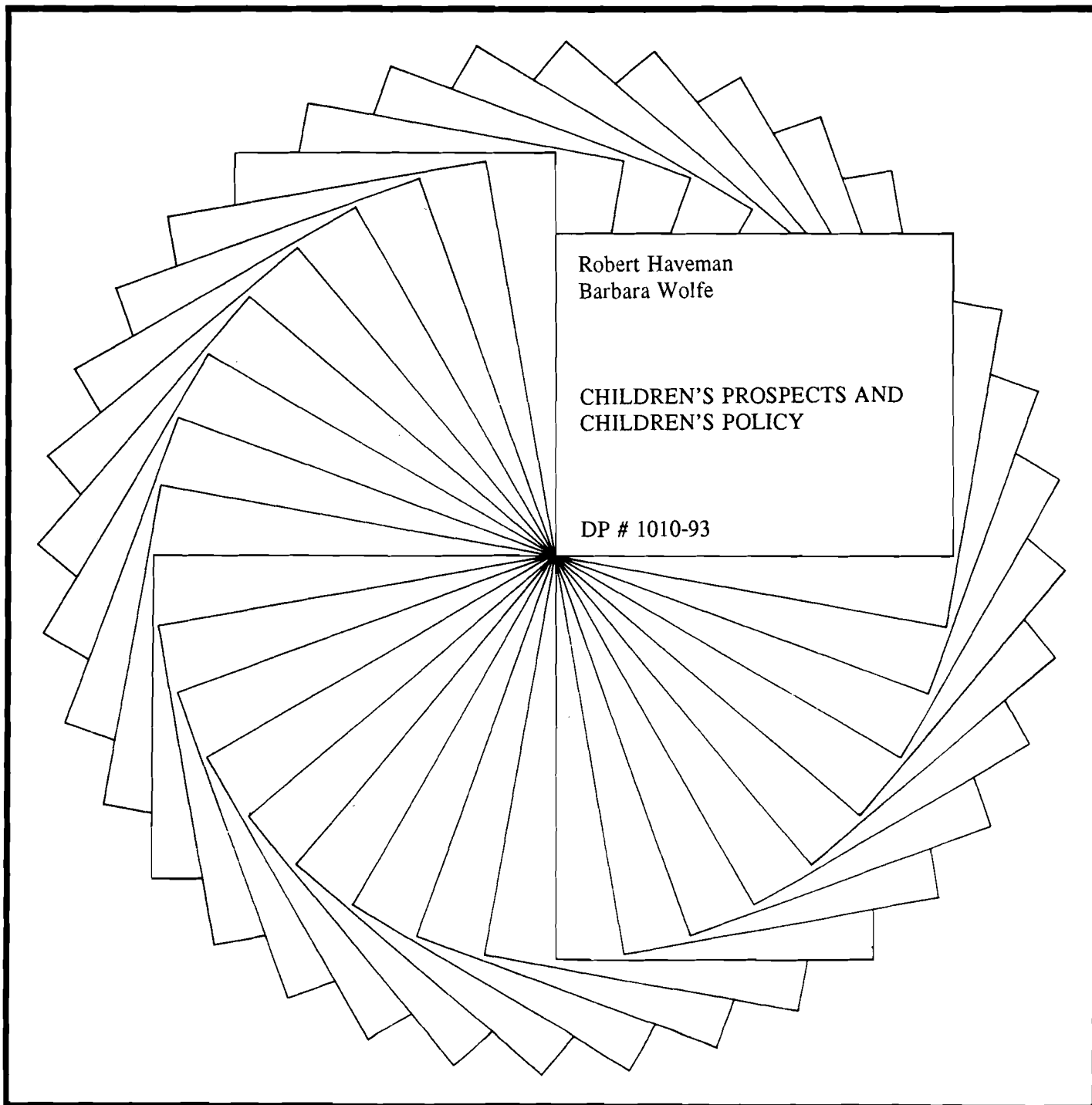


# Institute for Research on Poverty

## Discussion Papers



**Children's Prospects and Children's Policy**

Robert Haveman  
Department of Economics  
La Follette Institute of Public Affairs  
Institute for Research on Poverty  
University of Wisconsin-Madison

Barbara Wolfe  
Department of Economics  
Department of Preventive Medicine  
Institute for Research on Poverty  
University of Wisconsin-Madison

July 1993

The authors thank Professors Sheldon Danziger, Victor Fuchs, Alan Krueger, Robert Plotnick, Gary Sandefur, Joseph Stiglitz, Henry Aaron, Isabel Sawhill, and Timothy Taylor for helpful comments.

## Abstract

A review of trends in the well-being of children reveals growing adverse effects--in terms of health, family income and poverty levels, changes in family structure, welfare receipt--and a smaller number of positive effects, including reduced family size and increased levels of parental education. These indicators justify the current public concern for children, a concern that is motivated, the authors conclude, not so much by self-interest as by the altruism manifested in the traditional willingness of Americans to provide benefits to those perceived as innocent victims.

A human capital framework for thinking about public policy for children is described. It involves social (primarily governmental) investment in children, parental investment in children, and choices made by children themselves. Within this framework the authors explore policy questions: Is there underinvestment in children? Which types of investment have the largest payoffs? On which children should investment be concentrated? Who should be the investors? What factors figure among determinants of children's success? In conclusion, a course of action is offered for increasing investments in, and the success of, the nation's children.

## Children's Prospects and Children's Policy

The nation's concern for the well-being, education, and development of its children is again on the rise, reaching a level not seen since at least the 1950s, which brought passage of the National Defense Education Act, NDEA.

This concern with the condition of American children is to some extent caught up in broader questions regarding the nation's lagging economic performance. Claims that America is neglecting its future often begin by citing the sagging indicators of the attainments of children and youth, followed by evidence on low rates of saving and investment, high and persistent public deficits, and deteriorating public infrastructure. Discussions of poverty in America inevitably include statistics on child poverty rates, which are higher than those of other groups, higher than they have been in the past, and higher than they are in other developed countries. These statistics also show an increasing share of the nation's children growing up in mother-only households, in dysfunctional neighborhoods, and dependent on welfare. Discussions of Social Security often include statements concerning how we have done well by our older citizens, while neglecting children.

Children also are brought into policy debates over other issues. To many, welfare support for unmarried women who care for children at home seems inconsistent with the fact that well over one-half of married women with children are now working, and that this percentage is rising. Debates over housing policy reflect the belief that past policies bear much of the responsibility for concentrating children in neighborhoods that foster joblessness, school failure, drug use, and crime. The debate over education reform--school choice, magnet schools, busing--starts from a common judgment that neither schools nor families are serving children well.

Within the last five years, a number of prominent commissions and task forces have reported on the status of children, and each of them has called for massive new interventions.<sup>1</sup> Some common proposals are listed in Table 1.

A recent and highly publicized report, whose title reflects some of the frustration over the paucity of policy responses to the previous reports, is that of the National Commission on Children, Beyond Rhetoric: A New American Agenda for Children and Families. (The commission, chaired by Senator John D. Rockefeller, was established by the Congress and appointed by the President.) The report discusses numerous policies targeted at children and recommends adoption of a far-reaching package of initiatives, at a cost of over \$50 billion in 1992. These include a \$1000 per child refundable tax credit; a play-or-pay public-private health insurance plan; major expansion of early childhood education (Head Start) and women's and children's nutrition programs; educational reform (including school choice); and demonstration projects to assure child support payments for the custodial parent.

This paper offers some facts on trends in children's economic status and an economic perspective for thinking about public policy toward children. Throughout, we will attempt to make clear what is known and what is not known empirically about the relationships that are embodied in our perspective.

## HOW, IN FACT, ARE CHILDREN FARING?

No single metric exists to compare the status of children over time, but American children appear to have lost ground relative to those in earlier decades in most (but not every) dimension. We will mention a few of the measures here, and present facts on several others in Tables 2-5.

The nature of the families in which children are raised is perhaps the most vivid indication of the deterioration in the status of children. About 25 percent of today's children have been born to an

**TABLE 1****Some Proposals Offered in the Literature for Increasing Investments in Children**

- 
- Increase the earned-income tax credit for families with children.
  - Expand the Head Start program.
  - Encourage school "choice" plans.
  - Increase teacher salaries to attract more able faculties.
  - Impose standard child support obligations on noncustodial parents, and enforce them.
  - "Sanction" welfare recipients for unapproved behaviors.
  - Mandate Norplant implants for welfare recipients to limit increases in family size.
  - Impose work requirements on welfare recipients.
  - Reorient welfare programs toward short-term relief providing a temporary safety net, including time limits on eligibility.
  - Increase job training, education, and community employment opportunities as transitional assistance for welfare recipients who have exhausted time-limited welfare benefits.
  - Provide employment subsidies on both the demand and supply side of the labor market.
  - Initiate youth capital accounts for education and training.
  - Create "enterprise zones" for development in urban areas.
  - "Empower" poor people through home ownership programs and subsidized asset accumulation.
  - Sponsor ghetto task forces composed of released military personnel.
  - Provide college scholarships based on future service in low-income communities.
  - Establish universal health insurance for pregnant women and children.
-

unwed mother, and less than 75 percent of them live with two parents. For African American children the situation is more extreme: nearly two-thirds of them were born to a nonmarried mother and less than 50 percent of them live with two parents. The high birth rate among African American teens and the increasing rate among whites suggest that the proportion is likely to increase. (See Table 2.)

Moreover, with increasing numbers of mothers in the labor force, the amount of parental child care time has been reduced. Whereas in 1965 the average child spent about 30 hours per week interacting with a parent, by the late 1980s this figure had dropped to about 17 hours.<sup>2</sup>

The rising rate of marital dissolution--an increase of more than 30 percent from 1970 to 1987--has enlarged the extent to which children are exposed to this form of stress. Whereas during the 1960s 19 percent of American children experienced dissolution of their parents' marriage, this rate increased to 30 percent in the 1980s.

Table 3 shows the adverse trends in factors such as vaccinations and insurance that are related to children's health, also suggesting deterioration in this important aspect of children's well-being. The rate of child maltreatment (including abuse) now stands at more than 300 per 10,000 children, up from about 100 per 10,000 two decades ago. (While a portion of this increase may be due to improved statistical reporting, surely not all of it is.) The suicide rate among those aged 15-19 is rising, and now stands at more than 11 per 100,000, or nearly the 11.9 overall age-adjusted rate for the entire population.

There have also been important changes in both the income available to children and in the sources of that income (Table 4). The average cash income of families in the lowest fifth of the income distribution has dropped from more than \$10,000 in 1973 to less than \$8,000 in 1989 (in 1989 dollars). This in part reflects the relative and absolute decline of earnings for younger men and those with limited education over this period. It also partly reflects a decline in the real value of

**TABLE 2**  
**Trends in Demographic and Parental Factors Influencing Children's Well-Being**

Changing Factors	Total	White	African American
<u>Demographic Factors</u>			
Percentage of Population under 15 <sup>a</sup>			
1960	31.1	30.3	37.7
1970	28.4	27.6	35.4
1989	21.7	20.7	27.2
Births Rates (per 1000) of Unwed 15-19-Year-Old Mothers <sup>c</sup>			
1970	22.4	12.2	97.3
1980	27.6	16.2	89.2
1989	40.6	27.5	106.7
Percentage of Births to Mothers with Less than 12 Years Education			
1970	30.8	27.0	51.0
1987	20.2	17.3	31.3
Average Number of Children per Family with Children <sup>a</sup>			
1970	3.58	3.52	4.13
1988	3.16	3.11	3.43
<u>Parental Factors</u>			
Percentage of Children Living with Single Parent <sup>c</sup>			
1960	9.1	7.2	21.9
1970	11.9	9.7	31.8
1990	24.7	19.2	54.8
Percentage of Children under 18 Living with Never-married Mothers <sup>c</sup>			
1970	0.1	0.02	4.5
1990	7.6	3.7	28.3
Percentage of Children under Age 6 <sup>d</sup> (18) <sup>b</sup> with Mother in Labor Force			
1970	29 (39.2)		
1987	51 (61.7)		

Notes following Table 5



TABLE 3

## Trends in Health Factors Influencing Children's Well-Being

Changing Factors	Total	White	African American
Percentage of Children Ages 1-4 Vaccinated against Polio (DPT) <sup>e</sup>			
1965	74		
1970	77 (76)	81 (80)	63 (59)*
1985	55 (65)	59 (69)	40 (49)*
Percentage of Children under 15 without Health Insurance <sup>f</sup>			
1980	12.8		
1989	15.9		
Percentage of Young Adults (18-25) Ever Used Cocaine (Heroin) <sup>a</sup>			
1974	53 (4.5)		
1988	56 (0.4)		
Reported Child Maltreatment (per 10,000) <sup>a</sup>			
1976	101		
1980	181		
1986	328		
Suicide Rate, Ages 15-19 (per 100,000) <sup>a</sup>			
1970	5.9	9.4 <sup>†</sup>	4.7 <sup>†</sup>
1980	8.5	15.0 <sup>†</sup>	5.6 <sup>†</sup>
1988	11.3	19.6 <sup>†</sup>	9.7 <sup>†</sup>

\* Nonwhite.

† Males only.

Other notes following Table 5.

TABLE 4

## Trends in Income, Poverty and Welfare Factors Influencing Children's Well-Being

Changing Factors	Total	White	African American
<u>Income and Poverty</u>			
Percentage of Children under 19 below the Poverty Line <sup>e</sup>			
1959	26.1	18.8	63.3
1969	15.6	10.4	41.1
1979	17.1	11.7	36.1
1990	20.6	15.9	44.8
Average Cash Family Income, Families with Children, Lowest Quintile, 1989\$ <sup>e</sup>			
1973	\$10,529		
1989	7,714		
Percentage of Mother (Father)-only Families with Children Who Are Poor <sup>e</sup>			
1979	39.7	(6.4)	
1990	45.3	(8.5)	
<u>Welfare Generosity</u>			
AFDC Child Recipients as a Percentage of Children in Poverty <sup>e</sup>			
1970	58.5		
1990	59.9		
Average AFDC and Food Stamp Benefits for Mother with 2 Children and No Earnings, 1991\$ <sup>e</sup>			
1972	10,169		
1991	7,471		
Percentage of Total Income from AFDC, SSI and General Assistance, Poor Female-Headed Families <sup>e</sup>			
1979	38.1		
1990	31.7		

Notes following Table 5

public income support programs. As of 1990, real AFDC benefit levels for the average mother and two children were less than \$7,500, down from more than \$10,000 in 1972. To characterize it another way, among poor families headed by a female, the proportion of total income from AFDC, SSI, and general assistance declined from 38 to 32 percent from 1979 to 1990. In addition, the effectiveness of these government programs in moving working-age, earnings-poor families out of poverty has fallen significantly; the last 20 years have been an era of retrenchment.<sup>3</sup>

Overall, many of these troubling indicators of children's status can be summarized by the nation's official poverty statistics. More than 20 percent of all children now live in poor families, up from less than 15 percent in 1973.<sup>4</sup> The incidence of children's poverty is above 40 percent in minority families.<sup>5</sup> Nearly 12 percent of families with children younger than 18 fail to escape from poverty even though someone in the family works; about 7 percent of these families remain in poverty even though there was at least one person working at least three-fourths time. Using data from the Luxembourg Income Study and a common poverty standard similar to the official U.S. norm,<sup>6</sup> Smeeding (1992) found the children's poverty rate in the U.S. to be about three times that in other OECD countries, and trending in the opposite direction.

Growing up in a family with low income conveys only a portion of the deprivation that is experienced. Children who grow up in poor families have relatively low health status and are less likely to be immunized against common preventable diseases. Today, the percentage of children who are vaccinated against rubella, DPT (diphtheria-tetanus-pertussis), polio, or mumps is lower than during the late 1970s or early 1980s, and the percentage of minority children living in inner cities who are vaccinated against these diseases hovers at about 53 percent. Children of poor families tend to live in neighborhoods with high rates of crime, drug dependence, and drug trafficking (Case and Katz, 1991), to attend schools with diminished capacities to convey education or inspire learning (Mayer, 1991), and to live in families with no working adult. They are more likely to give birth out

of wedlock and--by their own testimony--find unrewarding the traditional norms of hard work, creativity, diligence, organization, stability, and loyalty. To make matters worse, all of these correlates of living in a poor family are substantially higher if the children are African American or Hispanic.

The picture in terms of children's educational attainments is more mixed (Table 5). Teens continue to drop out of high school at a 15 percent rate, with higher rates for minorities; however, the overall dropout rate is declining. Scores on reading and mathematics proficiency tests given to nine-year-olds show no overall deterioration, but no progress either. However, in a National Education Goals report, the mathematics and science test scores of U.S. 13-year-olds fell below those of children of the same age in the United Kingdom, Spain, Korea, and Ireland, the four other countries studied (see U.S. House of Representatives, 1992, p. 1143). For those who stay in high school and take the Scholastic Aptitude Test, the average combined score of slightly more than 900 is judged to be low by nearly all observers, although the increase in the proportion of high school students taking the test may account for all or most of the decline since 1970.

Not all factors contributing to child well-being have deteriorated, however. On average, today's parents are better educated than those of any previous cohort. Somewhat more than 30 percent of children born in 1970 had mothers with less than a high school education: as of 1987, this figure had declined to about 20 percent. In 1970, 61 percent of the parents of elementary school children had completed high school; by 1987 this figure had increased to 73 percent. Among African American children, the increase in this percentage is even more dramatic: from 36 to 67 percent (National Commission on Children, 1991, p. 32). Although there is no assurance that more educated parents are better parents, there is some evidence--and a common presumption--that parents with more education are more able to make choices that enhance the quality of life for their children.

TABLE 5

## Trends in School Performance Factors Influencing Children's Well-Being

Changing Factors	Total	White	African American
National Assessment of Education Progress Reading (Math) Test Scores, 9-Year-Olds <sup>a</sup>			
1979-80	215 (219)	221 (224)	189 (192)
1987-88	212 (222)	218 (227)	189 (202)
Percentage of 18-21-Year-Olds Who Are High School Dropouts <sup>a</sup>			
1970	16.4	14.3	30.5
1980	15.8	14.7	23.0
1989	15.0	14.6	17.4
Average SAT Scores			
Verbal (Math) <sup>b, c</sup>			
1960	477 (498)		
1970	466 (488)		
1980	424 (466)		
1991	422 (474)		

<sup>a</sup>Statistical Abstract of the United States, 1991. (See note, below.)

<sup>b</sup>Bianchi (1990). (See note, below.)

<sup>c</sup>1992 Green Book. (See note, below.)

<sup>d</sup>Kids Count Data Book, 1992, p. 39.

<sup>e</sup>Wolfe (1991). (See note, below.)

<sup>f</sup>National Center for Health Statistics (1991). (See note, below.)

<sup>g</sup>Long (1988), p. 51

<sup>h</sup>Fuchs and Reklis (1992), p. 42

Note: Following are the page numbers in each footnoted source where the information can be found.

Statistical Abstract: population under 15, p. 13; children with children, p. 51; suicide rate, p. 126; cocaine/heroin use, p. 121; child maltreatment, p. 182; NAEP scores, p. 155; dropouts, p. 156.

Bianchi: children living with 2 parents, p. 10; children under 18 with mother in labor force, p. 17.

Green Book: birth rates, p. 1076; children living with never-married mothers, pp. 1080-1083; cash family income, p. 1371; AFDC child recipients, p. 663; AFDC, Food Stamp benefits, p. 1190; poverty rate and living arrangements, pp. 1182; SAT scores, p. 1073.

Wolfe: vaccinations, p. 53; children below poverty line, p. 45.

National Center for Health Statistics: vaccinations, p. 186; children without insurance, p. 291.

Similarly, average family sizes have decreased over the past quarter century. The average number of births per 1000 women aged 15-44 declined from 122.7 in the mid-1950s to 67.8 in the mid-1980s, and has increased only slightly since that time. As a result, the average child has fewer siblings today than in earlier decades, and less competition for parental attention and resources. This decline in the average number of children per family has been greater among African American and Hispanic families than white families, although the average remains higher among minority families.

While these statistics are discouraging, they clearly do not apply to all children. As in other cases, "Beware of the mean!" While the average values of many of these indicators of children's well-being may be falling over time, they often reflect drastic declines for children at the bottom of the distribution--largely minority children living in large cities, or children in isolated rural circumstances. Many of these children confront multiple risks--poor education, poverty, single and unstable families, dysfunctional neighborhoods--and the nation's failure to improve these circumstances affects the trend in the means that we have observed.

In sum, along many dimensions the problem of children's status is rooted in growing differences among children; some of these differences are far larger today than they have been since statisticians began keeping track. In this sense, the nation's "children problem" stems from the drift of the bottom tail away from the median, and the corresponding need is for measures targeted on specific children, rather than an overall increase in resources allocated to children.

All in all, regardless of the source, most of the changes do not bode well for the future.

#### WHY THE CURRENT PUBLIC CONCERN?

It is interesting to pause a moment to speculate on the basis for the current surge of interest in children's well-being and attainments. Children themselves do not complain much about living standards and prospects. Moreover, they do not vote; they are not politically organized; and the

number of voting households containing children is smaller now than it has been in decades. Given these political realities, the trends and facts just cited may not be the true reason why children are so high on today's policy agenda. Is the recent surge of concern for children due to the self-interest of the voting population, or to its altruism?

Self-interest is not irrelevant here. For one thing, many in the voting-age population have children of their own. If their well-being is determined in part by the future prosperity and prospects of their children--if utility functions are generationally interdependent--their own self-interest implies support for public measures to improve children's status and attainments. However, given that the nature of those public interventions most discussed tend to target resources on children concentrated in families who neither vote regularly nor have political influence apart from their votes, general support for such policies would not rest primarily on this form of self-interest. Moreover, if adults are concerned about the future prospects of their own children, private reallocations--either inter vivos bequests or the bequeathing of assets upon death--would seem to be the more rational response, rather than targeted public interventions.

Self-interest resting on a more dynamic view of the determinants of that public good called "future prosperity" could play a more important role. Clearly, the future well-being of today's middle-aged and older population--their wage rates and the safety of their retirement pensions and health care benefits--rests on future productivity and economic growth, and hence the quality of the nation's future work force.<sup>7</sup> Moreover, to the extent that threatening incidents of grossly dysfunctional behavior on the part of children and youth--violence, drug use, and weapons possession--become more prevalent, it is in the general interest to support public action to reduce the alienation that induces such behavior. However logical this case in theory, in practice the advocates for the politically powerful older population are well aware of the implications for them of arguments for intergenerational redistribution.

Perhaps because other arguments are so unconvincing, we conclude that some form of altruism must be driving the current support for public action on behalf of children. While the nature of this "concern with others" could take many forms, we suggest that there is a long tradition of willingness of Americans to provide benefits to those viewed as innocent victims. The discussions that led to the passage of public assistance legislation, for example, focused on widows and their children. Today, the image of children as innocent victims appears to be the most powerful support for public measures on their behalf.

The cohort of people aged 0 to 18 are now saddled with poor economic prospects. Since the early 1970s, growth in real earnings and income has fallen to near zero, and few forecast a return to pre-1970 levels of economic growth. Even though the current cohort of children is small, there is little expectation that it will experience the rising relative wages and falling housing prices that benefited earlier small cohorts. Moreover, because of rapid increases in life expectancy, children today face the prospect of supporting a large and growing dependent population to which huge implicit pension and health care commitments have been made. Estimates of the income and health care requirements of the dependent population relative to the earnings of the working-age population in the early 21st century--when today's young cohort will be the workers--are at an all-time high.<sup>8</sup> As a result of such factors, today's children are not likely to be better off than their parents, and this turnabout in a long tradition of growing children's prospects is viewed as unfair.

Feelings of altruism are also likely to extend to particular groups of children whose future looks dim. Those children growing up in poor and typically mother-only families, coping with dysfunctional neighborhoods and schools, are seen as innocent victims of some ill-understood breakdown in family and community performance. Tables 2-5 and their sources offer evidence--the rates of teen nonmarital births, mother-only families, youth incarceration, drug use, violence, parental nurturing, poverty incidence, and academic achievement--both that such children exist and that their



experience deviates more from that of the median American child today than at any time in this century. On these points, see also Aspen Institute (1993) and Fuchs (1990). The character of the upbringing these children receive is seen as violating minimally acceptable standards; through no fault of their own, they face a tremendous handicap in the economic race.

Although it is theoretically possible, of course, that future expected bequests from parents to children will be increased--or future expected commitments to parents from their children will be decreased--neither logic nor evidence suggests that the magnitude of such responses will be sufficient to offset the expected generational inequities. For one thing, few parents or grandparents of today's poor children have assets available for transfer. Moreover, there is little reason to believe that the level of public support for the elderly will be seriously eroded, or that tomorrow's children will reverse the trend of substituting public for private responsibility for the well-being of aged parents with few resources. (See Lampman and Smeeding, 1983.)

While the nation's support of public interventions on behalf of children surely has some basis in self-interest, we believe that the rise in support for public policies targeted on children stems from the perception that our society is handing on a relatively unattractive future to its children, that this is not fair, and that private responses will not compensate for the shortfall.

#### CHILDREN AS HUMAN CAPITAL: AN ECONOMIC FRAMEWORK

We view children's success as determined by three primary factors: social (primarily government) investment in children; parental investment in children; and choices that each child makes. This way of characterizing the situation of children suggests a sequential view of the world. Society (government) acts first, according to its own interests, making some direct investments on behalf of children (e.g., public education, Head Start) and families (e.g., AFDC), and setting the economic environment in which both parents and children operate. Given this environment, parents

choose how much to work and earn (given their talents) and how much time to spend with their children, and then, given their income, they decide how much to devote to their children.<sup>9</sup> They also make decisions about family structure and location that serve their own interests, but which also affect their children. Finally, given their own talents, the resources that have been invested in them, and the incentives that they confront, children make choices about their education, their peers, their fertility, and their work effort. We observe the outcome of these choices--children's attainments.

This perspective is more deterministic and rational than the decisions which we all take and observe. It also assumes that children are utility maximizers, and while this may be reasonable for those older than, say, 15 years, it hardly holds true for younger children. It also neglects important factors such as information, liquidity constraints, stigma, and just plain luck; moreover, it does not explicitly recognize the potential contributions of "social capital" to children's success. (See Coleman, 1988.)<sup>10</sup> Notwithstanding these reservations, this economic framework is helpful for thinking about public, family, and personal investments in children; it raises a variety of questions regarding the level and composition of investments in children, many of which have policy import.

#### IS AMERICA "UNDERINVESTING" IN CHILDREN?<sup>11</sup>

Determining the "optimal" level of investment in children is an issue with which economists are equipped to deal, at least in principle. The "pat" answer is clear: keep allocating resources to children until the value of social benefits produced by the last unit of investment is just equal to the value of what could be produced by those resources if they were used in some other way; until the "social rate of return" on investments in children is equivalent to that on other allocations. But that response raises as many questions as it answers.

For example, how can we measure the returns from the use of resources in activities that are alternatives to investment in children? One confronts assertions every day about social needs to

which resources could be efficiently allocated--caring for the homeless, improving the nation's infrastructure, finding a cure for AIDS, increasing investment in private plant and equipment. While many would feel more comfortable advocating greater investment in children if we knew the resources were coming from, say, New Year's Eve celebrations costing \$300 per person at New York's Plaza Hotel, rather than from investments in new technology yielding a high social rate of return, such a presumption is difficult to sustain in the absence of estimates of the social payoff from alternative activities.

Apart from this issue, there is the question of determining the economic payoff to investment in children. This, of course, involves assessing the benefits from resources allocated to children. There are several reasons why society's investment budget is likely to be biased against allocations to children.

First, there are external or spillover effects of investments in children, and they may be substantial. A review of the literature on the nonmarketed benefits of education, an important form of investment in children, is found in Haveman and Wolfe (1984) and Wolfe (forthcoming). They estimate these external effects to be a significant portion of total social benefits derived from this form of investment in children. Because both parents and the government are likely to ignore these potential effects, as a nation we probably underinvest in our children.

Capital market imperfections also suggest such underinvestment. For example, it might be socially efficient for a talented child to attend a special, and costly, school able to nurture a special musical talent. Such an investment might have a social payoff which is greater than that of the alternative use of the required resources, say a business desiring a new office computer system. Yet, while the business will be able to obtain loan financing for its investment, neither the child nor the parents will be able to arrange bank financing for the music training. Because human capital cannot

be "secured" by the bank, and the payout from the investment may be uncertain, long delayed, and (in some cases) not marketed, insufficient investment in children is likely.

A final reason suggesting underinvestment in children is the dominance of state and local governments in the provision of public education. Given geographic mobility, lower levels of government will not be able to capture that portion of the benefits of investments in children reflected in increased future taxes or better citizenship. From the perspective of these investors, underinvestment is the optimal strategy.

Taking these factors into consideration, the case that society is dedicating sufficient resources to children seems a difficult one to make.

#### IN WHAT DIRECTION SHOULD INVESTMENTS IN CHILDREN FLOW?

Even if it is decided that particular investments in children would have a very large payoff relative to other investment options available in the economy, it does not follow that society is investing too few resources in children in the aggregate. Perhaps rather than increasing the resources for children, we should be reallocating the current commitment of resources. For example, a common assertion is that in attempting to increase the quality of education, school systems have added administrators and special programs that may serve only to bureaucratize and stifle teacher creativity and spontaneity. If this assertion is true, children's attainments could be increased by reallocating resources away from this form of investment in children to other more productive investments in them.

This issue of the "best" mix of investments in children is an important one, given that investment activities can be undertaken by the government, by parents, and by children themselves. At the margin, where is the largest payoff in terms of children's attainments: formal schooling, enriched early education, more and more effective parental time, higher family income, better

adjusted and mature parents, improved neighborhood quality, or increased counseling to assist children in coping with stressful events or avoiding destructive behaviors?

From the perspective of public policy, the trick is to identify those specific investments in children that have the greatest payoff relative to their cost. Stating this rule is easy; implementing it is the difficult part. Several complexities immediately arise.

First, many investments in children--parental education, family income, neighborhood or school quality, parental time--are likely to have declining marginal benefits, so measuring the average benefit accomplished by the current level of investment will not suffice. In much the same way, the marginal benefit of the same investment may vary with the level of other investments with which it is associated. An increase in parental time devoted to children may have a quite different effect on their attainments if the family moves from an "underclass" neighborhood than if it stays in the same house or neighborhood.

Moreover, some investments may only influence children's attainments via other factors that can then be said to mediate the impact of the investment. For example, parental participation in an adult education program designed to improve their job prospects might simultaneously increase their expectations for children's success, thereby increasing their monitoring of children, or improving family life. As a result, their children may perform better in school or be better equipped to cope with stressful events related to family or peers.

Finally, "children's attainments" are multidimensional, and include educational success, fertility behavior, occupation and earnings, dependence on welfare, the quality of personal and family relationships, attitudes toward accepted rules and customs, and more.

Somehow, and for each child in differing proportions, these elements combine to form "success." But for society and the family, decisions about investment must include some judgment about the relative importance of each of these attainments.

## TO WHICH CHILDREN SHOULD INVESTMENTS BE DIRECTED?

This question suggests that, on efficiency grounds, investments in children should not be equal. Society may reap substantial benefits from additional education resources devoted to some children, but not to others. An efficient pattern of investment would concentrate education spending on the former group. This optimal, though unequal, treatment of children could extend even into the family. Conversely, if equal treatment of children is desired, families (and society) should find other ways of assisting those children who do not receive as much schooling investment. Yet a third possibility would be greater equality of outcomes, perhaps measured by income. For this goal, families (and society) should concentrate investments on children whose expected earnings and income lie at the bottom of the distribution.

In many circumstances, these three objectives need not suggest conflicting policies. For example, the "underinvestment" case is clearly the strongest in the case of children growing up in poor families, minority families, and mother-only families. These children tend to have fewer resources available to them along a whole spectrum of dimensions than do children from middle- and upper-class families. Because of the constraints on the allocation of resources to them--both budget constraints and the "bite" from capital market imperfections--it is likely that the social return on the marginal dollar invested in them is high, relative to investments in nonpoor children. Moreover, since the level of family resources they receive is relatively low, the equal treatment argument also would support greater investment in this group. Finally, since adult prospects also look less promising for this group, relatively more investment in the group could be justified in the interests of greater equality of outcomes.<sup>12</sup>

The "to which children" question is also relevant in considering the ages of those in whom investments are to be made. Is the return at the margin greater for investments in prenatal care, in enriched early childhood programs, in elementary and secondary school years, or in adolescence and

beyond? There appears to be a growing consensus among child development experts and researchers that the United States is overinvesting in children who have graduated from high school (and who go on with their education) relative to younger children (Hamburg, 1992). However, in the absence of reliable estimates of the total social return to investments in young children, these conclusions are open to dispute.

### WHO SHOULD BE INVESTING?

Government can either provide services directly to children (through improved school, nutrition, or children's health programs, or through enriched day care programs, for example), or it could provide parents with adequate resources and incentives to better nurture their children. How should scarce resources be allocated between these two strategies? The answer rests on considerations of both cost-effectiveness and values.

Consider, first, the efficiency questions that need answering in developing effective policy. Are families or the state most effective in providing services to children? Can the state, through assistance to parents, assure that the resources are invested in children; or is direct provision the only feasible vehicle?

Beyond these questions are issues of values: Should the nurturing of the nation's children be the primary responsibility of families, or should the state take a more active role in the shaping of children? Debate over these questions plays itself out in issues such as the "choice" controversy in education; the question as to whether day care should be subsidized through refundable tax credits or publicly funded day care centers; whether a children's allowance should be provided to families, or free lunches offered at schools; and whether additional support for higher education should be provided with direct government support to institutions, or special capital accounts for individuals.

## THE DETERMINANTS OF CHILDREN'S SUCCESS

Hundreds of research studies--by economists, sociologists, and developmental psychologists--have attempted to identify the determinants of children's success and to measure the impacts on children's attainments of changes in these factors. Because of differences in disciplinary perspectives, data, and empirical methods, the findings are nearly as disparate as they are voluminous. Moreover, because the complexity of the attainment process far exceeds both the data and the causal modeling methods available to researchers, many of the estimated relationships need to be interpreted as correlations rather than as causal linkages. While much has been learned, much more remains to be learned. Nevertheless, if one were to summarize what we do know in a few sentences, the story would run something as follows. (See Haveman and Wolfe, 1992, for a more complete discussion.)

Consider first family-based investments in children. The most important determinant of children's success--their education, earnings, and avoidance of destructive behaviors--appears to be the education of their parents, especially the mother's education.<sup>13</sup> In some studies, but not all, this relationship seems to be stronger for white children than for racial minorities.

The number of siblings in the family has a persistently negative effect on children's success, perhaps because family economic and time resources need to be spread more thinly when more children are present. Exposure to values also seems important: children from religious families tend to do better; those whose parents (and siblings) divorce, become arrested, or choose nonmarital childbearing tend to do worse.

Economic circumstances--for example, the level of family income relative to needs--have a persistently positive effect on children, though this linkage does not appear to be quantitatively large. The intergenerational transmission of welfare dependence, while found in several studies, does not appear to be large in magnitude.<sup>14</sup> Holding constant the level of family income, there is some hint



that the proportion that comes from earnings (rather than welfare) is positively related to children's attainments.

In several studies (but not all), the effect of mother's work on children's attainment--in terms of their education and-economic activity--appears to be positive and substantial. Because this effect appears larger than one would expect from the increased family income from mother's work, something of a "role model" effect may be at work. (See Haveman and Wolfe, 1994.) Independent of mother's work time, there is recent evidence that the amount of parental time spent nurturing or monitoring children also has a payoff in terms of their success.

Children also appear to be adversely affected by stressful events and circumstances in their childhood, such as changes in geographical location or family structure. The findings on the effects of family location moves are recent, but consistent with research by psychologists on the negative impacts of instability and stress on children (Haveman and Wolfe, 1994). Changes in family structure--separations, divorces, remarriages--are also found to have persistently negative effects on children. The negative influence of remarriages is perhaps unexpected, but may reflect the limited access by the child to the stepparent's economic resources or time, or the stress associated with the introduction into the family of a competitor for the mother's attention.

These "stressful event" effects seem to hold even when the number of years that children spend in a family with but one adult (typically, the mother) is taken into account. The single-parent effect--often interpreted as the effect of divorce on children--is regularly found, in studies from several disciplinary perspectives, to have a deleterious effect on children. (See McLanahan and Booth, 1989, for a review of this research.)

Next, consider public investments in children. The dollar value of school resources per child does not seem to have much of a value-added effect on cognitive achievements, though some recent evidence suggests a positive correlation with the number of years of schooling (and, hence, earnings).

There are suggestions in the research literature that the small measured effects on cognitive achievements are attributable to the allocation of resources within schools. This conjecture is supported by recent, more disaggregated studies of school performance that have found positive effects from increments of certain school inputs, such as teacher skills, parental involvement, small class sizes, and the socioeconomic composition of the student body.

Early childhood education programs, such as the Head Start program, appear to increase cognitive test scores while children are enrolled in them; the duration of the impact is strongly debated. Claims made in policy discussions regarding the benefits of enriched day care programs cry out for more reliable evidence.

The quality of the neighborhood in which children grow up (e.g., the incidence of single mothers, high school dropouts, crime), and hence the characteristics of their peers, appears to affect children's attainment, apart from other factors. Again, however, the measures of neighborhood quality may be standing for some family and school characteristics that are not otherwise measured. Access to community services, like family-planning services, seems to reduce destructive behaviors such as the propensity of teens to choose a nonmarital birth.<sup>15</sup>

Finally, children and youths themselves tend to respond in expected ways to the opportunities and constraints they face. For example, the existence of employment opportunities in the community seems to reduce the probability that a teen girl will give birth out of wedlock.

These findings are clues to the sorts of social and parental investments that might yield increased children's attainments. While many of them appear robust over several studies, their quantitative impacts are quite uncertain. For example, we know little regarding the pattern of marginal returns to individual interventions. Some of these interventions may yield effects on children that are realized only after a long lag, and the length and structure of the lags are unknown. In some cases, individual interventions may be unproductive if undertaken alone, but have a very

large impact if implemented in concert with a constellation of other interventions. We know little about such synergies and interdependencies.

Perhaps most seriously, while some results exist regarding the effectiveness of proposals now attracting substantial attention among policymakers, the reliability of these findings is open to question. Program strategies for reducing drug usage among youths, or for improving the safety of neighborhoods, come immediately to mind. In some cases, we have studied the linkages between investments in children and their attainments, but have neglected important spillover effects. For example, while incarceration of lawbreakers designed to reduce crime in ghetto neighborhoods may contribute to that objective, there may be a negative effect of jailed fathers, mothers, or siblings on the children most directly affected, or perhaps a positive effect on other children in the neighborhood less affected by crime.

In sum, our knowledge of the full impact of both public sector and parental investments on children's attainments is neither broad nor deep. Moreover, the full economic costs associated with securing either public or family increases in children's investments are often murky. For example, apart from its effects on neighborhood crime or drug usage, what would be the value of the forgone labor of, say, a program which trained and placed 100,000 released military personnel as monitors and counselors in inner-city neighborhoods? Or of a reallocation of education expenditures designed to increase the test scores in the nation's poorest schools by 10 percent? Or of a specified reduction in the detrimental effects of a variety of family-based stressful circumstances or events?

#### A PROPOSED COURSE OF ACTION FOR INVESTING IN CHILDREN

Based only on the existing evidence, what would be some responsible approaches for policy to follow? While this question is fraught with pitfalls, the very large number of dollars of public resources that have been spent on studies of this issue would seem to require some answer by the

research community. Some general approaches would seem to have basis in the research findings that are now available.

First, increases in years of school completed--apart from any fundamental change in the education process--seem to have potential for improving the success of, at least, the next generation of children. Efforts to reduce high school dropout rates and to increase postsecondary training and schooling would appear to be among the more justifiable interventions.

Second, substituting earned income for welfare income through both workfare mandates and work subsidization (e.g., expansion of the earned income tax credit) could increase the incomes of families and alter expectations regarding how income should be obtained. Evidence suggests that both the income and role-model effects of work-related subsidies could improve children's attainments; other evidence suggests that well-designed workfare programs meet a benefit-cost test (see Gueron and Pauly, 1991).

Third, to increase the nonwelfare financial resources available to mother-only families, policies designed to increase child support collections from noncustodial parents, including a universal child support program, should be considered (see Garfinkel, 1992).

Fourth, in the absence of any direct public means of reducing the family-based stressful events that appear to strongly prejudice children's attainments, increased resources for improving the effectiveness of counseling and adjustment programs would appear justified.

Fifth, since there is little evidence that children who grow up with mothers who work have lower levels of success and attainments than those whose mothers stay at home (indeed, the opposite effect seems to predominate), policy should not discourage, but perhaps encourage, opportunities for women to work outside the home.

Sixth, altering the functioning of the low-skilled segment of the labor market through both supply- and demand-side subsidization would appear worthy of large-scale testing. Options would

include marginal employment subsidies favoring low-skilled hiring offered to firms and a wage rate subsidy for accepting employment at market wages below some target rate (Haveman, 1988).

Seventh, providing health care coverage to children regardless of their family's income would decrease the incidence or severity of preventable diseases among children, encourage parents' labor force participation, and increase labor mobility.

Finally, because of the multiple and interconnected problems which impede successful child and youth development in central city ghettos--lack of jobs, rampant crime and drug use, substandard housing, nonfunctioning schools, and the absence of role models--experimenting with multipronged intervention programs would be desirable (Aaron, 1992). Only in this way can we learn about the potential synergistic effects of interventions that, taken one at a time, appear to have only minimal benefits.

**Endnotes**

<sup>1</sup>The recent committees, commissions, task forces, and study groups that have reported on the status of children include Committee for Economic Development (The Unfinished Agenda: A New Vision for Child Development and Education, 1991); U.S. Congress, House of Representatives, Select Committee on Children, Youth, and Families (U.S. Children and Their Families: Current Conditions and Recent Trends, 1989); National Academy of Science (Who Cares for America's Children? Child Care Policy for the 1990's, 1990; and Risking the Future: Adolescent Sexuality, Pregnancy, and Childbearing, 1987); William T. Grant Foundation Commission on Work, Family and Citizenship (The Forgotten Half: Pathways to Success for America's Youth and Young Families, 1988; and The Forgotten Half: Non-College Youth in America, 1988); Carnegie Council on Adolescent Development (Turning Points: Preparing American Youth for the 21st Century, 1989); Children's Defense Fund (S.O.S. America! A Children's Defense Budget, 1990); Progressive Policy Institute, (Putting Children First: A Progressive Family Policy for the 1990s, 1990); National Commission to Prevent Infant Mortality (Troubling Trends: The Health of America's Next Generation, 1990).; U.S. Department of Education (Schools That Work: Educating Disadvantaged Children, 1988); American Public Welfare Association, (A Commitment to Change, 1991); Aspen Institute, (The Aspen Institute Quarterly, Special Issue on Children, 1988).

<sup>2</sup>These data are from a time-diary study by John Robinson, a sociologist from the University of Maryland, cited in Mattox (1991). Mattox also cites a 1990 Los Angeles Times poll which reported that over 55 percent of fathers and mothers feel guilty about spending too little time with their children.

<sup>3</sup>The 1991 Green Book (U.S. House of Representatives, 1991) provides a comparison of federal programs targeted on children in 1978 and 1987. In constant dollars, the value of all programs decreased by 4 percent (from \$50.7 to \$48.9 billion). This includes a decrease in income programs

of 10 percent (from \$20.6 to \$18.6 billion) and an increase in nutrition programs of 11 percent (from \$13.1 to \$14.5 billion), an increase in health programs of 10 percent (from \$3.4 to \$3.75 billion), a decrease in educational programs of 8 percent (from \$7.6 to \$7 billion), and a 44 percent drop in training and employment programs (from \$3.0 to \$1.65 billion). (See Table 3, Appendix L.) This decrease occurred during a period in which pretax and pretransfer incomes of families with children were declining on average--and poverty rates were increasing. The declining impact of public income support programs in removing children from poverty is reviewed in Danziger (1990).

<sup>4</sup>Danziger and Gottschalk (1986) explore carefully the changes in income available to families with children, and conclude that the increase in children's poverty rates is due to the increased incidence of female-headed families, the increased incidence of low earnings among male family heads, and the decline after 1973 in the real value of per family cash transfers.

<sup>5</sup>The poverty rate for Hispanic children was 38.4 percent in 1990, more than twice that of white children, but below that of African American children. Note, however, that adjusting for food stamps and housing benefits reduces these poverty rates. Duncan and Rodgers (1991) calculate that the poverty rate for African American children in 1986 would decline from 43.1 to about 37 percent if these two adjustments were made.

<sup>6</sup>The poverty definition in this study is a line equal to 40 percent of median income; the U.S. line has amounted to 41 percent of median income in recent years. The line is adjusted for family size.

<sup>7</sup>The possibility that immigration could provide the new workers to support future productivity growth would blunt this self-interested concern with our own children.

<sup>8</sup>See Kotlikoff (1992) for estimates of the net burden on today's and tomorrow's children because of the demographic structure of the populations and the intergenerational commitments that have been made through public fiscal measures.

<sup>9</sup>While our production function for quality children is sequential, in some cases the relationship among the primary input-suppliers to the process may be iterative. For example, decisions of parents may "induce" government to intervene on behalf of children--to provide vaccinations if parents have not, or to offer after-school programs if parents fail to provide such care.

<sup>10</sup>Coleman emphasizes that both society (government) and families can create a structure of support, trust, expectations, and nurture based on the character of social relations--social capital--that contributes to children's attainments apart from more explicit and measurable inputs such as school expenditures, neighborhood police patrols, parental economic resources, or parental human capital. In this view, not only are the resources devoted to a school relevant inputs but also the supportive character of teachers and students in the school; not only the time parents spend with children, but what they do with that time. This perspective has clear implications for empirical studies of the determinants of children's success.

<sup>11</sup>The discussion in this and the following section draws from an insightful paper by Fuchs (1990).

<sup>12</sup>To the extent that investments in children by governments and parents are substitutes, there may be a further argument for directing public investments toward children in low-income families. If public investment in certain services for children--for example, music training--simply substitutes for similar parental investments in high-income families, but such parental investments are seriously budget-constrained in poor families, there is a presumption that such public investments should be concentrated on children from low-income families.

<sup>13</sup>It should be noted that parental schooling may capture unmeasured characteristics of parents--motivation, intelligence, values. As a result, empirical estimates of the relationship of parental education and children's attainment may be biased upward.

<sup>14</sup>This overall finding cannot be generalized across racial groups, and some studies fail to reveal such a relationship.



<sup>15</sup>See for example, Corman, Joyce, and Grossman (1987) on the importance of community resources in decreasing infant mortality rates, and Lundberg and Plotnick (1990) on their importance in the nonmarital birth decisions of teens.

**References**

- Aaron, Henry. 1992. "Designing a Social Policy Strategy." Washington, D.C.: The Brookings Institution, mimeo.
- Aspen Institute. 1993. The Aspen Institute Quarterly, Special Issue on Children.
- Bianchi, Suzanne. 1990. "America's Children: Mixed Prospects." Population Bulletin, 45: 1 (June), 1-42.
- Carnegie Council on Adolescent Development. 1989. Turning Points: Preparing American Youth for the 21st Century. New York: Carnegie Corporation.
- Case, Anne, and Lawrence Katz. 1991. "The Company You Keep: The Effects of Family and Neighborhood on Disadvantaged Youths." National Bureau of Economic Research, Working Paper no. 3075.
- Casey Foundation, Annie E. 1992. Kids Count Data Book. Washington D.C.: Center for the Study of Social Policy.
- Children's Defense Fund. 1990. S.O.S. America! A Children's Defense Budget. Washington, D.C.: Children's Defense Fund.
- Coleman, James S. 1988. "Social Capital in the Creation of Human Capital." American Journal of Sociology, 94 Supp., S95-S120.
- Committee for Economic Development. 1991. The Unfinished Agenda: A New Vision for Child Development and Education. New York: Committee for Economic Development.
- Corman, Hope, Theodore Joyce, and Michael Grossman. 1987. "Birth Outcome Production Function in the United States." Journal of Human Resources, 22: 3, 339-360.
- Danziger, Sheldon. 1990. "Anti-Poverty Policies and Child Poverty." Social Work Research and Abstracts, 26: 4, 17-24.

Danziger, Sheldon, and Peter Gottschalk. 1986. "How Have Families with Children Been Faring?"

Institute for Research on Poverty, Discussion Paper 801-86, University of Wisconsin-Madison.

Duncan, Greg, and Willard Rogers. 1991. "Has Children's Poverty Become More Persistent?"

American Sociological Review, 56: 538-550.

Ellwood, David. 1992. "The Changing Structure of American Families: How Have They Changed,

Why Have They Changed and What Do the Changes Mean for Public Policy?" Harvard University, mimeo. January.

Fuchs, Victor. 1990. "Are Americans Underinvesting in Children?" In D. Blankenhorn, S. Bayme,

and H. B. Elshstain, eds., Rebuilding the Nest. Milwaukee, Wis.: Family Service America.

Fuchs, Victor, and Diane Reklis. 1992. "America's Children: Economic Perspectives and Policy

Options." Science, 255 (January): 41-46.

Garfinkel, Irwin. 1992. Assuring Child Support: An Extension of Social Security. New York:

Russell Sage Foundation.

Gueron, Judith M., and Edward Pauly. 1991. From Welfare to Work. New York: Russell Sage

Foundation.

Hamburg, David. 1992. Today's Children: Creating a Future for a Generation in Crisis. New

York: Times Books, Random House.

Haveman, Robert. 1988. Starting Even: An Equal Opportunity Program to Combat the Nation's

New Poverty. New York: Simon and Schuster.

Haveman, Robert, and Barbara Wolfe. 1984. "Schooling and Economic Well-Being: The Role of

Nonmarket Effects." Journal of Human Resources, 19: 377-407.

Haveman, Robert, and Barbara Wolfe. 1990. "The Economic Well-Being of the Disabled: 1962-

1984. Journal of Human Resources, 25: 32-54.

- Haveman, Robert, and Barbara Wolfe. 1992. "On the Determinants of Children's Success: A Research Perspective." Russell Sage Foundation, Discussion Paper, New York, N.Y.
- Haveman, Robert, and Barbara Wolfe. 1994. Succeeding Generations: On the Effects of Investments in Children. New York: Russell Sage Foundation.
- Hayes, C.D., J. L. Palmer, and M. J. Zaslow, eds. 1990. Who Cares for America's Children? Child Care Policy for the 1990's. Washington, D.C.: National Academy Press.
- Hayes, C. D., ed. 1987. Risking the Future: Adolescent Sexuality, Pregnancy, and Childbearing. Washington, D.C.: National Academy Press.
- Kamarck, E. C., and W. A. Galston, eds. 1990. Putting Children First: A Progressive Family Policy for the 1990s. Washington, D.C.: Progressive Policy Institute.
- Kotlikoff, Laurence J. 1992. Generational Accounting: Knowing Who Pays, and When, for What We Spend. New York: The Free Press.
- Lampman, Robert, and Timothy Smeeding. 1983. "Interfamily Transfers as Alternatives to Government Transfers to Persons." Review of Income and Wealth, Series 29, no. 1: 45-66.
- Levy, Frank, and Richard Michel. 1991. The Economic Future of American Families. Washington, D.C.: Urban Institute Press.
- Levy, Frank, and Richard Murnane. 1989. "Jobs, Demography and the Mismatch Hypothesis." University of Maryland School of Public Affairs, College Park, Md.
- Long, Larry. 1988. Migration and Residential Mobility in the United States. New York: Russell Sage Foundation.
- Lundberg, Shelley, and Robert Plotnick. 1990. "Effects of State Welfare, Abortion, and Family Planning Policies on Premarital Childbearing among White Adolescents." Family Planning Perspectives, 22: 6, 246-251.

- Mattox, Jr. William. 1991. "The Parent Trap: So Many Bills, So Little Time." Policy Review, Winter: 6-13.
- Mayer, Susan. 1991. "How Much Does a High School's Racial and Economic Mix Affect Graduation Rates and Teenage Fertility Rates?" In C. Jencks and P. Peterson, eds., The Urban Underclass. Washington, D.C.: Brookings Institution, 321-341.
- McLanahan, Sara, and Karen Booth. 1989. "Mother-Only Families: Problems, Prospects and Politics." Journal of Marriage and the Family, 51: 557-580.
- National Center for Health Statistics. 1991. Health United States 1990. Hyattsville, Md.: Public Health Service.
- National Commission on Child Welfare and Family Preservation. 1991. A Commitment to Change. Washington, D.C.: American Public Welfare Association.
- National Commission on Children. 1991. Beyond Rhetoric: A New American Agenda for Children and Families. Washington, D.C.: U.S. Government Printing Office.
- National Commission to Prevent Infant Mortality. 1990. Troubling Trends: The Health of America's Next Generation. Washington, D.C.: National Commission to Prevent Infant Mortality.
- Smeeding, Timothy. 1992. "Why the U.S. Antipoverty System Doesn't Work Very Well." Challenge, January/February, 30-35.
- Statistical Abstract of the United States, 1991. Washington, D.C.: U.S. Department of Commerce, Bureau of the Census.
- U. S. Congress, House of Representatives, Select Committee on Children, Youth, and Families. 1989. U.S. Children and Their Families: Current Conditions and Recent Trends, 1989. Washington, D.C.: Government Printing Office.

U. S. Department of Education. 1988. Schools That Work: Educating Disadvantaged Children.

Washington, D.C.: U.S. Government Printing Office.

U.S. House of Representatives, Committee on Ways and Means. 1991. 1991 Green Book.

Washington, D.C.: U.S. Government Printing Office.

\_\_\_\_\_. 1992. 1992 Green Book. Washington, D.C.: U.S. Government Printing Office.

William T. Grant Foundation Commission on Work, Family and Citizenship. 1988. The Forgotten Half: Pathways to Success for America's Youth and Young Families. Washington, D.C.:

William T. Grant Foundation.

William T. Grant Foundation Commission on Work, Family and Citizenship. 1988. The Forgotten Half: Non-College Youth in America. Washington, D.C.: William T. Grant Foundation.

Wolfe, Barbara. 1991. "The Deteriorating Economic Circumstances of Children." In Essays on the Economics of Discrimination, ed. Emily Hoffman. Kalamazoo, Mich.: Upjohn Institute.

Wolfe, Barbara. Forthcoming. "External Benefits of Education." International Encyclopedia of Education. New York: Pergamon Press.