.2%	82.4%	32.8%	12.7%	54.5%
4	5	Inncty	NW	936	12.6%	46.7%	14.5%	43.9%	1.2%	39.3%	30.5%	79.8%	28.2%	13.7%	58.1%
5	9	Inncty	W	2,037	7.5%	47.5%	9.6%	84.5%	1.5%	3.6%	29.4%	78.6%	40.3%	16.3%	43.4%
6	7	Inncty	W	1,516	4.9%	48.0%	0.1%	99.7%	0.0%	0.1%	22.3%	73.2%	40.0%	7.6%	52.4%
7	16	Inncty	S	2,488	10.0%	50.5%	0.1%	99.6%	0.0%	.0%	38.0%	83.2%	45.7%	7.9%	46.4%
8	8	Inncty	W	2,259	9.2%	50.8%	15.1%	50.6%	0.2%	33.7%	35.5%	85.8%	29.3%	18.1%	52.6%
9	17	Inncty	S	1,082	7.9%	50.8%	0.0%	99.7%	0.0%	0.1%	27.7%	81.8%	37.8%	9.3%	52.9%
10	13	Inncty	S	1,195	6.4%	55.4%	4.8%	88.5%	0.1%	6.5%	34.4%	87.7%	26.2%	7.8%	66.0%
11	10	Inncty	W	579	6.4%	56.1%	0.9%	76.3%	0.2%	22.5%	33.6%	79.6%	29.7%	10.4%	59.9%
12	6	Inncty	NW	1,696	12.7%	56.6%	9.0%	16.0%	0.4%	74.3%	33.7%	85.1%	27.1%	16.6%	56.3%
				33,142	9.2%	42.8%	21.4%	62.6%	1.9%	13.5%	25.5%	85.0%	47.1%	11.6%	41.3%

DROP OUT STUDY OF CHICAGO PUBLIC SCHOOLS
School Level Data - Class of 1982
SIX YEAR TIME FRAME

DISTRICTS ORGANIZED GEOGRAPHICALLY AND RANKED BY DROPOUT RATE

TABLE 21

RANK	DISTRICT	TYPE	GEOG	ENTERING FRESHMEN	TRANSFER RATE	DROPOUT RATE	WHITE	BLACK	ASIAN	HISPANIC	OVER AGE	COMPLETED ORIG SCH	PERCENT W/ NORMAL SCORES	PERCENT W/O SCORES	PERCENT BELOW NORM SCORES
1	1	Fringe	N	1,290	11.6%	32.0%	71.2%	10.9%	6.7%	10.5%	16.4%	92.4%	62.9%	13.1%	24.0%
2	3	Lakfnt	N	1,695	11.5%	32.7%	45.9%	25.0%	7.9%	20.3%	15.1%	85.1%	69.2%	8.7%	22.1%
3	2	Lakfnt	N	1,702	14.6%	37.0%	55.3%	16.2%	13.7%	13.1%	25.3%	87.4%	45.7%	22.1%	32.2%
4	4	Fringe	NW	2,163	12.6%	39.2%	67.2%	9.3%	2.5%	19.8%	19.6%	91.1%	57.5%	14.3%	28.2%
5	5	Inncty	NW	936	12.6%	46.7%	14.5%	43.9%	1.2%	39.3%	30.5%	79.8%	28.2%	13.7%	58.1%
6	6	Inncty	NW	1,696	12.7%	56.6%	9.0%	16.0%	0.4%	74.3%	33.7%	85.1%	27.1%	16.6%	56.3%
7	14	Lakfnt	S	1,694	8.5%	36.0%	5.6%	91.6%	0.8%	0.5%	18.6%	83.1%	53.6%	9.1%	37.3%
8	11	Inncty	S	2,551	6.0%	37.8%	0.7%	98.7%	0.0%	0.5%	19.6%	87.2%	63.9%	5.6%	30.5%
9	20	Inncty	S	2,164	9.0%	41.9%	14.3%	82.7%	0.1%	2.5%	24.3%	87.6%	47.9%	7.8%	44.4%
10	19	Inncty	S	1,549	7.2%	46.3%	0.9%	79.1%	0.1%	19.5%	31.2%	82.4%	32.8%	12.7%	54.5%
11	16	Inncty	S	2,488	10.0%	50.5%	0.1%	99.6%	0.0%	.0%	38.0%	83.2%	45.7%	7.9%	46.4%
12	17	Inncty	S	1,082	7.9%	50.8%	0.0%	99.7%	0.0%	0.1%	27.7%	81.8%	37.8%	9.3%	52.9%
13	13	Inncty	S	1,195	6.4%	55.4%	4.8%	88.5%	0.1%	6.5%	34.4%	87.7%	26.2%	7.8%	66.0%
14	18	Fringe	SW	1,042	6.7%	30.0%	15.9%	83.3%	0.1%	0.4%	22.0%	90.7%	58.4%	5.4%	36.2%
15	15	Fringe	SW	1,714	9.5%	32.1%	33.8%	61.6%	1.6%	2.7%	19.0%	85.0%	62.9%	11.9%	25.2%
16	12	Fringe	SW	1,790	7.9%	35.2%	52.3%	32.7%	0.7%	13.7%	17.0%	88.2%	55.0%	11.8%	33.2%
17	9	Inncty	W	2,037	7.5%	47.5%	9.6%	84.5%	1.5%	3.6%	29.4%	78.6%	40.3%	16.3%	43.4%
18	7	Inncty	W	1,516	4.9%	48.0%	0.1%	99.7%	0.0%	0.1%	22.3%	73.2%	40.0%	7.6%	52.4%
19	8	Inncty	W	2,259	9.2%	50.8%	15.1%	50.6%	0.2%	33.7%	35.5%	85.8%	29.3%	18.1%	52.6%
20	10	Inncty	W	579	6.4%	56.1%	0.9%	76.3%	0.2%	22.5%	33.6%	79.6%	29.7%	10.4%	59.9%
				33,142	9.2%	42.8%	21.4%	62.6%	1.9%	13.5%	25.5%	85.0%	47.1%	11.6%	41.3%

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The Dropout Rates between Fringe and Lakefront districts and those in the Inner City are markedly different. The combined rate for Fringe and for Lakefront districts is 34.4% and 35.2% respectively, but is 47.9% for Inner City districts. Inner City district schools were overwhelmingly minority in their entering class, together enrolling only 6% Whites. 83% of all Whites attended schools in Fringe or Lakefront districts, and most of the remaining Whites attended Kelly or Washington High Schools, majority White schools in otherwise Inner City districts. The high schools in Fringe and Lakefront Districts received better prepared students than did schools in Inner City districts. Fringe and Lakefront district schools, in the aggregate, received 59% and 54% of their students reading at or above normal ranges. Only 40% of Inner City district students had reading scores at or above normal. Similarly, less than 20% of Fringe and Lakefront students were overage, while 30% of Inner City students were, and, as we have already mentioned, in five of these districts, more than a third were overage.

When the districts are grouped geographically, some other facts appear. Districts on the northside and the southwest side had the highest Graduation Rates (66% and 67%). Westside districts had the highest Dropout Rates (50%). Students from the North and Northwest districts transferred out of the Chicago Public Schools at half again the rate of other sections of the city (13% vs. about 8%). 61% of all Whites went to school in the North and Southwest side districts; another 25% attended in Northwest districts. More than half (56%) of Blacks attended Southside schools and 23% on the Westside. The remaining 20% were spread among North, Northwest and Southwest district schools. As might be expected, North and Southwest district schools received fewer overage students (under 20%) and more students reading at or above normal levels (59%). West (65%) and Northwest (59%) districts received the most poorly prepared students (those reading below normal or without reading scores). Five districts had fewer than 30% of their entering students with normal or above test scores; the worst was on the Southside (District 13 in the Englewood area, 26%), two were on the Westside (Districts 8 - 29%, and 10 - 30%), and two were on the Northwest side with heavy concentrations of Hispanics (Districts 6 - 27%, and 5 - 28%).

5. STATISTICAL ANALYSIS

A subsequent statistical analysis of the dropouts in the Classes of 1982, 1983, and 1984 confirmed the factors which are strongly associated with the dropout rate. Two characteristics are most strongly related: students entering high school overage and those entering with below normal reading scores. The poverty rate and racial characteristics of schools are also related, but less strongly. The statistical analysis of this data permits an assessment of the comparative strength of these variables, as well as an analysis of the inter-correlations between these factors.

Table 22 provides the correlation coefficients between the dropout rate and characteristics of entering students. These data were collected at the school level (n=63) for the three classes; the analysis presented here is consequently statistical analysis of aggregates of students, not of individual students themselves. The findings are quite striking. The dropout rate is very strongly correlated with both low reading scores and the percent of students entering high school overage. The single correlation coefficients are comparable (r = 0.85 and r = 0.80 respectively). Other factors are less dramatically related to the dropout rate. These include the poverty level (r = 0.54), percent White (r = -0.55), and percent Hispanic (r = 0.52). In contrast, percent Black is not a predictor of the dropout rate at individual schools.

Table 22
RELATIONSHIP BETWEEN DROPOUT RATES AND STUDENT CHARACTERISTICS
Chicago Public School System
(Pearson's r correlation coefficients)

	%OVERAGE	READING BELOW %	%POVERTY	%WHITE	%BLACK	%HISPANIC
Dropout Rate	0.804**	0.854**	0.541**	-0.55**	0.288	0.516**
Overage		0.813**	0.446**	-0.56**	0.224	0.427 *
% Below Reading	0.813**		0.579**	-0.694**	0.406**	0.631**
Poverty	0.446**	0.579**		-0.851**	0.789**	0.356
White	-0.56**	-0.694**	-0.851		-0.834**	-0.498**
Black	0.224	0.406**	0.789**	-0.723**		-0.239
Hispanic	0.427 *	0.631**	0.356	-0.442 *	-0.607**	

* p <0.01
** p <0.001

An effort was made to determine if reading scores and overage variables are equally strong correlates of the dropout rate, by making a direct examination of the relationship between the dropout rate and these two factors. These are provided in Figures 1 and 2. Both the below normal reading score and percent overage variables are closely related with the dropout rate. However, the relationship between reading scores and the dropout rate (Figure 1) is more linear than that of percent overage (displayed in Figure 2). This finding is confirmed in multiple regression analysis. When both reading scores and percent overage are entered as independent variables (thus controlling for each other), the regression coefficients are significantly different (below normal reading score b* = 0.58; overage b* = 0.26).

Figure 1

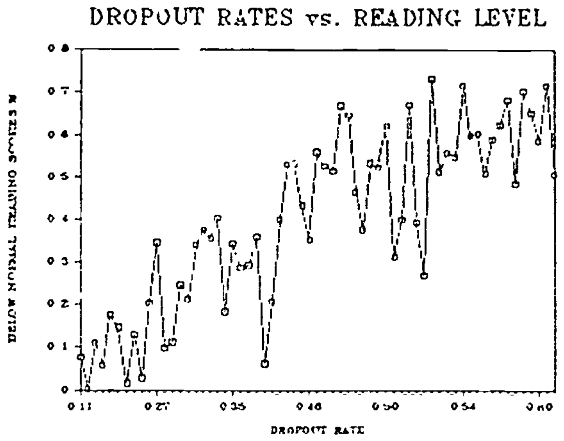
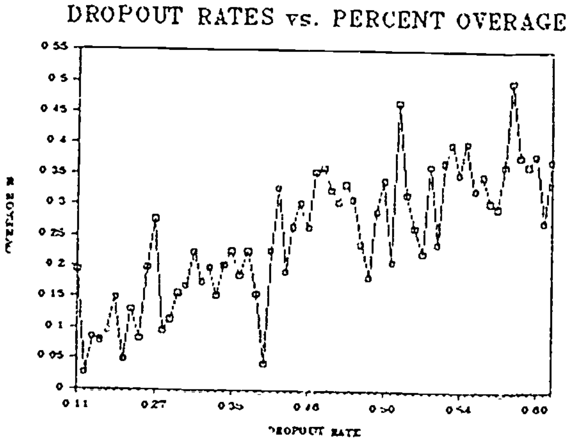


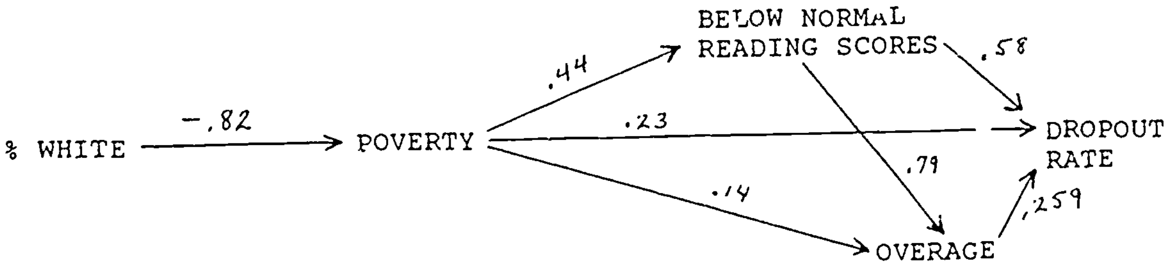
Figure 2



It is also important to note the inter-relationships between these strong correlates of the dropout rate and other variables. The second part of Table 22 provides the results of this analysis. Percent White is not only negatively and quite strongly correlated with the dropout rate, but is also negatively and even more strongly associated with each of the variables which themselves are strong correlates of the dropout rate (especially important are the correlations with the poverty rate [r = -0.85], with percent overage [r = -0.56], and with percent with below normal reading scores [r = -0.69]). In contrast, the percent Black is not significantly related to either the dropout rate or to percent overage. The percent Black is, however, positively associated with below normal reading scores and the poverty level. Lastly, the percent Hispanic, which is strongly and positively correlated with the dropout rate, is also positively, if modestly, associated with both the percent entering high school overage and with below normal reading scores.

To sum up, the analysis of the data on the Classes of 1982, 1983, and 1984 suggests that those factors that most strongly contribute to the dropout rate are students entering high school with below normal reading scores and who are overage. The poverty level and percent Hispanic are also strongly and significantly related to the dropout rate. In contrast, percent White is strongly, but negatively, associated with the dropout rate, and percent Black is not significantly related with the rate. Of the two strongest predictors of the dropout rate, reading scores and overage, regression analysis shows that below normal reading scores is the stronger predictor of the dropout rates.

When a regression analysis was made, controlling for individual school variables, the following pattern emerged:



The dropout rate of an individual school was most directly affected by the percent of its entering students reading at below normal levels (b* = 0.58). It was also affected by the percent of entrants who were overage (b* = 0.26), but the percent overage was itself heavily impacted by reading scores (b* = 0.79). Thus, those students who were reading below normal and had been retained in elementary school had a double burden relative to succeeding in high school. The poverty level of a high school had some direct affect on the dropout rate and the percent of entrants who were overage, but most directly affected reading scores. Finally, if students at a school were predominantly White, it was very unlikely they were poor, and thus, far less likely to drop out. Being Hispanic also correlated with below normal reading scores.

Thus, the statistical picture which emerges is that students who are poor (most frequently Blacks and rarely Whites) are most likely to enter high school with low reading scores, as are Hispanics (most likely, those with Limited English Proficiency). Many of those with low reading scores are likely also to be overage. Those with low reading scores and those overage are most likely to drop out. In Chicago, poor, minority students with low reading scores are primarily directed to inner-city, non-selective neighborhood high schools. The most dropout-prone students are aggregated together and the best prepared students are aggregated together. Not surprisingly, the dropout rates in these types of schools are significantly different!

CONCLUSION

From the data presented in this study, it is evident that the Chicago Public Schools, for the Class of 1982, operated a two-tiered high school system. One set of schools were operated in middle-class neighborhoods or were selective schools drawing the best students away from neighborhood schools (primarily in the inner city). A second set of schools were operated for the educationally ill-prepared students, with more than half the students entering these schools dropping out. Overwhelmingly, these schools enrolled Blacks and Hispanics in inner city neighborhoods.

DROP OUT STUDY OF CHICAGO PUBLIC SCHOOLS
School Level Data - Class of 1982
SIX YEAR TIME FRAME

DROPOUT RATES OF HIGH SCHOOLS
(Grouped by Thirds)

	ENTERING FRESHMEN	DROPOUT RATE	WHITE	BLACK	ASIAN	HISPANIC	OVER AGE	COMPLETED ORIG SCH	% BELOW NORMAL or w/o scores
SCHOOLS WITH LOWEST RATES	10,696	25.2%	33.5%	56.7%	2.9%	6.1%	13.3%	88.4%	27.8%
SCHOOLS WITH MID-RANGE RATES	9,891	45.2%	27.7%	52.9%	2.7%	15.9%	26.7%	85.2%	58.2%
SCHOOLS WITH HIGHEST RATES	12,309	55.8%	5.9%	75.7%	0.3%	17.8%	34.5%	82.9%	69.9%
SYSTEMWIDE TOTALS	33,142	42.8%	21.4%	62.6%	1.9%	13.5%	25.5%	85.0%	52.9%
PERCENT OF RACE IN THIRD WITH LOWEST RATES			50.5%	29.2%	50.5%	14.6%			
PERCENT OF RACE IN THIRD WITH MID-RANGE RATES			38.6%	25.2%	43.2%	35.2%			
PERCENT OF RACE IN THIRD WITH HIGHEST RATES			10.2%	44.9%	6.3%	49.1%			

Thus, it may be suggested that the Chicago Public Schools engaged in an effective policy of EDUCATIONAL TRIAGE by funnelling the best prepared students into a relatively few selective or middle-class neighborhood schools, while relegating the worse prepared students to inner city neighborhood schools with few programmatic attractions. This policy has been greeted with pleasure by middle-class or educationally enterprising parents, and with apathy by parents of students relegated to the neighborhood holding pen schools. It may also be suggested that this policy contributed to the high level of the systemwide Dropout Rate by aggregating dropout-prone students in schools with few resources to deal with the problem and lacking significant numbers of academically successful role models.

Dropout Prevention

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A Program Model for At-Risk High School Students

GARY G. WEHLAGE, ROBERT A. RUTTER, AND ANNE TURNBAUGH

Dropouts enter our communities undereducated With bleak prospects for success in the labor market, they are almost certain to become social liabilities and to face lifelong problems of unemployement and welfare dependency Although educators are looking for interventions to reduce the number of school dropouts, we know more about who has dropped out, and why, than we know about effective school efforts to prevent students from dropping out

What schools can do to retain at-risk students is a persistent problem, but a greater challenge for educators is how to provide educational experiences positive enough to change the lives of these youths From this perspective, the most important issue facing educators is that of developing a concept of schooling that will be attractive enough to hold these students, but effective enough to promote their learning and development

Attractive and effective schooling should offer something positive to both students and society First, positive school experiences must negate the discouragement and alienation students have acquired through their previous formal education Second, these educational experiences should avoid repetitive remediation in low-level basic skills and narrow vocational training The reason for this is clear acquiring these skills holds out so little promise of a rewarding future that a life on the street or on welfare seems preferable Educators must find and implement ways to promote broad personal and social development as well as academic skills and knowledge

In the past, favorable conditions in the home, church, and community, have enabled schools to promote social development and positive citizenship in young people Now, these previously favorable conditions are weak or nonexistent, and the school still is asked to intervene for the good of society Certainly it does not appear that schools can escape this broader mandate Educators recognize that a healthy society is tied to disadvantaged youths gaining the skills and attitudes that will make them productive workers as well as effective parents and good citizens

The discussion of our model program begins with the problems inherent in constructing new school experiences for at-risk students and concludes with observations on positive applications of the model in several school systems

The At-Risk Student

Recent data from the High School and Beyond study indicates that at risk students who become dropouts share a number of characteristics (Wehlage and Rutter 1986) Students from low socioeconomic backgrounds have the highest dropout rate, among ethnics, Hispanics have the highest rate, followed by blacks, then whites Low socioeconomic status coupled with minority group status are strong predictors of dropping out Other demographic factors which influence the dropout rate include a single parent family, a large family, or living in a city or in the urban or rural South While these factors are clearly important in understanding students problems, schools cannot change demographics However, educators need to consider these factors as they develop strategies for providing at-risk youth with worthwhile schooling

A somewhat different view of the data reveals that students' low expectations of receiving either good schooling or good grades often accounts for their dropping out Both of these negatives tie in with their disciplinary problems, of which truancy is the most common offense Before dropping out of school, at-risk students demonstrate low self-esteem and a sense of having lost control of their futures They perceive that teachers do not show much interest in them A majority of dropouts and potential dropouts also believe that the school's disciplinary system is neither very effective nor fair (Wehlage and Rutter 1986) Even if these students' perceptions are inaccurate, schools face a credibility problem However, unlike the earlier list of demographic factors, schools *can* influence students beliefs and attitudes Thus, when schools change their policies and practices, they can change student perceptions about adults caring and interest as well as about the legitimacy of the school's authority

The picture we have of the at-risk student is that of a young person who comes from a low socioeconomic background which may include various forms of family stress or instability If the young person is consistently discouraged by the school because he or she receives signals about academic inadequacies and failures, perceives little interest or caring from teachers, and sees the institution's discipline system as both ineffective and unfair, then it is not unreasonable to expect that the student will become alienated and uncommitted to getting a high school diploma

If schools intend to construct new programs that will have positive effects on at risk students, they need to respond to these conditions Schools are not likely to help at-risk students unless they can change fundamental school student interactions For educators, the reform agenda requires a major effort to engage those who have become alienated Reversing this alienation begins with the establishment of a positive social bond between teachers and students

The Model Program

Previous research indicates that educators have already developed effective programs in response to the difficulties of at-risk students (Wehlage 1983) This research, along with subsequent developmental work with practitioners, has produced a general model for ernative programs of the school-within-a-school or alternative school type High schools implementing the model have provided the practical experience of program development as well as research data

The characteristics of this program can be described under four categories (1) administration and organization, (2) teacher culture, (3) student culture, and (4) curriculum

Administration and organization Most high schools have a relatively small percentage of students who are in danger of dropping out In schools with not more than 100 to 150 at-risk students (e g , 16 years old, 6 credits or less toward graduation, frequently truant) educators can implement an alternative program built on the school within-a-school concept or an independent alternative school Either of these concepts provides the basis for new programs that can achieve the goals described above

The model requires the size of the program to be relatively small ideally 25 to 100 students with two to six faculty Small size is crucial for several reasons Face-to-face relationships on a continuing basis are necessary if teachers are to communicate the sense of caring that students perceive as absent in the regular high school All students can be known in a personal way by all of the teachers Small numbers permit teachers to both personalize and individualize their instructional efforts From a very practical point of view, teachers more easily can keep track of at-risk students, who sometimes seem to disappear in a large setting

Small size also facilitates continued face-to-face communication among faculty for planning and meeting about matters of mutual concern This permits faculty to create a clear identity for the program, to administer it, and to be responsible for both their program and individual students Authority and responsibility are not dispersed or diffused as they so often are in large high schools

The model gives teachers the authority to control admissions and dismissals from the program They have the responsibility of scheduling themselves and the students, as well as creating courses and educational experiences for them Such autonomy communicates the school system's positive commitment to the teachers and their programs Teachers are empowered to deal with difficult students This autonomy, in turn, promotes teachers ownership of the program Teachers feel accountable for the success of both students and the program as a whole

Teacher culture It is essential that teachers believe at-risk students deserve a renewed opportunity to learn One way teachers can act on this belief is through the extended role This role allows teachers to extend themselves to deal with the whole child This means that teachers must be willing to deal with certain problems in the home, community, or peer group to promote student success in school For example, the teacher may need to confront a substance abuse problem, whether a parent s or a student s, if a student is to learn and develop

Another important characteristic of the model is that teachers develop a strong sense of joint decision making and cooperation. Teachers in most high schools experience a high degree of isolation physically, psychologically, and professionally during most of their teaching. In contrast, this model seeks to avoid the isolation of the single classroom with its rotating groups of students as well as the isolation of teachers with a group of at-risk students. Thus the model is most effective when there is a single complex of facilities, even if it is only a single large room, within which both teachers and students spend time. Such facilities promote collegiality through frequent face-to-face interactions Th timulate cooperative relationships that make teaching more enjoyable, stimulating, and professionally rewarding.

Student culture The model is also set up to build a student culture with certain characteristics First, the program is voluntary and students need to apply for admission Not all candidates are accepted One criterion of admission is the applicant's willingness to be candid about why he or she is in trouble with the school and to admit that a change in attitude and behavior is necessary for future success

The program, seen as a fresh start, requires commitment from the students They must commit themselves to a set of rules, work expectations, and standards of behavior Clear rules about attendance, the quantity and quality of work required, and the consequences for breaking rules need to be spelled out in detail The model assumes that not everyone can or will make an explicit commitment to such rules For those who cannot make the initial commitment, admission is denied Those who persistently fail to keep their commitment are terminated from the program Dropouts from the dropout-prevention program need to be tolerated This selectivity factor builds a program image based on standards and excellence Such standards allow students to take pride in their program and their accomplishments

Once students accept program requirements and goals, discipline problems can be expected to decline A positive student culture can result in peer-monitored behavior because students will see that an effective program is in their best interest Thus, the model creates a "family" atmosphere in which sharing and communication are stressed as ways to help members of the group deal with their problems Within this atmosphere are clear rules that all students need to observe if they are to maintain their membership in the program. Students commit to important ethical rules such as not stealing from the group or committing any act of violence against a group member

Curriculum The model assumes that curriculum and teaching must be substantially different, at least in certain respects, from that which is ordinarily found in high schools Individualization, clear objectives, prompt feedback, concrete evidence of progress, and an *active* role for students are some of the dominant features Basic skills must be given attention However, wide variation in both achievement and ability will exist The level of skills mastery on the part of students dictates where teachers begin Most students need remedial work, substantial gains on standard measures can be expected for those who have been disengaged from schoolwork for any length of time The model allows only a portion of a student s time for remediation. Other important activities implicit in the model include sex education and parenting instruction, health care and nutrition education, and community social services

Experiential Learning

Improved social skills and attitudes are important goals within the model At-risk youths need social experiences with adults who exemplify characteristics of responsibility, the work ethic, and the ability to build positive human relationships Those qualities are taught through planned experiential learning

Experiential learning helps students be both active and reflective Typically, students are involved as volunteers at day care centers, nursing homes, elementary schools, or centers for the handicapped This involves them in real work, in tasks that genuinely need to be done because the people in these settings need help The work is geared to make success more likely A second type of experiential learning occurs when students, as a group, gut and renovate an old house under the supervision of skilled tradesmen The construction of a new house is another possibility within the model Other experiences involve student internships in hospitals, with law enforcement, with various social service agencies, with community newspaper production or the writing of local histories Such group experiences teach cooperation, responsibility, the work ethic and, only incidentally, introduce youth to possible careers

Later, students are introduced to a variety of vocational possibilities so that they can learn some specific skills in the world of work Internships near the end of the program allow students to consider making a commitment to a particular vocation These internships are intended to make youth employable at the end of high school or to encourage them to continue their education .. is only in the later stages of the program that vocational experiences could lead students to paid employment

This model for at risk high school students is designed to achieve a broad set of goals that will promote the interests of both the individual and society To accomplish these goals, the programs must be attractive to youth and teachers alike and should promote a positive teacher and student culture Within it, an inventive curriculum can provide students with knowledge, services, and experiences that stimulate cognitive, personal, and social growth and lead to their success as adult citizens

In recent years staff at the University of Wisconsin Madison have been involved with implementation of the model program in Wisconsin high schools Several schools replicated the model while others created programs with varying degrees of fidelity to the intended design To test the effectiveness of these interventions, programs in nine high schools were evaluated A number of criteria were used including the pre- and posttest measurement of changes in students attitudes, beliefs about themselves and others, and perceptions of future opportunities for success Generally, the results indicate that the greater the degree of fidelity to the model, the greater the effects on students behaviors and attitudes These encouraging results indicate that carefully designed school interventions with at-risk youth can produce effects that will benefit both students and society ☐

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EVALUATION OF A MODEL PROGRAM FOR AT-RISK STUDENTS

by

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Wehlage, Gary G.; Robert A. Rutter; and Anne Turnbaugh. "Evaluation of a Model Program for At-Risk Students. ' (Madison, WI: National Center on Effective Secondary Schools, 1986.) Reprinted by permission of the authors.

I. A previous article in Educational Leadership by the same authors described a model program for at-risk students (Wehlage, Rutter and Turnbaugh, 1986). The model program is designed to alter conditions of schooling for both students and teachers. The model requires a small program of 25 to 150 students. It emphasizes a high degree of structure to insure face-to-face relations between faculty and students. The program is invested with sufficient autonomy to allow teachers opportunities to make decisions on admissions, dismissals, curriculum and scheduling. The program is designed to foster teacher collegiality and to empower teachers with the authority and facilities to teach students with the array of problems typically brought to school by at-risk youth. There is a deliberate attempt to create a positive climate among the students, particularly in terms of their ability to be successful in school and in the future. Finally, the model provides a number of innovations in curriculum. Especially important is "experiential" learning which has students involved in out of classroom activities with competent adults in the community (Wehlage, 1983a).

With this brief summary of our previous article, we will now proceed to the presentation of an evaluation of this model based on data gathered using a particular instrument, the Wisconsin Youth Survey.

A. Evaluation Criteria. Evaluation of any program for at-risk students involves the use of several criteria. Minimally, special efforts with at-risk students should result in a reduction in school failure and a corresponding reduction in the dropout rate. We assume that minimal truancy, disruption and resistance to the efforts of adults will also be seen. Increased student competency in reading, writing and computing is a reasonable expectation. Preparing at-risk students for employment is another goal that most effective programs for at-risk students intend to meet. We include all of these criteria in our definition of effectiveness for at-risk student programs.

In addition, we also believe it is important to judge the effectiveness of interventions in terms of their positive effect on several personal and social orientations. These orientations include a set of constructs that describe the way individuals view themselves, others and the social system in which they live. Generally there is consensus among educators that these personal and social orientations are important because they are assumed to affect the level of engagement by students in their schooling. For example, self-esteem is included because we hypothesize that it underlies the achievement motivation exhibited by students. We also assume that school efforts to improve either basic or vocational skills will not "take" for at-risk youth if they do not perceive opportunities for themselves. Finally, the degree of social bonding to teachers and schools by the students needs to be strengthened if students are to be engaged in their work. Effective programs should have a positive effect on at-risk students' bonding to peers, teachers, school and several conventional social norms. These norms include valuing the work ethic and certain moral principles such as the "golden rule," as well as accepting the legitimacy of laws and stable family relationships (Wehlage, 1983b).

B. Instrumentation. During the last several years staff at the Wisconsin Center for Education Research have been engaged in the twin tasks of program development and evaluation. Part of the evaluation effort has centered on constructing an instrument to measure the personal orientations of at-risk students (Wehlage, Stone and Kliebard, 1980). A variation of this instrument has been employed in a pre/post-test design to determine the effects of several programs that meet or approach the characteristics of the model program summarized above. At the time the data for the present study was collected the Wisconsin Youth Survey had constructs and corresponding scales for the following personal and social orientations: Locus of Control, Self-Esteem, Efficacy, Delayed Gratification, Negative Labeling, Sociocentric Reasoning, Perception of Opportunity, Educational and Occupational Aspirations, and Social Bonding to Peers, School, Teachers and Conventional Roles. The instrument consisted of approximately one hundred items built around these scales along with questions about students' home and socioeconomic background. The pre/post-test design gathered data in September at the beginning of a school year and again in May of the same school year. Data were gathered at ten different school sites.

Nine of the sites from which we gathered data were special alternative programs implemented by practitioners after instruction and consultation with staff and associates of the Wisconsin Center for Education Research. The intent was to assist educators with the implementation of a version of the model program. As we expected, there is variation in the fidelity of model reproduction at the various sites. More will be said about this problem later.

Six of the sites were of the school-within-a-school type and adjunct to relatively large comprehensive high schools. All of the parent high schools had an enrollment between fifteen hundred and two thousand students. At three of the sites, separate alternative schools were established under the authority of the local public school system.

In contrast to the other nine sites, one site was deliberately selected because its student body included a wide distribution of racial and economic groups. A random sample of one-third of all 11th grade students was asked to complete the Wisconsin Youth survey at pre-test time. The survey was completed by 459 students. Their responses, shown in Table 1, may be regarded as a baseline for comparison purposes. The reliability coefficients are based on this data and reported in Table 1. The pre/post-test results for the nine programs are reported as mean scores for the various scales in Table 1. For two

Table 1

Pre- and Posttest Means for Nine At-Risk Student Programs

	Alpha	Base Data (N = 459)	All Program (137)	Site 1 1984 (19)	Site 1 1985 (10)	Site 2 1984 (14)	Site 2 1985 (8)	Site 3 (7)	Site 4 (11)	Site 5 (7)	Site 6 (10)	Site 7 (20)	Site 8 (15)	Site 9 (16)
Locus of Control	.69	1.72												
Pre			1.75	1.84	1.86	1.67	1.63	1.56	1.58	1.85	1.72	1.78	1.85	1.72
Post			1.77	1.75*	1.74	1.71	1.85*	1.75*	1.80	1.77	1.74	1.83	1.85	1.69
Self Concept	.68	1.74												
Pre			1.69	1.81	1.79	1.60	1.64	1.44	1.47	1.80	1.60	1.73	1.85	1.66
Post			1.79*	1.78	1.80	1.81*	1.85*	1.81*	1.82*	1.75	1.75*	1.84*	1.89	1.65
Efficacy	.65	1.71												
Pre			1.78	1.84	1.84	1.78	1.73	1.56	1.62	1.88	1.77	1.75	1.84	1.70
Post			1.79	1.78	1.73	1.78	1.89*	1.78*	1.60	1.78	1.78	1.84*	1.87	1.72
Active Passive	.62	1.70												
Pre			1.75	1.85	1.89	1.68	1.68	1.64	1.53	1.88	1.79	1.78	1.81	1.71
Post			1.78	1.73*	1.85	1.70	1.87*	1.78*	1.81*	1.76	1.75	1.84	1.85	1.66
Delayed Gratification	.59	1.71												
Pre			1.72	1.82	1.83	1.53	1.59	1.58	1.48	1.77	1.77	1.78	1.80	1.74
Post			1.74	1.72*	1.81	1.59	1.78	1.73	1.74	1.70	1.79	1.81	1.84	1.69
Negative Labeling	.53	1.87												
Pre			1.68	1.77	1.78	1.81	1.83	1.45	1.47	1.74	1.53	1.82	1.61	1.74
Post			1.74*	1.79	1.84	1.78*	1.75	1.74*	1.85*	1.73	1.73	1.85	1.82	1.56*
Sociocentric Reasoning	.78	1.97												
Pre			2.00	1.74	1.98	2.14	2.01	2.08	2.15	2.31	2.30	1.88	2.09	1.79
Post			1.90*	1.91	1.84	1.98	1.65	1.58*	1.90	2.37	2.04	1.88	1.91	1.86

Perception of Opportunity	.84	1.69												
Pre			1.71	1.80	1.80	1.83	1.83	1.51	1.51	1.79	1.70	1.71	1.82	1.70
Post			1.78*	1.75	1.78	1.72*	1.81*	1.78*	1.78*	1.73	1.75	1.78*	1.84	1.68
Educational Aspirations	.34	2.38												
Pre			2.34	2.47	2.40	2.47	2.53	1.87	2.07	2.51	2.28	2.34	2.25	2.29
Post			2.44*	2.52	2.52	2.53	2.50	2.37	2.53*	2.49	2.31	2.42	2.33	2.38
Occupational Aspirations	.49	2.05												
Pre			2.04	2.18	2.10	2.31	2.35	1.89	1.88	2.05	2.02	1.94	2.02	1.81
Post			2.08	2.07	2.13	2.21	2.04	2.11	2.21	1.95	1.83	2.15*	2.07	1.98
Social Bonding to Peers	.58	2.84												
Pre			2.92	2.91	2.94	2.84	3.07	2.38	2.83	3.07	2.85	2.88	3.28	2.86
Post			3.00	2.87	2.87	3.12*	3.08	3.27*	3.51*	3.40*	2.70	2.85	3.13	2.80
Social Bonding to School	.78	2.71												
Pre			2.77	3.00	3.18	2.47	2.54	1.93	2.45	[illegible]	2.59	2.83	3.21	2.75
Post			2.94*	2.97	2.78*	3.03*	3.10	3.02*	3.34*	2.78	2.55	2.91	3.17	2.70
Social Bonding to Teachers	.51	2.61												
Pre			2.67	2.90	2.91	2.82	2.60	2.03	2.18	2.92	2.49	2.59	3.13	2.60
Post			2.90*	2.93	2.83	2.83	3.14	3.10*	3.28*	2.81	2.59	2.77*	3.34*	2.49
Social Bonding to Conventional Roles	.45	2.74												
Pre			2.78	2.98	2.92	2.70	2.81	2.78	[illegible]	2.42	2.75	2.85	2.99	2.82
Post			2.83	2.80*	2.85	2.80	2.87	2.90	[illegible]	2.60	2.68	2.81	3.08	2.79
Social Bonding (Composite)		10.89												
Pre			11.08	11.79	11.93	10.84	11.03	9.10	9.71	10.77	10.68	11.24	12.38	10.86
Post			11.83*	11.57	11.12*	11.77*	12.21	12.28*	12.95*	11.82	10.53	11.19	12.75	10.59

* = significant at $p <$ (5

Footnote: The Wisconsin Youth Survey used in gathering data reported in this paper was developed in collaboration with Dr. Calvin R. Stone of the Madison Metropolitan School District, Madison, WI. He also made available to us some of the data analyzed in this paper.

of the programs data are provided for two consecutive school years; these are reported as programs 1/84 and 1/85, 2/84 and 2/85.

C. Results. The results in Table 1 suggest that there is substantial evidence to support the claim that programs for at-risk students based on the model described elsewhere have important effects on the students served. An examination of all students' (n = 137) responses reveals that on eight of the fifteen scales there is a statistically significant difference from pre-to post-test. For seven of these scales (self-esteem, negative labeling, perception of opportunity, educational aspirations, social bonding to school, teachers, and social bonding in general), the movement between pre-and post-test is considered positive because students are moving in the desired direction. For the construct of sociocentric reasoning, movement is in a negative or unintended direction; i.e. toward less sociocentric and more egocentric reasoning.

Looking across the eleven instances of the program at nine different sites, the most frequent effect is on self-esteem; six programs produced statistically significant improvement in self-esteem. For perception of opportunity, five programs demonstrate significant changes. Social bonding to peers was enhanced at four sites. Social bonding to school shows a significant change at four sites; at one other site students reported significantly less bonding to their school on the post-test Social bonding to teachers is significantly different in four programs with one program producing change in a negative direction. Overall social bonding increased significantly in three programs; one program registered a decline on this general scale.

Using the number of significant improvements as an indication of program effectiveness, we find considerable variance. Three programs produced only one significant improvement; one significant decline was produced in another program. One program, surveyed in two successive years, seemed to have a consistently negative effect on students, producing four significant negative changes the first year and two negative changes the second. Of the remaining five programs, two produced ten significant improvements and three produced five changes.

These results are encouraging because they suggest that some of the programs are interventions with enough power to produce measurable effects on their students. Three of these programs appear to be especially strong (Sites 2, 3, and 4); one program (Site 1) appears to be powerful in a negative sense.

For Site 2, an SWS program closely approximating the model, there are six scales showing change in 1984 and five scales in 1985. This data can be interpreted to indicate a lack of consistency of impact since there are only two scales, self-esteem and perception of opportunity, on which changes were repeated the second year. Nevertheless, in 1985 the direction is positive on all but three of the scales, and with the small number of students being surveyed (n = 8) it is difficult to produce statistically significant changes.

Site 3 is an alternative school site operating out of a building physically separated by several city blocks from the parent high school. Site 3 appears to be the most effective program in that it produced changes on the most scales: eleven. However, one of these changes, sociocentric reasoning, is in a negative direction. It should be noted that the pre-test mean scores for the students at Site 3 were generally the lowest for all students surveyed in the various programs. It can be argued that it is relatively easier to produce statistically significant changes when the personal orientations of the students are unusually suppressed.

Site 4 is also an alternative school program. This program is housed in an elementary school and draws students from several high schools. Site 4 closely replicates the model program and has been in existence for several years. The results indicate a positive direction of change on every scale but one, sociocentric reasoning. Even on those scales where there is not a statistically significant change, the change in mean scores is relatively large; however, the small 'n' makes it relatively difficult to demonstrate measureable effects.

Site 7 can be viewed as fairly effective in terms of the statistically significant changes produced on five scales. The direction of change is positive on several scales. This site is characterized as a SWS, Conforming in most respects to the model. It is a program that has been in existence for several years and has earned a good reputation within the parent school for its strong track record.

Site 1 deserves some explanation because it produced a number of statistically significant negative effects. During the first year of the program, significant negative changes are seen on four scales; during the second year, two scales show negative changes. In addition, the direction of change on a number of other scales is negative. What is especially interesting about this site is that it is a twin of Site 2. Both were developed in the same school system through the same staff development program. The administrative director of these two program provided the same resources to each. The students taken into the two programs were similar in every respect. The model was implemented at Site 1 at the same time as Site 2, and at least superficially both appeared to have replicated the technical and formal components of the model.

In fact, much of the implementation of the model was illusory at Site 1. Evidence accumulated based on direct observation over the two years revealed a less than complete and enthusiastic acceptance of the rationale of the program on the part of some staff. For example, some did not believe that the program was worthwhile. From time to time actions by some staff were perceived as demeaning by the students. In other instances views were expressed that the students were not capable of learning. A key provision of the model, opportunities for experiential learning, were not generated for students despite assurances that they would be. There was an absence of the positive teacher culture that characterized the successful sites. Correspondingly, there was a negative student culture since students became skeptical of the program and the willingness of the staff to deliver on the promise that the program would offer something different and worthwhile. A key informant noted that even when students from Sites 1 and 2 were engaging in the same kinds of activities, students from Site 1 showed a substantially reduced level of engagement.

What this comparison of Sites 1 and 2 provides is an important test over a two-year period of the informal and qualitative dimensions of a program. The data from the Wisconsin Youth Survey provide measures of those more elusive climate qualities produced by attitudes, beliefs, and commitment from staff and students to the principles of the model. Effectiveness of the model is not guaranteed even though careful plans have been drawn up on paper. Implementation is more than a technical and formal activity. Even when characteristics are present such as small size, program autonomy, individualized instruction and experiential learning, these may not be sufficient for program success. In addition, staff members must understand and believe in the model's rationale and be committed to creating a positive program climate. The formal and technical features must be understood and implemented as enabling characteristics that make it possible for good teachers to produce the kind of intervention that can be effective with at-risk students.

Generally, the results of the Wisconsin Youth Survey support the contention that programs conforming to the principles of the model, whether of the SWS or alternative school format, can produce statistically significant changes on a number of scales derived from theoretically important personal and social orientations. It should be remembered that these data are taken from students in programs that necessarily vary on important dimensions such as teacher skill, school system commitment and the quality of the students enrolled. Obviously these conditions present a number of uncontrolled variables affecting pre- and post-test changes. It also makes comparison across programs problematic. Nevertheless, it would appear that programs conforming to the model can be expected to have positive effects on a number of personal and social orientations for at-risk students and that the Wisconsin Youth Survey can measure these changes.

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The Boston Compact: A Community Response to School Dropouts

Jeannette S. Hargroves

The transition from school to work is difficult for many American inner city youth. In 1982, Boston's leaders signed an agreement known as the Boston Compact to tackle the student dropout and employment problems. This paper reviews the process of the Compact from 1982 to 1986, traces the steps being taken to create a communitywide plan that responds to Boston's school dropout problem, and summarizes Boston's Draft Dropout Prevention and Reentry Plan.

City teenagers today face big troubles in the transition from school to adulthood. Over one-quarter of America's teens leave high school before graduation; in large urban centers dropout rates are close to double that (Barro, 1984; Hammack, 1986; Peng, 1985). Dropping out, particularly for minorities, is a serious handicap in the labor market (Morgan, 1984; Young, 1982). In the United States, unlike some European countries, few institutions exist to help students move from classroom to training to employment (OECD, 1985; Spring, 1986; Williams, 1981). High school ends. Work begins. The term dropout itself indicates the lack of status or structures for young people who leave high school without the diploma.

The high school dropout problem is what many general systems people call an ill-structured problem, a mess, or a complex of interacting problems (Ackoff, 1974; Mason and Mitroff, 1981). Dropping out is a final step in a long chain of events and processes. A poor report card, inadequate child care, a troubled home, English as a second language, the glitter and distraction of the street, all can contribute to a student's quitting early. No one institution is to blame. No one institution alone can solve the problem. Solutions require structures that link work, learning, counseling, day care, and other support services so needed by troubled teenagers (Barr, 1985; Mann, 1985: Wehlage and Rutter, 1986).

This paper was presented at the symposium, "Dropping Out in America: A New Way of Looking at The High School Dropout Problem," American Educational Research Association Meeting, San Francisco, April 20, 1986.

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In September of 1982 Boston businesses, the public school system, and local universities, recognizing the school dropout problem as a domain of common concern, signed The Boston Compact. This written contract specified a set of common goals and efforts that focus on Boston's schools and youth employment and training system. Each of the partners agreed to measurable goals that they would work toward over a period of time:

1. Increase the college and employment rates of high school graduates;
2. Adopt basic reading and math standards for all graduates by 1986;
3. Decrease Boston's high school dropout rate.

The Compact, however, is more than just a set of signed agreements and measurable goals. It is an experiment in educational change. It combines a top-down approach of macropolitical consensus on school system goals with a bottom-up approach to planning school improvement (Farrar and Cipollone, 1985). The Compact tests a strategy of using political consensus and postgraduate youth opportunities as a pressure for planned educational change and school self-renewal.

The model raises many questions about urban school reform. How do many different community institutions achieve consensus on educational goals? What impact does the setting of systemwide goals have on the school system or on individual schools? Under what circumstances does a centrally mandated planning process lead to improved academic performance at the school level? Do minimum competency standards just push more young people out of school? Does the promise of a job or college placement deter some youth from dropping out?

The first section of this paper reviews briefly the Compact's progress from 1982 to 1986. The second section looks at the steps taken to create a communitywide plan that responds to Boston's school dropout problem, and section three summarizes the draft dropout prevention plan.

THE BOSTON COMPACT: 1982-1986

The Boston Compact is now four years old. In that time measurable progress has been made on two of the Compact's goals: jobs and minimum competencies for Boston graduates. Businesses have delivered on their promise of jobs through three youth programs: summer and after-school jobs and hiring of graduates. Working with the Boston Private Industry Council (BPIC), the intermediary agency between schools and businesses, the high schools have done well in training and matching students with jobs, as well as supervising them on the job. In 1985 the BPIC placed almost 823 students, almost one-third of that year's graduates in full-time jobs (Figure 1). A follow-up study of graduates placed in 1984 showed 90% were working or going to school full-time nine months after graduation (Figure 2). In four years the numbers of summer jobs and after-school job placements have grown to over 2,500 and 1,100, respectively (Figure 3).

The Compact's message to Boston's young people is: "If you stay in school you'll get a job" (Fed. Res. Bank of Boston, 1984, p. 11). The belief underlying the Compact is that jobs and training are an important part of any dropout prevention effort, even though past research shows that guaranteeing jobs to students or dropouts, on the condition that they attend school, does not lower the dropout rate (Hahn and Lerman, 1985, p. 37).

On the next Compact goal, academic achievement, progress has also been made over the past four years. Boston public school graduates are now required to pass a minimum competency test in reading as of 1986. The Metropolitan Reading and Math scores have risen at almost all grade levels

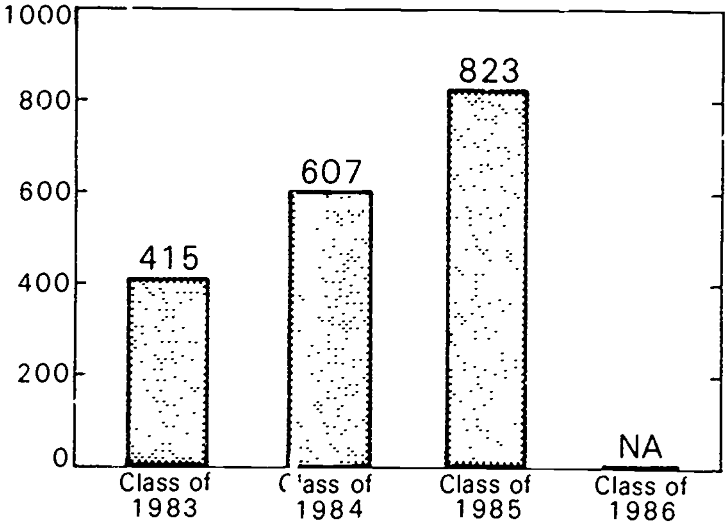

FIG. 1. Number of Boston public school graduates hired full-time through the Compact/Boston Private Industry Council, 1983-86. *Source:* Boston Private Industry Council, 1986.

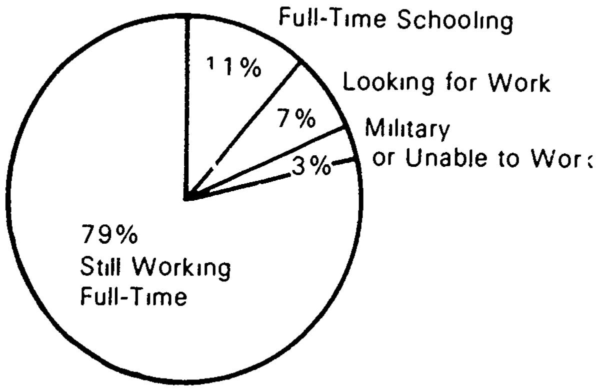

FIG. 2. Boston Public Schools, Class of 1984. Situation of graduates placed by the Compact, nine months later. *Source:* Boston Private Industry Council, *Boston Compact Work Status Report,* April 1985.

and for all racial groups over the past four years (Figures 4 and 5). In addition, the annual attendance rate of high school students has risen from 78% to 85% since 1982 (Boston Public Schools, 1986b).

The Compact resources to high schools have included a new school level planning process that asks each school to focus on how it can best achieve the Compact goals, and new administrative positions to coordinate external resources and carry out the plans. The Compact is built on the belief that Boston employers will look to the city for workers instead of the suburbs if they know young workers have basic skills. The placement activity of the last three years suggests a first step in that direction.

On the Boston Compact's goal of reducing the dropout rate, the news is not

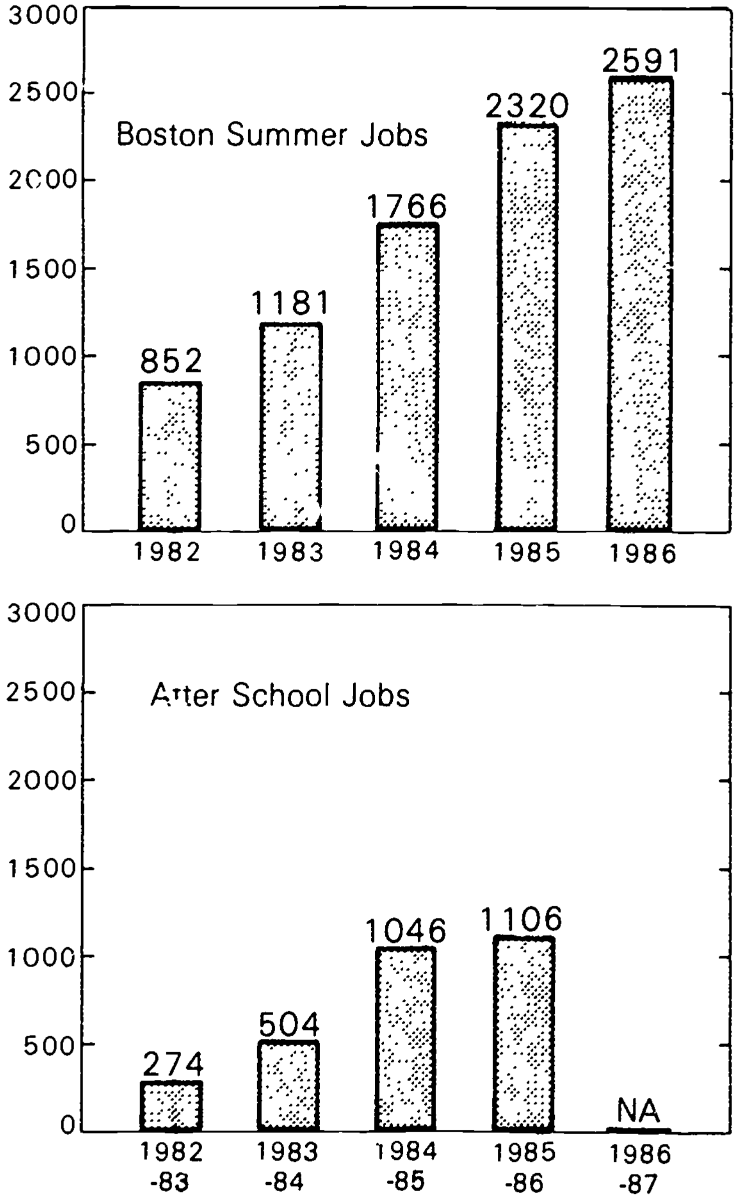

FIG. 3. Number of Boston public school students enrolled in two part-time Compact jobs programs, 1982-86. *Source:* Boston Private Industry Council, 1986.

as encouraging. A recent study of Boston dropout numbers following a class from the time students enter the 9th grade through graduation plus a 13th year (to include those not promoted at some point during high school), shows that for each of four classes between 1982 and 1985 the percentage of students who dropped out rose from 36% to 43% (Table 1).

Table 2 compares the high school enrollment and dropout percentages by race and by gender for the school year 1984-85. The data show that black, white, and Asian students are dropping out approximately in proportion to their enrollment or below, while Hispanic dropouts are disproportionately high. Similarly, the percentage of male dropouts is considerably higher than the percentage of female students.

The counting of dropouts in Boston has been as problematic as in other urban school systems, with many disputes over definition and methodology. Some of the increase in dropout numbers may be due to improved measurement. Beginning in the 1983-1984 school year, efforts were made to improve data collection so that all dropouts were actually coded as such, and not in vague categories such as "Moved, No Address," "Other," and "Did Not Report," which formerly included students who dropped out during the summer months.

The higher dropout rate in 1984-1985 may also be influenced by Boston's growing economy and its exceptionally low unemployment rate. The abundance of jobs paying more than the minimum wage may be an easy lure for the frustrated student. This is not the reason for Boston's high numbers, however. The Boston data as yet shed no light on the reasons why young people leave school.

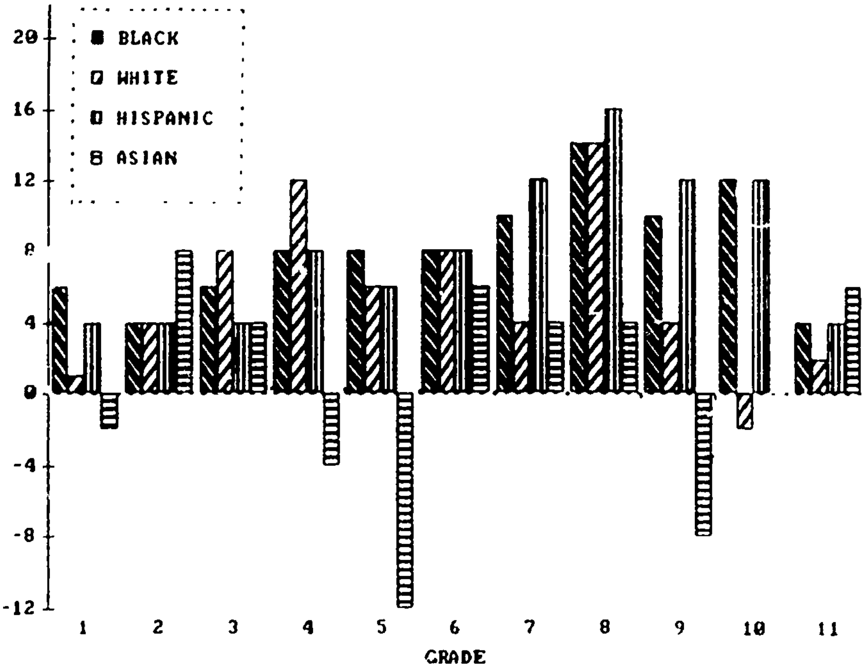

FIG. 4. Metropolitan reading progress, 1982-85. Vertical axis: percentile change. Horizontal axis: grade. *Source:* Office of Research & Development, Department of Testing, Boston Public Schools.

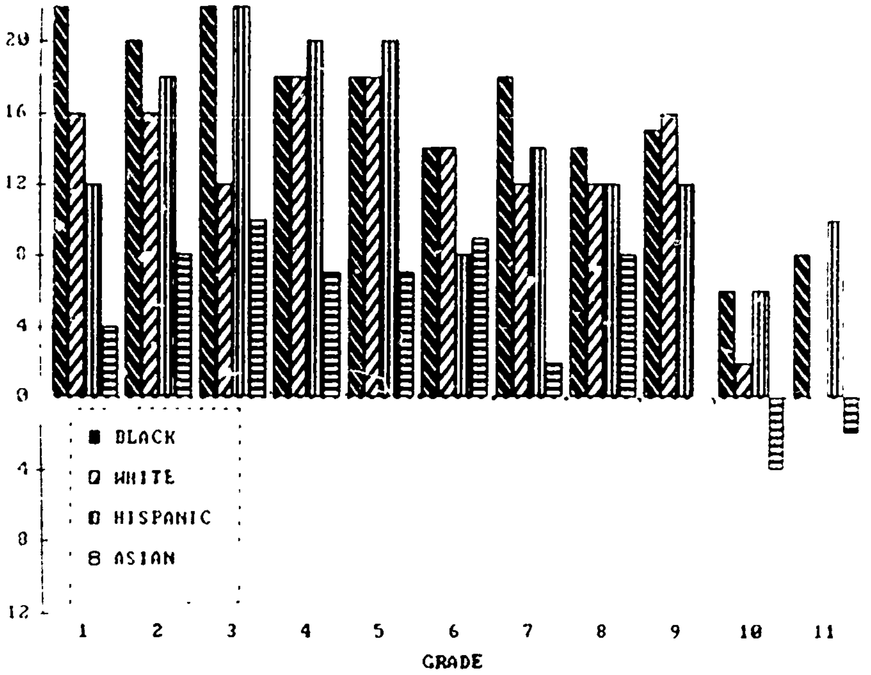

FIG. 5. Metropolitan math progress, 1983-85. Vertical axis: percentile change. Horizontal axis: grade. *Source:* Office of Research & Development, Department of Testing, Boston Public Schools.

Whether the dropout numbers are worse now or about the same as a few years ago, all agree that the loss of 3,000 students each year is too great. The lack of progress is a painful reminder of the interconnectedness, the complicatedness, and ambiguity of the problem, requiring a wide range of strategies and broad participation in the policy making (Mason and Mitroff, 1981, pp. 12-13). Jobs and school improvement efforts are not enough.

PLANNING A COMMUNITYWIDE RESPONSE TO DROPOUTS

The momentum to focus specifically on the dropout problem has been building over the last year. The numerous "help wanted" signs in store windows are reminders that Boston now has more jobs than skilled young people—that dropouts are, indeed, a wasted human resource. A new superintendent brings to Boston a set of priorities that includes intensive remedial tutoring after school, Saturdays, and during the summer for those who have fallen behind academically. On the horizon is new state legislation promising dollars for school systems that propose dropout prevention strategies.

How can Boston build learning and work options for 16 and 17 year olds that will help more young people master basic skills and enter the labor market? What kind of organizational structure is required to create a web of community institutions providing learning, work, and training choices? This section looks at the process for building that community structure in Boston.

Building a Community Plan

In October of 1985, Boston's new school superintendent initiated a discussion with top school staff on dropout prevention. Over the winter, the meetings broadened to include people outside the school system. Today, the Compact Dropout Prevention Task Force includes members from business, universities, school and neighborhood communities.

Early discussions of the task force struggled with how to encompass the dropout problem. All agreed Boston had to build a long-term plan that involved school and nonschool institutions. School learning, business hiring practices, community agency counseling, church support systems, state youth employment and training, all had to be stitched together into one system.

What was clear was that breaking down the dropout problem into separate parts, approaching it in bits and pieces, had not worked and would not work. Regardless of how well designed or brilliantly implemented individual programs might be, if they were not a part of an overall scheme, their impact would be minimal. By January, the task force agreed to develop a large-scale strategy including reentry programs for older adults.

Discussions continued over the next two months. How far should Compact resources and focus extend? Since school failure starts at an early age, some suggested the plan should include early childhood activities. Others felt the limited Compact resources should extend only to middle schools at this time. All agreed the plan had to focus more attention and resources on grades 6 to 9 if they were serious about tackling the dropout problem. The high failure rate of 9th graders, the largest of any grade level in the system, was a clear signal that Compact efforts had to extend at least to early adolescence.

How dependent should immediate planning be on good data analysis? Boston lacks information about dropouts. The "think now, do later" folks, as

TABLE 1. A Cohort Analysis of Boston High School Dropouts and Transfers, 1982-1985

Cohort (13th) Year	Dropouts	Transfers Out	Normal Progress Within BPS
1985	2640	716	2595
	43.0%	11.7%	42.3%
1984	2436	738	2563
	40.7%	12.3%	42.8%
1983	2354	831	2638
	38.0%	13.4%	42.6%
1982	2318	867	2785
	36.2%	13.5%	43.5%

Source: Boston Public Schools, Office of Research & Development. A Working Document on the Dropout Problem in Boston Public Schools, May 1986, Exhibit 11, p. 49.

they called themselves, felt a careful needs assessment was necessary before plans were made for 1986-87 school year. The "do now, think later" group felt the problem was so big that it didn't matter how sharp the aim, they would still hit the target. Action was needed now; the system could not wait another year. The draft plan calls for immediate action in 1986-87 and a dropout research agenda to guide the long-term plan.

What steps to take first: programs or school improvement? Some were concerned that resources and attention given to new programs for at-risk youth would diminish the school system's obligation to provide adequately for students in the mainstream. Ultimately the group came to see that education, like health care, had to provide service at three levels simultaneously: mainstream, remediation, and alternative care. The community and the schools had to work on several parts of the system at the same time: planning need not be sequential.

Using a Conference to Drive the Plan

In mid-February of this year, the Compact, the Boston Private Industry Council, and two banking institutions, urged on by the national organization, the Committee for Economic Development (CED), agreed to hold a Boston conference on dropouts in the spring. CED supported the Boston forum as part of their national effort to encourage discussion of the issues in public education and public-private collaboration raised in their recent report, *Investing in Our Children*. Consensus was that a working conference on dropouts would (1) provide a deadline for putting together the outlines of a plan, which could then be filled in by a variety of city institutions; (2) inform city leadership (including business CEOs) about Boston's dropout problem, and more importantly, what the city could do about it; and (3) give community institutions (hospitals, universities and junior colleges, busi-

TABLE 2. Enrollment and Dropout Percentage by Race and by Gender, School Year 1984-85

	Percent of Enrollment	Percent of Dropouts
Black	47.7	48.0
White	29.2	28.2
Asian	7.9	4.7
Hispanic	13.7	17.9
Other	1.5	1.2
All male students	52.6	58.7
All female students	47.4	41.3

Source: Boston Public Schools, Office of Research & Development. A Working Document on the Dropout Problem in Boston Public Schools, May 1986, Exhibit 13, p. 57 and Exhibit 15, p. 61.

nesses, community organizations, social service agencies, etc.) a chance to support and develop the Compact dropout prevention framework.

The May conference did, in fact, help move the dropout prevention plan along. The task force developed the outline of the long-range strategy for the May conference. The day-long workshops gave people from all sectors a chance to help develop the details of the draft outline. Participants discussed ways that Boston's schools, businesses, community agencies, and universities could work together in four areas to target the high risk and dropout population: high school improvement; middle school improvement; alternative education in and out of school; and community agency and social service support for dropouts.

THE DRAFT DROPOUT PREVENTION AND REENTRY PLAN

The draft dropout plan (Boston Public schools, 1986a) begins with a very ambitious set of goals over the next several years: (1) Reduce by one-half the number of students who drop out annually; and (2) double the number of dropouts who return to regular or alternative schools.

The assumptions underlying the plan are that the dropout problem must be addressed in the context of systemwide improvement efforts, and that the goal must be to make Boston schools more effective for all young people. Second, the initiative will focus on students in grades 6 to 12, while parallel initiatives are developed that will deal with separate but related problems such as early childhood education, the need for improved guidance and counseling, and adolescent issues.

The plan has four sections which lay out where action is needed:

Structural Issues

Basic Education

Alternative Programs

Human Services in the Community

Structural Issues

Learning can be enhanced by making changes in the way schools are organized and the way education and social services are regulated. Possibilities include:

1. A statement of expectations to parents;
2. Reassessment of school rules;
3. An evening high school for students whose child care or family responsibilities make it difficult to attend during the day;
4. Financial incentives and sanctions for schools that are especially effective or ineffective in holding on to their students;
5. Increased coordination of social services.

Basic Education

Some of the changes that must take place in basic education are as follows:

Expand programs that focus on the transition points, 6th grade and 9th grade. Grades 6 and 9 should be organized into learning clusters rather than subject classrooms, so that students entering new schools can get more individual attention and support.

Increase time spent and emphasis on reading and writing in middle schools, by expanding Project Promise, and after-school basic skill tutoring program.

Develop teams of school and social agency professionals to screen and assist students with problems.

Expand staff development opportunities and develop a reward structure for career performance.

Expand the parent outreach efforts launched in two 9th grades in 1984 as part of the Compact Ventures program.

Develop high school career programs in such areas as health, financial services, and communications, that can provide young people with academically challenging programs to prepare them for professional careers, not just entry-level jobs, in our high-growth economy.

Alternative Programs

Many students in the middle schools and high schools will drop out unless special programs are developed to address their immediate needs. The draft dropout plan calls for:

1. An expansion of within-school alternatives;
2. The addition of new systemwide alternatives, including a citywide program for some of our most seriously troubled adolescents.
3. Substantial expansion of the community-based alternatives that are currently supported by the Mayor's Office of Jobs and Community Services.

Human Services in the Community

The dropout problem is not one that has been created by the schools nor can they solve it on their own. The draft dropout plan emphasizes the importance of building much stronger links between human service agencies and the public schools. The public schools need agency help with (a) counseling and parent outreach; (b) school-based health clinics; (c) better community-based referral services for parents and students; and (d) follow-up of graduates and dropouts.

SUMMARY

Since September of 1982, the Boston Public Schools and city leaders from local government, business, labor, higher education, and the community have been engaged in a collaborative effort known as the Boston Compact to improve the education and youth training system in Boston. In the first four years of the Compact, progress has been made on youth jobs and student achievement. Yet with over 3,000 young people dropping out annually, the Compact is now broadening its focus to target the dropout problem specifically. The plans and process outlined here show the small first steps being taken to build a long-term communitywide response to the problem.

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School Reform

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The High Costs of High Standards: School Reform and Dropouts*

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Paper Prepared for Presentation at
The Annual Meeting of the American Educational Research Association
San Francisco

April 1986

*The views and opinions expressed herein are those of the authors and do not necessarily represent the views of the U.S. Department of Education. The authors contributed jointly and equally to this paper; the order of listing is alphabetical.

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The High Costs of High Standards: School Reform and Dropouts

Introduction

In a recent essay we concluded our analysis of the likely impact of high standards on at-risk students by arguing that:

> ...we must continue to present challenging standards to secondary school students, particularly at-risk students, if we wish them to attach sufficient value to schooling to stay until graduation...higher standards should increase the value of schooling to all students if such standards can be placed within their reach and are not simply used as sorting and screening devices. There is growing evidence that students of all ability levels respond positively to more challenging standards when they have a chance to achieve them. (McDill, Natriello, and Pallas, 1986)

In this paper we extend our analysis by: (1) briefly reviewing the kinds of standards proposed as part of the current wave of school reform efforts, (2) considering the likely effects of those standards, both positive and negative, (3) discussing the conditions under which students, particularly at-risk students, may be expected to respond most positively to higher standards, (4) reviewing recent statements and actions by federal and state officials which suggest a lack of understanding of the true costs of achieving high standards and a lack of will in marshalling the necessary resources to achieve such standards.

(1) Calls for Higher Standards

The recent commission reports on the state of American public schools and the resulting federal and state policies for educational reform have involved attempts to promote higher standards for students in three broad areas: the academic content of courses, the use of time for school work, and student achievement (Education Commission of the States, 1983; Criesemer and Butler, 1983).

Several reports call for higher standards for course content. The

National Commission on Excellence (1983) advocates five new basics to be taken by all high school students (including four years of English, three years each of mathematics, science, and social studies, and one-half year of computer science), the National Science Board Commission (1983) has advocated more courses in science and math, the Task Force on Education for Economic Growth (1983) has called for the elimination of the soft, non-essential courses, and the secretary of education has called for a renewed emphasis on content as part of his "Three C's - content, character, and choice" (Bennett, 1985).

The results of this call for more rigorous course content have been widespread. At least forty states have increased the number of academic courses required for high school graduation, although they have not often adopted the precise recommendations of the commissions (Fiske, 1984). Course requirements have been increased to the point that they now consume three-fourths of the high school year, reversing a two-decade trend of increasing elective offerings (Association for Supervision and Curriculum Development, 1985).

The use of time for instruction and learning is a second area in which a number of commission reports have advocated higher standards. Longer school days, longer school years, longer school weeks, greater time on homework, stricter attendance policies, and better use of in-school time are among the recommendations offered in major reform reports by the National Commission on Excellence (1983), the Task Force on Education for Economic Growth (1983), the National Science Board Commission (1983), and Goodlad (1983).

The state-level response to the call for greater time for learning has typically centered on increasing time in school. Twenty-three states have taken steps to increase in-school time (Fiske, 1984). For example, in New York "the new plan for 7th and 8th graders leaves only ten minutes per day unencumbered by state requirements" (Association for Supervision and Curriculum Development, 1985:14). In addition, some local districts have moved to establish or increase homework requirements. For example, Oklahoma City's new homework policy requires 30 minutes of homework each night for elementary students and 2 hours each night for high school students (U.S. Department of Education, 1984).

Higher standards for student achievement is a third area in which recommendations have been made. The use of grades solely as indicators of academic achievement, rigorous grade promotion policies, and periodic use of standardized achievement tests are only some of the recommendations advanced in recent years (National Commission on Excellence, 1983; Task Force on Education for Economic Growth, 1983; National Science Board Commission, 1983; Boyer, 1983). Policy action in the area of achievement standards pre-dated the commission reports as states in the late 1970's started requiring testing of students to insure that they had achieved minimum levels of proficiency. By 1984 twenty-nine states had established some type of state testing program, and thirteen additional states had such programs under consideration (U.S. Department of Education, 1984). Some states, such as New Jersey, have moved to raise the standards in existing state testing programs (Cooperman, 1986).

(2) The Likely Effects of High Standards

Elsewhere (McDill, Natriello, and Pallas, 1985; 1986) we have presented an assessment of the evidence on the likely effects of higher standards on all students, including at-risk students in U.S. secondary schools. As might be expected with any new policy, both positive and negative effects appear to be likely. This is true for each of the three major types of standards suggested in the reform reports.

Curriculum Standards

The pattern of mixed effects appears likely to result from the imposition of new curriculum standards. For example, Alexander and Pallas (1984), using the type of curriculum reforms presented in the report of the National Commission on Excellence (1983), analyzed data from the Education Testing Service's Study of Academic Prediction and Growth (Hilton, 1971) to measure the effects of the "New Basics" recommended by the National Commission on student performance on the SAT and English and history achievement tests. Controlling for student background characteristics, student competency prior to high school, and student grades while in high school, they find that students who completed all of the requirements of the New Basics had a 25 point advantage in the verbal section of the SAT over students who did not complete these curricular requirements. Completing the core requirements in math confers a 40 point advantage on the SAT math section, while completing the requirements in science confers a 22 point advantage in the SAT math section. Thus, there do indeed seem to be positive effects from the new curriculum standards.

However, the analyses of Alexander and Pallas (1984) also reveal that when students have relatively low GPA's, completion of the core requirements seems to have little effect on student test performance. Indeed, they conclude that "...the lowest performing youngsters apparently are a little bit better off outside the core" (Alexander and Pallas, 1984, p. 411). Thus completion of a core curriculum similar to that recommended by the National Commission on Excellence (1983) appears not to improve the performance of the very student most likely to be potential dropouts, those with low GPA's.

Moreover, our own analysis (McDill, Natriello, and Pallas, 1986), drawing on the work of Rosenholtz and Wilson (1980), Simpson (1981), and Rosenholtz and Rosenholtz (1981) in elementary classrooms and that of Crain (1984) in secondary schools, suggests that a narrowing of the range of course offerings entailed in the new curriculum reforms may carry particularly negative consequences for potential dropouts. The courses proposed for inclusion in the core curriculum are academic courses which tap ability along a narrow range. Thus, implementation of the recommended core curriculum will limit the instructional experiences of students to traditional academic subjects, restrict the number of dimensions of ability deemed legitimate within the school, and curtail student choice in constructing a program of study. Students with limited ability in traditional academic subjects may have to face repeated failure with little opportunity to engage in the broad range of activities valued in adult society (Crain, 1984) that might afford them some success and encourage them to redouble their efforts to master academic content. One major result of the full implementation of the "New Basics" could be the clarification of the distribution of ability in these basics, leaving some students only the choice of dealing with constant failure or dropping out of school. Overall then, the effects of the new curriculum standards are likely to be mixed.

Time Standards

The evidence on the likely impact of the new standards for student time on school work also suggests that the effects are likely to be mixed. Studies of the effects of time-on-task conducted in elementary school classrooms in general suggest a positive association between time and learning (Karweit, 1984). Indeed, many of the studies find a statistically significant effect of engaged time on learning. While Karweit (1984) expresses a number of reservations about extrapolating from these studies to the policies of the reform commissions, studies of student time on task offer some hope that greater student effort will lead to greater achievement, though perhaps not for all students under all circumstances.

At the secondary level, studies of the effects of homework on student achievement offer similar hope for positive effects from the new time standards. Studies by Coleman, Hoffer, and Kilgore (1982), Peng, Fetters, and Kolstad (1982), Keith (1982), Paschal, Weinstein, and Walberg (1983), and Natriello and McDill (1986) suggest that students at all ability levels appear to benefit from effort spent on homework. For example, using the High School and Beyond data set, Keith (1982, p. 251) found that low ability students who do 1 to 3 hours of homework per week achieve grades commensurate with those of students of average ability who do no homework. Natriello and McDill (1986), in an analysis of data from students in 20 high schools nationwide, found that an additional hour of homework each night was associated with a .13 rise in grade point average.

The good news is that more time on homework appears to lead to better academic outcomes for all students. The bad news is that at-risk students may be in the worst position to actually devote more time to school work and homework. More demanding time requirements in schools which might lead to more satisfactory academic outcomes for most students might also lead to more conflicts between the demands of schools and other demands placed upon at-risk students. Since one of the characteristics of high school dropouts is that they have laid claim to adult status (Stinchcombe, 1964; Hirschi, 1969), they often have commitments to work and families. Such other commitments are known to reduce student effort on school work (D'Amico, 1984; Steinberg, Greenberger, Garduque, and McAuliffe 1982; Pallas, 1984). These commitments compete for the limited time available to at-risk students.

If the amount of time required for school work is increased, even modest levels of work involvement may have negative consequences for educational performance and persistence, ceteris paribus. A great deal would depend on how youngsters' propensity to work might respond to increased time demands. Some youngsters might reduce their work involvement, but those who are working to help support their families, for instance, are unlikely to stop in response to increased school demands.

Greater demands for time in school and on homework also create conflicts with extracurricular activities. Participation in extracurricular activities has been shown to have a variety of desirable effects on the academic progress of students by raising educational expectations and grades (Spreitzer and Pugh, 1973), lowering delinquency (Landers and Landers, 1978), and directly affecting persistence in school (Otto and Alwin, 1977). Participation in extracurricular activities builds a normative attachment to the school, and also provides additional avenues for success for students who do not perform well in the classroom. It is precisely such students who are most at risk of dropping out. Reduced participation in extracurricular activities due to increased school time may lead to greater student alienation and deprive the school of the only holding power it has for those high risk students.

Thus, the impact of the new standards for student time on school work and homework is likely to be mixed as well. While many students will no doubt profit from the more demanding time requirements, others, particularly at-risk students, may find that the increasingly severe conflicts between school and other obligations force them to make a choice. Unfortunately, for those of us who would like to capture greater student attention on school work, that choice is likely to be to leave school.

Achievement Standards

Studies at both the elementary and secondary levels provide some sense of the likely impact of higher achievement standards. At the elementary school level the question of the impact of achievement standards on student effort and achievement is addressed, at least indirectly, by research on the impact of teacher expectations on students. Assessing this literature, Brophy and Evertson (1981, p. 12) conclude that "...the weight of the evidence from both types of studies [naturalistic and experimental] suggests that teacher expectation effects are real and can occur, although they do not occur necessarily or always and they differ in strength and type of outcome." While this literature provides support for the proposition that higher standards can lead to somewhat greater student effort and achievement under certain restricted conditions, it also suggests that at present these conditions are not understood in a systematic way.

A series of studies of the evaluation of students at the secondary school level by Natriello and Dornbusch (1984) also provides an answer to the question of the impact of achievement standards on student effort. These studies revealed that the standards in high schools were quite low in general and in particular low for certain groups of students, most notably Blacks and Hispanics. For example, in some situations teachers gave students passing grades simply for attending class. Moreover, when students were confronted with challenging standards they did, in general, devote more effort to school tasks. Particularly interesting for our current analysis, it was in the low demand classrooms that student cutting was the highest. Natriello and Dornbusch (1984) conclude that although the low demand teacher might think that the lack of academic pressure makes the class more pleasant and reduces cutting, in reality there is little activity going on in the low-demand classroom to merit attendance. Students who feel that they are not missing anything when they cut class are more likely to cut. Furthermore, Natriello and Dornbusch (1984) found that a higher demand level in the classroom was associated with greater effort by students, even when the ability level of the students was controlled. Moreover, it was in the low-demand classrooms that the highest proportion of students reported feeling that the teacher should make them work harder. However, high-demand classrooms can often lose low-ability students. In response to an overly fast pace, low-ability students reported that they tried less hard in high-demand classrooms than in medium-demand classrooms. As Natriello and Dornbusch (1984, p. 106) conclude: "Although low-ability students are assisted by increasing the demands upon them, teachers in high-demand classrooms must learn to help these students keep up with the work by encouraging their questions and coming to their aid. Difficult though the task is, teachers in high-demand classrooms must challenge low-ability students without overwhelming them." While the impact of higher standards on student effort is generally positive, we should not expect dramatic increases in student effort among low ability students, particularly if higher standards are not accompanied by provisions for additional help for these students.

Raising achievement standards may present special problems for potential dropouts. Compared to high school graduates, dropouts are lower in socioeconomic background, academic aptitude, and reading skills.

Numerous studies indicate that the withdrawal of students from school is often a response to goal failure experienced primarily in the academic and social context of the school (Elliott, 1978; Gold and Mann, 1984). A number of studies (McPartland and McDill, 1977; Spady, 1974; Natriello, 1982; Natriello, 1984) have noted the connection between unsatisfactory student experiences with the school authority system, which lead inevitably to a failure to attain goals, and student withdrawal from school. Thus, at-risk students are particularly susceptible to any additional negative feedback that may come their way as a result of the new achievement standards such as minimal competency tests. While specific evidence on the adverse effects of MCT on likely school leavers is currently unavailable, the results showing that failure rates on competency tests are much higher for economically disadvantaged students and those from minority racial/ethnic backgrounds is relevant (Jaeger, 1982; Jaeger and Tittle, 1980; Linn, Madaus, and Pedulla (1982), since these sociodemographic groups are known to have disproportionately high rates of truancy, dropping out, and school discipline problems.

The High Costs of High Standards

The implementation of the recently recommended reforms may not bring excellence in education for all students. If academic standards are raised and students are not provided substantial additional help to attain them it seems reasonable to expect that at-risk students, those socially and academically disadvantaged, will be more likely than ever to experience frustration and failure. The result for these students may not be notable increases in cognitive achievement but rather notable increases in absenteeism, truancy, school-related behavior problems, and dropping out.

Without substantial assistance for these students the higher standards of the reform commissions will fail to break the strong "links in a long chain of interconnected problems" (Kaplan and Luck, 1977, p. 41).

There are various ways to consider the costs to the nation of the dropout problem. We (McDill, Natriello, and Pallas, 1986) recently estimated the monetary cost to the nation for the estimated 13.6% of the high school class of 1982 that dropped out as more than $55 billion over the lifetimes of these youngsters. While there are not figures to calculate the additional costs associated with the greater numbers of students likely to leave school before graduation if we simply implement the new reform standards and fail to provide additional learning resources, the costs of dropping out are enormous even for those students in a single cohort. Thus we must still agree with Levin's (1972) earlier conclusion: the national cost of keeping students in school can scarcely approach the cost to the nation of dropping out. But keeping students in school in the wake of higher standards will require substantial additional resources to create the conditions under which all students can hope to meet the challenge of the new standards.

(3) Conditions Under Which At-Risk Students Can Succeed in School

The current movement to increase standards offers a unique opportunity to consider ways in which schools can be modified to increase the probability that at-risk students will be able to meet the new standards. It will do little good to raise standards in theory and on paper if we cannot insure that students will actually achieve at these new levels.

A review of the literature on school organizations (Hamilton, 1986; McDill, Natriello, and Pallas, 1986) suggests a number of features of schools that can be modified to increase the chances that at-risk students will succeed in achieving the new standards. Of all the alterable characteristics of schools discussed in the literature, size of school is the one most emphasized. Researchers and practitioners are practically unanimous in asserting its importance. This is not surprising given the fact that size is conceptualized as a basic structural feature of social groups (Morgan and Alwin, 1980), and has been viewed "as the most important condition affecting the structure of organizations" (Blau and Shoenherr, 1971, p. 57). Small schools of 300-400 students (Levin, 1983) with a low student-adult ratio are viewed as having fewer disorders (Diprete, 1982; G. D. Gottfredson, 1984b; McPartland and McDill, 1977; U. S. Department of Justice, 1980, Appendix 3), higher achievement levels (Levin, 1983), higher rates of student participation in extra-curricular activities (Barker and Gump, 1964; Morgan and Alwin, 1980), and feelings of satisfaction with school life (Barker and Gump, 1964). Small schools are more personalized or less anonymous, have a more homogeneous student body, have more flexible schedules, and have smaller classes. All of these features should increase the chances that at-risk students will obtain the necessary assistance to succeed in meeting the new standards.

A second alterable characteristic of the school, closely linked to size, is the structure and content of the curriculum. Specifically, an individualized curriculum and instructional approach are crucial because psychologically disengaged students such as potential dropouts have substantial deficits in aptitude and achievement. Individualized learning approaches with course content and mode and pace of presentation tailored to the individual student's aptitude and interests (to the extent possible) are of major importance in order to prevent the sense of academic failure and low self-esteem characteristic of school delinquents, truants, and dropouts; feelings that will be even more pronounced as standards are raised. Some dropout and delinquency programs have shown that self-designed and self-paced curricula which integrate vocational and academic subjects with work experience are promising because they enable the disaffected student to acquire salable skills and to perceive that his/her schooling is relevant to the workplace (Lotto, 1982).

A third modifiable feature of schools which appears to be useful in combating deviance may be labelled broadly as climate, especially that component of school environment which relates to governance (G. D. Gottfredson, 1984b). Climate encompasses a large number of potentially manipulable factors such as reward systems, clarity, and consistency of rules and expectations governing social behavior, and degree of normative pressure in the school environment toward educational goals such as high achievement and intellectualism.

The concept which perhaps appears most frequently in the relevant literature on climate is governance. Several researchers have emphasized the importance of clear rules and their consistent enforcement as essential to maintaining an orderly environment, which in turn, is crucial to high academic achievement (Coleman, Hoffer, and Kilgore, 1982). G. D. Gottfredson (1984b, p. 76) states the consensus on this point succinctly: "The clearer and more explicit the school's rules, and the more firmly and fairly they are enforced, the less disorder that the school experiences."

Another alterable component of school climate is the system of academic rewards. Learning models applied to student achievement and social behavior typically involve the implicit or explicit premise that in order to generate students' commitment to the school and to motivate them to achieve, the system of rewards must be attainable and contingent on their effort and proficiency. Since potential dropouts and students with behavior problems or more serious conduct disorders have typically obtained poor academic grades, they likely discount the validity or legitimacy of traditional academic evaluation systems (U. S. Department of Justice, 1980, Appendix 3, pp. 6-7). Thus, researchers and practitioners working with such students have found it useful to employ a variety of alternative, detailed reward systems such as (1) learning contracts which specify both effort and proficiency requirements, (2) token economies, and (3) grading systems which base evaluation on individual effort and progress (Cohen and Filipczak, 1971; McPartland and McDill, 1977; U.S. Department of Justice, 1980, Appendix 3).

The final modifiable component of school climate which we discuss here is the degree of environmental press or normative emphasis on academic excellence by students, teachers, and administrators. Stated differently, at both the institutional and classroom levels schools vary in the extent to which their student bodies and faculties provide support for achievement and intellectualism, and such variation has been found to be related systematically to levels of student achievement and motivation (Alexander, Fennessey, McDill, and D'Amico, 1979; McDill and Rigsby, 1973).

The above list of three alterable characteristics of schools which are viewed as especially promising (U.S. Department of Justice, 1980, Appendix 3, p. 15) in affecting the relevant performances and behaviors of at-risk students are not exhaustive of those appearing in the literature. Others of potential significance, but which some researchers believe are less firmly grounded in solid evidence, include student and parental involvement in governance or decision-making of the school (Amenta, 1982; Duke and Seidman, 1981; Maurer, 1982; U. S. Department of Justice, 1980), peer counseling and/or tutoring (Odell, 1974; Romig, 1978; U. S. Department of

Justice, 1980, Appendix 3), and physical location of the treatment program in the traditional school setting versus in a physically distinct setting (Harris, Hedman, and Hornig, 1983; Robbins, Mills, and Clark, 1981).

(4) The Rhetoric and Reality of Higher Standards

As the above analysis suggests, higher standards for students in U.S. secondary schools will require additional costs. As we have indicated, such costs can be of two types. On the one hand, the federal and state governments can advocate and develop regulations which mandate higher standards, which if faithfully implemented, are likely to result in a higher dropout rate and the associated additional costs to the nation. On the other hand, the federal and state governments can make a serious attempt to identify the major features of U.S. secondary schools which can be altered to create conditions more conducive to the success of at-risk students in the wake of the new higher standards and to provide the additional resources required to make such necessary alterations.

Current evidence indicates that there is little understanding of the problems likely to be generated by the new reform standards. Witness, for example, the recent release of the Secretary of Education's Third Annual Wall Chart. The chart showed average ACT and SAT scores in 1985 and 1982, and the high school graduation rates in 1984 and 1982 for the 50 states and the nation as a whole. The Wall Chart figures showed that graduation rates increased in 39 states from 1982 to 1984 and nationally from 69.7% in 1982 and 70.9% in 1984. College admission test scores rose in 35 states from 1982 to 1985, and showed national gains in this period as well.

Secretary of Education William Bennett, in releasing the Wall Chart, claimed that these figures show that raising standards for performance benefit everyone, including potential dropouts. He argued, "Some have said that we can't have both excellence and equity in our schools, but the 1986 wall chart shows otherwise. It proves that, contrary to the usual thinking, test scores can be increased and dropout rates decreased at the same time. Clearly, raising standards and expectations for everyone means everyone benefits. Excellence and equity go hand-in-hand." (Bennett, 1986).

The Wall Chart results, and Bennett's comments, have been widely reported in the press as showing the influence of the reform movement on school performance. Raising standards, it is claimed, can boost achievement, while not increasing the dropout rate. In an earlier paper we predicted just such a response from policy makers (McDill, Natriello, and Pallas, 1986). That is, we suggested that in the wake of the reports of the reform commissions, policy makers would be tempted to credit any improvement in aggregate measures of student outcomes to the reforms even if the outcomes pre-dated the reforms. In this case we were right, but when the news is bad, there is little joy in being prophetic.

What is the evidence for claim of the Secretary of Education? There are several reasons to be cautious about his conclusions. First, test score and graduation rate trends reported in the Wall Chart have been in place for some time now. SAT scores first began to rise in the 1981-82 school year. ACT scores have fluctuated slightly, and apparently, randomly, since the 19[illegible]-75 school year. The current increase since the 1983-84 school year cannot be interpreted as a convincing trend, as the same pattern was observed from 1975 to 1979, followed by a very slight decline, before rising again in 1983-84 (U.S. Department of Education, 1985).

Graduation rates also have been fairly stable over time. Unadjusted graduation rates have been rising nationally since the 1979-80 school year. But these figures are not strictly comparable to the Wall Chart, which adjusts for unclassified and special education students, as well as for migration estimates. We have calculated an adjusted rate for 1983 of 70.7%, which can be compared to the rates reported in the Wall Chart of 70.9% for 1984, and 69.7% for 1982. Most of the change from 1982 to 1984 is due to an increase from 1982 to 1983, not an increase from 1983 to 1984.

It is clear that the reform movement has not turned around declining trends. In fact, the increases in test scores and graduation rates predate the reform rhetoric of 1982-84. Consequently, it is hard to tell whether the reform movement has had any impact on these trends at all, or whether the changes from 1982 to the present reflect a secular increase due to other processes already in motion.

Second, there is little reason to believe that the reform recommendations of 1983 could have already had an impact on academic performance and the dropout rate. Many programs proposed by the states are only now being implemented, and doubtless there are "grandfather" provisions in some states for students already in the system. We believe that the effects of these reforms will not be felt for some years to come.

Let's take a closer look at the claims being made for dropout rates. The 1984 figures for the graduation rate on the Wall Chart represent the ratio of high school graduates in the 1983-84 school year to ninth grade enrollment in 1980-81, with a few technical adjustments. If we grant the remarkable assumption that reforms were put in place right on the heels of the release of A Nation at Risk (U.S. Department of Education, 1983), in the spring of 1983, at most the reforms could affect dropping out in the 1983-84 school year only, the senior year of high school for these youngsters. But the vast majority of students who make it to the twelfth grade do graduate; most dropping out of school occurs earlier. Under the most charitable assumptions, then, only a very small part of the Wall Chart 1984 graduation rate could be even remotely linked to changes in standards for performance. And standards implemented in the 1984-85 school year or later could have no effect whatsoever on the dropout rates reported in the Wall Chart. Again, it is just too soon to tell what the effects of changing standards for performance on dropout rates will be. We need to track the experiences of a cohort of youngsters all the way through the elementary-secondary system to see the effects of reform, since standards for performance can change at both the elementary and secondary levels (Natriello, Pallas, and McDill, 1986).

This analysis suggests, incidentally, that the graduation rates in the Wall Chart may not be very good indicators of the effects of reform on the dropout rate. Dropout figures which focus on the number of graduates relative to ninth grade enrollments may miss substantial numbers of students who drop out prior to ninth grade. This is especially true for minority and disadvantaged youth, who tend to drop out at earlier ages (Hirano-Nakanishi, 1984). Raising standards for performance may push the at risk population out of school at increasingly lower grade levels. Estimates of the effects of raising standards for performance should look at the effects on everyone, not just on those who make it as far as the ninth grade.

Finally, even if we grant Secretary Bennett's dubious claims about the effects of the reform movement, there is one last issue to address: can excellence and equity go hand-in-hand? We can examine this issue directly by comparing the changes in test scores with the changes in graduation rates across the states. Among both the ACT states and the SAT states there is a moderate negative correlation between the change in test performance from 1982 to 1985 and the change in the graduation rate from 1982 to 1984. When the ACT and SAT states are combined, the weighted correlation is -.26, which is significant at the .10 level. In other words, states gaining more in test scores tend to improve their graduation rates less, and those states improving these graduation rates more tend to show a smaller increase in test scores than other states. While these results are hardly conclusive, they suggest that, at least at the state level, it is considerably easier to raise test scores or to raise graduation rates than it is to accomplish both.

There is little reason to be optimistic about increasing standards and reducing the dropout rate as long as the policy makers who urge higher standards engage only in rhetoric. The kinds of changes to schools that our review suggests are necessary to achieve higher standards will require the allocation of additional resources targeted to provide compensatory services to at-risk youngsters. Yet, as Levin (1985:15) observes, most states:

> ...states have made little or no specific provision for the educationally disadvantaged other than hoping that rising standards will lift the learning levels of all students.

The funding for higher standards has simply not corresponded to the pronouncements of political leaders. Odden (1985:403-404) estimates the cost of comprehensive educational reform to be 20% to 25% of current expenditures and points out that:

> States have not produced that level of new resources. With 1983 as the base year, an extra $24 billion would be needed to finance education reform; only an extra $2 billion in real resources were appropriated. With 1984 as the base year, an extra $25 billion would be needed; only an extra $3.4 billion in real resources were appropriated.

Moreover, the likelihood of substantially increased funding in the near future is not great. Many states will keep education funding stable or increase it just enough to meet the demands of increasing enrollment (Hertling, 1986), and the federal education budget will likely only contribute to funding problems (Rothman, 1986).

The new federal budget did call for an increase in funds for research and statistics which should lead to the collection of more useful data on dropouts. But, unfortunately, more systematic information will do little good unless policy makers begin to consider the dropout issue as a serious problem and cease masking it in the rhetoric of higher standards. We should move beyond the prevailing rhetoric of policy makers that the dropout rate and at-risk students can be helped simply by the imposition of higher academic standards and get on with the task of improving the quality of education for all students.

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AT-RISK STUDENTS AND THE NEED FOR HIGH SCHOOL REFORM

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The central problem addressed in this paper concerns the need for schools to develop a different response to their at-risk students. Data from national studies indicate that the school can be seen as contributing to the problems of the at-risk student. Self-esteem of dropouts actually rises after leaving school. Attempts by the school to respond in a constructive manner raise a number of dilemmas for practitioners. It is argued that many schools now resolve these dilemmas in ways that further alienate at-risk youth. A model program based on research and staff development experiences is offered as a guide to educators. It emphasizes small size, authority to create an environment appropriate to the selected population of students, a teacher culture featuring collegiality, optimism about student success and an extended role toward students. The student culture is characterized by commitment to the program, high expectations for academics and behavior, and a "family" atmosphere. The curriculum is individualized in many academic areas, but also has many group experiences. An active mode is essential, and this is best seen in a set of experiential components that feature action and reflection.

I *At-Risk Students, Defining the Problem*

At-risk students come from a variety of circumstances and exhibit a variety of characteristics that make them at-risk with respect to school. For the purposes of this paper the term "at-risk" applies to those youth who have serious personal and/or academic problems that are likely to lead to dropping out. A school's dropout rate is the best indicator of its at-risk population. Dropping out most often results from truancy and other disciplinary problems, low achievement and course failure, drug or alcohol dependency, or pregnancy. At least a quarter and probably more of today's high school students leave school without a diploma.

This national dropout statistic, serious as it may sound, masks the fact that the percentages are unevenly distributed in terms of geography, race and ethnicity. Most urban school systems are now reporting much higher dropout rates than the national average. For example, the Boston public schools have seen a steady rise in the number of students dropping out during the 1980s. In the 1980-81 school year, about two thousand Boston youth left school without a diploma; that number has increased steadily each year despite a real decline in the number of students enrolled in the system, until

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I wish to thank Robert A. Rutter and Dianne Paley for their helpful comments while writing this paper.

This paper was prepared at the National Center on Effective Secondary Schools, School of Education, University of Wisconsin-Madison which is supported in part by a grant from the Office of Educational Research and Improvement (Grant N. OERI-G-86-0007). Any opinions, findings, and conclusions or recommendations expressed in this publication are those of the author and do not necessarily reflect the views of this agency or the U.S. Department of Education.

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slightly more than three thousand students dropped out in 1984-85. Half of this number were black students, which translates into a fifty percent dropout rate among blacks in Boston (Boston Public Schools, 1986).

Other large urban systems present equally alarming statistics. In Chicago, 43% of all students left school before graduation. A breakdown by race and ethnicity finds that 47% of Hispanics, 45% of blacks, 35% of whites, and 19% of Asians dropped out. Almost half of all male students in the Chicago public system dropped out of the class of 1982 (Hess and Greer, 1986). While the high school dropout problem can be dramatized with the statistics from our urban systems, many smaller and more affluent school systems are distressed to discover that a large number of their youth are dropping out. Clearly this is a national problem that affects a broad spectrum of schools and challenges our belief in the efficacy of public education for all children.

In looking for the causes of dropping out, one can identify a set of variables that correlates with school failure and the ultimate decision to leave. There are student background characteristics that can be used to describe those who are at-risk in schools. A family background of single-parent home and low socioeconomic status is commonly associated with at-risk status. Such students are disproportionately black and Hispanic because these racial groups are disproportionately poor While family and economic background factors are important correlates of dropping out of school, data from the High School and Beyond study indicate that the most powerful determinants of dropping out are disciplinary problems and low grades and/or course failure (Ekstrom, et al., 1986) This suggests that an important dimension of the problems at-risk students face comes from their negative experiences in school as well as their home and community background. The interaction of school experiences and family background that results in the decision to drop out is not will understood by researchers, educators or policymakers.

What is clear is that the at-risk student population will not decrease in the near future. The demographic trends in this country indicate that our public schools will be faced with an even larger population of youth who fit the general characteristics of the at-risk student. Both blacks and Mexican Americans have higher birth rates than whites, and there is a large group of black and Hispanic young women in the age range of 22 to 25 years. In contrast, women in the white population now average 31 years of age and are moving out of the childbearing years (Hodgkinson, 1986).

In addition to the increasing numbers of minority, immigrant and poor youth in school, there is a general trend toward the dissolution of the traditional family unit Not as visible as race, for example, is the fact that fewer than half of all children will grow up in the traditional intact family living with the same father and mother. According to U.S. Census data, 50% of all children born in 1983 will live with only one parent before reaching age eighteen.

All of these demographic data suggest that educators will increasingly be faced with students who come from backgrounds that fit the at-risk profile Such youth frequently do not conform to the model of "ideal pupil" desired by teachers, and they do not alawys share with educators the same assumptions about the purpose of formal schooling As alarming as this may be to the educational community, educators cannot let this become an excuse for lack of effort or success with these students. In fact, if educators focus exclusively on the family background characteristics of at-risk students, a pernicious form of institutional reasoning may develop that carries the following tone: After all, it is not our fault that some of our students are from poor and single-parent homes and not very talented or motivated in traditional academic ways, and since we cannot do anything about these things that interfere with school success, we are absolved of responsibility for the fact that a sizeable portion of our clients find good reasons to leave before graduation.

Up to this point, research on at-risk students has focused primarily on the task of identifying and describing this population through statistical correlations. Implicit in much of the research and writing is the assumption that a better understanding of the background characteristics shared by this group will allow educators to develop programs and practices that will reduce failure and school dropout rates. This assumption, it appears, is unwarranted because the focus on family and social background factors has not produced any abovious implications for practice among educators. Moreover, if the attention of researchers continues to focus on the relatively fixed attributes children bring with them to school very little change in the structure of schools or the curricular experiences they offer is likely.

In an effort to move beyond description, research should now be directed toward the interaction of at-risk students with both mainstream and alternative school settings. It particular, we need to discover what it is about school that produces failure and negative experiences for the at-risk and, correspondingly, what institutional characteristics and strategies can produce success and positive experiences for these same adolescents. Presumably our comprehensive public schools are obligated to create an environment in which all young people can find success and develop aspirations for a better life as worker, parent and citizen.

II. How Much Do Schools Contribute To the Problem?

The National Coalition of Advocates for Students conducted hearings in a number of communities across the country to assess the nature of the at-risk student problem (Howe and Edelman, 1986). By interviewing many students and former students they discovered a pattern of daily practices and institutional mechanisms that tend to undermine student self-esteem and eventually push students out of school. One witness in New York described her experiences this way:

"I hated the school. It was overcrowded, teachers didn't care; students walked out and acted up and no one did anything to help the situation. I never knew who my counselor was, and he wasn't available to me. . . I began spending my time sleeping in class or walking the halls. Finally, I decided to hang out on the streets. I did this for two years. During the entire time, I received about three cards in the mail asking where I was. Luckily, I always got the mail before anyone in my family did. That was it. End of school."

Anecdotal evidence like this suggests that for individuals the decision to drop out results from an accumulated sense of alienation that develops from an interaction of family background and school experiences. School becomes an undesirable place for many youth because it represents failure and frustration at a time when they need a sense of success and a positive image of themselves in relation to a complex world. The useful way for educators to view the "causes" of dropping out is through an interaction of background factors and school experiences. According to High School and Beyond (HS&B) data, the most powerful determinants of dropping out are low expectations about the amount of schooling he or she will get, low grades combined with disciplinary problems, truancy being the most common offense

Before dropping out, at-risk students reveal rather low self-esteem. They also project a rather external sense of locus of control. Despite their situation, almost all who eventually dropped out during the HS&B study expected to graduate based on questionnaire data gathered in their sophomore year (Wehlage and Rutter, 1986).

Since dropping out is strongly associated with course failure and disciplinary conflicts in school, an important element in the causal mix of dropping out is found in the school itself. While schools can do nothing about a student's family background, something can be done about failing courses and disciplinary problems. At present, the data suggest that schools send out signals to at-risk youth that they are neither able nor worthy enough to continue to graduation. Three variables from HS&B can be seen as indicators of this alienation from school among the at-risk: perceived teacher interest in students, effectiveness of the school's discipline system, and fairness of the school's discipline system.

When those who eventually became dropouts during the HS&B study (1980-82) were asked to rate teacher interest in students on a four point scale, marks of fair to poor were given by 56% of the Hispanics, 50% of the blacks and 59% of the whites. Students who went on to graduation, but were not bound for college, were only slightly more positive in their views of teacher interest.

Schools got rather negative ratings from students with respect to the effectiveness of the discipline system. Among Hispanics, about half of both the eventual dropout group and those who graduated, but were not college-bound, rated effectiveness fair or poor. Among blacks, 63% of dropouts and about half of those who where non-college-bound graduates gave their schools a fair or poor rating. Among whites, about half of both the dropout and the non-college-bound graduate groups gave a fair or poor rating for discipline effectiveness.

What may be a more important question concerns the perceived fairness of a school's discipline system. Here, correctly or incorrectly, students tended to give their schools even more negative ratings. Hispanics and blacks gave nearly identical responses: the ratings of fair or poor ranged from 56% to 61% for the eventual graduates and dropouts for both racial groups. Whites were even more critical with 59% of the non-college-bound graduates and 64% of the dropouts giving their schools fair or poor ratings.

These data might be seen as the distorted and biased responses of the students most ill-suited to school. Such a viewpoint must be tempered by the realization that if those who are dropouts (at least 25% of the nation's entering school population) are combined with the non-college-bound graduates, the overwhelming majority of all students are perceiving their school in a rather negative light, at least as measured by teatcher interest and school discipline. Certainly the public education system of this country can not dismiss such numbers of young people as malcontents and aberrations. Presumable these student views are based on day to day school experiences with adults, the procedures of the bureaucracy and the way in which routine conflicts are handled. The perceptions of these youth must be taken seriously as indicators of the extent to which public schools are alienating institutions. Dropping out is the observable evidence of this alienation in which one recognizes that school has rejected the person and the person reciprocates by rejecting the school. Schools then become the social context in which many at-risk youth, even those who do not drop out, receive messages that contribute to a view of themselves as inadequate and unworthy of success in the mainstream of American life. These students may tend to bring to school characteristics and problems that make them less than ideal pupils, but schools are obligated to respond in a constructive way toward all of America's youth.

III. Dilemmas For Educators

The problem of schools as alienating institutions, particularly for such large numbers of youth, argues for consideration of several reform strategies that would make schools more responsive to at-risk students. It is our contention that there are institutional characteristics typical of large comprehensive high schools that produce alienation in students (Newmann, 1981). While all students are affected by these institutional characteristics, at-risk students are usually the most vulnerable to their negative impact. One way to understand how at-risk youth become alienated from school, feel rejected and inadequate, and eventually "fall through the cracks" of the school's support network is to view the policies and practices of educators as expressions of a set of accommodations they must make. These accommodations can be seen as resolutions to certain dilemmas facing educators as they engage in day to day relationships with students typical of public schools (Wehlage, Stone and Kliebard, 1980). These dilemmas apply to educators' interactions with all youth, but we will explore them for implications with at-risk students. Previous research suggests that the resolution of these dilemmas in particular ways has an important impact on at-risk students' perceptions of school and ultimately on their decisions to stay in or drop out of school

Despite the similarities that can be found among schools, it was found that individual schools were able to create a somewhat different institutional character and climate depending on how four different but related dilemmas were resolved. This resolution took the form both of school-wide policies and day to day practices of individual teachers, counselors and administrators. The choices of these educators were made difficult because each of the opposing poles of a dilemma embodies important values and instrumentalities of public schools.

The four institutional dilemmas which capture important relationships between the school and at-risk students are succinctly stated as follows·

1 Educator accountability vs Educator autonomy
2 Subjective authority vs. Objective authority
3. Extended educational responsibility v Specialized educational responsibility
4 Diverse curriculum vs. Common curriculum

There are, no doubt, other dilemmas that one can identify given the total context in which schools usually operate, but these seem to embody most of the important tensions that relate to the interaction between educators and the at-risk population (Berlak and Berlak, 1981)

The nature of a dilemma is that the tension between its poles does not involve a choice between good and bad but rather between competing notions of good. This tension still exists even when certain decisions reflecting one of the above dilemmas can be clearly shown as bad for at-risk youth The other side is that the decision is probably calculated as good for another group or for the institution generally This suggests that for the typical comprehensive high school, the task of enhancing the success of at-risk students is more complicated than simply identifying effective teaching or counseling strategies with this group and then implementing them The decision to emphasize aspects of schooling that might benefit the at-risk can also be seen as compromising important alternatives valued from time to time by others To explore this point further, a brief explanation of the dilemmas is presented.

1) Educator Accountability vs. Educator Autonomy. Accountability refers to the obligation of eductors to be responsible for meeting the requirements of the state and district and also responding to the expectations and interests of students and their parents. In a sense, each and every child is equally entitled to the full and complete attention of teachers and administrators to guarantee he or she benefits from public schooling. The autonomy of educators, on the other hand, allows them discretion to allocate resources and establish policies and practices in ways that benefit some children more than others. For example, some schools might choose to have a marching band and yet many students do not play in the band; typically ten to fifteen students utilize a very disproportionate amount of school resources to play on the basketball team. The school has to make choices between putting resources into college preparatory courses and remedial or special courses for the at-risk. At an individual level, some teachers choose to put their best efforts into teaching the college-bound, even in schools where the majority do not go to college. Because of competing demands for limited resources, there is inevitably a set of choices that affects for good or ill the at-risk student. Educationally at-risk students can and do receive varying degrees of accountability as educators exercise their autonomy in deciding priorities.

The typical comprehensive high school as it is now conceived and organized is unlikely, even unable, to give at-risk students the quantity and quality of attention they need to succeed in school. To do so would run against the political and philosophical grain of the comprehensive public school. The implication is that some reform measure is needed to focus accountability on the success of the at-risk.

2) Subjective authority vs. Objective authority. Authority is objective when the rules and norms applied by adults to maintain order are public, uniformly applied, and generally accepted. Objective authority is impersonal in that its exercise is for the good of the institution and does not accommodate the particular circumstances or special interests of the individual. Such a system is thought to be universally fair. Subjective authority refers to informal and particularistic application of rules and norms. Subjective authority can be perceived as more equita than objective authority because it can take into account extenuating circumstances—social background, special needs and interests—as well as friendships and loyalties.

It is common knowledge that at-risk youth run afoul of the rules and norms of school. There is also evidence that many of these youth see the authority structure affecting them as rather ineffective and unfair. Many at-risk youth will respond favorably to the face-to-face authority established by trusted adults even though they are hostile to the objective authority system of school. While many students accept and operate successfully within the objective structure with its assumed tendency toward efficiency and fairness, most at-risk youth seem to need a more personal relationship with those in authority, if they are to be successful within an institutional setting These same youth also need to learn how to operate successfully within objective authority systems.

The implications for reform are that school should be organized in a way to facilitate a balance between these two forms of authority The balance results both from adults understanding of the needs of particular students and from adults' judgments about the appropriate time to push students toward a more socially responsible view. Institutionally it requires responsiveness toward individual students that is difficult to achieve in our large comprehensive high schools.

3) Extended Educational Role vs Specialized Educational Role. Those who assume a specialized educational role see themselves restricted to a particular area of expertise and corresponding goals in dealing with students. This is sometimes reflected in terms of subject matter taught (history, algebra), or in terms of specific student outcomes (passing a competency test, preparing students for college). Usually such specialized roles by educators are resonable in light of the brief periods of time most students are in contact with individual adults. No teacher, administrator or counselor has complete responsibility for a student. The institution has defined educators as specialists because this is seen as efficient and effective.

In an extended role, educators see themselves as responsible for the "whole child." Teachers not only provide instruction in a special area, such as history or algebra, but they also deal with the psychological and social development of their students. They make judgments about when to emphasize course content and when to be concerned about other needs and interests a child might have

At-risk students typically bring to school a variety of problems that interfere from time to time with academic success Responding to problems involving drug and alcohol abuse, divorce, illness in the family, abuse in the home, and lack of guidance from parents is often required of educators if students are to survive these disruptions in their lives The difficulty for teachers, however, is that most feel ill-prepared to deal with such problems. Most feel more comfortable teaching a subject they know well and value as a significant area of knowledge.

The implications for reform are that schools must facilitate the development of teachers who can balance the extended and specialist roles. The specialist can provide quality instruction that can only come with an in-depth knewledge of subject matter. The extended role can help prepare youth to receive that knowledge which schools are designed to impart.

4) Diverse curriculum vs. Common curriculum. This is one of the traditional controversies that has frequently emerged in educational debates. The diverse curriculum of a school provides for a wide range of activities, skills, knowledge and social interactions. School work can emerge from developmental or vocational goals, as well as from the formal subject matter knowledge associated with college preparation. One assumption behind the diverse curriculum position is that not all valuable knowledge is contained in traditional liberal studies courses. Another assumption is that students learn in different ways and respond to important ideas at different times in their development. It is also assumed that, even in schools with a common curriculum, there is inevitable selecting and sorting of students into tracks with higher and lower status. Finally, it is assumed that students with lower ability and/or interest in the core curriculum will find little if any success in it, and this will produce a rejection of school.

The other side of the dilemma argues that a common curriculum immerses students in those bodies of knowledge that are essential for their own success as well as for the survival of the culture. Whatever differences of ability and interest exist among students, they should all be equipped with that knowledge that has proven to be liberating and enlightening to the human race. To do otherwise is to handicap some youth with interior and limiting knowledge. In short, a diverse curriculum is ultimately discriminatory against those who most need the common curriculum—the poor and disadvantaged. The integrity of the common curriculum should be maintained with high evaluation standards of students' schoolwork. This also will result in a meritocratic sorting of the most able student who can go to college and eventually into the high status positions in society. School performs an important function by honestly appraising the intellectual abilities of students in acquiring standard bodies of knowledge and skills that society values.

The implications for reform are that the school must find curricular experiences that can both retain student interest and engagement on the one hand, and result in worthwhile learning and development on the other. To assume that at-risk students must continue to confront the same curriculum as their more engaged and academically agile peers is to court a differentiated curriculum of the worst kind—winners and losers both in school and in society later

If it is correct that individual educators and schools in general must make decisions, explicitly or implicitly, on the relative emphasis given each pole of these four dilemmas, then there are important implications for the at-risk student. It is our contention that a strong "right side" resolution of the dilemmas (autonomy, objective authority, specialized role, and common curriculum) will be accompanied by "stress" on the at-risk student. The "right side" resolution is likely to be associated with less school commitment to that student, greater student alienation and conflict with the institution, less chance of finding personal caring from adults, a greater likelihood that personal and family problems will interfere with school, and finally, a greater chance of course failure because of a perception of inadequacy and irrelevancy with respect to the curriculum.

There is a tendency for schools to gravitate to a "right side" resolution This is the path of least resistance for educators because this resolution tends to streamline, regularize, and seemingly make for a more efficient organization Allowing teachers to decide within certain bounds to have autonomy over educational decisions in the classroom, promoting an objective authority structure and a specialized role for educators, and providing a common curriculum all serve to simplify the task of running a school.

It is our contention that some degree of "left side" resolution is needed to respond to at-risk youth in a way that makes their engagement in school more likely. In other words, accountability by educators for these youth is likely to enhance their success rate. Personalizing authority relationships between adult and student is more likely to bring acceptance and legitimacy to the rules and expectations of the school Caring relationships are important for youth who may find them absent in their lives Curriculum, teaching strategies and standards of evaluation need to be shaped in response to the interests and abilities of at-risk students. If these "left side" elements are not present, alienation, discouragement and dropping out will result.

It is also our contention that this "left side" resolution needs to be balanced over the long run by a corresponding set of "right side" resolutions. A persistent "left side" resolution will prove ineffective, as many of the free school advocates of the 1960's discovered. These dilemmas are just that, tensions which represent good on both sides. Teachers need autonomy to carry out their professional responsibilities It was already argued that objective authority structures are important; such authority offers strengths that all citizens need to understand and accept Similarly, the specialist has valuable knowledge that schools are obligated to transmit and which is beneficial for students to learn. The common curriculum contains some important knowledge, and all students should have the opportunity to acquire it. The question remains, then, what school structures are most likely to provide a balanced approach to these dilemmas?

What reforms are likely to provide the institutional responsiveness that reduces alienation and enhances engagement of the at-risk student?

IV. A Model Program for At-Risk Youth

A variety of reforms have been advocated in recent years in response to the generally held belief that the comprehensive high school has not been responsive and effective with the total range of youth that must be served. Newmann (1981) reviews thirteen different reform strategies proposed for secondary schools ranging from specialized and alternative schools to specific innovations such as individualized programming, personalized advising and community-based education. He evaluates the potential of each of the reforms as a way to reduce student alienation and enhance their engagement in the educational process. Newmann concludes that each reform has some strength and potential but that none of them alone is likely to respond in a way that solves the problem of student alienation They all leave open the question of implementation; badly implemented reforms are very likely to be harmful In fact, most of the reforms are seen as two-edged swords, "capable of either reducing or exacerbating student alienation in school, if they affect it at all"

The reform advocated in this section is designed to respond specifically to most of the at-risk student population It has evolved through a dialectical process in which field research, literature review and philosophical considerations have been applied to criticize and inform each other Five studies have been conducted which create a body of knowledge about at-risk students, their schools and the potential effectiveness of interventions (Wehlage, Stone and Kliebard, 1980; Wehlage, 1983a; Wehlage, 1983b, Wehlage and Rutter, 1986a; Wehlage and Rutter, 1986b). In addition to research, two projects were conducted in which educators from several school systems were given instruction and assistance in the development and implementation of programs for at-risk students. This experience has given us first-knowledge of the practical problems of reform implementation. From this research and development has come a model program which is briefly summarized below under four categories: administration and organization, teacher culture, student culture, and curriculum.

Administration and Organization. The model is designed to be either a separate alternative school or a school-within-a-school. Small size is important; typically schools range from 25 to 100 students and two to six faculty. From a teacher perspective, small size facilitates continual face-to-face communication among faculty for planning and meeting about matters of mutual concern. Also, this permits students to be known in a personal way; relations between adults and students can be individualized and personalized. A sense of caring can be communicated to students.

Small programs provide the context for combining accountability and autonomy Autonomy is important because teachers are invested with the authority to achieve program success It is clear where that responsibility lies Teachers with the authority to control admissions, dismissals, courses and scheduling take ownership of the program, and its successes and failures are theirs Such ownership serves to create a responsible autonomy balanced by accountability for student and program success

Teacher Culture. The model is designed to promote a positive set of shared assumptions, beliefs and values that guide teachers' actions and behaviors on a daily basis. It is essential that teachers believe at-risk students can learn, and that what they can learn is not trivial but rather important to them and society

A key element in this culture is the recruitment and development of teachers who practice the "extended role." This means that teaching responds to the "whole child." The sense of caring that so many at-risk youth find missing in their schools is fostered by this teacher belief. Teachers concern themselves about anything that inhibits a student's success, including attention to problems the student brings from the home, community or peer group. For example, a problem such as substance abuse must be dealt with by teachers, at least initially, if learning and personal development are to occur for an individual.

Another element in the teacher culture is the presence of a high degree of collegiality. In contrast to the ethos in most high schools, the model program seeks to promote cooperation, joint decision-making, team teaching and a collective sharing of both problems and successes within the program. Collegiality is facilitated by the small size of the program and the shared set of beliefs about students and the purpose of the program.

Student Culture. The intent of the program is to foster a student culture built around the beliefs that one can learn, become successful both in school and outside, and that responsible and mature adult behaviors are indicators of success. Students can demonstrate their reveloping maturity by giving up those behaviors and attitudes that have resulted in trouble with school, the law, their parents and peers Initially they must commit themselves to a set of rules about attendance, the quantity and quality of work, appropriate behaviors and the consequences for breaking these rules.

The model program seeks to develop student pride by making it clear that not only are there standards to be met, but that selectivity in admissions means that not everyone is acceptable. Some students will not make the necessary commitment to the rules and expectations of the program; they are denied. Others who persistently fail to live up to their commitments are dismissed. Out of this context develops a sense of "family" among the students that sustains them throughout their time in the program.

Curriculum. It is assumed that teaching and curriculum must be substantially different from that which dominates most high schools. More of the same will not result in success for these youth. Individualization, personalization, clear objectives, prompt feedback, concrete evidence of accomplishments, and an *active* role for students in learning are dominant features of the curriculum.

Basic skills must be given attention with the assumption that wide variation in both achievement and ability will exist. Teachers start wherever students are with respect to skills and knowledge. Most students need remedial work. However, the model is premised on the belief that only a portion of a student's time will be occupied with remediation in traditional academic course work. These are other important areas of knowledge that must be pursued, given the broad conception of goals underwritten in the program. Sex education, parenting, nutrition and health care are also elements in the curriculum.

At-risk youth need to have social experiences with adults who exemplify characteristics of responsibility, the work ethic and positive human relationships. These qualities are often germinated in young people through planned "experiential learning" Experiential learning is designed to place students in an active role that also requires reflection. Typically students are involved as volunteers at day-care centers, nursing homes, elementary schools or handicapped centers. This is real work in that the tasks involved genuinely need to be done; people in these settings need help. The work is such thtat youth are associating with responsible adults, and success is likely.

Another type of experiential learning occurs when students are involved as a group in constructing a new house or gutting and renovating an old house or building under the supervision of skilled tradesmen. This is a group experience designed to teach cooperation, responsibility, the work ethic, and only incidentally to introduce youth to vocations. Near the completion of the program students can be introduced to vocational opportunities through placements in work that is paid and is chosen to the student based on interest.

In summary, the model program outlined here is designed to achieve a broad set of goals that promote the interests of both at-risk students and society. It permits educators to offer a balanced approach to resolving the dilemmas that presently serve to constrain the large comprehensive high school in its efforts with the at-risk population. The program facilities responses to the at-risk by providing flexibility to adults as they attend to the needs of this type of student. The program is designed to be attractive to youth and, unlike so many reform efforts, it recognizes the crucial role that teachers play in the success of an innovation. While not all teachers will choose to work with the at-risk student, for those who do it will be attractive as a place to work Success with students is very likely to produce a high degree of professional satisfaction because of the observable difference teachers have made in the lives of those young people most in need of success

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Can We Help Dropouts? Thinking about the Undoable

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Recognizing that we live in a complex world, Dale Mann reminds us that there are few simple answers to persistent educational problems. He argues that the dropout problem calls for imaginative and multiple approaches to what is really a diverse set of problems preventing students from completing high school. His overview sets the stage for the articles that follow.

Dropping out of high school is again nearing the much-to-be-desired status of a scandal in education. The competition is tough — teacher inadequacy, too little character development, too much values clarification, a tide of mediocrity, bureaucratic rigidity, and so forth — but most of those things can be related to dropping out. A local headline, "26 Percent Never Graduate," will trigger the demand that "something" be done about "the problem." This article suggests that "the problem" is not singular and that the solution must be complex. But the nearly intractable problem of early school leaving requires more resources than it has ever attracted. We may have to think about dropouts the way John Lindsay thought about his responsibilities as mayor of New York City: "Insoluble problems masquerading as wonderful opportunities." The accuracy of that bleak diagnosis depends on our skills as educators and as politicians.

THE NESTED PROBLEMS OF DROPPING OUT

A national estimate suggests that 25 percent of fifth graders will not make it through high school graduation.[1] Local estimates vary depending on purpose. A district that wants more money to start a program can derive a high figure; a similar district pressed to defend itself will use different procedures and produce a low rate. The most common defense is to count the number of students who dropped out in a given year as a percent of the total high school

This article was prepared in connection with a grant to the Center for Education and the American Economy at Teachers College, Columbia University, by the American Can Company Foundation. The analysis and conclusions are the author's responsibility.

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Table 1. Reasons for Leaving High School without a Degree: Percents Responding by Gender

	Male	Female
A. School-related	51	33
B. Work-related	21	9
C. Family-related	5	37
D. Other	23	21
Totals	100	100

Source: William R. Morgan, "The High School Dropout in an Overeducated Society," Table 5.8, "Reason Given for Leaving High School Without a Degree, for All Youth Who Ever Dropped Out, in Year First-Reported Having Dropped Out, by Sex" (Center for Human Resource Research, Ohio State University, February 1984, Mimeographed). Data are from National Longitudinal Survey of Labor Market Experience, The Youth Cohort, Ohio State University.

enrollment. In any case, the size of the number is less important than how policymakers feel about it.

One of the best sources of information about dropouts is the National Longitudinal Survey of Labor Market Experience (NLS) Youth Cohort. During its first four years (1979 – 1982), 5,880,000 youth dropped out. But the nearly million and a half who left school each year without a degree did so for various reasons (see Table 1). William R. Morgan estimates that, for boys (who constitute 54 percent of the dropout population although they loom larger in the public eye), 51 percent disappear because of things about the school: 21 percent for economic reasons; 5 percent for family reasons; and 23 percent for other reasons. Youth older than the compulsory attendance age who have been retained in grade and then simply walk away are the largest component of the "other" group.[2] But what are the practical implications of the big, school-centered set of reasons? Vocational programs have a higher dropout rate than academic programs,[3] which might support the Committee on Economic Development's (CED) recent attack on vocational education.[4] But the difference is probably due to prior preparation of young people in the two tracks: Forcing everyone into academic programs might accelerate the dropout rate. In pursuit of reform, schools have raised standards and will hold more children back. Being retained one grade increases the risk of dropping out later by 40 – 50 percent, two grades by 90 percent.[5] Fifty-one percent of the males but only 33 percent of the females who drop out do so because they "dislike school." Can we, should we change the gender-related experiences of schooling? Black youth who are poor stay in school more than do white youth who are poor, but is that because of perseverance in school or discrimination in the labor market?

Everyone agrees that the way young people experience school is the most frequently cited reason for quitting early. But what does that mean? Children who failed to learn? Or schools that failed to teach? The first are called "dropouts," the second are called "pushouts." Interestingly, youngsters blame the school less for their failures than might be expected. When asked why they dropped out, more than a third of all the boys say, "Because I had bad grades," "Because I did not like school." Only one in five drop out because they could not get along with the teacher and only 13 percent are expelled. The figures underestimate the institution's willful decision not to teach all children. Referrals to special education have become a common way to solve class control problems by pushing some youth out of the mainstream. One district suspended additional referrals because at then current rates, the entire pupil population would have been placed in special education within three years.[6]

Saying that schools push out some young people is a harsh statement of a painful responsibility. When schools give everyone a diploma (one consequence of social promotion), employers are inconvenienced and will force schools to discriminate among, for example, young people who do and do not have basic academic skills. In the search to make high school diplomas "meaningful," thirty-five states have raised graduation standards and twenty-nine have required passage of statewide minimum-competency tests, often as a condition of graduation.[7] But as Robert Crain discovered, business is more interested in the attitudes and habits of potential employees than in their academic skills.[8] Thus, schools are increasingly expected to teach children not only how to think but how to act. The Committee for Economic Development has said,

> If schools tolerate excessive absenteeism, truancy, tardiness, or misbehavior, we cannot expect students to meet standards of minimum performance or behavior either in school or as adults. It is not surprising that a student who is allowed to graduate with numerous unexcused absences, regular patterns of tardiness, and a history of uncompleted assignments will make a poor employee.[9]

Eighty percent of teacher criticism is now directed at 20 percent of the students. Blacks are already suspended from high school three times as often as whites.[10] Nonetheless, CED's message is clear: Schools should get tougher and kids should work harder. A recent study looked at the "time budgets" of young people, especially at how many from which groups were going to school full-time and simultaneously trying to make some money with outside jobs. The analysis indicated clearly that young people from minority backgrounds are fully engaged not just in school but also in paid employment. At least these young people are "Chasing the American Dream" (the report's title) with the same kind of overtime investment that previous upwardly mobile groups have done. There remains a real question of whether, given the quality of their school experience and the nature of labor markets, they will catch it.[11]

Work-related reasons for leaving school are cited by 21 percent of the boys and 9 percent of the girls.[12] This is a push-pull situation: Some are pushed by family necessity (about 14 percent of the boys in the High School and Beyond data set gave this explanation). Some are pulled by the lure of cash now (27 percent of the boys in High School and Beyond data).[13] Either way, being in paid employment poses a cruel choice for young people already at risk. Given limited time and energy, schoolwork suffers. Barro says, "Both males and females are more likely to drop out if they work longer hours."[14] Up to fourteen hours of paid employment a week, there is little effect. Fifteen to twenty-one hours a week increases the dropout rate by 50 percent; twenty-two hours or more increases the risk by 100 percent. Then there is the question of the quality of the jobs. Some may be full-time but dead end. These often temporary or seasonal jobs contrast with others that are threshold or entry-level jobs leading to a career. The jobs most likely to be held by the youth most at risk have been "dumbed down" and thus, again, hard work leads nowhere.[15] On the other hand, "High school completion . . . substantially boost[s] the earnings of youth." Morgan estimates that in 1981 high school graduates earned $60 a week more than those who quit.[16]

Looking at data about dropouts ought to teach us some things about the fragility of school completion, the competing forces that press young people away from that, and the very different impact of those forces on different kinds of youth. If only nine percent of girls leave school for economic reasons, only five percent of boys leave school for family reasons. But while boys drop out to support their families and girls to take care of them, both are helping. Between 1979 and 1982, 2.7 million young women left American high schools without graduating. One million of that group did so for family reasons: 45 percent left because they were pregnant, 37 percent because they got married, 18 percent because of home care responsibilities, especially for siblings.[17]

The closer one looks at the data, the less adequate are simple (if popular) explanations— 'They're lazy," "Kids drop out because they don't fit in," "They're all on drugs," ". . . having babies," ". . . hanging out," and so forth. Variations in the experience ought to invalidate simple explanations. Why do southern high schools have half the holding power of northern schools? Why are black rates 40 percent greater than white rates while Hispanic rates are 250 percent higher than white rates?[18]

The singular outcome—not finishing high school—is in fact a nest of problems. A migrant child jerked from one curriculum to another suggests a pedagogical problem. A black girl, angry at real or imagined slights, would benefit from counseling for herself and her teachers. The son of a single mother who works because his family needs the income is caught in an economic vise, and so is the daughter who is chronically truant in order to help with younger siblings. Across all dropouts, the range of circumstances is impressive, even daunting. Equipping any system (from a junior high school through a state) to cope with them means accepting the multiplicity of causes. But they are nested in another way.

Most students quit because of the compounded impact of, for example, being poor, growing up in a broken home, having been held back in the fourth grade, and finally having slugged "Mr. Fairlee," the school's legendary vice-principal for enforcement. These young people need a range of things, just as any system's at-risk population will need services that fit their hurts. If the problem is complex, so will be the solutions.

MULTIPLE PALLIATIVES, MULTIPLE PLAYERS

Peng reports that the high school dropout rate for pupils entering the fifth grade has been 25 percent since 1958.[19] When an indicator is that sticky—25 percent for twenty-five years—it says something about the power of the interventions being applied. Despite the amazing array of things that have been and are being tried, no one should talk about solutions.

In the list below, check the programs that are for dropouts.

( ) Enhancing the self-image of elementary school children
( ) An alternative high school
( ) A "Big Brother" program run by the Chamber of Commerce for low-achieving high school students
( ) Minicomputers for math instruction
( ) A storefront street academy with an experience-based career education component
( ) A school-improvement project to upgrade basic skills acquisition in a middle school
( ) Drug abuse counseling
( ) A foundation-supported study of occupational education
( ) Smaller class sizes
( ) T-shirts, notebooks, pencils (with corporate logos), and dictionaries given at a ceremony where three hundred ninth graders take a public oath to graduate
( ) An ombudsman

( ) A computerized index of commercially available curricula organized by objectives for academic skills, attitudes, and job-performance skills

If you doubt that the list can be extended endlessly and that everything can be related to dropouts, ask any schooling agency staff to report what they are doing about the area. (An obvious way to make sense out of any list is to ask that only programs "that work" be reported, about which more later.) The up-side of the astonishing array is a measure of the sincerity and creativity of the system. The down-side is chaos.

Asking "what works" is good for students who will continue to be at risk until we have better answers, and for a public that would like to maximize outcomes from tax dollars. But knowing what works requires knowing what was done (the interventions applied) to whom (recall the variations in etiology) and with what effect. Education agencies—not just schools—are trying a galaxy of things that deserve serious inquiry. Even sorting the preventive from the remedial interventions (i.e., before and after dropping out) would help, but this is seldom done. A second step is to apply a framework that captures differences among programs that may be related to differences in outcomes. For example, does a program work directly with at-risk youth or is it staff-focused, family focused, or organizationally focused in order then to get at the at-risk youth? Such a taxonomy was used recently to analyze dropout-related activities reported by a dozen U.S. public school districts. The categories most often used for the analysis of curriculum require data about objectives, learner diagnosis, program content, program delivery, resources, and pupil progress evaluation. Those six major headings were further divided into seventy-one subcategories. For example, was the program's content "academic" (enrichment, remedial, interdisciplinary), "vocational" (work-study, career education, career exploration, job-specific vocational training), or "guidance" (family counseling, life skills, social skills)? The construction of such taxonomies is the first step in finding out what works best: academic, vocational, or guidance approaches. But a content analysis of programs submitted by just a dozen districts resulted in 360-plus entries scattered almost randomly over the major and minor headings.[20] Without even addressing the outcomes question, the only thing that is clear is that most districts are doing lots of things. From the program-improvement perspective, that is a very weak finding. Said another way, considering just in-school programs, a dozen school districts were using sixty-three of the seventy-one logically possible approaches to dropout prevention and/or remediation. If those activities constituted a "naturally occurring experiment," that is, a chance to use the results of current practice to refine future practice, then the activities would be a resource.

But they are not. On the one hand, virtually anything can be "related" to the dropout problem and on the other, we cannot even agree on what constitutes a dropout. Phi Delta Kappa's Center for Evaluation, Development, and Research tried to derive a consensus definition of dropping out by looking at district reporting practices and concluded,

> We simply cannot agree what a dropout is. In some districts death, marriage, taking a job, entering the armed forces, entering college early, being expelled or jailed, going to a deaf school, business school, or vocational school causes one to be considered a dropout. In another district, none of these acts would be considered. . . .
>
> There are at least as many different definitions of a dropout as there are school districts recording dropouts. Some districts solved their problem of who to count as a dropout by not using any definition at all, whereas other districts had three or four definitions, and neither we nor they seemed to know which one was used.[21]

What have we learned? First, people feel that too many students leave school without graduating. Second, students are impelled to do that by a wide range of circumstances. Third, practical improvements depend on knowing what was done to whom, but (a) virtually everything is being done and (b) at the delivery level we cannot yet tell to whom or with what effect.[22] Thus, we are doing a lot and learning a little about the multiple palliatives.

Some will dissent from this interpretation. Professionals often form strong attachments and strong beliefs about their programs, and well they should. But conclusive evidence documenting significant program effects is even more rare than careful evaluation in this field. The point here is not that nothing works — some things probably do, and some approaches are preferable to others. We ought to maintain some version of the array of things now being tried but we ought also to learn from them, including what Hodgkinson calls "negative knowledge," that is, the candid admission that *R*, *S*, and *T* simply did not work and ought not be tried again.[23] Given the protean shape of the dropout problem(s), there are no magic wands that, when waved, will turn chronic truants into college scholarship winners. People who believe in simple solutions here also believe that break dancing cures arthritis. Obviously, it is easier to be candid about program noneffects from the outside than the inside. Managers need success to increase budgets, leaders need hope to motivate staffs, and concerned professionals need positive outcomes to justify continuing and expanding their work.

And dropouts are a growth industry. In 1900, the U.S. high school dropout rate was 90 percent and no one cared. In 1940, it was 76 percent, but so what.[24] Now our national rate seems stuck at 25 percent — objectively better than ever and subjectively worse than ever. Schools are not the only interested agencies. For example, community colleges have begun to tell state legislatures that there is a message about the high school when young people vote with their feet. Instead of more money to that repudiated institution, states are being told to fund "Middle College Schools" that pull adolescents out of the tenth grade and bring them to the college campus for grades ten through fourteen. Such schemes try to combine the holding power of the high school with the pulling power of the college. They also move social missions, staffs, and budgets from secondary to postsecondary institutions.

For a time, school people did not mind. Awash in the baby boom, confident in the illusion that schools were society's primary educators, and discouraged by critics of their efficacy (both things were happening), it seemed just as well that the most difficult of the high school's clientele would serendipitously "solve" the institution's problem by disappearing. And if they went to a manpower training experience, a community-based agency, an alternative setting, or a private training vendor, so much the better. With too few resources for too much work, let the difficult cases tarnish someone else's reputation. In most places there are a lot of agencies that work with youth at risk. One result of this otherwise wholesome social invention has been a diminution in the responsibility for these youth felt by the core secondary school and with that diminution an insensitivity to signals of needed improvement that have been ignored until recently.

If school districts can produce long catalogs of dropout-related projects, so can other municipal agencies. In New York City, less than half of every youth-serving dollar is spent by the board of education. Taking just the employment-related piece of the dropout puzzle, the board of education spends more than $200 million on work experience and occupational training (the figure does not include activities in the city's ninety-plus academic secondary schools) but the department of employment spends another $80 million to work with in-school and out-of-school youth toward the same goals.[25] Trainers blame teachers for having failed to make young people job-ready. Teachers respond that if they had the luxury of a single mission (vocational preparation) and the resources of the training community, youth would be better served. Everyone suspects labor unions of sabotaging training efforts if a successful program would increase competition, decrease the value of union members' labor, or displace members' relatives who might otherwise have the inside track on new hires.

Coordinating policies to improve the programs available to young people is surreal in its complexity. Public sector agencies are the federal and state departments of labor and of education, the municipal department of employment, the multiple programs within the board of education, and public postsecondary institutions. The private sector has nonaffiliated independent and parochial schools; private, for-profit vocational schools; colleges and universities; and community-based organizations. Obviously both unions and employers should be represented and at one seat each, that is thirteen chairs around a conference table. The employment/economic facet of dropping out is just one dimension.[26]

Doing better than current practice is going to rest on convincing politicians that it is important and school people that it is doable. The next sections take up those topics.

BARRIERS TO BETTER PRACTICE

The fact that the dropout rate has not changed in such a long time suggests that not everyone regards this as a crisis. Teenage unemployment in central cities may be twice the unemployment rate of the Great Depression, but when an administration representative describes out-of-work youth as the "industrial reserve of America," it does not take too much imagination to understand that cheap labor, available to practically any enterprise, has its uses and so by extension does a system that emits undertrained youth. A child at risk is not likely to be the captain of the cheerleading squad, a Westinghouse semi-finalist, or the nephew of the school board president. Beneath the flurry of reform and the easy rhetoric about having excellence and equity (more of both for everyone!), there is real competition. "Twenty-nine states have established new *academic enrichment programs* . . . for gifted students."[27] But "as of 1984, virtually no state passed 'reform' legislation that contained specific plans to provide remediation to those who did not meet the higher standards on the first try."[28] Most young people at risk will be what some describe as the undeserving poor.

Consider that 10 percent of those who quit also drop back in ("stopouts") and that of those returnees, 90 percent go on to postsecondary education.[29] Some do not rejoin high school but try another sort of postsecondary institution. One might imagine that such diligence would be worth supporting. But rather than reinforce these young people in their investment, the U.S. Department of Education wants to deny the 119,000 young people in this category eligibility for Pell Grants (which grantees later repay). And not only does the administration want to cut them out; Secretary Bennett has stated that "I don't know what the Department can do about [the causes]."[30]

Most policy analysts subscribe to the notion that self-interest is the only reliable motivation. The task of policymakers is to get people to see how government action helps them. At the individual level, one might point out that when my grandfather retired in 1950, his Social Security Trust Fund income was guaranteed by seventeen currently employed workers who were paying into the fund. If I could retire in 1992, my Social Security checks would be supported by only three workers and one of those would be minority.[31] With most of some youth groups both out of school and unemployed, how much wasted human capital can I afford? How much can governments afford? The Appalachian Regional Commission estimates that dropouts will earn $237 billion less over their lifetimes than will high school graduates. Thus, state and local governments will collect $71 billion less in taxes.[32] (Said another way, we could spend $71 billion on dropout programs and still break even.) The majority of inmates in any jail are functionally illiterate yet a year in jail costs three times as much ($25,000) as a year in college.

Not all dropouts are a net drag on society but it is hard to argue that they are the most productive workers either. The U.S. economy is in the shape it is in partly because of the nature of the American labor force. Each day, we lose 3,500 jobs to foreign competition. Lester C. Thurow has noted that "every country in Northern Europe with the exception of Great Britain and Ireland, now has an average level of productivity, an average level of technology which is above the American average." In 1983, Japan made 15 million video recorders and sold them for $13 billion. The United States made none.[33]

The U.S. gross national product is approaching the $4 trillion mark but we have lost the old U.S.-dominated production process markets like basic steel, textiles, clothing, and footwear. In 1950, we made 80 percent of the world's cars; in 1980, 30 percent.[34] The Japanese, who originally moved into those areas, are now shifting out of them, so that simple electronic assembly has gone to Malaysia, Thailand, and the Philippines while complex production processes (color television sets, tape recorders, ship building) are increasingly dominated by Korea, Hong Kong, and Mexico. Every year from now to the year 2000, 36 million new workers will enter the world labor force and 85 percent will be from less-developed countries. Robert Reich, in "The Next American Frontier," suggests that the only way forward for the U.S. economy is in precision manufacturing—technology driven, flexibly produced, custom engineered processes. But what kinds of workers, what skills from young people are necessary for precision manufacturing, custom engineering, and flexible production? One measure of how badly we need reform lies in our current high school curriculum. We may congratulate ourselves that 15 percent of all high school students now take at least a year of French or German, but "the United States now does more trade with the Pacific Rim countries than with all of Europe combined. By 1995, American trade with the Pacific Rim will be double the size of our European trade." How many years of Cantonese instruction does the average high school offer?[35] Overcoming the political barriers to more resources will require that we convince ourselves that the United States cannot waste such a large portion of its youth. It is too expensive in lost taxes, misspent revenues, lost productivity, and lost profits.

Documenting the magnitude of a problem helps in assembling resources for amelioration.[36] In that regard, the notoriously wobbly nature of dropout data is troublesome. Until we can agree on what a dropout is and how to measure that, no one can make a compelling case for more attention to the plight, for example, of out-of-school youth from Central America. If the data are unreliable, misunderstood, *and* a basis for finger-pointing, it is easy to see why leaders are nervous about this area. Even worse, it is likely that they will be unfairly criticized for something that is beyond their control. Only a fool would accept public accountability for making subway trains run at supersonic speed. Smart people resist being held responsible for things they cannot deliver. Thus, until answers come along, most districts will concentrate on what they do best, they will fret quietly about dropouts, and they will maintain a string of activities (often developed for other purposes) that can be trotted out in response to criticism. That may distress some advocates, but it is prudent in that it minimizes criticism and protects the main event, the core part of the institution. Still, most professionals came into public schooling for reasons that connect with the democratic premise that all children can learn and should be taught. Local dissent from a national policy of "teach the best and to hell with the rest" is widespread and encouraging.

You cannot beat something with nothing. Documenting the magnitude of the problem(s) is one step; the next is replacing current practice with better practice. Here, the wild variation in the numbers reported makes it impossible even to ask the "what works?" question. There can be no improvement without measures of success. The private sector calls this "the bottom line"; academics, "the dependent variable"; leaders, "results." By whatever name, the public school dropout field has no data linking programs to outcomes. But it does not have to be that way. Two youth-serving areas have made remarkable progress, in part because common definitions of outcomes have illuminated the process of improvement. The addition of "positive terminations" in youth employment training programs (e.g., enrollees who graduate and find and keep jobs) and standardized reading and math achievement scores in schooling for basic skills have both helped refine programs by linking inputs to client outcomes. The measures are controversial and have unintended outcomes but the difference that the absence of comparable standards makes is noticeable in the dropout area.

If better data would help, so would better programs.

BETTER PRACTICES, BRAIDED SOLUTIONS

Earlier we asserted that there are no solutions. But professionals must always make rough judgments about what seems to work. Not very many policy decisions are based exclusively on the evidence. While initiatives are frequently resisted on the ostensible grounds that they are "unproven," thankfully, school people never have waited for the analytic community to resolve the last empirical issue before adopting a probably preferable practice. What follows is one person's summary of what works. It is offered in the hope that the reader's judgment, when combined with my own, might yield better practice than is now the case. And, as Alvin Gouldner once said in another context, "I have not felt compelled to inundate [these] pages with a sea of footnotes. If the substance and logic of what I say here does not convince, neither will the conventional rituals of scholarship."[37]

To begin with, there are great gains in removing or ameliorating the things that later cause students to drop out, especially school failure and a lack of mastery of the basic skills. Howe points out that "it costs only $500 to provide a year of compensatory education to a student before he or she gets into academic trouble. It costs over $3,000 when one such student repeats one grade once."[38] Lawrence J. Schweinhart and David P. Weikart have shown that two years of preschool education for one child cost $5,984 and returned $14,819 in savings from a reduced need for later special education ($3,353), increases in projected lifetime earnings ($10,798), and the mother's income from paid employment during the hours the child was in the program ($668).[39] The best way to avoid dropping out in high school is to make the elementary school more successful. (A special case can be made for the junior high school. Large numbers of already fragile adolescents fail to make the transition either into or out of such middle grades). Going upstream to minimize school failure, maximize school success, and provide a foundation of basic skills pays high dividends. The practical and empirical work going forward under the "effective schools" label is a strong resource in that regard.[40] The earlier we start, the less the damage and the greater the dividends.

Programs that seem to help have four *C*s—cash, care, computers, and coalitions. For the first, we ought to understand that basic skills teaching and learning, by itself, is not enough. But then neither is it enough simply to put an at-risk young person into a work-experience program or an On-the-Job Training (OJT) situation. There needs to be a link between learning and earning. There needs to be experience with both schooling and paid employment. Some of the success of Joint Training Partnership (JTPA) program (née Youth Employment Demonstration Program Act [YEDPA], née Comprehensive Employment and Training Act [CETA]) springs from that connection.

The second *C* is care, or perhaps concern. Asking teachers to care about these children is asking a lot, since teaching them is seldom the system's most sought after assignment and especially since the group at risk is likely to have clarified everyone's incompetence and frustration for years previous. But there is no substitute for adults (probably all adults) knowing young people by name, asking about their lives, assigning homework, grading homework, and returning homework. One consequence is that the institution cannot be very large and the pupil-teacher ratio has to be lower than typically found. One example of what the care/concern precept can do is Atlanta's "Community of Believers," where—unique among U.S. urban public school systems—the lowest achieving youngsters are systematically identified and then paired with someone who has volunteered from the business community. Those adults are trained, tracked, and supported in their work with individual, at-risk youngsters and the early results are encouraging.[41]

Gary Wehlage's analysis of programs that work for marginal high school students supports the care/concern thesis. Wehlage found that successful programs were small with lots of personal contact; teachers had high expectations, used a wide range of instructional techniques, and cared about student progress; and the students were challenged to succeed at feasible tasks and had opportunities to take initiative and to show responsibility.[42]

The property of care or concern is what the futures literature calls "high touch" and that must be coupled with "high tech." The third C is computers. The use of computers here is twofold — instructional management and student management. Berlin and Duhl talk about the "second-chance" school system that has grown up around programs of adult basic education, the Job Corps, and the youth employment training area.[43] Many of the youth in such programs have dropped out; most share the sociodemographic characteristics of at-risk youth. Yet the second-chance system has made remarkable progress in recent years in working simultaneously on basic skills, attitudes, and job performance skills. One effort is a computerized index of the competencies necessary to each of these three domains, cross-referenced to the major commercially available curricula. Thus, a district can start at either end — "We'd like to teach these behaviors, how can that be done?" or, "We have these materials, how can they be used?" and use the system to support both teaching and learning. When fully operational, this "Comprehensive Competencies Program" (CCP) uses computer-assisted-instruction techniques to guide both teachers and students.[44] "Some students enrolled in CCP learning centers attain impressive grade gains. At a CCP center run by the Milwaukee Opportunities Industrialization Center, average reading gains of three grades and mathematics gains of 3.9 grades were recorded for the first group of seventy-seven who completed *100 hours* of instruction."[45]

The second use of computers is in identifying young people as they become increasingly at risk and then getting them help. Many students drop out because they cannot bear the cumulative weight of what is happening to them. Most districts have a sense of what those reasons are, and different parts of most systems even collect data about them. Computers can keep track of those multiple impacts and alert a professional before they reach a danger point. Poor grades in Rodney Zagorip's student file are one flag, a second is truancy, a third is retained in grade/older than classmates, a fourth is discipline problems, a fifth is paid employment, a sixth is family problems, and so on. The computer asks (generally based on district-specific profiles), "How many hits can a 14-year old boy stand?" When that point is reached, the file goes to a dropout prevention team whose job it is to find Rodney and see that he gets what he needs.

But recall the nested problems of the dropout. Personally, what Rodney needs may well lie beyond the public school. Organizationally, there are nonschool agencies whose budgets depend on helping Rodney. If complex problems require ambitious solutions, the problem of early school leaving ought to implicate everyone — schools, youth employment programs, civic agencies, parents, community-based organizations, business and industry.

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Orchestrating different municipal agencies can be like steering the Crab Nebula. Turfs, unions, constituencies, missions, standard operating procedures—everything varies, but despite that, the national "Cities-in-Schools" program seems to be making a difference in Texas, Atlanta, and New York as it puts the schools together with parks and recreation, juvenile justice, family courts, social work, and youth employment.

In the context of coalition-building, the fourth *C*, it is worth repeating how much can be gained for at-risk youth by increasing the interaction between schools and employment-training organizations. The two agencies have much to offer each other. With refreshing candor, federal planners admitted in the 1970s that they did not know how to solve the problem of teen-age unemployment and thus, while they would continue to press for billion-dollar operating appropriations, they recommended that Congress reserve a fixed proportion for evaluating what was done. That simple expedient (plus an enormous amount of program evaluation design and implementation) turned federally supported youth-employment programs into a long-term, multi-site, mega-buck naturally occurring experiment aimed at deriving better practice from current efforts. We need to do the same in the dropout area. We also need to learn from each other. The interpenetration is apparent in the comments of two manpower economists, Berlin and Duhl, writing about summer learning programs:

> Research on the effects of summer learning suggests that schools play a significant role in the education of rich and poor alike, significantly reducing, if not entirely overcoming, differential achievement rates related to socioeconomic status. Viewed in an employment and training context, school effectiveness research may have significant implications for in-school, school-to-work and summer youth employment and training programs.[46]

The final resource in coalition-building can be the business/school partnerships that have been formed in this decade. The Boston Compact is deservedly famous in that the participating businesses were challenged to reserve a specific number of new-hire vacancies to be filled with high school graduates if, in fact, the Boston schools could increase the achievement and preparation of such youth. A related approach with considerable success in finding and deploying new resources for the public schools is the creation of local education foundations, largely assisted by the Pittsburgh-based Public Education Fund.[47]

Classroom teaching is an isolated and lonely business but so is working in a dropout program. Districts maintain them but without much hope for success, and they are seldom promoted. Categorical programs do not target these youth while they are in school, there are no fiscal rewards to organizations that succeed, and there is no network bonding similarly inclined professionals. From the standpoint of career advancement, the area is so risky as to be a disincentive. Where neighboring professionals do try to communicate, the chaos of definitions, the blizzard of approaches, and the lack of agreed-upon outcome measures produce cacophony. The result is not only isolation; it is also good practices that literally cannot be shared. Here again, doing better rests on a coalition. If the lesson of the 1960s was that the system cannot be driven from the top, the lesson of the 1970s should be that it cannot be led from the bottom. No one is going to impose answers on this field but neither are answers going to bubble up unaided. We need a consortium of major players, dedicated to the thoughtful scrutiny of their own practices, convened over time, and with a way to test and share their results. That too suggests a coalition.

The policy area of the dropout is emphatically one in which action creates understanding. The clock that measures our efforts is calibrated with young people. Fifteen percent is a conservative estimate of the dropout rate for a city school system. In middle-sized cities — Boston, St. Louis, San Francisco — that means about twenty students drop out each week. If you are charged to "do something" about that you might begin with a survey of existing practices, which could take a month (and 80 students); a needs assessment will take two more months to circulate and analyze (160 more students); writing a program and getting board approval could be three months (and 240 more young people gone). That is 480 dropouts before anything different and maybe better is even tried. Our efforts here are measured by time and money *and* by what happens and does not happen to children and youth.

Notes

1 Samuel S. Peng, "High School Dropouts: A National Concern" (Washington, D.C.: National Center for Education Statistics, U.S. Department of Education, n.d., Mimeographed), p. 14.

2 William R. Morgan, "The High School Dropout in an Overeducated Society" (Center for Human Resource Research, Ohio State University, February 1984, Mimeographed).

3 Stephen M. Barro, "The Incidence of Dropping Out: A Descriptive Analysis" (Washington, D.C MB Economic Research Inc., October 1984, Mimeographed).

4 Committee for Economic Development, *Investing in Our Children: Business and the Public School* (New York: CED, 1985), pp. 30–35.

5 Jerold G. Bachman et al., *Youth in Transition, Volume III: Dropping Out — Problem or Symptom?* (Ann Arbor, Mich.: Institute for Social Research, 1971). Cited in Gordon Berlin and Joanne Duhl, "Education, Equity and Economic Excellence: The Critical Role of Second Chance Basic Skills and Job Training Programs" (New York: The Ford Foundation, August 30, 1984, Mimeographed).

6 Cf. Gary G. Wehlage and Robert A. Rutter, "Dropping Out: How Much Do Schools Contribute to the Problem?" in this issue.

7 Harold Howe, II, and Marian Wright Edelman, *Barriers to Excellence: Our Children at Risk* (Boston: National Coalition of Advocates for Students, 1985), p. 51.

8 R. L. Crain, "The Quality of American High School Graduates: What Personnel Officers Say and Do about It," Report No 354 (Baltimore. Center for the Social Organization of Schools, The Johns Hopkins University, 1984).

9 Committee for Economic Development, *Investing in Our Children*, p. 20.

10 Howe and Edelman, *Barriers to Excellence*, p. 10.

11 Dale Mann, "Chasing the American Dream: Jobs, Schools, and Employment Training Programs in New York State," *Teachers College Record* 83, no. 3 (Spring 1982): 341–76

12 Morgan, "The High School Dropout," Table 5.8, p. 14.

13 Peng, "High School Dropouts," Table 8, "Reasons 1980 sophomore dropouts reported for leaving high school before graduation, by sex: February 1982."

14 Barro, "The Incidence of Dropping Out," p 62.

15 See Mann, "Chasing the American Dream," pp. 24–25.

16 Morgan, "The High School Dropout," p. 24.

17 Ibid., Table 5.8

18 Howe and Edelman, *Barriers to Excellence*, pp. 16–18

19 Peng, "High School Dropouts," Table 2, "Estimated dropout rates based on pupils who entered 5th grade," p. 14 (source: *Digest of Education Statistics, 1982*).

20 Cf. George Paul Morrow, "Standardizing Practice in the Analysis of School Dropouts" (Ed.D. diss., Teachers College, Columbia University, 1985).

21 Larry Barber, "Dropouts, Transfers, Withdrawn and Removed Students" (Bloomington, Ind.: Center for Evaluation, Development, and Research, Phi Delta Kappa, Inc., n d., Mimeographed), pp. 7, 8.

22 Clinical data developed and used by workers and aggregate, generally national data are very different The national data sets are fairly good and certainly better developed than the more important clinical data that might inform the improvement of practice. The current state of the art in dropout program management is akin to obstetricians trying to improve their forceps delivery techniques by peering at the "Current Population Survey" from the Bureau of the Census.

23 Harold Hodgkinson points out, "Negative knowledge is very important in making a profession out of a field" (Harold Hodgkinson, *All One System* [Washington, D.C : Institute for Educational Leadership, 1985], p 12)

24 Ibid., p. 11.

25 Cf Dale Mann, "Education," in *Setting Municipal Priorities*, ed. Charles Brecher and Raymond D. Horton (New York: Russell Sage, 1981), pp 367–69

26 Cf. Jeannette S Hargroves, "The Youth Training and Employment 'Mess' Boston's Interactive Planning Approach" (Boston: Federal Reserve Bank, n.d , Mimeographed).

27 Howe and Edelman, *Barriers to Excellence*, p. 52. Emphasis in original

28 Hodgkinson, *All One System*, pp. 11–12.

29 Morgan, "The High School Dropout."

30 *Education Week*, May 1, 1985, p 10.

31 Hodgkinson, *All One System*, p. 3

32 Research Triangle Institute, "Study of High School Dropouts in Appalachia" (Research Triangle Park N.C.: Center for Educational Studies, Research Triangle Institute, May 1985).

33 Lester C. Thurow, "A National Industrial Policy" (New York: New York Urban Coalition Forums on Political Economics, occasional paper, November 16, 1983).

34 Economic information in this paragraph is based on Robert B. Reich, "The Next American Frontier," *The Atlantic Monthly*, March 1983, pp. 43–58.

35 Foreign language data are from Valena White Plisko, ed., *The Condition of Education 1984*, Table 5.6, "Percent of 1982 High School Graduates Who Met Curriculum Recommendations of the National Commission on Excellence in Education by Subject Area and Selected School Characteristics, 1982," (Washington, D.C.: National Center for Education Statistics, NCES 84-401), p. 164, trade data from President's Commission on Industrial Competitiveness,

Global Competition The New Reality (Washington, D C. U S. Government Printing Office, January 1985), vol I, p. 10.

36 The distribution of a policy problem is sometimes even more helpful than its magnitude Nothing guarantees a more favorable reception for a program manager than the fact that the nephew of the chairman of a legislative committee is, for example, enrolled in a drug abuse treatment program

37 Alvin Gouldner, *The Coming Crisis of Western Sociology* (New York Basic Books, 1970), p. viii.

38 Howe and Edelman, *Barriers to Excellence*, p. x

39 Lawrence J. Schweinhart and David P. Weikart, *Young Children Grow Up. The Effects of the Perry Preschool Program on Youth through Age 15* (Ypsilanti, Mich.. Center for the Study of Public Policies for Young Children, High/Scope Educational Research Foundation, 1980) Figures are 1979 dollars.

40 For elementary school applications, see Wilbur Brookover et al , *Creating Effective Schools* (Holmes Beach, Fla., Learning Publications, Inc., 1982), and Dale Mann, "Excellence? For Whom?" *Equity and Choice* 1, no. 1 (Fall 1984). For secondary schools. see Michael Rutter et al., *Fifteen Thousand Hours Secondary Schools and Their Effects on Children* (Cambridge Harvard University Press, 1979).

41 Cf. Boyd Odum, "A Community of Believers," Fourth Anniversary Report of the Atlanta Partnership of Business and Education, Inc., Atlanta, 1985.

42 Gary G. Wehlage, *Effective Programs for the Marginal High School Student* (Bloomington, Ind.: Phi Delta Kappa Educational Foundation, 1983).

43 Berlin and Duhl, "Education, Equity and Economic Excellence "

44 Cf. Robert Taggart, "The Comprehensive Competencies Program: An Overview" (Alexandria, Va : Remediation and Training Institute, August 1984, Mimeographed)

45 R. C Smith, "Special Report Mastery Learning: Catch up for Students Who Fail," *Ford Foundation Letter* 15, no 6 (December 1, 1984) 3. Emphasis added

46 Berlin and Duhl, "Education, Equity and Economic Excellence," p. 50

47 Cf. *The First Two Years The Public Education Fund, 1983 – 1985* (Pittsburgh Public Education Fund, n.d.)