

Improving the Life Chances of Children in Poverty: Assumptions and What We Have Learned

Robert G. St.Pierre and Jean I. Layzer

In spite of more than three decades of anti-poverty programs, the number of children living in poverty has increased in recent years (Carnegie Task Force, 1994; National Center for Children in Poverty, 1996). Reasons for this include an increase in the number of single-parent families, a declining labor market for low-skilled workers, and reduced welfare benefits to poor families (Duncan, 1991).

For children and families, the correlates of living in poverty are many. Mothers in poverty may suffer a variety of psychological consequences, including low self-esteem, depression, lack of hope for the future, lack of sense of personal empowerment, low aspirations, and social isolation. They may have health problems such as untreated chronic illness, anemia stemming from poor nutrition, and are increased risk of substance abuse. The combination of unfinished education, absence of parental role models, and social supports often leaves them with inadequate life management skills; they may have difficulty making decisions, be unable to manage limited budgets, and have little understanding of what it takes to be a good parent. Facing difficulties, both practical and motivational, in completing their education or acquiring job skills, they may remain dependent on welfare and unable to achieve even limited economic self-suffi-

ciency (McLoyd, Jayaratne, Ceballo, & Borquez, 1994).

Poverty places severe strains on family relationships, including conflict with a spouse, spousal abuse, and marital dissolution. Frequently, if the child's father lacks job prospects, marriage is deferred or not entered into. The family faces constrained resources in terms of income, housing, food, and transportation, as well as inadequate or totally absent social supports. Dangerous neighborhoods place additional stress on the family, and poor schools fail to offer needed support (Huston, McLoyd, & Garcia Coll, 1994).

The economic, social, physical, or psychological stresses associated with poverty affect parent-child relationships. Parents who them-

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selves had poor parental role models and who are socially isolated and inadequately prepared for the demands of parenthood are likely to have inappropriate expectations of their children, to be inconsistent or unresponsive parents, and to be restrictive and punitive in managing children's behavior, sometimes to the point of abuse. Alternatively, they may provide inadequate supervision for children and neglect their basic needs. Finally, families living in poverty often suffer from social and psychological isolation as well as inadequate material and psychological resources (Huston et al., 1994).

For infants and young children, the immediate consequences of poverty are severe. High levels of infant mortality and morbidity, prematurity, and impaired health are all associated with infants born into poverty. Young children living in poverty are less likely to see a pediatrician and to receive dental care and vaccinations, important steps to ensure future growth. Adverse birth outcomes can result in developmental delay, behavior problems, and inadequate preparation for school. Adolescent children in poverty manifest lower school achievement and unfinished education, early sexual activity leading to teen pregnancy, substance abuse, delinquency, and a high incidence of death from accidents or homicide (Schorr, 1988).

How do we attempt to address these social ills? In our rhetoric and programmatic investments in antipoverty programs, our society has shown that we believe it is possible to intervene in the lives of families in a way to disrupt the cycle of poverty just described. Although one can argue over whether the level of investment has been sufficient, there is no dispute that over the past 25 to 30 years, federal, state, and local governments, private foundations, and private industry have funded a stunning array of social, educational, and health interventions, some intended to ameliorate the effects of poverty and others, more ambitious, intended to interrupt the poverty cycle and move families into self-sufficiency.

Close scrutiny of these interventions suggests that, for the most part, they have not achieved the hoped-for effects. Before we embark on a new round of interventions, prudence dictates that we examine the pattern of findings from studies of these earlier interventions, try to understand why they fell short of their intended goals, and derive some lessons for the future.

Poverty and Children's Development

The design of most social and educational interventions rests on a set of assumptions about human development, about the possibility of intervening in development, and about the most effective strategies for intervention. These assumptions are often unstated by program developers and must be inferred from the design and operation of the program and statements about its desired effects. The more comprehensive the program design, the more complex the array of assumptions that undergird it. Different types of interventions rest on differing assumptions. Here we describe three basic assumptions about children's development and the ways in which poverty can compromise or threaten that development.

Assumption 1: Child development is a complex, dynamic process, influenced by multiple factors that interact as parts of a larger ecosystem.

The need to focus on the child as part of a larger unit has increasingly been recognized in the theoretical approaches proposed by psychologists and sociologists in their efforts to understand human development. Bronfenbrenner (1979) argues for consideration of the "context" or "ecology" of human development. He has proposed four influences on an individual's development: (1) the immediate setting (e.g., home, school, job); (2) the interrelations among major settings containing the

individual; (3) formal and informal social structures (e.g., media, neighborhoods); and (4) the ideological patterns of the culture and subcultures of the setting in which the individual functions. Efforts to understand or to intervene in the course of child development must address the larger context of this development if they are to succeed.

Ramey and Ramey (1990) developed a multilevel model of early childhood development that illustrates three types of influences on the cognitive and social development of children: (1) contextual variables, including the biological, social, cultural, and economic contexts of the child and caregivers; (2) the current biological, social, cultural, and economic status of the child and caregivers; and (3) transactions between the child and its caregivers and among family members. This model indicates that the process of development is iterative in that the experiences that all of these factors produce for the child have implications for subsequent development.

Assumption 2: A child's early experiences are critically important for healthy development.

This is one of the most basic assumptions underlying many programs. However, what constitutes appropriate early experiences has been debated for almost 200 years. In the 1820s American reformers organized infant schools modeled on the experiences of British educators who suggested that a child's early experiences were important determinants of later development (Brown, 1828). Brigham (1833), however, prepared an influential publication in which he warned that "in attempting to call forth and cultivate the intellectual faculties of children before they are 6 or 7 years of age, serious and lasting injury has been done to both the body and the mind" (p. 79). Brigham's work led to the eventual demise of the American infant school movement, and by the end of the 19th century few young chil-

dren were enrolled in school (Winterer, 1992). In the 20th century, early childhood education programs have once again been viewed as a way to ready for school children whose life circumstances have left them ill-prepared.

Additionally, psychologists have for many decades promoted the idea that development includes "critical periods" (Bowlby, 1973) during which, for example, the child makes or fails to make an attachment bond with the mother or forms the foundations for mastering language. Recent research on brain development provides detailed evidence about the critical importance of the early years of life.

Brain development before age 1 is rapid and extensive (Chugani, 1993; Johnson, 1994). While brain cell formation is complete before birth, the months after birth and up to the age of 2 are a period of fine-tuning, and sensory inputs during this period are critical to the formation of the child's perceptual and cognitive patterns. Individual areas of the brain have their own pattern of and timetable for development. The critical period for the development of vision, for example, is from birth to 8 months; for language, from birth to 10 years; for math and logic, birth to 4 years.

Second, there is increasing evidence that brain development is vulnerable to environmental influence after birth as well as in utero. Extensive research has focused on the effects of deficiencies in, or inappropriate additions to, the fetal environment. Inadequate nutrition before birth and the lack of some specific nutrients can interfere with brain development (Pollitt et al., 1996). Similarly, foreign substances or organisms introduced into the system can have devastating developmental effects. The debilitating effects of thalidomide, probably the best-known teratogen, or of rubella contracted by the mother in the first trimester of her pregnancy, have long been observed. In-utero exposure to alcohol also has been shown to have serious and lasting effects on development (Connor, 1994). Only recently, however, have we begun to understand the physiological mechanisms

through which these deficiencies or additions cause such serious damage.

Other research has shown that the child's early experience has a direct effect on brain development. Early studies of children raised in institutions in which their mobility was restricted and which provided little stimulation showed serious delays in psychomotor growth (Shatz, 1992). Animal studies have provided a clearer picture of how growth can be delayed or negatively affected. Animals raised in conditions of deprivation show differences in brain structure and function compared with animals raised in more complex environments (National Health/Education Consortium, 1991).

Recent research has examined the effects of social experience on brain development, suggesting that early stress has a negative and lasting impact. In addition to affecting subsequent language development, the state of hyperarousal produced by traumatic experiences can, in time, become a maladaptive trait (Perry, Pollard, Blakley, Baker, & Vigilante, 1995).

While there is evidence that the brain is able to compensate somewhat for delays in its development, the external environment influences the extent of this plasticity. In a study of preterm infants at risk for cognitive delays, those with responsive caregivers had nearly normal IQ scores at 7 years of age; those without such a supportive environment had lower scores (Zuckerman, 1991). Similarly, infants who experienced perinatal stress had better outcomes when they lived in stable families; poor outcomes were related to the combination of perinatal stress and family instability.

Assumption 3: Poverty adversely affects a child's early childhood development through multiple mechanisms and threatens chances for success in life.

A substantial body of research supports the tenet that poverty can be detrimental to early development. Poverty may influence children's development directly, through the deprivation of

necessary resources (e.g., prenatal and perinatal nutrition, well-baby care, or shelter) or the addition of harmful substances, such as lead from peeling paint in deteriorating housing (Environmental Defense Fund, 1990; Tesman & Hills, 1994). In addition, the stresses that poverty places on families and the effects of poverty on homes and communities represent indirect threats to the child's development.

The effects of poverty on children can be observed early in life. Children in low-income families are at higher risk for late, inadequate prenatal care and low birth weight and are more likely to die at birth or in infancy. And those who survive infancy are more likely to become ill and to be sicker and die at higher rates than children from higher-income families (Starfield, 1991). Children from low-income families have higher rates of asthma and dental disease and are more vulnerable to measles and other preventable illnesses. They are less likely to see a pediatrician on a regular basis, to receive dental care and immunizations, and to live in a safe home environment that optimally nurtures their development (Garbarino, 1990; Gelles, 1992). They tend to exhibit more behavioral and developmental problems and are more likely to perform poorly once in school (Dryfoos, 1987). In the later school years, children in poverty are disproportionately likely to repeat grades, have frequent absences (Ravitch & Finn, 1987), fail to complete high school, and lack basic literacy and numeracy skills (Gardner, 1990; Puma, Jones, Rock, & Fernandez, 1993).

These and other effects of poverty reflect combinations of biological risk factors, environmental conditions, and social conditions. For example, the explosion in asthma rates among children from low-income families may be attributable to environmental factors, such as the use of pesticide sprays in public housing, but the acute episodes of asthma that bring children to hospital emergency rooms are more probably attributable to social factors such as the absence of regular medical attention. While children born

in poverty are at greater risk for biological risks that threaten damage to the central nervous system and consequent behavioral and emotional disorders, it has been argued that these biological factors pale in comparison with the negative effects of the sub-optimal “caretaking environment,” defined in terms of both physical and psychological resources (Sameroff & Chandler, 1975). Longitudinal studies of child development in Kauai support this argument, indicating that perinatal complications alone are not consistently related to later developmental problems, but in interaction with adverse social conditions are 10 times more likely to produce poor outcomes in children (Werner, 1989).

These three basic assumptions about child development—that child development is dynamic and occurs in a multilayered context, that early experience is important, and that poverty hinders development—are widely accepted and supported by research evidence and are troubling in their implications. Taken together, they present a political and social challenge facing the United States. In what follows, we describe the strategies adopted thus far to meet this challenge.

What We Have Learned

Child-focused approaches

Perhaps the most widely recognized intervention strategy, developed more than 30 years ago, is to provide a preschool experience to children at risk because of poverty or other factors. The assumption underlying this strategy is that a year (or sometimes 2) of preschool experience will improve the child’s social competence and prepare him or her to enter school on equal terms with more privileged children. Under this approach, programs provide a range of educational services (and sometimes health and nutrition services) directly to children with the hope of affecting their cognitive and socioemotional development, their subse-

quent school performance, and, eventually, their chances for success in life. Head Start is the major federal early childhood program for preschoolers.

There is a very large literature on the effectiveness of early childhood programs. Recent reviews conclude that high-quality, intensive, center-based early childhood programs can make an important difference in the lives of young children (Barnes, Goodson, & Layzer, 1996; Barnett, 1995; Lamb, in press; Wasik & Karweit, 1994). More specifically:

- High-quality early childhood programs consistently show large short-term effects on children’s cognitive development. In a comprehensive review, it was reported that preschool programs produce gains of between 4 and 11 IQ points (Barnett, 1995). Additional evidence is provided by experimental studies of preschool programs, e.g., the Consortium for Longitudinal Studies (1983) reports findings from 11 early childhood programs; the Campbell and Ramey (1994) report on the Abecedarian Project; and evaluations of large public preschool programs such as the Chicago Child Parent Centers (Reynolds, 1996); Head Start (McKey et al., 1985); and New York City’s Project Giant Step (Layzer, Goodson, & Layzer, 1990). For summaries of this and other related research see Barnett (1995) and Barnes et al. (1996).
- Although fewer early childhood programs provide evidence of effects on socioemotional functioning for children, there are some indications that intervention programs can have positive effects in this area as well (see Honig, Lally, & Mathieson, 1982; Lee, Brooks-Gunn, & Schnur, 1988; McKey et al., 1985).
- Effects on standardized cognitive tests fade out in the early elementary years.

This phenomenon is well-established (Barnett, 1995; Castro & Mastropieri, 1986; McKey et al., 1985). Barnett (1995) argues that gains on IQ tests decline over time, while effects on achievement are more persistent. Ramey & Ramey (1992) state that the early effects of early childhood programs will “diminish if there are inadequate environmental supports.”

- Early child-focused interventions have longer-term noncognitive benefits which can be detected in the public schools. Benefits include, for example, reduced grade retention and special education placement (Barnett, 1995; Consortium for Longitudinal Studies, 1983; Schweinhart, Barnes, & Weikart, 1993). Long-term benefits have included higher rates of high school graduation and employment and lower rates of criminal behavior and welfare dependence (Schweinhart et al., 1993). Yoshikawa (1995) reviewed the literature on the effects of early childhood programs on social outcomes and delinquency and concluded that programs that addressed multiple risk factors (e.g., those that combine family support and early childhood education) are best at reducing antisocial behavior and delinquency.
- Programs with continued follow-up are more likely to have long-term benefits for children; highly intensive programs are more effective than less intensive ones. A review of preschool programs (Wasik & Karweit, 1994) found that “early, intensive intervention, along with continued follow-up as children enter school, can keep disadvantaged children from falling behind” (p. 54). Another observer concluded that programs with intensive individual components were best at reducing antisocial behavior and

delinquency (Yoshikawa, 1995). Yet another review drew the conclusion that “programs that are more intensive . . . produce larger positive effects than do interventions that are less intensive. Children and parents who participate most actively and regularly show the greatest overall progress” (Ramey & Ramey, 1992, p. 133).

The major reviews of the effects of child-focused early intervention programs are very consistent: high-quality, intensive programs can have short-term positive effects on cognitive development as well as longer-term positive effects on school-based placements and out-of-school behaviors. In spite of these positive findings, there is general agreement that while they help, preschool programs alone are not enough to ameliorate the effects of poverty (Karweit, 1994).

Parenting programs

An alternative approach that has been tried in many different settings over the past few decades is to attempt to affect children's development indirectly, through their parents. Programs adhering to this model hold that parents are their children's first and best teachers and that, although high-quality early childhood programs are important, changes in the parenting behavior of low-income parents must be effected for their children to succeed. This approach assumes that increased knowledge about child development and other parenting skills will result in positive changes in parental attitudes toward and behavior with their children and that these changes, in turn, will result in improved cognitive and socioemotional outcomes for children. This approach has led to programs such as Head Start's Parent-Child Development Centers, Missouri's Parents as Teachers (PAT) program, and Arkansas's Home Instruction Program for Preschool Youngsters (HIPPY).

The research base on parenting programs is smaller than that for child-focused programs. Still, there are a large number of studies and reviews. A review of the research conducted over the past several years leads to the following set of conclusions:

- There is a clear relationship between parenting behaviors and child outcomes. Studies conducted over the past two decades have shown that the quality of parenting behaviors is important to child development (e.g., Barnard, Hammond, Booth, Mitchell, & Spieker, 1989; Clarke-Stewart, 1988). This evidence sets the stage for parenting programs that hope to make changes in parenting behaviors that will lead to subsequent changes in children.
- There is evidence that parenting programs can change certain aspects of parenting. Several well-designed studies have found short-term positive effects of parenting education on maternal knowledge, attitudes, and behavior (Andrews et al., 1982; Johnson & Walker, 1991; Quint, Bos, & Polit, 1997; St.Pierre et al., 1995; Travers, Nauta, & Irwin, 1982). A review of 13 randomized trials of home visiting programs for low-income families with infants, which included parenting education as a major component, found mixed impacts on parental attitudes and behaviors (Olds & Kitzman, 1993).
- There is little evidence that parenting programs produce the hoped-for linkage between changed parent behaviors and improved child outcomes. While it is possible to use parenting education to influence parent knowledge and attitudes and, possibly, their behavior with children, we lack research evidence that parenting education, by itself, will result

in improved child outcomes (Barnes et al., 1996; Barnett, 1995; Clarke-Stewart, 1988). In a comprehensive review of the research on such programs, it was concluded that (1) only those home-based early childhood programs that target children at biological risk (low birth weight, special needs) have significant short-term effects on children's intellectual test performance; and (2) programs for children at environmental risk have not shown positive effects (Olds & Kitzman, 1993).

Many research reviews have reached similar conclusions. One review, for example, used data from 33 early childhood intervention programs to demonstrate that persistent effects on children's school performance are not attributable to program effects on parents, but rather to early direct effects on children (Barnett, 1995). Another concluded that the suggestion that parenting education programs are more effective than programs focused exclusively on the child is not supported by the evidence (Clarke-Stewart, 1983). A report of a recent meta-analysis stated, "There is no convincing evidence that the ways in which parents have been involved in previous early intervention studies result in more effective outcomes" (White, Taylor, & Moss, 1992, p. 91). It is argued further that parenting programs alone are not sufficient to produce child outcomes, since appropriate child development is time-bound and cannot wait for effects to occur in parents (Ramey, Ramey, Gaines, & Blair, 1995). A review of the literature on home-visiting programs designed to enhance parenting and help families concluded that these programs were necessary but not sufficient to "guarantee a future for all children" (Weiss, 1993). Finally, in a study of five home-visiting programs aimed at a variety of outcomes, it was found that none was effective in all domains; however, each was effective in at least one domain, generally in the one of most

concentration (Larner, Halpern, & Harkavy, 1992). The authors concluded that “only if the parents actually act different at home will any program effect reach the child” (p. 243).

This research suggests that, although it is possible to use parenting education to increase maternal knowledge, to change attitudes, and possibly to change parental behaviors with children, parenting education is unlikely, by itself, to result in improved child outcomes. This may be because change in parents is too limited or occurs too slowly to affect outcomes for young children. In addition, many parenting education programs try to cut expenses by relying on paraprofessional home visitors, and there is limited research support for the utility of this approach. Professionals may be more likely to interact directly with the children or provide a role model for the child through direct interaction. Finally, it is hypothesized that for home-based services to be effective, parents must believe that their child is vulnerable, that the home visitor is needed to supply something important (Olds & Kitzman, 1993). This is often the case for children at biological risk, but evidence suggests that low-income parents simply do not believe that their children require special parental input to develop well (Sameroff, 1983).

Adult-focused programs

A third strategy, developed in response to increased concern about long-term welfare dependency, has focused primarily on adults and, in particular, the adult single parent of a child or children. Welfare (e.g., AFDC), welfare-to-work programs (e.g., JTPA, JOBS, California's GAIN program), and adult education programs have the dual aim of moving women off welfare into work and improving their economic well-being. Enhancing a family's economic well-being, it is argued, will by itself improve children's life prospects. While child-focused programs can be assessed in terms of their impact on children's school per-

formance and experience, adult-focused programs are asked to demonstrate their success in moving families from welfare to work and moving families out of poverty to economic self-sufficiency.

Adult education. One form of adult-focused program includes adult education and literacy programs such as federally funded adult basic education, adult secondary education, and English as a Second Language programs.

- Most reviews of adult basic education programs have concluded that education and training programs have not succeeded in substantially increasing adults' literacy skills or job opportunities (Datta, 1992; Duffy, 1992; Mikulecky, 1992). Adult basic and secondary education programs have high dropout rates and low levels of intensity, making it difficult to see how they can be expected to produce positive effects (Moore & Stavrianos, 1994). Even when these programs do increase attainment of the GED, the literature seems to indicate that having a GED does not relate positively to enhanced skill levels and is not the economic equivalent of a high school diploma (Cameron & Heckman, 1993; Murnane, Willett, & Parker-Boudett, 1995).

- Adult literacy programs lag far behind in using newer technologies for instruction, even though several major reports, including an Office of Technology Assessment report (OTA, 1993) and an NCAL technology survey (Harvey-Morgan, Hopey, & Rethmeyer, 1995) have highlighted the need for such assistance.

Welfare-to-work and job training. For the past 30 years the federal government has targeted assistance to the welfare population help participants find work and end their dependency on welfare. Examples include President Clinton's 1994 Work and Responsibility Act, the

JOBS program of the Family Support Act of 1988, OBRA and TEFRA in 1981 and 1982, Carter's Program for Better Jobs and Income in 1977, Nixon's Family Assistance Plan in 1969, the Work Experience and Training Projects in 1964, and the Community Work and Training Program in 1962.

- Job training and search programs have small, but positive effects on employment, AFDC receipt, and income. The most recent and comprehensive analysis of the effects of job training and welfare-to-work programs (Fischer & Cordray, 1995) reviewed the findings from 65 major evaluations and concluded that job training and search programs produce, on average, a 3% to 5% difference in employment rate (33% in the treatment group vs. 30% in the control group) and in AFDC rate (73% vs. 71%), a 13% to 19% increase in earnings (\$50 to \$135 per quarter) and a 3% to 9% decrease in AFDC grants (\$50 to \$100 per quarter).
- Job search interventions, which focus primarily on finding employment, have early positive impacts on employment and AFDC; basic education programs, which provide education and training with the hope of building sufficient skills for potential employment, have early negative effects followed by later positive effects; and vocational training and on-the-job training programs have negative effects (Fischer & Cordray, 1995).
- Effects are greater for worse-off clients, in terms of education and income. It is important to match such clients to appropriate services, i.e., basic education, job search, or vocational training (Fischer & Cordray, 1995).
- Effective program elements include (1)

extensive job development efforts and an emphasis on employment, (2) equal use of job search and basic education approaches, (3) an emphasis on participation and a willingness to use sanctions to enforce participation, and (4) availability of child care (Fischer & Cordray, 1995).

- Welfare-to-work programs have not lifted substantial numbers of adults out of poverty. In spite of the small positive effects noted above, a well-respected review of the impact of welfare-to-work programs has concluded that, although almost all of the programs studied led to small gains in earnings, many participants remained in poverty and on welfare. In addition, the authors voiced concern that even mothers who obtain jobs frequently leave or lose them owing, for example, to lack of transportation or child care and loss of health benefits for children (Gueron & Pauly, 1991).

Given the difficulty of producing substantial effects on employment, income from earnings, and welfare dependency, it is not surprising that research is scant on whether minimally enhanced economic outcomes lead to improved outcomes for children. Some observers question the premise that adult education programs will have benefits for children, arguing that no studies demonstrate that increasing parental job competence and self-esteem are sufficient to enhance outcomes for children, either short- or long-term (Ramey et al., 1995). It may well be the case that large changes in a family's economic well-being would lead to important improvements in child outcomes, but the evidence indicates that so far, social programs have been unable to produce substantial economic improvements in the lives of low-income families.

One review of the effects of job training and welfare to work programs concluded that "if the policy goal is to end poverty or welfare

receipt, then the interventions . . . have clearly failed. If, however, the goal is to increase earnings and decrease welfare receipt, then these programs have generally succeeded” (Fischer & Cordray, 1995, p. 131).

All of this suggests that our expectations about the effectiveness of adult education and welfare-to-work programs for children should be modest. Small reductions in welfare case-loads and modest increases in earnings that fail to lift families out of poverty do not make a convincing case for the long-term, multigenerational success of this approach, by itself.

Two-generation programs

Individually, and even taken in combination, none of the child-focused, parent-focused, or adult-focused approaches has been sufficient to alter the life trajectories of substantial numbers of at-risk children. It has been argued that disadvantaged children and families need a more intensive and encompassing treatment than a year of preschool education, that it is unrealistic to expect that such a brief experience can counteract the effects of the pervasive poverty, violence, and social dislocation that children experience in the inner cities. Further, there is little or no evidence that direct intervention with adults, either through parenting education or other adult education, will translate into benefits to children that, in the long run, lift them out of poverty.

In response, several “two-generation” programs were implemented in the late 1980s and early 1990s (although examples did exist in earlier decades). The two-generation strategy recognizes the multigenerational, multidimensional aspects of family poverty and sets out to attack it on several fronts simultaneously by using key features of each of the three approaches discussed above (Smith, 1995). In the absence of much research on the effectiveness of such a comprehensive and coordinated approach, two-generation programs have proliferated at the local, state, and federal levels.

Under the umbrella of a single, integrated approach, two-generation programs seek to solve the problems of parents and children in two contiguous generations—to help young children get the best possible start in life and, at the same time, to help their parents become economically self-sufficient.

Two-generation program model. A simple model of how two-generation programs aim to produce effects for adults and children is shown in Figure 1. It is expected that

- Early childhood education will have a direct effect on children’s cognitive performance prior to school entry and may have long-term effects on child outcomes.
- Parenting education will have a short-term direct effect on parenting skills, which, prior to school entry, will have an indirect effect on children’s cognitive performance.
- Adult education/literacy/job skills programs will have a direct effect on the literacy and skill levels of parents—which is not expected to translate into short-term child effects.
- The performance of children in elementary and middle school will be enhanced both by their own experience in an early childhood program and by their parent’s enhanced parenting skills.
- In the long run (in high school and beyond), all three components of the program will enhance the life chances of parents *and* their children. Both generations are expected to show reduced delinquency, fewer pregnancies, increased ability to be an informed and responsible citizen, and improved economic self-sufficiency including a job and increased income.

Two-generation programs typically feature case managers, whose job can be wide ranging: they coordinate services, ensure that families are enrolled in appropriate services, encourage families to participate fully, provide on-the-spot counseling and crisis intervention, provide some direct service, etc. Two-generation programs typically rely on educational and social services already available in the community instead of creating duplicate service structures, and they provide “support” services such as transportation, meals, or child care so that families can participate in the main programmatic services.

The effectiveness of two-generation programs. The research base on two-generation programs is small but growing. Available reports include a discussion of the characteristics and implementation of several national two-generation programs (Smith, 1995) and a review of six small-scale two-generation service projects with conclusions about implementation problems and implications for two-generation theory (Blank, 1997) . Recently published evaluations of some of the largest

and most visible two-generation efforts include national studies of the Comprehensive Child Development Program (St.Pierre, Layzer, Goodson, & Bernstein, 1997), the New Chance program (Quint et al., 1997), and the Even Start Family Literacy Program (St.Pierre et al., 1995).

Comprehensive two-generation programs aim to increase the participation of mothers and children in early childhood education, parenting education, and adult education and job training. Case management services are delivered, services are brokered, and support services are made available and utilized. These comprehensive, multigenerational programs have been implemented, with varying degrees of success, in a very wide range of settings. Evidence about the short-term effects of participating in two-generation programs supports the following conclusions:

- Two-generation programs increase initially the rate of participation of children and their parents in relevant social and educational services. Over time, these

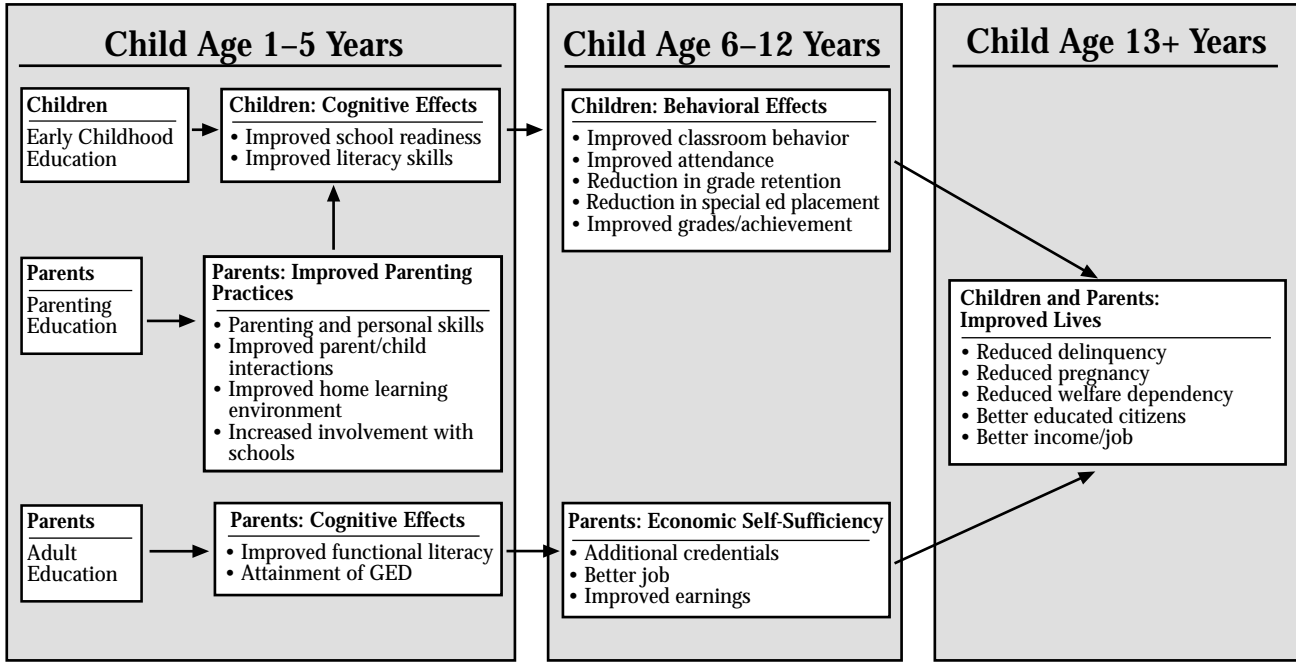


Figure 1: Two-Generation Program Model

differences in service use diminish or disappear.

- As currently designed, two-generation programs have small or no short-term effects on a wide range of measures of child development.
- Two-generation programs have scattered short-term effects on measures of parenting, including time spent with child, parent teaching skills, expectations for child's success, attitudes about child-rearing, and parent-child interactions.
- Two-generation programs can increase attainments of a GED, but this does not accompany improved performance on tests of adult literacy. There are few effects on income or employment. There are no effects on the psychological status of participating mothers, i.e., level of depression, self-esteem, or use of social supports.
- Analyses show that amount of participation is positively related to test gains and GED attainment.
- There is little evidence that two-generation programs are differentially effective for important subgroups of participants.
- Where there are positive effects, those effects are generally small (except for effects on GED attainment).

This assessment indicates that two-generation programs, as currently designed, have quite limited effects over a 2- to 5-year period. It says little about anticipated long-term effects, but many researchers believe that it is not reasonable to expect long-term effects without substantial short-term effects.

Examining the Assumptions That Underlie Two-Generation Programs

The design of two-generation programs rests not only on the assumptions about poverty and human development discussed earlier, but also on further unstated assumptions about the feasibility of intervening in development, and the best strategies for doing so. As far as we know, program developers and researchers have never formally presented these assumptions—rather, we have deduced them from our understanding of how two-generation programs are thought to operate (see Table 1). Given the apparent ineffectiveness of two-generation programs, it should be helpful to examine these underlying assumptions.

Assumption 1: It is possible to design an intervention program that will lift significant numbers of children out of poverty.

Social reformers in the United States have operated under this assumption for more than 150 years. The desire to help poor, disadvantaged urban children and their parents was a key factor in the creation of America's early 19th-century infant school programs (Vinovskis, 1996). In the middle of the 20th century, the Johnson administration's War on Poverty of the 1960s provided the impetus for several decades of programmatic attempts to improve the lives of low-income families.

Some of the social programs currently in place in the United States choose to focus on children, providing early childhood experiences designed to improve the chances for success in later schooling (e.g., Head Start or the Infant Health and Development Program). Other programs work with pregnant women to improve birth outcomes and with mothers and their newborn children, assuming that physically healthy children have a better chance of success in all aspects of life (e.g., the WIC program). Still other programs attack the problem indirectly by providing job training and educa-

Table 1
Theoretical Assumptions and the Research Evidence

ASSUMPTION	RESEARCH EVIDENCE
<p>Assumptions about Early Childhood Development Child development is a complex, dynamic process, influenced by multiple factors that interact as parts of a larger ecosystem.</p>	<p>Supported: Widespread agreement in the research community about the importance of viewing child development as part of a large system (Bronfenbrenner, 1979; Ramey & Ramey, 1990).</p>
<p>A child's early experiences are critically important for healthy development.</p>	<p>Supported: General agreement on the critical nature of early experiences for healthy development (Bowlby, 1973; Chugani, 1993; Zuckerman, 1991).</p>
<p>Poverty adversely affects children's early childhood development through multiple mechanisms and threatens their chances for success in life.</p>	<p>Supported: Extensive research supporting negative effects of poverty on development (Starfield, 1991; Sameroff & Chandler, 1975).</p>
<p>Assumptions about Intervening in Child Development It is possible to design an intervention program that will accomplish the long-term goal of lifting significant numbers of children out of poverty.</p>	<p>Not Supported: Limited research evidence supporting this position: positive effects for child development programs (Barrett, 1995); no effects of parenting programs on children (Karweit, 1994); small effects of adult ed/job training programs on adults (Fischer & Cordray, 1995); no effects on children.</p>
<p>Assumptions about Effective Intervention Strategies Services will be more effective if they are broadly focused on the family as a whole, rather than just on mothers or just on children.</p>	<p>Partly Supported: Builds on several research traditions, including child development studies (Bronfenbrenner, 1979), family systems theory (Vincent et al., 1990), and clinical interventions (Greenspan, 1990).</p>
<p>Low-income families have multiple needs for services.</p>	<p>Supported: Substantial evidence backing up this proposition (Tao, Gamse, & Tarr, 1998).</p>
<p>Most or all of the resources and services needed by low-income families already exist in most communities and are adequate to address their needs.</p>	<p>Partly Supported: Most communities have a range of services, but they are inadequate in terms of quality or intensity to meet the needs of low-income families.</p>
<p>Low-income families are unable to access many existing services without assistance because of lack of knowledge or problems in the service delivery system.</p>	<p>Not Supported: Substantial evidence that low-income families are successful at accessing existing services (Doolittle & Robling, 1994; St.Pierre et al., 1995).</p>
<p>To be effective for low-income families, existing services need to be coordinated.</p>	<p>Not Supported: Little research evidence to back up this assumption.</p>
<p>The best way to improve child outcomes is to focus on improving parents' ability to parent their children, rather than providing an educational intervention directed at the child.</p>	<p>Not Supported: Extensive research that posits effects on children are best achieved by focusing on children rather than through parenting education (Campbell & Ramey, 1993; Yoshikawa, 1995).</p>
<p>Services for families will be effective if they begin as early as possible in the life of the child; it may take multiple years to achieve the program's goals.</p>	<p>Partly Supported: Some evidence that early childhood programs are more effective if they start early and deliver services for multiple years (Ramey & Ramey, 1992).</p>

tion to adults (e.g., the JOBS program) in an attempt to change the economic circumstances of the child's upbringing. Whether the focus of the program is on education, vocational training, or job skills, and whether the participants are infants, young children, teenagers, or adults, the basic intention and logical end point of social programming in the United States over the past 30 to 40 years is to improve children's life chances and help break the cycle of poverty.

As already discussed, however, studies have failed to identify a programmatic solution to the problems faced by children in poverty. In spite of positive short- and medium-term effects of early childhood programs and some longer-term benefits documented by the few studies that have followed children into their 20s (e.g., Boocock, 1995; Schweinhart et al., 1993), there is no evidence that early childhood programs are able to systematically move children out of poverty. Even the children who participated in the widely hailed Perry Preschool project continued to be in poverty when they were last interviewed (Schweinhart et al., 1993).

Welfare-to-work and manpower development programs also show small positive effects, but "manpower programs . . . have not eliminated, or even substantially reduced, poverty among the working age population, but they have made a modest difference in the lives of many who have participated in them" (Burtless, 1984, p. 22). We can adduce possible explanations for the limited impact: The intervention came too late in the child's life; the duration was too short; the interventions focus was too narrow; or the services provided were only a subset of what was needed.

Ramey and Ramey (1992) derived a similar set of principles for program design. They propose that the most effective interventions for children

- begin earlier and last longer,

- are more intensive and have active participants,
- deliver services directly to children, and
- provide comprehensive rather than narrowly focused services.

They also posit that programs need to respond to differences in children's learning styles and provide ongoing support, if early effects are to be maintained.

Assumption 2: Services will be more effective if they are focused on the whole family, rather than just on mothers or just on children.

Any effort to positively affect children's development needs to recognize the crucial role of the family context. Outcomes of programs that focus only on children or only on adults have been disappointing. In spite of the reported positive effect of short-term and long-term early childhood education programs (e.g., Barnett, 1995), research has failed to show that an early childhood program, by itself, can make the kinds of changes necessary to move children out of poverty—to put them on an altered life trajectory. Likewise, services delivered directly to parents, such as job training and educational services, have not been shown to lift adults out of poverty (e.g., Fischer & Cordray, 1995). Two-generation program developers have made the assumption, thus, that broadening the scope of service provision to include the entire family would be a better way of breaking the cycle of poverty for adults *and* children.

This assumption also rests on the work of Bronfenbrenner (1979) and others who have emphasized the importance of the family as the context in which the child develops. The family systems perspective, which complements the ecological approach, views the family as an organized system composed of interdependent re-

relationships or subsystems (Chase-Lansdale, Brooks-Gunn, & Paikoff, 1992). Membership of and roles in these subsystems (e.g., parental, sibling, spousal, extra familial) change over time and with different circumstances. Within a family systems perspective, individual problems or dysfunctions are seen as symptomatic of family dysfunction. To alleviate family dysfunction involves taking into account each family member as well as the behavior of the family as a unit, acknowledging the multiple causes and the dynamic nature of behavior within the family (Krauss & Jacobs, 1990). Adoption of the basic tenets of the ecological and family systems perspectives is held to be critical to an understanding of how best to intervene to promote optimal development (Vincent, Salisbury, Strain, McCormick, & Tessier, 1990).

Clinicians, too, have expanded their view of child development to include family, cultural, and social factors. The traditional psychodynamic perspective of development, for example, has expanded to include multiple lines of development (physical, cognitive, social-emotional, and familial) in a context of family and other social factors (Greenspan, 1990). Through such an approach the clinician considers and works with parents' attitudes and feelings, family relationships, the system of available health and mental services, support services available to the family, and the home environment.

Some recent early intervention programs share this assumption about the critical role of the family in enhancing children's growth and development, and consequently provide services to both parents and children. Included are the Head Start Family Service Centers (Swartz, Smith, Berghauer, Bernstein, & Gardine, 1994), the Even Start Family Literacy Program (St.Pierre et al., 1995), New Chance (Quint et al., 1997), and the Comprehensive Child Development Program (St.Pierre et al., 1997). Some are called two-generation programs, while others are called family support programs. These initiatives vary in their comprehensiveness, structure, and the length of

participation expected (Smith, 1995).

If we assume that services must be provided to the family as a whole, the next steps involve deciding which services to provide, where to obtain them, and how best to deliver them—which prompts further related assumptions.

Assumption 3: Low-income families have multiple needs for services.

Families living in poverty can face a myriad of problems, including inadequate housing, lack of jobs at their skill level, unfinished education, lack of transportation, lack of safe, reliable, and high-quality child care, and inadequate access to health care. Recent research on the backgrounds of participants in federally funded social programs shows such problems to be highly interrelated; although not all low-income families experience all of them, most are struggling with several of them (Tao, Gamse, & Tarr, 1998).

Because two-generation programs aim to be comprehensive in nature, they attempt to address the multiple problems of families. But also because they must operate within fixed funding, they often take a broad-brush rather than an intensive approach, offering a wide variety of services, sometimes to multiple family members. This practice runs counter to consistent research findings—that the best way to achieve positive effects is to provide intensive services directly to the individuals that you hope to affect (Ramey & Ramey, 1992; Yoshikawa, 1995). Thus, there is a tension between comprehensiveness and intensity of services: too often a great number of services are provided, but none is sufficiently intensive to make a difference.

Assumption 4: Most or all of the resources and services needed by low-income families already exist in most communities.

Many two-generation programs were developed under this assumption. Relying on existing service providers stands to avoid

duplication of services, if, indeed, the needed services do exist at the local level and are of sufficient quality and intensity.

Almost every community provides some health, educational, and social services. But to pull families out of poverty may require more than the usual: a broader set of quality services and a more intensive implementation. Services may need to include educational and training programs that prepare families for employment; available jobs that pay an adequate wage; adequate housing; a supply of high-quality child care; good health care and mechanisms for paying for it; and treatment facilities for families struggling with mental health or addiction problems.

Evidence suggests that most local services are not of sufficient quality and intensity to affect families' poverty status. To produce large effects on children, programs must be high-quality and high-intensity, as demonstrated in studies of the Perry Preschool program and the Infant Health and Development Program. A high-intensity program such as the Infant Health and Development Program (IHDP, 1990) uses a carefully specified curriculum to provide a full-week, full-year program for children from 1 to 3 years of age. Short-term cognitive effects on children are 5 to 10 times that of low-intensity programs. In another study, it was concluded that the most effective early childhood interventions included intensive child and parent services that involved a center-based program for children and meetings with parents on a weekly or semiweekly basis for at least a year. Low-intensity parenting components did not add to the effectiveness of a high-intensity child component (Wasik & Karweit, 1994).

What might constitute a high-quality parenting or adult education/job training program is ill-defined, however. Research on adult education programs and our own observations suggest that most adult education programs tend to replicate the poor high school settings in which participating adults initially failed. In communities where this is the case, the two-generation

strategy of using existing community-based adult education services is doomed to failure. If we are serious about incorporating high-quality adult education into two-generation programs, then better approaches must be developed.

Assumption 5: Low-income families are unable to access many existing services without assistance because of lack of knowledge or problems in the service delivery system.

Many two-generation programs assume that what is needed is improved access to existing services. Many policymakers and practitioners believe that service delivery systems in most communities are fragmented and difficult for families to access, with eligibility criteria varying by program. This is the logic underlying current sentiments to disband categorical programs in favor of more integrated and seamless approaches to social service provision. Two-generation program designers assume that their aims can be accomplished by working within the existing service delivery system, using a case manager to coordinate and streamline existing resources and to refer families to locally available services.

Research evidence partly refutes these assumptions, demonstrating that low-income families are not helpless; they may understand local service systems and are able to avail themselves of existing services. Studies show that families randomly assigned to control (nontreatment) groups are able to access many services and achieve relatively high levels of service utilization, with beneficial effects (e.g., Doolittle & Robling, 1994; St.Pierre et al., 1995; St.Pierre et al., 1997). A larger percentage of program families than control-group families were found to report that they received a given service, but in many cases the differences were small.

These findings raise question with the case management structure. If many or most families are able to access services without intervention,

then either case management is not particularly effective at ensuring service delivery, or the assumption that low-income families have difficulty accessing services is unfounded.

Assumption 6: To be effective for low-income families, existing services must be coordinated.

Program developers have hypothesized that the problems of low-income families cannot be alleviated without integrated intervention (National Commission on Children, 1991). Two-generation programs often operationalize their service delivery approaches by providing each family with a case manager (as well as a multidisciplinary staff) whose role it is to assess needs, provide some direct service, and ensure that families receive existing social, educational, and health services.

There is no evidence, however, that this model is effective. Two-generation programs often provide tests of the currently popular model of case management combined with integrated service provision. A few examples follow:

At the federal level, the Comprehensive Child Development Program provided a very broad range of health, educational, and social services to low-income families over a 5-year period. Case managers were the key service delivery personnel in CCDP, conducting biweekly home visits to provide counseling, parenting education, and child development services and to make and broker referrals to existing service providers. The final report from the CCDP national evaluation showed no effects on participating families (St.Pierre et al., 1997).

Also at the federal level, the Even Start Family Literacy Program provides three main programmatic components: early childhood programs for children and parenting training and adult education for parents. Although it offers fewer services over a shorter period of time and is substantially less intensive and expensive than CCDP, Even Start projects do have staff acting in the role of case manager

(family worker, family advocate, etc.) and are mandated to use local existing services to avoid duplication of effort. A national evaluation found that Even Start participants changed over time (e.g., children's test scores increased, mothers became less depressed) and the adults were more likely than control-group adults to obtain a GED (St.Pierre et al., 1995).

Several state-level, school-based projects using this model have been undertaken in California, New Jersey, Texas, and other states. Evaluation results from studies of these initiatives are either not yet available or are based on weak research designs that lack control or comparison groups. Given the findings from randomized studies which show that control-group families make important changes in their lives over time, we worry about the utility of evaluations that fail to include controls. We need studies that allow a comparison of program and control-group gains.

The case management model has been tried in other fields. The Fort Bragg Child and Adolescent Mental Health Demonstration, for example, funded at \$80 million by the U.S. Army, used case management to coordinate several agencies in the delivery of mental health and substance abuse services. An evaluation of this program came to many of the same conclusions reached by the CCDP evaluation: the demonstration had a systematic and comprehensive approach to treatment planning, with enhanced parental involvement, strong case management, individualized services, a wide range of service, continuity of care, less restrictive environments, and matching between services and needs (Bickman, 1996). In face of such positive implementation, the program showed no positive effects on child-level outcome measures. Comparison-group children who participated in a less expensive, fragmented system of care, without case management, did as well clinically as children in the demonstration. This same pattern of findings—good implementation of an integrated case management service delivery system, followed by no effects on program partici-

pants—has marked other recent studies of child and adolescent mental health services (e.g., Burns, Farmer, Angold, Costello, & Behar, in press; Cauce, Morgan, Wagner, & Moore, 1995; Huz, Evans, Morrissey, & Burns, 1995).

Assumption 7: The best way to improve child outcomes is to focus on improving parents' ability to parent their children, rather than directing an educational intervention toward the child.

Parenting education is an integral part of most family intervention programs, under the quite reasonable assumption that many low-income parents may lack the skills needed to be a good teacher of their children. Some developers of early childhood programs extend this assumption, holding that parenting education is an effective method (as effective as a child-focused intervention) of delivering early childhood education services to young children, particularly in the first 3 years of life (e.g., the Parents as Teachers program).

Evaluations of two-generation programs call into question the wisdom of relying too heavily on “indirect” intervention impacts on children, especially when compared with the larger effects of more child-focused, developmental programs. Most researchers conclude that children are best served by programs that provide intensive services to children directly for long periods of time, instead of trying to achieve those effects by delivering parenting education to parents (Barnett, 1995; Campbell & Ramey, 1993; Ramey & Ramey, 1992; Yoshikawa, 1995).

Assumption 8: Services for families will be effective if they begin as early as possible in the life of the child and are sustained over multiple years.

Many social and educational programs do not begin until the child is 4 years old, and then the intervention is brief. This is thought

to explain the lack of apparent effects. Many programs, for instance, operate over a school year (e.g., Head Start) or a semester (e.g., many adult education programs). Others last only for a short period, accepting that the effects will be limited. Although we know of no studies that systematically vary the length of exposure to an intervention over a multiple-year period, some evidence suggests that early childhood programs that start early and deliver services over a 3-year period (e.g., the IHDP and Abecedarian projects) have shown more cognitive effects, even if short-term, than most other early childhood programs.

The CCDP program, for example, was designed to achieve its goals for families over the 5-year period between the birth of a child and the child's entry into school. This spans a longer period of time than almost any other social program; it is meant to ensure the child's readiness for school and allow enough time for parents to develop the capacity to secure jobs that pay adequate wages and provide benefits.

Summary of evidence on two-generation assumptions

Although research evidence supports some of the assumptions underlying two-generation programs, others are not supported or are directly contradicted by evidence (Table 1). There seems to be solid agreement about the validity of the three assumptions about early childhood development discussed at the start of this report: that child development is a complex, dynamic process; that a child's early experiences are critically important; and that poverty adversely affects early development. Also, there is solid support for the proposition that low-income families have multiple service needs. But there is only partial evidence supporting contentions that services will be more effective if they are focused on the whole family, rather than on individual family members; that services for families will be more effective if they begin as early as possible in the life of

the child; and that communities already have the resources and services most urgently needed by low-income families. Finally, evidence fails to support contentions that low-income families are unable to access existing services; that existing services need to be better coordinated in order to be effective; that the way to improve child outcomes is to focus on improving parenting skills; and that any of the currently available intervention approaches will lift substantial numbers of low-income children out of poverty.

This assessment shows that the theory underlying the development of two-generation programs is faulty. If we have the lofty goal of lifting large numbers of families out of poverty, or even if we have the more modest goals of producing important, large positive effects on short-term or medium-term outcomes for children and parents, we will have to adopt a different approach.

Conclusions

We have summarized research findings showing that single-component programs focused on children or on parents and broad-based two-generation programs do not and most likely will not lift significant numbers of children and families out of poverty. Even when programs are reported to be “successful,” effects are small. Current welfare reform efforts face an uphill task. Evidence suggests that it is unlikely that substantial numbers of families can move from the welfare rolls into work in two years, or, for that matter, in any amount of time. These findings are sobering but not surprising—as currently formulated, social and educational intervention programs may be struggling to fix problems that are beyond their grasp.

These conclusions do not mean that we should abandon the 9 million poor children in this country who need assistance. These children live in families that are deep in poverty,

facing the most adverse circumstances of substandard housing, substance abuse, inadequate incomes, and dangerous neighborhoods. However, without the societal will to make direct and dramatic changes in the economic circumstances of low-income families, policy-makers will have to continue to rely on programs such as the ones reviewed in this article as a second-best solution to helping low-income families. If this is the case, it is important to examine and revamp the assumptions that drive these programs.

We are not program developers or program implementers. Rather, we examine and evaluate programs, and believe that research evidence ought to be used in designing and improving interventions. While we cannot hope to specify a new program or policy that will lift children out of poverty, we can use our conclusions about the theory underlying two-generation programs to pose questions to those who will design the next generation of programs and policies.

Where should program designers focus efforts to obtain the best results?

Policymakers and planners have tried targeting interventions at children, parents, and entire families—and found them wanting. Planners might now consider more seriously interventions that focus at the institutional level on units such as schools, churches, hospitals, or entire neighborhoods.

Can we rely on existing service systems?

Two-generation theory hypothesizes that most communities have a service mix adequate to meet the needs of low-income families. Research shows that many different services do exist, but their quality and availability is quite variable. Planners ought to consider that existing services are probably inadequate to address, for example, the housing, mental health, substance abuse, literacy, and language needs of

low-income families with young children.

Are low-income families able to access existing services?

Two-generation theory suggests that access to services is a major problem for low-income families. This may well be the case for certain families, but on average, low-income families seem able to avail themselves of existing services. Planners should consider that if services are appropriate, low-income families can probably access them without external intervention.

Is there a need for “service coordination”?

Two-generation theory says “yes,” because the existing service system is messy and difficult to deal with. But research shows that pouring huge amounts of money into service coordination does not alter outcomes for children or adults. Improved service delivery system may, however, reduce service costs.

What kind of research is important?

We urge program funders and developers to continue demanding that high-quality experimental research be part of any new program or policy. Without such research, we can-

not know what about a program works or doesn't work. Most other social science researchers have reached this same conclusion. The Manpower Demonstration Research Corporation, for example, has undertaken a study of the New Hope Project, a three-year demonstration designed to test the effect of subsidizing work for low-income individuals. MDRC researchers have written that “the underlying pattern of employment, income, and welfare receipt is represented by the behavior and experiences of the control group. These underlying conditions cannot be ignored, for there is often considerable change over time in the income and welfare receipt of poor households” (Doolittle & Robling, 1994, chap. 2, p. 1). Our own experience with measuring change in control-group families in the national CCDP and Even Start evaluations confirms these observations (St.Pierre et al., 1995, 1997). The evidence is clear—we cannot rely on weak research designs if we are interested in learning about the effectiveness of social interventions.

To sum up, it is time to retrench. It is time to rethink the assumptions that underlie current social programs. It is time to invest in research which can help revise the theory and assumptions about what types of interventions will be most helpful for at-risk families and their children.

References

- Andrews, S. R., Blumenthal, J. B., Johnson, D. L., Kahn, A. J., Ferguson, C. J., Lasater, T. M., Malone, P. E., & Wallace, D. B. (1982). The skills of mothering: A study of parent child development centers. *Monographs of the Society for Research in Child Development*, 47(6), Serial No. 198.
- Barnard, K., Hammond, M. A., Booth, C. L., Mitchell S. K., & Spieker, S. J. (1989). Measurement and meaning of parent-child interaction. In F. J. Morrison, C. E. Lord, & D. P. Keating (Eds.), *Applied developmental psychology. Vol. III* (pp. 39–80). New York: Academic Press.
- Barnes, H. V., Goodson, B. D., & Layzer, J. I. (1996). *Review of the research on family support interventions*. Cambridge, MA: Abt Associates.
- Barnett, W. S. (1995). Long-term effects of early childhood programs on cognitive and school outcomes. *The Future of Children*, 5(3): 25–50.
- Bickman, L. (1996). A continuum of care: More is not always better. *American Psychologist*, 51, 689–701.
- Blank, S. (1997). *Theory meets practice: A report on six small-scale two-generation service projects*. New York, NY: Foundation for Child Development.
- Boocock, S. (1995). Early childhood programs in other nations: Goals and outcomes. *The Future of Children*, 5(3), 94–114.
- Bowlby, J. (1973). *Attachment and loss*. New York: Basic Books.
- Brigham, A. (1833). *Remarks on the influence of mental cultivation and mental excitement on health* (2nd edit.). Boston, MA: March, Capen, & Lyon.
- Bronfenbrenner, U. (1979). *The ecology of human development*. Cambridge, MA: Harvard University Press.
- Brown, J. R. (1828). *An essay on infant cultivation*. Philadelphia, PA: Clark & Raser.
- Burns, B., Farmer, E., Angold, A., Costello, E., & Behar, L. (in press). A randomized trial of case management for youths with serious emotional disturbance. *Journal of Clinical Child Psychology*.
- Burtless, G. (1984, Fall). Manpower policies for the disadvantaged: What works? *The Brookings Review*, 18–22.
- Cameron, S., & Heckman, J. (1993). Non-equivalence of high school equivalents. *Journal of Labor Economics*, 11, 1–47.
- Campbell, F. A., & Ramey, C. T. (1993, March). *Mid-adolescent outcomes for high risk students: An examination of the continuing effects of early intervention*. Paper presented at the biennial meeting of the Society for Research in Child Development, New Orleans.
- Campbell, F. A., & Ramey, C. T. (1994). Effects of early intervention on intellectual and academic achievement: A follow-up study of children from low-income families. *Child Development*, 65, 684–698.
- Carnegie Task Force on Meeting the Needs of Young Children. (1994, April). *Starting points: Meeting the needs of our youngest children*. New York: Carnegie Corporation.
- Castro, G., & Mastropieri, M. O. (1986). The efficacy of early intervention programs: A meta-analysis. *Exceptional Children*, 52, 417–424.
- Cauce, A., Morgan, C., Wagner, M., & Moore, E. (1995, February). *Effectiveness of intensive case management for homeless adolescents after nine months*. Paper presented at the Eighth Annual Research Conference: A System of Care for Children's Mental Health: Expanding the Research Base, Tampa, FL.
- Chase-Lansdale, P. L., Brooks-Gunn, J., & Paikoff, R.L. (1992). Research and programs for adolescent mothers: Missing links and future promises. *American Behavioral Scientist*, 35, 290–312.
- Chugani, H. (1993). Positron emission tomography scanning in newborns. *Clinics in Perinatology*, 20, 398.
- Clarke-Stewart, A. (1983). Exploring the assumptions of parent education. In R. Haskins & D. Adams (Eds.), *Parent education and public policy* (pp. 257–276). Norwood, NJ: Ablex.
- Clarke-Stewart, A. (1988). Parents' effects on chil-

- dren's development: A decade of progress? *Journal of Applied Developmental Psychology*, 9, 41–84.
- Connor, J. R. (1994). Iron acquisition and expression of iron regulatory proteins in the developing brain: Manipulation by ethanol exposure, iron deprivation, and cellular dysfunction. *Developmental Neuroscience*, 16, 233–247.
- Consortium for Longitudinal Studies. (1983). *As the twig is bent: Lasting effects of preschool programs*. Hillsdale, NJ: Erlbaum.
- Datta, L. (1992). Youth interventions: Literacy. In T. G. Sticht, M. J. Beeler, & B. A. McDonald (Eds.), *The intergenerational transfer of cognitive skills, Volume 1: Programs, policy, and research issues* (pp. 41–60). Norwood, NJ: Ablex.
- Doolittle, F., & Robling, I. (1994). *Research design for the New Hope demonstration*. New York, NY: Manpower Demonstration Research Corporation.
- Dryfoos, J. G. (1987). *Youth at risk: One in four in jeopardy*. New York: Carnegie Foundation.
- Duffy, T. M. (1992). What makes a difference in instruction. In T. G. Sticht, M. J. Beeler, & B. A. McDonald (Eds.), *The intergenerational transfer of cognitive skills, Volume 1: Programs, policy, and research issues* (pp. 61–83). Norwood, NJ: Ablex.
- Duncan, G. J. (1991). The economic environment of childhood. In A. C. Huston (Ed.), *Children in poverty: Child development and public policy* (pp. 23–50). New York: Cambridge University Press.
- Environmental Defense Fund. (1990). *Legacy of lead: America's continuing epidemic of childhood lead poisoning*. Washington, DC: Author.
- Fischer, R. L., & Cordray, D. S. (1995, January). *Job training and welfare reform: A policy-driven synthesis*. Manuscript submitted to the Russell Sage Foundation.
- Garbarino, J. (1990). The human ecology of early risk. In S. M. Meisels & J. P. Shonkoff (Eds.), *Handbook of Early Childhood Intervention* (pp. 78–96). New York: Cambridge University Press.
- Gardner, H. (1990). The difficulties of school: Probable causes, probable cures. *Daedalus*, 19, 85–113.
- Gelles, R. J. (1992). Poverty and violence toward children. *American Behavioral Scientist*, 35, 258–274.
- Greenspan, S. I. (1990). Comprehensive clinical approaches to infants and their families: Psychodynamic and developmental perspectives. In S. M. Meisels & J. P. Shonkoff (Eds.), *Handbook of Early Childhood Intervention* (pp. 150–172). New York: Cambridge University Press.
- Gueron, J., & Pauly, E. (1991). *From welfare to work*. New York: Russell Sage.
- Harvey-Morgan, J., Hopey C., & Rethmeyer, R. (1995). *Computers, technology, and adult literacy: Results of a national survey on computer technology use in adult literacy programs*. Philadelphia: University of Pennsylvania, National Center on Adult Literacy.
- Honig, A. S., Lally, J. R., & Mathieson, D. H. (1982). Personal-social adjustment of school children after five years in a family enrichment program. *Child Care Quarterly*, 11, 138–146.
- Huston, A. C., McLoyd, V. C., & Garcia Coll, C. (1994). Children and poverty: Issues in contemporary research. *Child Development*, 65, 275–282.
- Huz, S., Evans, M., Morrissey, J., & Burns, B. (1995, February). *Outcomes from research on case management with serious emotional disturbances*. Paper presented at the Eighth Annual Research Conference, A System of Care for Children's Mental Health: Expanding the Research Base, Tampa, FL.
- Infant Health and Development Program. (1990). Enhancing the outcomes of low-birth-weight, premature infants. *Journal of the American Medical Association*, 263, 3035–3042.
- Johnson, M. H. (1994). Brain and cognitive development in infancy. *Current Opinion in Neurobiology*, 4, 218–225.
- Johnson, D., & Walker, T. (1991). *Final report of an evaluation of the Avance parent education and family support program*. Report submitted to the Carnegie Corporation. San Antonio, TX: Avance.
- Karweit, N. L. (1994). Can preschool alone prevent early learning failure? In R. E. Slavin, N. L. Karweit, & B. A. Wasik (Eds.), *Preventing*

- early school failure: *Research, policy, and practice*. Boston: Allyn & Bacon.
- Krauss, M., & Jacobs, F. (1990). Family assessment: Purposes and techniques. In S. M. Meisels & J.P. Shonkoff (Eds.), *Handbook of early childhood intervention* (pp. 303–325). New York: Cambridge University Press.
- Lamb, M. (in press). Nonparental child care: Context, quality, correlates, and consequences. To appear in I. Sigel & K. Renninger (Eds.), *Child psychology in practice*, W. Damon (Gen. Ed.), *Handbook of child psychology* (4th edit.). New York: Wiley.
- Larner, M. (1992). Realistic expectations: Review of evaluation findings. In M. Larner, R. Halpern, & O. Harkavy (Eds.), *Fair Start for children: Lessons learned from seven demonstration projects* (pp. 218–245). New Haven, CT: Yale University Press.
- Layzer, J. I., Goodson, B. D., & Layzer, J. A. (1990). *Evaluation of Project Giant Step. Year two report: The study of program effects*. Cambridge, MA: Abt Associates.
- Lee, V., Brooks-Gunn, J., & Schnur, E. (1988). Does Head Start work? A one-year follow-up comparison of disadvantaged children attending Head Start, no preschool, and other preschool programs. *Developmental Psychology*, 24, 210–222.
- McKey, R. H., Condelli, L., Ganson, H., Barrett, B., McConkey, C., & Plantz, M. (1985). *The impact of Head Start on children, families and communities. Final report of the Head Start evaluation, synthesis, and utilization project*. Washington, DC: CSR Incorporated.
- McLoyd, V. C., Jayaratne, T. E., Ceballo, R., & Borquez, J. (1994). Unemployment and work interruption among African American single mothers: Effects on parenting and adolescent socioemotional functioning. *Child Development*, 65, 562–589.
- Mikulecky, L. (1992). *National adult literacy and lifelong learning goals*. Philadelphia: University of Pennsylvania, National Center on Adult Literacy.
- Moore, M., & Stavrianos, M. (1994). *Adult education reauthorization: Background*. Washington, DC: Mathematica Policy Research.
- Murnane, R., Willett, J., & Parker-Boudett, K. (1995). Do high school dropouts benefit from obtaining a GED? *Educational Evaluation and Policy Analysis*, 17, 133–149.
- National Center for Children in Poverty. (1996). *One in four: America's youngest poor*. New York: Columbia University School of Public Health.
- National Commission on Children. (1991). *Beyond rhetoric: A new American agenda for children and families, final report*. Washington, DC: Author.
- National Health/Education Consortium. (1991). *Healthy brain development: Precursor to learning*. Washington, DC: Author.
- Office of Technology Assessment. (1993). *Adult literacy and new technologies: Tools for a lifetime* (OTA-SET-550). Washington, DC: U.S. Government Printing Office.
- Olds, D. L., & Kitzman, H. (1993). Review of research on home visiting for pregnant women and parents of young children. *The Future of Children*, 3(3), 53–92.
- Perry, B. D., Pollard, R. A., Blakley, T. L., Baker, W. L., & Vigilante, D. (1995). Childhood trauma, the neurobiology of adaptation, and “use-dependent” development of the brain: How “states” become “traits”. *Infant Mental Health Journal*, 16, 271–291.
- Pollitt, E., Golub, M., Gorman, K., Grantham-McGregor, S., Levitsky, D., Schürch, B., Strupp, B., & Wachs, T. (1996). A reconceptualization of the effects of undernutrition on children's biological, psychosocial, and behavioral development. *Social Policy Report*, 10(5), 1–30.
- Puma, M., Jones, C., Rock, D., & Fernandez, R. (1993, July). *Prospects: The congressionally mandated study of educational growth and opportunity, Interim Report*. Cambridge, MA: Abt Associates.
- Quint, J. C., Bos, J. M., & Polit, D. F. (1997, July). *New Chance: Final report on a comprehensive program for disadvantaged young mothers and their children*. New York: Manpower Demonstration Research Corporation.
- Ramey, C. T., & Ramey, S. L. (1990). Intensive educational intervention for children of poverty. *Intelligence*, 14, 1–9.
- Ramey, C. T., & Ramey, S. L. (1992). Early educational intervention with disadvantaged chil-

- dren—To what effect? *Applied and Preventive Psychology*, 1, 130–140.
- Ramey, C. T., Ramey, S. L., Gaines, R., & Blair, C. (1995). Two-generation early interventions: A child development perspective. In S. Smith (Ed.), *Two-generation programs for families in poverty: A new intervention strategy*. Norwood, NJ: Ablex.
- Ravitch, D., & Finn, C. (1987). *What do our seventeen-year-olds know?* New York: Harper & Row.
- Reynolds, A. J. (1996, February). *The Chicago child parent centers: A study of extended early childhood intervention*. Madison, WI: University of Wisconsin School of Social Work.
- Sameroff, A. J. (1983). Parental views of child development. In R. A. Hoekelman (Ed.), *A round table on minimizing high-risk parenting* (pp. 31–45). Media, PA: Harwal Publishing.
- Sameroff, A., & Chandler, M. (1975). Reproductive risk and the continuum of caretaking casualty. *Review of Child Development Research*, 14, 187–244. Chicago: University of Chicago Press.
- Schorr, L. (1988). *Within our reach: Breaking the cycle of disadvantage*. New York: Doubleday.
- Schweinhart, L. J., Barnes, H. V., & Weikart, D. P. (1993). *Significant benefits: The High/Scope Perry Preschool Study through age 27*. (Monograph 10). Ypsilanti, MI: High/Scope Educational Research Foundation.
- Shatz, C. J. (1992, September). The developing brain. *Scientific American*, 61–67.
- Smith, S. (Ed.). (1995). Two-generation programs for families in poverty: A new intervention strategy. *Advances in Applied Developmental Psychology*, vol. 9. Norwood, NJ: Ablex.
- St.Pierre, R. G., Goodson, B. D., Layzer, J. I., & Bernstein, L. S. (1997). *National evaluation of the Comprehensive Child Development Program: Final Report*. Cambridge, MA: Abt Associates.
- St.Pierre, R. G., Swartz, J. P., Gamse, B., Murray, S., Deck, D., & Nickel, P. (1995, January). *National evaluation of Even Start Family Literacy Program: Final report*. Cambridge, MA: Abt Associates.
- Starfield, B. (1991). Child morbidity: Comparisons, clusters, and trends. *Pediatrics*, 88, 519–526.
- Swartz, J. P., Smith, C., Berghauer, G., Bernstein, L. S., & Gardine, J. (1994). *Evaluation of the Head Start Family Service Center Demonstration Projects: First year evaluation results*. Cambridge, MA: Abt Associates.
- Tao, F., Gamse, B., & Tarr, H. (1998). *Second national evaluation of the Even Start Family Literacy Program: Final Report*. Arlington, VA: Fu Associates Ltd.
- Tesman, J. R., & Hills, A. (1994). Developmental effects of lead exposure in children. *Social Policy Report*, 8(3), 1–16.
- Travers, J., Nauta, M., & Irwin, N. (1982). *The effects of a social program: Final report of the Child and Family Resource Program's infant-toddler component*. Cambridge, MA: Abt Associates.
- Vincent, L. J., Salisbury, C. L., Strain, P., McCormick, C., & Tessier, A. (1990). A behavioral-ecological approach to early intervention: Focus on cultural diversity. In S. M. Meisels & J. P. Shonkoff (Eds.), *Handbook of early childhood intervention* (pp. 173–195). New York: Cambridge University Press.
- Vinovskis, M. (1996, June). *History and policymaking: Exploring the uses of history for educational policymaking*. Ann Arbor, MI: Department of History and Institute for Social Research, University of Michigan.
- Wasik, B. A., & Karweit, N. L. (1994). Off to a good start: Effects of birth to three interventions on early school success. In R. E. Slavin, N. L. Karweit, & B. A. Wasik (Eds.), *Preventing early school failure: Research, policy, and practice*. Boston: Allyn & Bacon.
- Weiss, H. (1993). Home visits: Necessary but not sufficient. *The Future of Children*, 3(3), 113–128.
- Werner, E. (1989). High-risk children in young adulthood: A longitudinal study from birth to 32 years. *American Journal of Orthopsychiatry*, 59, 72–89.
- White, K. R., Taylor, M. J., & Moss, V. C. (1992). Does research support claims about the benefits of involving parents in early intervention programs? *Review of Educational Research*, 62, 91–125.
- Winterer, C. (1992). Avoiding a “hothouse system of education”: Kindergartens and the problem of insanity, 1860–1890. *History of Education Quarterly*, 32, 289–314.
- Yoshikawa, H. (1995). Long-term effects of early

childhood programs on social outcomes and delinquency. *The Future of Children*, 5(3), 51-75.

Zuckerman, B. (1991). Drug-exposed infants: Understanding the medical risk. *The Future of Children*, 1(1), 26-35.

About the Authors

Robert G. St.Pierre (Ph.D.) is a vice president and principal associate at Abt Associates, Inc. Since 1975 he has been principal investigator for educational research, evaluation, and policy analysis projects spanning diverse areas such as family literacy, family support, child development, compensatory education, curricular interventions, school health education, and child nutrition. He currently directs national evaluations of the Even Start Family Literacy Program and the Comprehensive Child Development Program.

Jean I. Layzer (Ed.M.) is a principal associate at Abt Associates Inc. Since 1975 she has studied programs and policies that promote the welfare of young children and their families. She currently directs a national study of family support programs and is involved in studies of Head Start health services, Head Start family service centers, and the Comprehensive Child Development program.

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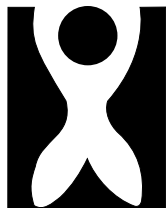
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Editor: Nancy G. Thomas
phone: (970) 925-5516 · fax: (970) 544-0662
New e-mail: ngthomas@sopris.net

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Children in poverty are forced into labor to help out, but also suffer from abuse and neglect from their parents which causes mental and physical wounds. But many also get out of it with scars for life. A great number of children living in poverty still widely suffer from physical and emotional abuse, neglect, and forced labor. For many, their biological development is undermined by the limitations of their environment and education. Child poverty sends us back to parents' responsibility toward their descendants. There is nothing indeed that kids can do about their state of poverty - and they shouldn't have to. They have no choice and there's not much they can do about it but endure it or be sent to forced labor. Child labor & chi... Learn about the effects of youth poverty on academic achievement, psychosocial outcomes and physical health, as well as the prevalence of child hunger in the U.S.. The nation's economic crisis has deeply affected the lives of millions of Americans. Skyrocketing foreclosures and job layoffs have pulled the rug out from under many families, particularly those living in low-income communities. Deepening poverty is inextricably linked with rising levels of homelessness and food insecurity/hunger for many Americans and children are particularly affected by these conditions. Find out below a summary of the myriad effects of poverty, homelessness, and hunger on children and youth. Children living in poverty tend to be exposed to more stress, more intense & longer lasting stress that negatively impact attention, focus, cognition, IQ and social skills. Children living in poverty also tend to hear less reciprocal conversations, are engaged in conversation with less complex vocabulary and less sentence structure, and are read to less frequently than their peers not living in poverty. What can we do to mitigate the impact of poverty in our children's education? The good news is that there IS a silver lining for our children. ENVIRONMENT does play an enormous role in impr

Poverty affects a child's development and educational outcomes beginning in the earliest years of life, both directly and indirectly through mediated, moderated, and transactional processes. School readiness, or the child's ability to use and profit from school, has been recognized as playing a unique role in escape from poverty in the United States and increasingly in developing countries. The paper reviews evidence from interventions to improve school readiness of children in poverty, both in the United States and in developing countries, and provides recommendations for future research and action. Discover the world's research. 19+ million members. But many children still do not have the opportunity to learn, especially if they live in poverty or are girls. You can join us in taking action on this issue here . Children living in poverty face many barriers to accessing an education. The Universal Declaration of Human Rights makes clear that every child has the right to a free basic education, so that poverty and lack of money should not be a barrier to schooling. In many developing countries, over the last several, decades, governments have announced the abolition of school fees and as a result, they have seen impressive increases in the number of children going to school. Read More: Bloomberg Just Donated \$1.8 Billion to Help Low-Income Students Afford College.