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#### **ABSTRACT**

This paper results from the collaborative work of Research for Better Schools, Inc., with the state staffs of Pennsylvania and Maryland on the problem of students at risk. It highlights the ways in which the problem is being defined, the data sets that are being used to suggest the magnitude of the problem, and the studies that are being used to suggest the interrelationships of various aspects of the problem. These three sets of definitions of students at risk are discussed: (1) students who are at risk of not achieving the goals of education in order to become productive members of American society; (2) students who exhibit behaviors that educators see as interfering with the educational process, including truancy, using drugs and alcohol, becoming pregnant, etc.; and (3) students whose family or community background may place them at risk. Studies that suggest the interrelationship of families' charact ristics, student behaviors, and school success are described, focusing on the National Assessment of Educational Progress and the High School and Beyond studies. The Maryland and Pennslvania approaches to the problem are described. The paper concludes that the decision to recast the problem of students at risk as questions directly related to the mission of schooling encourages state and local educational leaders to reexamine current program processes and structures of schools. (ABL)

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## AT-RISK YOUTH:

DEFINITIONS, DIMENSIONS, AND RELATIONSHIPS

by

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Over the past two years, Research for Better Schools (RBS) has had the opportunity to work with state staffs in Pennsylvania and Maryland, as they explored the recommendations of recent reports on the problem of "students at risk." In Pennsylvania, RBS helped state staff develop a resource book, Achieving Success with More Students - Addressing the Problem of Students at Risk, K - 12, which has been disseminated to all school districts in the state. In Maryland, RBS helped state staff develop a concept paper, Addressing the Problem of Students at Risk, which has been presented to and approved by the Maryland State Board of Education.

This paper is based on those two efforts. It will highlight:

- the ways in which the problem is being defined
- the data sets that are being used to suggest the magnitude of the problem
- the studies that are being used to suggest the interrelationships of various aspects of the problem.

The paper will conclude with a description of each state's current approaches to defining the problem.

## Definitions

After examining how the problem is being defined, Maryland, Pennsylvania, and RBS staff decided to differentiate among three sets of definitions. First, the problem of "students at risk" refers to students who, for whatever reason, are at risk of not achieving the goals of education—of not meeting local and state standards for high school graduation, of not acquiring the knowledge, skills, and dispositions to become productive members of the American society.

Second, the problem refers to students who exhibit behaviors that educators see as interferring with the educational process, behaviors that may actually prevent students from meeting the requirements for high school graduation. These behaviors include:

- not attending school regularly, being truant
- not engaging in classroom and school activities
- not succeeding in daily learning tasks and on local and state achievement measures
- using drugs and alcohol
- committing disruptive and delinquent acts
- becoming pregnant and having to care for a baby
- attempting suicide.



Third, the problem refers to students whose family or community background may place them at risk. Traditionally, educators have used the economic status of students' families (e.g., poverty) and the English proficiency of students' families as indicators that students may be at risk of not succeeding in school. Recent analyses of demographic trends suggest other background characteristics that also may put students at risk. For example, Hodgkinson suggests that educators in the coming decade will face more children who:

- are premature at birth
- are born to a teenage mother
- are born to parents who are not married
- come from single-parent households
- come from "blended" families that result from the remarriage of one original parent
- have not participated in Head Start or similar preschool programs
- have working parents and could be described as "latch-key" children.

From the perspective of these three sets of definitions, the problem of "students at risk" is, for the most part, a new label for old concerns—for example, concerns about the disadvantaged, the LEP (limited English proficient) child, the user of drugs and alcohol, the disruptive or delinquent youth, the pregnant teenager, and the dropout. However, this label, as used in recent reports, also reflects new concerns:

- concern about the future of students who do not successfully complete school--particularly, given the requirements of a world entering the "information" age
- concern about the future of an American society in which significant numbers of students do not complete school and acquire the knowledge, skills, and dispositions necessary to become productive members of the society.

## Data Sets

Figure 1 lists the data sets that Maryland, Pennsylvania, and RBS staff used to suggest the magnitude of the "student at risk" problem. The list has been organized into categories by the definitions just presented.

Irrespective of what qualms one has about any specific study on the list, the data in figure 1 suggest that a significant number of students come from family backgrounds that could put them at risk of not succeeding in school, that significant numbers of students are exhibiting behaviors that could interfere with their progress in school, that a significant number of



#### Figure 1

## Data Used to Suggest Magnitude of the Problem

#### Children in Poverty

- e 14% of all children, ages 0-17, were living in poverty during the 1960's. This figure has increased sharply since 1979, to approximately 22% in 1983.
- e 18.1% of White children under 15 years live in poverty; 47.6% of Black children under 15 live in poverty; and 39% of Spanish Origin children under 15 live in poverty.

#### Limited English Proficiency

a 1.2 million to 1.7 million children with limited English proficiency are estimated to be of school age. This figure is growing, and does not reflect the variation in numbers according to region.

#### Not Attending School Regularly

- 8.1% of the Maryland students are absent from school on a given day. Be Depending on the Maryland district, on the average, 4 to 7.8% of the elementary school students are absent, while 6.1% to 18.7% of the secondary students are absent.
- Up to 33% of high school students miss on the average of at least one class per day.

## Not Being Engaged in Classroom/School Activities

- 46% of a sample of 11th grade Pennsylvania students agree that they often become discouraged in school and 37% agree that they feel unhappy about their school work.
- e 10% to 11% of a sample of 11th grade Pennsy! vania students are involved in outside employment. 12
- e 34% of a sample of 11th grade Pennsylvania students report that they watch about 3 % hours of television after school. 13

Teachers also provide svidence about student engagement in school activities.

- e 66% of tea hers surveyed on the Metropolitan Life Survey of the American Teacher, 1985, viewed students' lick of interest in school as a very serious or somewhat serious problem.
- while 75% of a sample of Grade 4 Pennsylvania teachers mostly and strongly agree that the students in their school are interested in learning, this percentage declines to 44% for a sample of Grade 9-11 teachers.

#### Not Succeeding on Daily Assignments and on Local and State Measures

- Different students experience vary different lavels of success on daily tasks. For example, some experience success on 88% of their assigned tasks, while others experience success on only 9% of their tasks.
- 6.1% of the 9 year olds taking the 1984 NAEP reading exercises were not able to demonstrate "rudimentary" proficiency, while 35.8% were not able to demonstrate "basic" proficiency.
- e 6.5% of the 13 year olds taking the 1984 NAEP reading exercises were not able to demonstrate "basic" proficiency, while 19.7% were not able to demonstrate "intermediate" proficiency.
- e 4% or 14,339 elementary students in Maryland were not promoted in 1985-86, while 7.2% or 22,751 secondary students were not promoted in that year Percentage of students not promoted varied by district from a high of 13.3% to a low of 0.9%.
- e 22.4% of grades 3, 5, and 8 regular students taking a Pennsylvania reading test, and 21% taking the mathematics test scored at levels low snough to be eligible for remediation in 1985-86.
- e 32.9% of grade 9 Maryland students taking a state writing competency test, 34.5% taking the math test, and 26.7% taking the citizenship test failed to pass.

#### Using Drugs and Alcohol

- 25.7% of 1985 seniors reported using marijuana during the previous 30 days. 22
- $\frac{6.78}{\text{have}}$  of 1985 seniors reported using cocaine during the previous 30 days;  $\frac{178}{\text{reported}}$  reported that they have tr'ed this drug.



- e 66% of 1985 seniors reported using alcohol during the previous 30 days; 37% reported that they had five or more drinks in a row, at least once in the prior week; 5% reported that they drink alcohol daily.
- e 19.8% of the Maryland 12th grade etudent reported "frequent use" of alcohol. 25
- e 9.4% of the Maryland 8th grade etudente reported use of alcohol and any drug. 26
- e 5.7% of the 11 to 17 year old population ie estimated by the Maryland Department of Health and Mental Health to be either dysfunctional or at risk of becoming dysfunctional because of drug abuse.

## Committing Dieruptive and Delinquent Acts

- e Approximately 33% of the two cohorts of 10 to 18 year olds who recided in Philadelphia that were studied by Wolfgang and his associates had at least one police contact. Wolfgang found in both cohorts, that there was a small group (approximately, 7%) who were chronic offenders, arrested five or more times and responsible for approximately 60 to 70% of the crimes committed by the cohorts.
- e 14.2% of 14 to 17 year olde were arrested annually between 1975 and 1983. 29
- e 9% of 57,064 of the etudente in Haryland echools committed in 1984-85 97,341 offensee, requiring suspeneion from echool.

#### Becoming Pregnant and Having to Care for a saby

- e 13.1% of all births were to mothere under 20 (1984). This percent riese to 23.7% in cities of 500,000 plus.
- e 56% of birthe to teene in 1984 were to unmarried mothere. 32
- e 23% of the eample of femalee who reported dropping out of echool between their eophomore and eenior years cited pregnancy as the reason.

## Attempting Suicide

- e The current suicide rate for 15-24 year olds in 1983 was 11.9 for every 100,000. This rate is three times the youth euicide rate of 1955, and two times the 1960 rate.
- e For each euicide death among youth, there are an estimated 50-60 unsucceeeful attempts.
- e 10% of all deathe for youth 15-24 wers attributed to euicide in Pennsylvania in 1984. 36

## Not Graduating From High School

- e Approximately 28% of 9th gradere failed to graduate according to the National Center for Educational Statistics. The Center arrived at this figure by comparing the number of studente graduating in a given year with the number of studente enrolled in the 9th grade from four years earlier.
- 18% drop out, based on self-report data gathered by the U.S. Bureau of Census. 38
- e 14% of the eample of eophomores eurveyed by The High School and Beyond Study in 1980 reported in the 1982 survey that they had dropped out.
- 22% of Maryland etudents who were in 9th grade in 1982, dropped out of echcol before June 1986. 40
- 5.1% of Maryland'e eecondary school etudent population (grades 7 to 12) or 16,532 etudents dropped out of echool in 1985-86. Of these, more than 75% dropped out for reaeons of "incompatibility with school."
- 2.7% of Penneylvania's secondary school student population (grades 7 to 12) dropped out of echool during the echool year 1984-85.



#### Not Acquiring Important Knowledge and Skills

- e 1.4% of 17 year old students who completed the NAEP were categorized as not able to read at a basic proficiency level; 16.4% could not read at an intermediate proficiency level; 60.8% could not read at an adept proficiency level; and 95.1% could not read at an advanced level.
- e 35 to 93% of 17 year old students who completed the NAEP writing exercises were not able to formulate an "adequate" or better response on the four information exercises; 72 to 85% were not able to, on the four persuasive exercises; and 52 to 82% were not able to, on the four imaginative exercises.
- e 25.1% of the 17 year old students who completed the NAEP mathematics exercises were not successful on the "knowledge" exercises; 40% on the "skill" exercises; 38% on the "understanding" exercises; and 58% on the "application" exercises.



students are dropping out of school, and that a significant number of students are not demonstrating mastery of certain important skills.

After reviewing such data, it is easy to understand why federal, state, and local leaders might be stimulated to launch programs targeted at one aspect of the problem or another. Thus, there are Headstart and Follow Through programs, Chapter 1 programs, programs for bilingual students, drug and alcohol abuse programs, alternative programs for disruptive students and delinquency prevention programs, "family education" programs and programs for pregnant teenage girls and for teenage parents, suicide prevention programs, dropout prevention programs and programs for school dropouts, performance requirments for graduation, and remediation programs for students who fail graduation tests.

It is also easy to understand how federal and state leaders, after supporting such an assortment of programs over the past twenty years, might begin to ask: are there less fragmentary ways of defining the problem?

# Studies Suggesting the Interrelationship of Characteristics, Student Behaviors, and School Success

To explore alternative ways of defining the problem, Maryland, Pennsylvania, and RBS staff have drawn upon the results of a number of studies.

## National Assessment of Educational Progress (NAEP)

NAEP correlated young adults' performance on three sets of literacy tasks, NAEP correlated that performance with their levels of education and racial/ethnic background. These analyses showed that the higher a young adult's level of education, the more difficult the literacy tasks that the young adult could perform. These analyses also showed significant performance differences among racial/ethnic groups: more white young adults were able to complete the tasks satisfactorily than Hispanic young adults, and more Hispanic young adults were able to complete the tasks satisfactorily than the Black young adults.

In another analysis, NAEP determined that the higher the level of educational attainment, the higher the rate of employment.

## High School and Beyond

An analysis of data from the High School and Beyond Study compared characteristics of 1980 sophomores who stayed in high school to those of sophomores who dropped out. Some of the differences identified were:

- dropouts are disproportionately from low socio-economic families
- dropouts tend to come from homes with weaker educational support systems (e.g., homes having fewer study aids; homes with less opportunity for non-school related learning; homes with mothers who



)

have lower levels of formal education, who have lower educational expectations for their children, and who are more likely to be working; parents who are less likely to be interested in or to monitor both in-school and out-of-school activities)

- dropouts, as sophomores, attended class less regularly, were less likely to feel popular with other students, and were less likely to participate in extracurricular activities
- dropouts, as sophomores, reported less interest in school
- dropouts, as sophomores, were more likely to report spending time outside of school "driving around" and "going on dates"
- dropouts, as sophomores, reported working more hours per week, receiving a high hourly wage, and finding their jobs more enjoyable and important than school
- dropouts, as sophomores, had lower school grades and lower test scores, did less homework, and reported more disciplinary problems.

The concluded that four clusters of variables best explained the differences between students who stayed in school and students who dropped out of school: demographic characteristics of students, the nature of family support student performance on school tasks, and student in-school behavior.

## Other Studies

The results of a Pennsylvania survey of students' use of drugs and alcohol indicated that students who reported more use of drugs and alcohol, also reported more dissatisfaction with school and their teachers, spent less time on academic activities, had lower grade point averages and less self-confidence, and were more involved in theft and vandalism.

Tracey and Wolfgang's studies of two birth cohorts suggested that youth involved with police tended to come from unstable homes, have fewer years of schooling, and have records of lower scholastic achievement.

Gottfredson, Gottfredson, and Cook determined that youth engaging in delinquent behavior tended to have weak attachments to parents, feel alienated from any social order, do not believe in the validity of rules or law, dislike school and expend little effort on school work, are truant, associate with delinquent peers, have low self-esteem or a delinquent self-concept.

In Chilman's review of research, adolescent premarital intercourse was related to poverty, urban settings, sexually active friends, low success in school, low educational expectation, use of drugs and alcohol, disruptive acts, low self-esteem, and feelings of alienation.

## Summary

Together, results like these provide support for the concept, "students at risk"--namely, that there appears to be a relationship among:



- student family characteristics (e.g., poor, low English proficient, low educational expectations, etc.)
- student behaviors (e.g., not attending, not becoming engaged, using drugs and alcohol, committing disruptive and delinquent acts, etc.), and
- not graduating from high school with the knowledge and skills needed to become productive members of the American society.

## An Alternative Approach to Derining the Problem

In approaching the task of developing a definition of the problem of "students at risk' for use in future state planning, Maryland, Pennsylvania and RBS staff wanted an alternative to the definitions described earlier. Specifically, they wanted one that would make the problem more central to the mission of education, and that would encourage the design of more integrated, less fragmentary efforts.

## Pennsylvania Approach

In Pennsylvania, staff turned to the state's Twelve Goals of Quality Education. These goals summarize for Pennsylvania schools the knowledge, skills, and attitudes that all students need to acquire to become successful adults. In examining the content of the Twelve Goals, it was Pennsylvania staff's conclusion that aspects of the problem of students at risk could be redefined in terms of several of those goals.

- The Goal of Self-Esteem is to develop every student's self-understanding and feeling of self-worth, particularly, in the context of being a student in school. The antithesis of this goal is to have students withdrawing psychologically from school life, cutting classes, becoming truant, and dropping out.
- The Goal of Citizenship is for every student to acquire the values and attitudes for responsible citizenship and to behave in socially responsible ways. The antithesis of this goal is to have students disrupting classes and cchool activities, and committing delinquent acts.
- The Goal of Family Living is for every student to acquire the knowledge, skills, and attitudes necessary for successful personal and family living. The antithesis of this goal is to have scudents becoming pregnant.
- The Goal of Health is for every student to acquire knowledge and develop practices necessary to maintain physical and emotional well-being. The antithesis of this goal is to have students using drugs and alcohol, and attempting suicide.



• The Goal of Work is for every student to acquire the knowledge, skills, and attitudes necessary to become a self-supporting member of society. The antithesis of this goal is not being in class on time, not completing assignments in a high quality way, and not earning the grades and credits required for graduation.

For Pennsylvania staff, this approach to the definition of the problem changes the questions that educators would be asked to address. Instead of questions like: "How do we help individual students overcome the deficiencies of their family/community background and/or modify their "self-destructive" behaviors?", this approach asks: How can we be more successful with more students--particularly, with respect to the goals of self-esteem, citizenship, family living, health, and work.?"

## Maryland Approach

In their concept paper, Maryland staff reviewed the specific goals of 34 current state initiatives related to youth at risk. Maryland staff determined that those initiatives were addressing many different objectives — objectives that reflected the variety of ways in which the problem had been defined. They concluded that they needed an overarching goal that would encourage them to integrate current efforts. They adopted the goal set forth in the recent Council of Chief State School Officers, Assuring School Success for Students At Risk, that virtually all students should graduate from high school by the year 2000—a goal that they found to be consistent with Maryland's Mission of Schooling. In part, that statement says:

- Schooling is that set of learning experiences that leads to effective and satisfying adulthood...Schooling must therefore lead to competency in, at least, five areas of human activity (basic skills, world of work, world of leisure time, world of citizenship, and survival skills).
- Schooling is the responsibility of self, family, neighborhoods, church, community, and the many institutions that impact our lives...But the schools can and should provide leadership to the others.

Thus, Maryland staff also seeks to change the questions that educators are asked to address. Instead of specific questions like those that can be derived from various aspects of the problem (e.g., how to increase student attendance, engagement, level of daily success; how to prevent or reduce student use of drugs and alcohol, student disruption and delinquency, teenage pregnancy, and dropping out), Maryland educators are being asked to determine how they could assure that virtually all students graduate from high school in the year 2000?

## Concluding Comments

The decision to recast the problem of students at risk as questions directly related to the mission of schooling encourages state and local educational leaders to reexamine current program processes and structures of schools. For example, if we really want to ensure that virtually all students graduate with the necessary knowledge, skills and attitudes to be productive members of the American society,



- how would the curriculum need to change
- how would instruction need to change
- now would the role of teachers vis a vis students need to change
- how would the incentives that schools provide students need to change
- how would schools' approach to the "peer culture" need to change
- how would schools' approach to students' families need to change
- how would schools' relationships with other social service agencies and other community groups need to change
- how would schools' organization (e.g., how staff is structured, how teachers and students are assigned, how time is scheduled, and how class size is determined) need to change?

Whether educational leaders in Pennsylvania and Maryland will address these fundamental questions remains to be seen; however, their importance is suggested by the work of the other members of this symposium: Gary Wehlage, Gary Gottfredson, and Pill Firestone.



## References

- 1. Pennsylvania Department of Education. (1987). Achieving success with more students: Addressing the problem of students at risk, K-12. Harrisburg, PA: Auth
- 2. Maryland State Department of Education. (1988). Addressing the problem of students at risk. Baltimore, MD: Author.
- 3. Hodgkinson, H.L. (1985). All in one system: Demographics of encation Kindergarten through graduate school. Washington, DC: The Institute for Educational Leadership, Inc.
- 4. National and state reports:
  - Children's Defense Fund. (1988). A children's defense budget, FY
     1988: An analysis of our nation's investment in children.
     Washington, DC: Author.
  - Committee for Economic Development. (1987). Children in need: Investment strategies for the educationally disadvantaged. New York: Author.
  - Education Commission of the States, Business Advisory Commission.
     (1985). Reconnecting youth. Denver, CO: Author.
  - Feistritzer, C.E. (1985). Cheating our children: Why we need school reform. Washington, DC: National Center for Education Information.
  - The Institute for Educational Leadership, Inc. (1987). <u>Dropouts in America</u>: <u>Enough is known for action</u>. Washington, DC: Author.
  - The Institute for Educational Leadership, Inc. (1986). School dropouts: Everybody's problem. Washington,, DC: Author.
  - Levin, H.M. (1986). Educational reform for disadvantaged students:
     An emerging crisis. Washington, DC: National Education
     Association.
  - McNett, I. (1983). <u>Demographic imperatives for education policy</u>.
     Washington, DC: American Council on Education.
  - National Coalition of Advocates for Students. (1985). Barriers to excellence: Our children at risk. Boston: Author.
  - National Foundation for the Improvement of Education. (1986). A blueprint for success: Principles for dropout prevention.
     Washington, DC: Author.
  - National Governors' Association, Center for Policy Research and Analysis. (1986). <u>Time for results: The Governors' 1991 report on</u> education. Washington, DC: Author.



- The States' Excellence in Education Commission: Who's looking out for at-risk youth? (1985) Report prepared for the Charles Steward Mott Foundation. Chapel Hill, NC: MDC.
- 5. Hodgkinson, H.L. All in one system: Demographics of education 
  Kindergarten through graduate school. Washington, DC: The Institute
  for Educational Leadership, Inc.
- 6. Bureau of Census. (1984). <u>Statistical abstracts of the United States:</u>
  1985 (105th edition). Washington, DC: Author.
- 7. Bennett, W.J. (1986). A report from the Secretary of Education to the President and the Congress: The condition of bilingual education in the nation, 1986. Washington, DC: Author.
- 8. Sunshine, P.M., Leong, M., & Sange-Walters, P. (April, 1987). Students at risk in Maryland public schools. Paper presented at the annual meeting of the American Educational Research Association in Washington, DC.
- 9. Maryland State Department of Education. (1987). Summary of attendance:

  Maryland Public Schools, September-June, 1985-86. Baltimore, MD:

  Author.
- 10. deJung, J. & Duckworth, K. (1985). New study looks at high school

  absenteeism. Eugene, OR: University of Oregon, Eugene, Center for
  Educational Policy and Mangement. (ERIC Document Reproduction Service
  No. ED 263 678)
- 11. Pennsylvania Department of Education, Division of Educational Testing and Evaluation. (1985). Educational quality assessment: Commentary. Harrisburg, PA: Author.
- 12. Ibid.
- 13. Ibid.
- 14. United States Department of Education. (1985). <u>Indicators of education</u> status and <u>trends</u>. Washington, DC: Author.
- 15. Pennsylvania Department of Education, Division of Educational Testing and Evaluation. (1985). Educational Quality assessment: Commentary. Harrisburg, PA: Author.
- 16. Fisher, C.W., Filby, N.N., Marliave, R.S., Cohen, L.S., Dishan, M.M., Moore, J.E., & Berliner, D.C. (1978). Teaching behaviors, academic learning time and student achievement: Final report of phase III, beginning teacher evaluation study. San Francisco: Far West Laboratory for Educational Research and Development.
- 17. National Assessment of Educational Progress. (1984). The reading report card: Progress toward excellence in our schools. (Trends in reading over four national assessments, 1971-1984). Princeton, NJ: Educational Testing Service.

- 18. Ibid.
- 19. Maryland State Department of Education. (1987). Summary of attendance:

  Maryland Public Schools, September-June, 1985-86. Baltimore, MD:

  Author.
- Pennsylvania Department of Education. (1986). <u>TELLS</u> (<u>Testing for Fssential Learning and Literacy Skills</u>): 1985-86. Statewide test results. Harrisburg, PA: Author.
- 21. Maryland State Department of Education. (1987). Summary of attendance:

  Maryland Public Schools, Septermber-June, 1985-86. Baltimore, MD:

  Author.
- 22. U.S. Department of Health and Human Services. (1986). Drug use among
  American high school students, college students, and other young
  adults: National trends through 1985. Rockville, MD: National
  Institute on Drug Abuse, 236.
- 23. Ibid.
- 24. Ibid.
- 25. Substance Abuse Management Information Services, Drug Administration,
  Maryland State Department of Health and Mental Hygiene; June, 1987.

  Trends and Patterns in Drug Abuse in Maryland, Fiscal Year 1986.

  Baltimore, MD: Author.
- 26. Ibid.
- 27. Ibid.
- 28. Tracey, P.E., Wolfgang, M.E., & Figlio, R.M. (1985). <u>Delinquency in two birth cohorts: Executive Summary</u>. Washington, DC: U.S. Department of Justice.
- 29. The percentage was calculated using data from:
  - Bureau of the Census. (1984). <u>Statistical abstracts of the United States: 1985 (105th edition)</u>. Washington, DC: Author.
  - Federal Bureau of Investigation. (1983). Crime in the United States. Washington, DC: Author.
- 30. Maryland State Department of Education. (1986). Student disruption and attendance in Maryland Public Schools. Baltimore, MD: Author.
- 31. National Center for Health Statistics. Calculations by Children's Defense Funds. In Children's Defense Fund. (1988). A children's defense budget (pp 272-273). Washington, DC: Author.
- 32. Ibid.



- 33. Ekstrom, R.G., Goertz, M.E., Pollack, J.M. & Rock, D.A. (1986). Who drops out of high school and why? Findings from a nation study. Teachers College Record, 87(3), 356-373.
- 34. National Institute of Health Statistics for 1983. (1986). (Provided in response to a phone inquiry).
- 35. McIntire, M.S. & Angle, C.R. (1971). Suicide as seen in a poison control center. Pediatrics, 60, 605-608.
- 36. State Health Data Center. (1986). Pennsylvania vital statistics annual report, 1984. Harrisburg, PA: Department of Health.
- 37. The Institute for Educational Leadership, Inc. (1986). School dropouts: Everybody's problem. Washington, DC: Author.
- 38. Bureau of Census. (1984). <u>Statistical abstracts of the United States:</u>
  1985 (105th edition). Washington, DC: Author.
- 39. Ekstrom, R.G., Goertz, M.E., Pollack, J.M., & Rock, D.A. (1986). Who drops out of high school and why? Findings from a national study. Teachers College Record, 87(3), 356-373.
- 40. Maryland State Department of Education. (1987). A compilation of national and state of Maryland dropout and attendance data.

  Baltimore, MD: Author.
- 41. Ibid.
- 42. Laverty, G. (1985). <u>Dropouts from Pennsylvania public secondary</u>
  schools (1984-1985 school year): A final report of a dropout survey.
  Harrisburg, PA: Pennsylvania Department of Education.
- 43. National Assessment of Educational Progress. (1984). The reading report card: Progress toward excellence in our schools. (Trends in reading over four national assessments, 1971-1984). Princeton, NJ: Educational Testing Service.
- 44. Applebee, A.N., Langer, J.A., & Mullis, I.U.S. (1986). The writing report card: Writing achievement in American schools. Educational Testing Service. (Report No.: 15-W-02)
- 45. National Assessment of Educational Progress. (1984). The third national mathematics assessment: Results, trends and issues.

  Princeton, NJ: Educational Testing Service.
- 46. Ekstrom, R.G., Goertz, M.E., Pollack, J.M., & Rock, D.A. (1986). Who drops out of high school and why? Findings from a national study.

  Teachers College Record, 87(3), 356-373.
- 47. Data Base. (1985). 1984-1985 Pennsylvania state report: Drug and alcohol needs assessment. State College, PA: Author.



- 48. Tracey, P.E. Wolfgang, M.E. & Figlio, R.M. (1985). Delinquency in two birth cohorts: Executive Summary. Washington, DC: U.S. Department of Justice.
- 49. Gottfredson, G.D., Gottfredson, D.C., & Cook, M.S. (1983). The school action effectiveness study: Second interim report, Part I.

  Baltimore, MD: Johns Hopkins University, Center for Social Organization of Schools.
- 50. Chilman, C.S. (1980). Adolescent sexuality in a changing American society: Social and psychological perspectives. Washington, DC: U.S. Department of Health, Education, and Welfare.
- 51. Pennsylvania Department of Education. Achieving success with more students, (1987).
- 52. Council of Chief State School Officers. (1987). Assuring success for students at risk. Washington, DC: Author.
- 53. Maryland State Department of Education. (1988). Addressing the problem of students at risk. Baltimore, MD: Author.

