DOCUMENT RESUME

ED 378 257 UD 030 228

AUTHOR Zill, Nicholas
TITLE Trends in Family Life and Children's School Performance.
INSTITUTION Child Trends, Inc., Washington, DC.
PUB DATE 22 Aug 92
NOTE 26p.; Paper presented at the symposium "Impact of Changes in the Family on Education: Linkages of Sociologies of Family and Education" American Sociological Association (Pittsburgh, PA, August 1992).
AVAILABLE FROM Child Trends, Inc., 4301 Connecticut Ave., N.W., Suite 100, Washington, DC 20008 ($0.10 per page, $5.50 per copy).
PUB TYPE Reports - Evaluative/Feasibility (142) -- Speeches/Conference Papers (150)

EDRS PRICE MF01/PC02 Plus Postage.
DESCRIPTORS *Academic Achievement; Academic Failure; *Children; Disadvantaged Youth; Educational Trends; Elementary Secondary Education; Ethnic Groups; Family Characteristics; *Family Influence; Family Structure; *Minority Groups; Parent Education; Parent Role; Predictor Variables; Preschool Education; Racial Differences; Research Needs; Trend Analysis
IDENTIFIERS *Home Observation for Measurement of Environment; National Longitudinal Survey of Youth

ABSTRACT

Education professionals have long known that family background is a stronger predictor of academic success than are school or teacher characteristics. The past 30 years have seen a series of drastic alterations in patterns of family living in the United States, and these changes mean that a substantial number of youngsters are being born or are growing up in circumstances that put them at risk of low achievement and school failure. Family characteristics associated with school difficulties are more common in some racial and ethnic groups than others, but when grade-repetition rates are adjusted for parent education, family income, and family composition, these ethnic disparities are substantially reduced. Research indicates that the disadvantaged minority students of today are doing better than those of yesterday. There is a scale that assesses what parents do to stimulate achievement in preschool and elementary-age children. This is the Home Observation for the Measurement of Environment (HOME) scale. An abbreviated version of the HOME scale was used in the National Longitudinal Survey of Youth (NLSY) to begin to study family influence on student achievement. Considerable further research is required to explore the complex relationships between family life and academic achievement. Includes one figure and two tables. (Contains 49 references.) (SLD)

Trends in Family Life

and Children's School Performance

Nicholas Zill, Ph.D.
Child Trends, Inc.
2100 M Street NW, Suite 610
Washington, DC 20037

Paper prepared for symposium on:

Impact of Changes in the Family on Education:
Linking Sociologies of Family and Education

American Sociological Association Meetings

Pittsburgh, Pennsylvania

August 22, 1992

Trends in Family Life and Children's School Performance

In 1990, President Bush and the governors of all the states agreed on six National Education Goals for the U.S. to achieve by the year 2000 (U.S. Department of Education, July 1990). The first goal is that all children in America will start school "ready to learn." The school readiness goal draws attention to a critical insight about children's academic progress. The insight is that how children do in school depends in large measure on things that happen before they ever set foot in a classroom. Among the prior influences on learning are the child's genetic endowment, prenatal conditions, the circumstances of birth, early nutrition, environmental hazards to which the child is exposed, and the kind of medical care that is available to the family (Plomin, 1990; Boyer, 1991). But certainly one of the major determinants is the child's family environment. The significance of family influences was recognized in one of the objectives set forth under the goal of school readiness. That was that:

> "Every parent in America will be a child's first teacher and devote time each day to helping his or her preschool child learn; parents will have access to the training and support they need" (U.S. Department of Education, August 1991, p. iii).

Education professionals have long known that family background is a stronger predictor of academic success than are school or teacher characteristics. James Coleman told them so back in the 1960s (Coleman et al, 1966). And a whole series of American and international studies reinforced the conclusion (e.g., Bachman, 1970; Mayeske et al, 1973; Husén et al, 1967; Purves, 1973, 1981). But educators and education reformers

tend to be preoccupied with what the schools are or are not doing, so they keep forgetting just how much family matters.

The Role of the Family

Our society relies on families to perform functions that are critical to the survival and development of young children. Among these functions are providing physical necessities, like food, clothing, and shelter; protecting children from harm and supervising their daily activities; giving affection, praise, and other forms of emotional support; and applying firm but not harsh discipline when it is required (Zill & Coiro, 1992; Baumrind, 1971).

We expect children to form an intense, irreplaceable bond with their parents, a bond that seems critical for normal social development in the human organism (Bowlby, 1969; Rutter, 1981). This bond helps to nurture and shape the child's developing sense of self; to steer social behavior into acceptable channels (Erikson, Sroufe, & Egeland, 1985); and to motivate accomplishments that will be gratifying to the parents (Bretherton & Waters, 1985; Egeland & Farber, 1984).

We count on parents to serve as the child's first instructors, and to continue intellectual stimulation and encouragement for learning after the child has started school. We presume that parents will teach children right from wrong, and respect for the rights of others, by both precept and example. We also expect that family members will pass on the traditions and values of the political, cultural, and religious communities of which the family is a part.

When families fail to perform these functions, or perform them badly, the child is likely to suffer and the community to pay a price. Youngsters may be injured or even die, experience delays in their development, or develop abnormally. Schools may have to compensate for a lack of intellectual stimulation at home or be forced to deal with conduct problems that have their roots in parental neglect or family conflict. In extreme cases, public agencies or private charities may be required to take over family functions.

Changing Realities of Family Life in the U.S.

The last 30 years have seen a series of drastic alterations in patterns of family living in the United States. Some of the new ways of living have weakened the ability of the families involved to sustain themselves or carry out traditional child-rearing functions. The changing realities of family life are evidenced by statistics such as the following:

- Nowadays, one of every two marriages in the U.S. ends in divorce. After rising dramatically in the 1960s and 1970s, divorce rates have stabilized, but at very high levels (National Center for Health Statistics, 1991a). Each year, about two-and-a-half percent of all U.S. children undergo the painful experience of seeing their parents separate or become divorced (calculated by the author from data in Bianchi & MacArthur, 1991).
- Growing numbers of children are being born outside of marriage. In 1989, the number of babies born outside of marriage in the U.S. was 1.1 million, or 27 percent of all births (National Center for Health Statistics, 1991b). Two-thirds of all births to black mothers occurred outside of marriage.

- Large numbers of adult females are raising children on their own, often in poverty or welfare dependency. In 1991, there were 11.7 million female-headed families in the U.S., and 36 percent of them, 4.2 million, were poor (U.S. Bureau of the Census, August 1992). Female-headed families made up more than half of all poor families in the country.
- Large numbers of adult males are only loosely attached to the families and households that contain their offspring. Many of these men see their children sporadically, if at all (Furstenberg, Nord, Peterson, & Zill, 1983), and contribute little or nothing to the financial support of their children (U.S. Bureau of the Census, 1991).
- As a result of simultaneous epidemics of AIDS, crack, and urban violence, increasing numbers of families with children are unable to fulfill their traditional functions and are instead neglecting, abusing, or abandoning their children. More than 2 million reports of child maltreatment are received by child protection agencies across the U.S. each year (Select Committee on Children, 1989, pp. 190-191). The number of children who have to be removed from their homes has grown alarmingly. The number of children in substitute care at any given time now stands at more than 400,000 (Tatara, 1991).
- Although it is not a pathological development in the sense that some of the changes listed above are, the growth of maternal employment among mothers with young children poses challenges for the families involved. Especially challenging is the task of coming up with high-quality, affordable care for infants and

toddlers when women return to full-time, year-round work shortly after giving birth. Yet this is the sector in which female employment is growing most rapidly (Select Committee on Children, 1989, p. 83).

Implications for Learning

What do these changing family patterns mean for the academic achievement of U.S. children? To begin with, they mean that a substantial minority of youngsters are being born or growing up in circumstances that put them at risk of low achievement and school failure. For example, almost one in every four babies born each year in the U.S. is born to a mother who has not completed high school (National Center for Health Statistics, 1991b). Five and a half million children under the age of six -- 24 percent of those in this age group -- are living in poverty (U.S. Bureau of the Census, August 1992). Nearly six-and-a-half million preschool children -- or 28 percent -- are living with single parents or stepparents (Zill & Coiro, 1991). Half a million young children are living apart from both of their parents, and being raised by grandparents or other relatives or in foster care (U.S. Bureau of the Census, April 1992).

Each of these conditions -- low parent education, poverty, not living with both birth parents -- has been shown to increase a child's chances of experiencing problems in school. The problems include having to repeat one or more grades, requiring remedial instruction or special educational services, being suspended or expelled from school, and, eventually, dropping out before finishing high school. To illustrate the relationship between family circumstances and school performance, let us look at some data on grade

repetition from the 1988 National Health Interview Survey on Child Health (Dawson, 1991; Zill and Coiro, 1991).

Family circumstances and grade repetition. The survey shows that 18 percent of all U.S. children aged 7 to 17 have had to repeat a grade in school. (Table 1). Among children living in welfare families, however, the proportion repeating is 34 percent; and among those in poor families not receiving AFDC, the proportion is 28 percent. By contrast, among children in non-poor families, 17 percent have repeated a grade.

The likelihood of being held back varies markedly with the parents' education level. Among children whose parents have not completed high school, 33 percent have repeated a grade. If the parent has completed high school but no more, grade repetition is notably lower but still above average, 21 percent. Among children of college graduates, the rate drops to 9 percent, and among the offspring of parents with graduate educations, to 7 percent.

The likelihood of being held back also varies as a function of the child's family living arrangements. The rate stands at one in three among children living with never-married mothers, and those who live with their grandparents only. Rates for children who live with divorced mothers, or mothers and stepfathers, are also elevated, but not as markedly so. About one child in four has repeated a grade in school in these groups. Among those living with both birth parents, however, the proportion repeating drops to 13 percent.

Grade repetition rates are higher among children from large families (those with four or five children or more) than among those from smaller families, but the differenc-

es are slight. Rates of grade repetition do not vary significantly between students whose mothers worked outside the home, full-time or part-time, and those whose mothers were not in the labor force (Zill & Coiro, 1991). (Data not shown.)

Ethnic Differences In Family Circumstances and Achievement

Family characteristics associated with school difficulties are more common in some racial and ethnic groups than in others. In particular, black and Hispanic children in the U.S. are more likely than white or Asian children to have parents who have not completed high school, to be poor, and to be living in single-parent or no-parent families (U.S. Bureau of the Census, April 1992, Table 6). Children in these same ethnic groups show lower school achievement levels, on average (Select Committee on Children, 1989, pp. 146-157). For example, in the Health Interview Survey, 28 percent of black children and 21 percent of Hispanic children had repeated a grade, as contrasted with 16 percent of white and only 4 percent of Asian children.

When grade repetition rates are adjusted for differences in parent education, income, and family composition, the ethnic disparities in grade repetition are substantially reduced. (See the column labelled "Adjusted Proportion Repeating" in Table 1). This suggests that the achievement deficits of these children are at least partly attributable to differences in the parental education level, income, and structure of the families in which they are growing up. This is not the whole story, however. Even after the means are statistically adjusted, black children continue to have a somewhat elevated rate of grade repetition (22 percent), whereas Asian children have an unusually low rate (7 percent). There seems to be something favorable for achievement going on in Asian

families that is not captured by measures of parent education, income, or family structure.

Trends in the living circumstances of black and Hispanic children. When we examine how the family circumstances of black and Hispanic children are changing over time, the picture is decidedly mixed. (Table 2). On the one hand, the proportion of black children who live with their mothers only has increased enormously, from 30 percent in 1970 to 51 percent in 1990 (U.S. Bureau of the Census, May 1991). Poverty levels among black children have remained high: 41 percent of black children under 18 were in families below the poverty level in 1970, and 44 percent were in such families in 1990 (U.S. Bureau of the Census, August 1991).

On the other hand, while black children were more apt to be living with single mothers during this time, those mothers were more likely to be high school graduates. And each child had fewer siblings to compete with. Between 1970 and 1990, the proportion of black elementary-school children whose parents had 12 or more years of education climbed from 36 percent to 74 percent (Select Committee On Children, 1989, p. 63; U.S. Bureau of the Census, May 1991). Between 1970 and 1989, the average number of children born per black woman dropped from 3.1 to 2.4 (National Center for Health Statistics, 1990, and unpublished data supplied by Stephanie Ventura).

Hispanic families showed similar trends, with some important differences. For one thing, Hispanic children were less likely than black children to be living in single-parent households. But the proportion of Hispanic children in such households has been growing. Between 1980 and 1990, the proportion of Hispanic children living with their

mothers only rose from 20 percent to 27 percent (U.S. Bureau of the Census, May 1991). Hispanic parents are less likely to be high school graduates, partly because many of them are recent immigrants who received their schooling in nations where there is less educational opportunity, especially for women, than in the U.S. Nevertheless, the proportion of Hispanic elementary schoolchildren with high-school graduate parents grew from 41 percent in 1985 to 48 percent in 1990 (Select Committee on Children, 1989; U.S. Bureau of the Census, May 1991).

Hispanic poverty rates are somewhat lower than those for blacks, mainly because more Hispanic children are in two-parent families. But the proportion of Hispanic children living below the poverty level grew from 28 percent in 1973 to 33 percent in 1980 and rose further to 38 percent in 1990 (U.S. Bureau of the Census, August 1991).

Trends in black and Hispanic achievement. How have the achievement levels of African-American and Hispanic-American been changing over the same time period? Contrary to popular impressions, black and Hispanic achievement levels have actually been going up. (Figure 1 and Table 2). For example, the proportion of black 17-year-olds who showed they could understand complicated written material on the reading assessment of the National Assessment of Educational Progress more than doubled between 1975 and 1990, rising from 8 percent in 1975 to 20 percent in 1990. The average scores of black 17-year-olds on the NAEP reading assessment rose from 241 in 1975 to 267 in 1990. Over the same period, averages for white teens rose only slightly, from 293 to 297 (National Center for Education Statistics, November 1991, pp. 127 and 112).

Similarly, the average score of black high school seniors who took the verbal portion of the Scholastic Aptitude Test, or SAT, rose from 332 in 1975 to 352 in 1990,[1] whereas scores for white seniors declined over the same period. And the black students' average on the math test increased from 354 to 385 over this same interval (College Entrance Examination Board, 1991, p. v). High school graduation rates of African-American students have also been going up (U.S. Bureau of the Census, May 1992, Table 18).

Similar gains have been exhibited by Hispanic students (Figure 1). The proportion of Hispanic 17-year-olds who could understand complicated written material on the NAEP reading assessment doubled between 1975 and 1990, going from 13 percent to 27 percent. Average scores for Hispanic 17-year-olds rose from 252 in 1975 to 275 in 1990 (National Center for Education Statistics, November 1991, pp. 127 and 112).

O the SAT verbal test, average scores for Puerto Rican seniors rose from a low point of 345 in 1979 to 359 in 1990, while those for Mexican-Americans increased from 371 in 1975 to 380 in 1990. On the math SATs, Puerto Ricans went from 401 in 1975 to 405 in 1990, while Mexican Americans went from 410 in 1975 to 429 in 1990 (College Entrance Examination Board, 1991, p. v).

Clearly, the disadvantaged minority students of today are doing considerably better than the disadvantaged students of yesterday. Unfortunately, their gains have left

[1]Average scores cited for 1975 and 1990 are those for the 1975-76 and 1989-90 academic years, respectively.

them well short of the achievement levels attained by most middle-class, non-minority students. By way of illustration, the National Assessment of Educational Progress found that, even in 1990, the number of students who could read well enough to understand complicated written information was 20 percent among black 17-year-old students, 27 percent among Hispanic students of the same age, versus 48 percent of non-minority students (National Center for Education Statistics, 1991, p. 127).

Do Family Factors Help To Explain Achievement Gains Among Blacks and Hispanics?

The fact that black and Hispanic students showed gains even while the proportion of children in single-parent families was rising and poverty rates remained high suggests that these family trends may be less important for achievement than the rise in parent education levels that occurred at the same time. It is interesting to note in this regard that when several family factors are jointly used to predict student achievement, it is almost always parent education -- not income or family structure -- that proves to be the strongest predictor. This may be seen in the data from the National Health Interview Survey on Child Health, where parent education proved a better predictor of grade repetition than family income, welfare and poverty status, family structure, ethnic group, or family size (Table 1).

Note especially that when education, income, and race are taken into account, the differences in grade repetition between children in single-parent families and those living with both birth parents are greatly reduced. This suggests that the never-married mother families pose a risk to the child's achievement because of their low average education levels, rather than because they contain only one parent. The significant variation that

remains with family structure involves children in stepfamilies and those living with grandparents or other relatives. In these cases, there seem to be some other processes that put the child at risk of school failure, perhaps persistent stress or the disruption of parent-child bonds.

The case for parent education as the driving force behind minority achievement gains is somewhat weakened by the data on Hispanic children. Hispanic pupils showed comparable achievement gains during this period, yet their parent education levels were lower, and their family sizes higher, than those for black children. The trends in parent education and family size were in the same direction for Hispanics as for blacks, however.

Of course, there have been other beneficial changes going on over the last twenty years that may help to explain the achievement gains of minority students. For one thing, the nature of childhood poverty has been ameliorated by programs such as food stamps, Medicaid, public housing, subsidized school lunch and breakfast, and WIC. Because of such programs, poverty in the U.S. is a very different proposition than poverty in Somalia or Bangladesh.

In addition, children start school earlier and stay in school longer now than they did two or three decades ago. The National Household Education Survey has shown that virtually all youngsters in the U.S. now attend kindergarten (98%), and growing numbers participate in Head Start or other publicly-funded preschool programs (Collins, 1991). More remedial instruction and special education services are available in public

schools, because of programs such as Chapter I and the Education for All Handicapped Children Act (Select Committee on Children, 1990).

Nonetheless, the many studies showing substantial associations between parent education and other family factors and student achievement should lead us to pay more attention to changes in these variables as potential instruments of change in pupil achievement. Yet many reports and trend studies produced by the U.S. Department of Education and education researchers typically ignore the notable gains in parent education that have occurred in the U.S. over the last thirty years.[2]

The Need for Studies That Assess What Parents Actually Do To Stimulate Achievement

Demographic variables and measures of family structure can only take us so far in understanding how families influence the achievement of their children. For example, the variable of parent education obviously represents several different things. It is a marker for parental IQ, because higher IQ is associated with greater educational attainment. It represents the family's earning power, because higher education adults tend to be paid more than those with less education. Also, it represents differences in what parents do (or do not do) with their children in the way of providing intellectual stimulation, emotional support, supervision, and discipline. Clearly, there is a need for more research that disentangles these different aspects of parent education and establishes which aspects are most critical for children's achievement. Also needed are more studies

[2]See, for example, a report on trends in educational achievement produced by the Congressional Budget Office (1987) or the Education Department's report, Youth Indicators: 1991 (1991), neither of which even mention the increases in parent education levels.

with representative samples that measure how families actually interact with their children.

There is a scale that assesses what parents do to stimulate achievement in preschool and elementary-age children, a scale that has been applied to a nationally representative sample of families with children. This is the Home Observation for the Measurement of the Environment, or HOME, scale developed by Robert Bradley and Betty Caldwell (Bradley & Caldwell, 1979; Caldwell & Bradley, 1984). The HOME scale appraises the orderliness, cleanliness, and safety of the physical environment, the regularity and structure of the family's daily routine, the amount of intellectual stimulation available to the child, and the degree of emotional support provided by parents. It does this through a combination of questions asked of the parent and items to be completed by the interviewer after spending time in the home observing the child's physical surroundings and the parent and child interacting with one another.

An abbreviated version of the HOME was developed for use in the National Longitudinal Survey of Youth, or NLSY (Baker & Mott, 1989; Zill & Coiro, 1992). The abbreviated HOME proved to have reasonable -- though far from perfect -- reliability. (Cronbach's alpha was equal to .70 for children aged 3-5). A subscale measuring "emotional support" was less reliable than one measuring "intellectual stimulation" (Baker & Mott, 1989, pp. 54-56).

Kristin Moore and I did a study using the NLSY HOME data that examined differences in children's family environments according to the welfare and poverty status of their families (Zill, Moore, Smith, Stief, & Coiro, 1991). We found that only about

one-third of preschool children from welfare families received stimulation and support from their parents comparable to that received by most children in families that were neither poor nor welfare dependent. Preschoolers in non-welfare poor families also tended to have significantly lower HOME scores than those in non-poor families. These differences were found among blacks, Hispanics, and non-minority children, but poor black and Hispanic families were generally more disadvantaged than poor white families (Zill & Coiro, 1992, p. 129).

Similar findings have emerged from the 1991 National Household Education Survey, a nationwide telephone survey conducted by NCES (West, Hauskens, Chandler, & Collins, 1992). This survey used only parent report items, not interviewer observations.

Unfortunately, we do not have HOME scale data from a nationally representative sample of families studied 10, 20, or 30 years ago. So we cannot say definitively how American childrearing patterns have changed over this period. Some child development scholars with long experience working with poor families have looked at the NLSY data and been encouraged by what they saw. Their impressions were that today's poor families were reading to their children and taking them on outings more often than low-income families did a generation ago.[3] But these are only impressions. Furthermore, it is doubtful whether the NLSY sample included any of the most extremely disorganized families we have today as a result of crack, AIDS, and urban violence.

---

[3]These impressions were expressed by anonymous reviewers in unpublished peer reviews of manuscript submitted to the journal Developmental Psychology, 1992.

Our ability to assess family environments in large-scale studies is far from ideal. Critics argue, with some justice, that when parents are interviewed in surveys they report what they feel they *ought* to be doing with their children rather than what they actually *are* doing. (Of course, the fact that parents feel guilty about not reading to their kids could be seen as a sign of progress.)

The HOME scale has also been accused of being biased against children in single-parent families and of embodying middle-class childrearing values. Perhaps the best response to these criticisms is: "Yes, that's true, but the thing works." That is, HOME scores are predictive of school performance among black and Hispanic as well as non-minority children (Bradley & Caldwell, 1981; Elardo & Bradley, 1981). Also, HOME scores are predictive after controlling for the family's socio-economic status and even for the mother's scores on tests of aptitude or achievement (Moore & Snyder, 1991; Menaghan & Parcel, 1991; Dubow & Luster, 1990). Nonetheless, it would certainly be desirable to have a more reliable, up-to-date, and culturally balanced version of the instrument.

Finally, it should be obvious that we still have a lot to learn about the relationships between changing family living situations and trends in academic achievement. These relationships are a good deal more complex than they are usually portrayed in policy debates. We really cannot infer from observed associations in individual-level surveys that past changes in family life have had massive and monolithic impacts (either negative or positive) on the achievement of American schoolchildren. Nor can we confidently assert that proposed future changes in family policies will have

such effects either. Clearly, the family matters for pupil achievement. But we have a way to go before the paths of influence are fully mapped.

REFERENCES

Bachman, J.G. (1970). *The impact of family background and intelligence on tenth-grade boys.* Vol. II of *Youth in Transition.* Ann Arbor, MI: Institute for Social Research.

Baker, P.C., & Mott, F.L. (1989). *NLSY Child Handbook: A guide and resource document for the National Longitudinal Survey of Youth 1986 child data.* Columbus: The Ohio State University, Center for Human Resource Research.

Baumrind, D. (1971). Current patterns of parental authority. *Developmental Psychology Monographs, 4,* 1-103.

Bianchi, Suzanne, & MacArthur, Edith. (1991). Family disruption and economic hardship: The short-run picture for children. *Current Population Reports,* Series P-70, No. 23. Washington, DC: U.S. Bureau of the Census, GPO.

Bowlby, J. (1969). *Attachment and loss: I. Attachment.* London: Hogarth Press.

Boyer, Ernest L. (1991). *Ready to learn: A mandate for the nation.* Princeton, NJ: The Carnegie Foundation for the Advancement of Teaching.

Bradley, R.H., & Caldwell, B.M. (1981). The HOME inventory: A validation of the preschool scale for black children. *Child Development, 52,* 708-710.

Bretherton, I., & Waters, E. (Eds.). (1985). Growing points in attachment theory. *Monographs of the Society for Research in Child Development, 52,* 708-710.

Caldwell, B.M., & Bradley, R.H. (1984). *Home observation for the measurement of the environment.* Little Rock: University of Arkansas.

Coleman, J.S., et al. (1966). *Equality of educational opportunity.* Washington, DC: GPO.

College Entrance Examination Board. (1991). *College-bound seniors: 1991 profile of SAT and Achievement Test takers.* Princeton, NJ: Educational Testing Service.

Collins, Mary. (1991). *Early childhood experiences of 3- to 8-year olds.* Unpublished report prepared under contract to National Center for Education Statistics. Rockville, MD: Westat, Inc.

Congressional Budget Office. (1987). *Educational achievement: Explanations and implications of recent trends.* Washington, DC: CBO.

Dawson, D. (1991). Family structure and children's health and well-being: Data from the 1988 National Health Interview Survey on Child Health. *Journal of Marriage and the Family, 53*, 573-584.

Dubow, E.F., & Luster, T. (1990). Adjustment of children born to teenage mothers: The contribution of risk and protective factors. *Journal of Marriage and the Family, 52*, 393-404.

Egeland, B., & Farber, E.A. (1984). Infant-mother attachment: Factors related to its development and changes over time. *Child Development, 55*, 753-771.

Elardo, Richard D., & Bradley, Robert H. (1981). The Home Observation for Measurement of the Environment (HOME) Scale: A review of research. *Developmental Review, 1*, 113-145.

Erikson, M.F., Sroufe, L.A., & Egeland, B. (1985). The relationship between quality of attachment and behavior problems in preschool in a high-risk sample. *Monographs of the Society for Research in Child Development, 50* (Serial No. 209), 147-156.

Furstenberg, F.F., Jr., Nord, C.W., Peterson, J.L., & Zill, N. (1983). The life course of children of divorce: Marital disruption and parental conflict. *American Sociological Review, 48*(October), 656-666.

Husén, T., et al. (1967). *International study of achievement in mathematics*, Vols. I and II. New York: Wiley.

Mayeske, George W., Okada, Tetsuo, Beaton, Albert E., Jr., Cohen, Wallace M., & Wisler, Carl E. (1973). *A study of the achievement of our nation's students.* [DHHS publication no. (OE) 72-131]. Washington, DC: GPO.

Menaghan, E.G., & Parcel, T.L. (1991). Determining children's home environments: The impact of maternal characteristics and current occupational and family conditions. *Journal of Marriage and the Family, 53*, 417-431.

Moore, Kristin A., & Snyder, N.O. (1991). Cognitive attainment among firstborn children of adolescent mothers. *American Sociological Review, 56*, 612-624.

National Center for Education Statistics. (1991). *Trends in academic progress.* Washington, DC: GPO.

National Center for Health Statistics. (1990). *Vital Statistics of the United States, 1988, Vol. 1, Natality.* [DHHS Publication No. PHS 90-1100]. Washington, DC: GPO.

National Center for Health Statistics. (1991a). Annual summary of births, marriages, divorces, and deaths: United States, 1990. *Monthly Vital Statistics Report, 39*(13). Hyattsville, MD.

National Center for Health Statistics. (1991b). Advance report of final natality statistics, 1989. *Monthly Vital Statistics Report, 40*(8, suppl.). Hyattsville, MD.

Plomin, Robert. (1990). *Nature and nurture: An introduction to human behavioral genetics.* Pacific Grove, CA: Brooks/Cole.

Purves, Alan C. (1973). *Literature education in ten countries.* International Association for the Evaluation of Educational Achievement, International Studies in Evaluation II. Stockholm: Almquist & Wiksell.

Purves, Alan C., et al. (1981). *Reading and literature: American achievement in international perspective*, NCTE Research Report No. 20. Urbana, IL: National Council of Teachers of English.

Rutter, Michael. (1981). *Maternal deprivation reassessed* (2nd ed.). Great Britain: Penguin Books.

Tatara, T. (1991). Some additional explanations for the recent rise in the U.S. child substitute care population. *VCIS Research Notes* (No. 5). Washington, DC: American Public Welfare Association.

U.S. Bureau of the Census. (1990). *Marital status and living arrangements: March 1989.* Current Population Reports, Series P-20, No. 445. Washington, DC: GPO.

U.S. Bureau of the Census, G.H. Lester. (1991). Child support and alimony,: 1989. *Current Population Reports, Special Studies*, Series P-60, No. 173.

U.S. Bureau of the Census. (May 1991). *Marital status and living arrangements: March 1990.* Current Population Reports, Series P-20, No. 450. Washington, DC: GPO.

U.S. Bureau of the Census. (June 1991). *Poverty in the United States: 1988 and 1989.* Current Population Reports, Series P-60, No. 171. Washington, DC: GPO.

U.S. Bureau of the Census. (August 1991). *Poverty in the United States: 1990.* Current Population Reports, Series P-60, No. 175. Washington, DC: GPO.

U.S. Bureau of the Census. (April 1992). *Marital status and living arrangements: March 1991.* Current Population Reports, Series P-20, No. 461. Washington, DC: GPO.

U.S. Bureau of the Census. (May 1992). *Educational attainment in the United States: March 1991 and 1990*. Current Population Reports, Series P-20, No. 462. Washington, DC: GPO.

U.S. Bureau of the Census. (August 1992). *Poverty in the United States: 1991*. Current Population Reports, Series P-60, No. 181. Washington, DC: GPO.

U.S. Department of Education. (July 1990). *National Education Goals*. Washington, DC: Author.

U.S. Department of Education, Office of Educational Research and Improvement. (April 1991). *Youth indicators 1991: Trends in the well-being of American youth*. (PIP-863). Washington, DC: GPO.

U.S. Department of Education. (August 1991). *Preparing young children for success: Guideposts for achieving our first national goal*. Washington, DC: Author.

U.S. House of Representatives Select Committee on Children, Youth and Families. (1990). *Federal programs affecting children and their families, 1990*. Washington, DC: GPO.

U.S. House of Representatives Select Committee on Children, Youth and Families. (1989). *U.S. children and their families: Current conditions and recent trends, 1989* (third edition) [Prepared by Child Trends]. Washington, DC: GPO.

West, J., Hausken, E.G., Chandler, K., & Collins, M. (1992). Home activities of 3- to 8-year olds. *Statistics in Brief* [NCES Report No. 92-004]. Washington, DC: U.S. Department of Education, National Center for Education Statistics.

Zill, Nicholas, Moore, Kristin A., Smith, E.W., Stief, T., & Coiro, M.J. (1991). *Life circumstances and development of children in welfare families: A profile based on national survey data*. Washington, DC: Child Trends.

Zill, Nicholas, & Coiro, Mary Jo. (1991). [Unpublished analyses of data from the 1989 National Health Interview Survey]. Washington, DC: Child Trends.

Zill, Nicholas, & Coiro, Mary Jo. (1992). Assessing the condition of children. *Children and Youth Services Review, 14*. 119-136.

Table 1

Grade Repetition Among U.S. Children Aged 7-17, by Family Characteristics, 1988

	Observed Proportion Repeating	Adjusted Proportion Repeating		Observed Proportion Repeating	Adjusted Proportion Repeating
All children aged 7-17	18%	18%			
Family Characteristics:			*Parents in Home*		
			Both birth parents	13%	16%
			Mother only		
Parent Education			- never married	32%	19%
Less than high school	33%	28%	- formerly married	23%	18%
High school graduate	21%	20%	Mother-stepfather	24%	25%
Some college	15%	16%	Father-stepmother	28%	28%
College graduate	9%	13%	Grandparents	33%	24%
Some grad school	7%	11%	Adoptive parents	14%	19%
(eta, beta)	*(.20***)*	*(.13***)*	*(eta, beta)*	*(.16***)*	*(.09***)*
Family Income			*Ethnic Group*		
<$10,000	32%	22%	Asian	4%	7%
$10,000-19,999	23%	19%	White	16%	18%
$20,000-34,999	18%	19%	American Indian	20%	15%
$35,000-49,999	13%	16%	Hispanic	21%	16%
$50,000+	10%	15%	Black	28%	22%
(eta, beta)	*(.19***)*	*(.05*)*	*(eta, beta)*	*(.13***)*	*(.06***)*
Welfare/Poverty Status			*Number of Children*		
Welfare family	34%	25%	One	18%	16%
Poor, non-welfare	28%	20%	Two	16%	18%
Non-poor	15%	17%	Three	18%	19%
			Four	22%	20%
(eta, beta)	*(.17***)*	*(.06***)*	Five or more	20%	17%
			(eta, beta)	*(.05*)*	*(.03)*

Source: Child Trends, Inc. Multiple classification analysis of data from 1988 National Health Interview Survey on Child Health, National Center for Health Statistics, 1991.

Table 2

Achievement Test Performance and Family Living Conditions of Black Children in the United States, 1970-1990

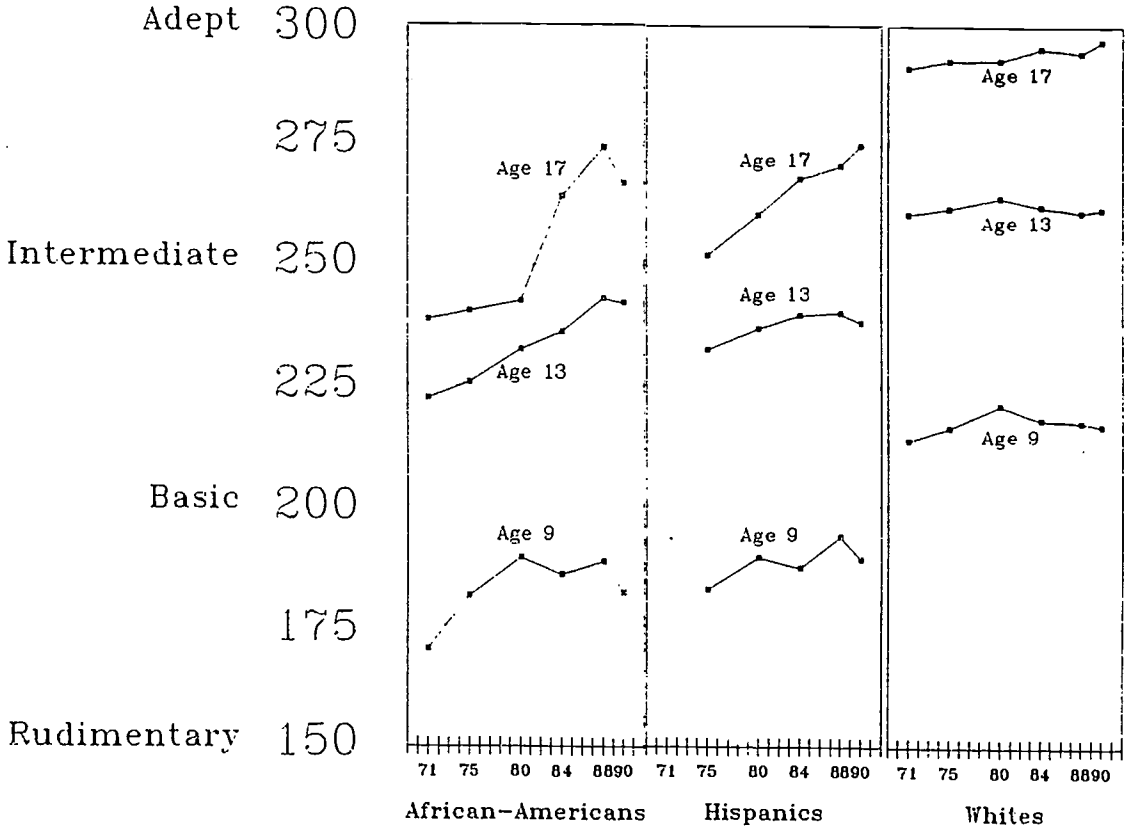
	Year					
	1960	1970	1975	1980	1985	1990
Average NAEP reading score of 17-year-olds	--	239	241	243	264	267
Average SAT Verbal score	--	--	332	332	346	352
Average SAT Math score	--	--	354	362	376	385
Children under 18 living with mother only	20%	30%	--	44%	51%	51%
Children under 18 living below the poverty line	66%	41%	41%	42%	43%	44%
Children of elementary school ages (6-11) living with a parent who is a high school graduate	--	36%	--	51%	67%	74%
Average number of children born per woman	4.5	3.1	2.2	2.3	2.2	2.4*

*Total fertility rate for 1989

Source: Child Trends, Inc., compiled from data from U.S. Bureau of the Census, National Center for Education Statistics, National Center for Health Statistics, and the College Entrance Examination Board, 1992.

Figure 1.

NAEP Reading Proficiency Trends, 1971 to 1990, by Race and Hispanic Origin



Source:
U S Department of Educaton. National Center for Education Statistics and Educational Testing Service. data from the National Assessment of Educational Progress. November. 1991
Note:
Reading proficiency scores range from 0 to 500