
Regenerating Two- Generation Programs

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Introduction

In spite of three decades of persistent anti-poverty efforts, U.S. Census data have been used to make the case that the number of children living in poverty has increased greatly in recent years (Carnegie Report, 1994). Reasons include an increase in the number of single-parent families, a poor labor market, and declines in benefits to poor families (Duncan, 1991). For children and families, the correlates of living in poverty are many. Some of these are described below.

Mothers living in poverty may suffer a variety of psychological consequences including low self-esteem, depression, a lack of hope for the future, lack of any sense of personal empowerment, low aspirations, and social isolation. They may have health problems such as untreated chronic illnesses and anemia stemming from poor nutrition, and are increasingly at risk for substance abuse. The combination of unfinished education, lack of parental role models and absence of social supports often leaves them with inadequate life management skills including difficulty in making decisions, inability to manage limited budgets, and 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-sufficiency (McLoyd, Jayaratane, Cebello & Borquez, 1994).

Poverty places severe strains on family relationships including conflict with a spouse, where one is present, 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 themselves 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, McLoyd & Garcia Coll, 1994).

For infants and young children, the immediate consequences of poverty are increasingly severe. High levels of infant mortality and morbidity, prematurity, and impaired health status 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, all important steps to ensure future growth. Adverse birth outcomes result in developmental

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delay, behavior problems, and inadequate preparation for school. Adolescent children enter the cycle of poverty which is manifested in 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? By our rhetoric and by our programmatic investments in anti-poverty programs, our society has shown that we believe it is possible to intervene in a positive manner in the lives of families in order to disrupt or even break the cycle of poverty that is described above. Although there are arguments about 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 interventions intended to interrupt the poverty cycle.

Program Design

Child-Focused Approaches

One strategy, developed more than 25 years ago, is to intervene in the preschool life of children from disadvantaged families, at a time of great plasticity, in an attempt to improve the child's social competence and prepare him or her to enter school on equal terms with more fortunate children. Head Start has been the major federal early childhood program for preschoolers.

The literature makes it clear that high-quality, intensive early childhood programs can make an important difference in the lives of young children. Wasik & Karweit (1994) reviewed the literature and reached the following conclusions: (a) early intervention programs help children get off to a good start, (b) programs with continued follow-up appear to have long-term benefits for children, and (c) highly intensive interventions are more effective than less intensive ones.

Additional recent reviews (e.g., Ramey & Ramey, 1992) conclude that (a) intensive early education for high-risk children and their families can prevent the decline in cognitive performance frequently found in socially disadvantaged children during the school years, (b) there is a positive relationship between the intensity and comprehensiveness of the programs and their effects on cognitive development, and (c) a variety of child and family programs which include educational day care and home visits by professionals have achieved sustained child and family participation.

Finally, the literature includes evidence that early child-focused interventions have longer-term benefits which can be detected in the public schools and beyond (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 behaviors and welfare dependence. However, Karweit (1994) concluded that preschool programs alone are not enough to ameliorate the effects of poverty.

Parenting Programs

An alternative approach which has been tried in many different settings over the past few decades is to attempt to affect childrens' development indirectly, through their parents. Programs adhering to this model believe that parents are their childrens' first and best teachers, and that while high-quality early childhood programs are important, parents must be made into first-rate teachers in order for their children to succeed. This approach has resulted in the development of programs such as Head Start's Parent-Child Development Centers, Missouri's Parents as Teachers (PAT) program, and Arkansas' Home Instruction Program for Preschool Youngsters (HIPPY) program.

Ramey, Ramey, Gaines & Blair (1994) argue that parenting programs alone are not sufficient, since appropriate child development is time-bound and cannot wait for effects to occur in parents. In a similar vein, Weiss (1993) reviewed literature on home visiting programs designed to enhance parenting and help families and concluded that these programs were necessary but not sufficient to "guarantee a future for all children." White, Taylor & Moss (1992) reviewed the research on involving parents as intervenors in early intervention programs and concluded that there is no convincing evidence that such involvement leads to more positive outcomes for children. Finally, Lerner, Halpern & Harkavy (1992) studied five home visiting programs which hope to achieve a variety of outcomes. They found that none of the programs were effective in all domains; however, each program was effective in at least one domain, generally the ones on which the programs concentrated. The authors concluded that parenting programs "cannot be expected to alter significantly the social ecology of people's lives."

The statement that parents ought to be their childrens' first and best teachers seems intuitively obvious, as does the argument that a year of a child-focused intervention alone cannot be expected to have a large and lasting effect on a child. However, the research cited above on the effects of "stand-alone" parenting programs does not lead us to believe that parenting programs by themselves are the answer. Hence, program developers came up with the compelling idea of boosting child-level effects by including a parenting program as part of a child-focused intervention.

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 performance 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. A recent review of the impact of welfare-to-work programs (Gueron & Pauly, 1991) concluded that while almost of the programs studied led to small gains in earnings, many participants remained in poverty and on welfare. In addition, there is concern that even mothers who obtain jobs frequently leave or lose them, for reasons such as a lack of transportation or child care and loss of health benefits for children.

Most reviews of adult basic education programs have concluded that education and training programs have not been able to greatly increase adults' literacy skills or job opportunities (Datta, 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 lead to positive effects (Moore & Stavrianos, 1994). Even when these programs do have

significant effects on attainment of a 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).

Little is known about outcomes for children in the families targeted by welfare-to-work programs, although there is some evidence that when families move from welfare to low-paid jobs there is little reduction in children's risk for developmental problems and educational failure. Ramey, Ramey, Gaines & Blair (1994) question the premise that adult education programs will have benefits for children, arguing that there have been no studies which demonstrate that increasing parental job competence and self-esteem are sufficient to enhance outcomes for children, either in the short- or the long-term.

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

Two-Generation Programs

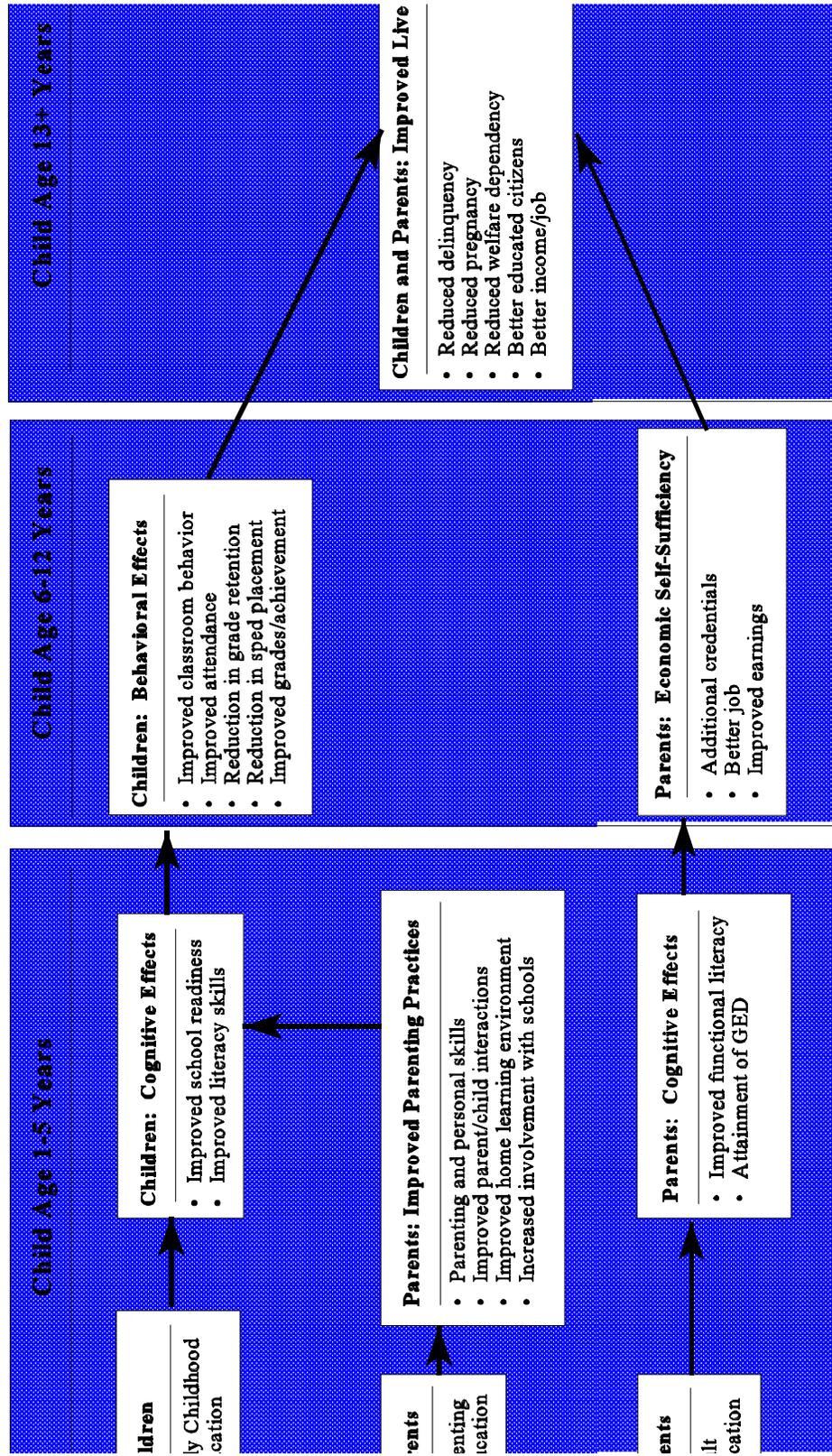
Individually, and even when taken in combinations of two, none of these approaches has proven to be a panacea for the Nation's social and educational problems. It has been argued that disadvantaged children and families need a more intensive and broader treatment than a year of preschool education, and 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 in terms of parenting education or adult education/literacy, will translate into the kinds of effects on children that would, in the long run, lift them out of poverty.

In response, a new set of "two-generation" programs has adopted a strategy which recognizes the multi-generational, multi-dimensional aspects of family poverty, and which sets out to attack it on several fronts simultaneously by using key features of each of the three approaches discussed above (Smith, 1991). 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.

A simple model of how two-generation programs hope to produce effects for adults and children is shown in Figure 1. Several points can be made from this model. First, two-generation programs all share three features, to a greater or lesser degree:

- a developmentally appropriate early childhood program,
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Figure 1
Two-Generation Program Model



- a parenting education component, and
- an adult education, literacy, or job skills and training component.

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

As shown in Figure 1, the hypotheses underlying two-generation programs are that:

- Early childhood education has a direct effect on children's cognitive performance prior to school entry and may have long-term effects on child outcomes.
- Parenting education has 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 has a direct effect on the literacy and skill levels of parents. However, this is not expected to translate into short-term child-level effects.
- The performance of children in elementary and middle school will be enhanced both by their own experience in an early childhood program, as well as by their parent's enhanced parenting skills.
- In the long run (high school and beyond), all three components of the program will enhance the life chances of parents and their children. In this long-run view, there are no differences in anticipated outcomes for parents and their children--both generations seek reduced delinquency levels, reduced pregnancy rates, the ability to be an informed and responsible citizen, and improved economic self-sufficiency including a job and increased income.

Programmatic Variation

Here we describe the features of a selection of two-generation programs (Table 1). These programs represent large federal efforts, state-level programs, and locally-developed programs. Some are based on a clear model in which the duration, intensity, and nature of the program is specified ahead of time and guided by formal performance standards, while others provide the broad outline of a program and leave implementation to local discretion.

- **AVANCE:** The Avance Family Support and Education program began in the 1970s in San Antonio, Texas and is designed to help children do well in school by teaching
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parents to teach their children and by meeting the needs of parents for education and job training.

- CFRP: The Child and Family Resource Program was a demonstration program funded from 1973 to 1983 by the U.S. Department of Health and Human Services. CFRP was premised on the belief that the best way to promote childrens' growth and development is by supporting families and helping parents become more effective caregivers and educators.
- CCDP: The Comprehensive Child Development Program is a demonstration program funded from 1990 to the present by the U.S. Department of Health and Human Services. Five-year grants are provided to 34 projects which provide comprehensive, continuous, coordinated social and educational services to low-income families with a newborn child.
- EVEN START: The Even Start Family Literacy Program began in 1990 as a demonstration program funded by the U.S. Department of Education. Even Start allows great local discretion to more than 400 grantees, but mandates that participating families take part in each of three core services: early childhood education, parenting education, and adult education.
- HEAD START FSC: The Head Start Family Service Centers began operation in 1990 as a demonstration program funded by the U.S. Department of Health and Human Services. Sixty-six projects provide normal Head Start child development and parenting services augmented by case managers who assess needs, deliver services, and make referrals for adult literacy, substance abuse, and employment training.
- NEW CHANCE: New Chance was a comprehensive program for disadvantaged young mothers and their children. It was funded by a consortium of public and private funders and operated between 1989 and 1992 at 16 locations. Case management, intensive educational services, and free child care all were program components.

Several programs were considered but were not included in this paper because they did not meet our definition of a two-generation program. This holds true for many programs which arose from a child development perspective--they typically contain an early childhood component and a parenting component, but make no serious provision for adult education and/or job training. Some of these programs include Head Start, the Early Childhood Education and Assistance Program developed in Washington State (ECEAP), the Infant Development and Development Program (IHDP), Parents as Teachers (PAT), and the Home Instruction Program for Preschool Youngsters (HIPPI). Programs which grew from a welfare and job training perspective often have included a parenting component, but not an early childhood component. For example, the Teenage Parent Demonstration was based on a case management model and emphasized services for teenage mothers including education and job training, as well as workshops on nutrition, family support, life skills, etc. Custodial child care was provided to help parents participate, but no early childhood services were included in this model. The same argument holds for other programs focusing primarily on young mothers, such as the Learning, Earning, and Parenting program (LEAP), the JOBSTART demonstration, and Project Redirection.

Variation in the Early Childhood Component

Two-generation programs vary substantially on almost every dimension of early childhood education, e.g., age of targeted children, duration of services, and intensity of services. Some programs target preschool three and four year olds and intend to provide services for about a year (Head Start FSCs), some intend to provide continuous services for multiple years to children from birth to entry to school (CFRP and CCDP), and others specify a wide age range (birth through age eight) but leave the exact age and duration of service to the discretion of local grantees (Even Start).

Some programs intend a set period of service duration, while others believe that this dimension should vary according to the needs of the family (Even Start), and still others simply try to involve families for as long as possible.

The intensity of child-focused services also varies across programs and is related to the service delivery model used by the program. For example, both CCDP and CFRP are broad-based programs which provide relatively low-intensity services from birth through age 3 using a home-visit model. Most child-focused services for CCDP are delivered through bi-weekly home visits for a maximum of about 30 minutes during which the focus of instruction is on teaching parenting skills. The early childhood component of CFRP was even less intensive, providing 15 minutes of child development during monthly home visits.

Other programs base their early childhood component on a child care model. Avance began as a parenting education program and has added a minimal early childhood component which provides educational day care for infants and toddlers for three hours a week while their mothers are in parenting classes. Similarly, New Chance provides free child care in high quality centers while mothers are taking part in program activities--no special curriculum is used in these centers.

Still other, higher-intensity programs use a center-based model. For four-year olds, most CCDP and CFRP projects enroll their children in Head Start which provides moderately intensive services--a half-day, center-based program for nine months of the year. The same holds for the Head Start FSCs which follow Head Start performance standards.

Other programs, such as Even Start, do not have implementation standards, preferring to let delivery model and program intensity vary according to local preferences. Consequently, Even Start projects exhibit huge variation in the intensity of early childhood services, with children in the middle 50 percent of the projects receiving between 21 and 330 total hours of service during their period of participation in the program.

Variation in the Parenting Education Component

Parenting education is at the core of many two-generation programs. Most of them include a set of services designed to affect areas such as parenting skills, involvement of parents in schools, parental self-esteem and coping skills, parental depression, and parents as teachers and role models in terms of their use of reading and writing in the household.

The duration and intensity of the parenting component includes some high-intensity programs such as Avance, which initially was a parenting-only program and in which mothers attend a center for three hours a week for a school year: One hour is spent on parenting skills in child development, one hour is spent on toy-making, and one hour is spent on learning about community resources. Another high-intensity parenting program is New Chance, in which mothers receive parenting education as part of attending full-day classes.

Other parenting components are much lower in intensity. For example, the Head Start FSCs rely on the basic Head Start model of involving parents in governance and service delivery. CFRP and CCDP both deliver parenting education through home visits (monthly for CFRP and bi-weekly for CCDP). With its emphasis on local determination, Even Start allows local projects the flexibility to design their own parenting component--on average Even Start adults receive 58 hours of parenting education over a 7-month period, sometimes delivered in the home, sometimes in group sessions.

Variation in the Adult Education/Employment Training Component

The adult education/job training component exhibits the greatest amount of variation across the set of two-generation programs. Some programs include fully-functioning adult literacy and job training components. For example, New Chance has a two-phase approach in which full-day, full-week, classroom-based adult education leading to GED attainment is emphasized early on, followed by vocational training, internships, and job placement assistance. Even Start mandates that parents take part in an adult education program (either adult basic education, adult secondary education, GED preparation, or English as a second language); however, local projects vary in the degree to which they include a job training, counseling, and search component. Adult-focused services are the unique part of the Head Start FSCs, where each grantee devises a plan to work with adults in order to augment normal Head Start services by adding an adult literacy or employment training component, typically through case management and referrals.

A program such as CCDP relies heavily on case manager intervention with parents so that they can obtain necessary adult literacy education, vocational training, employment counseling, job training, and placement. This is typically done through brokered or referred services, and the level of intensity of this component varies substantially across projects.

Still other programs are relatively weak in this area, providing little more than a referral service (CFRP). Avance added a low-level adult literacy and job training component to its existing services in order to provide basic literacy instruction for mothers who complete the parenting program; if desired, these services are available for multiple years.

Program Costs

The preceding discussion describes how two-generation programs differ from one another for each of the three key program components. As might be expected, the cost of these quite different constellations of services also varies, both across programs, and across projects within a given program.

When measuring the costs of two-generation programs it is important to distinguish between direct program costs and the costs of all leveraged or brokered resources used by the program in question. For example, CFRP, CCDP, Head Start FSCs, and Even Start each are federally-funded programs which require that grantees do not use their funds to duplicate services which can be obtained locally. Rather, they are required to build on existing services, and to use program funds to "fill the gaps" in service provision. Thus, these programs often use Head Start to provide the early childhood portion of the program for four-year old children, and Even Start and CCDP use local adult education programs to satisfy their adult literacy components. These programs ensure that participating families receive the required services, without having to pay for them out of direct program funds.

Direct Program Costs

Direct programmatic costs for the programs discussed here vary widely, both on a per-year basis, and also in terms of the number of years that a family might participate in the program (Table 2 contains cost estimates, converted to 1994 dollars). At the upper end of the cost spectrum, CCDP costs \$8,632 per family per year, with the intent that a family participates for five years. New Chance costs \$8,311 per family for an intervention in which the average mother participated for 6 out of a possible 18 months. Even Start, CFRP, and the Head Start FSCs each cost between \$2,500 and \$3,500 per family per year. Avance costs about \$1,616 per family per year. Families in CCDP and CFRP can participate for up to 5 years, families in Head Start FSCs participate for 3 years, families in Avance participate for up to 2 years (53 percent participate for 9 or more months), and there is no set length of participation in Even Start (the average length of participation is less than a year).

Per-family costs typically vary substantially across program sites. In Even Start, for example, 45 percent of the projects spent \$2,000 - \$4,000 per family, 22 percent spent less than \$2,000 per family, and 33 percent spent over \$4,000 per family. For New Chance, site-level costs ranged from a low of \$4,758 per family to a high of \$16,846. In CCDP, costs ranged from \$4,592 to \$13,413 per family across 24 program sites.

Full Program Costs

The cost figures discussed above are based only on the direct program funds provided by the program's funding agency and include none of the costs of referred or brokered services. Two studies have attempted to calculate the "full" costs of one of the above programs: the New Chance evaluation (Quint, Polit, Bos & Cave, 1994), and the Even Start evaluation (St.Pierre, Swartz, Gamse, Murray, Deck & Nickel, 1995).

A cost analysis conducted in a subset of Even Start projects showed that in 1991, leveraged or referred services added 54 percent to the federal cost of the program. Thus, federal Even Start costs were \$2,663 per family, and total costs including \$1,438 worth of all referred and leveraged services were \$4,101. For New Chance, the cost of services supplied by other agencies added 18 percent (\$1,496) to the cost of services supplied by the sponsoring agency (\$8,311) so that the total cost per family was \$9,807.

Allocation of Program Costs and Variation Among Sites

The Even Start study also examined the allocation of program costs among service components and found that about two-thirds of program funds were spent on the direct provision of services (31 percent for early childhood education, 15 percent for adult education, 9 percent for parenting education, and 9 percent for support services), while the remaining third was spent on program administration and coordination (14 percent), evaluation (10 percent), case management and recruiting (4 percent), and a variety of other functions (8 percent).

Similar analyses conducted as part of the New Chance demonstration show that child care (29 percent) and case management (27 percent) accounted for over half of program costs. The remainder was spent on basic education (16 percent), skills training (8 percent), health and personal development (5 percent), recruitment and intake (4 percent), coordination (4 percent), parenting education (3 percent), employability development (3 percent), and college (3 percent).

The fact that the per-family costs reviewed here vary widely across programs makes sense given the great range in services provided. In addition, the studies which have examined site-level variation in cost per family served (Even Start, New Chance, CCDDP) have found that variation in per-family costs among sites also is as large or larger than variation in costs among programs. We have some information from Even Start on the correlates of variation in costs between sites (size of program, extent to which services are provided internally vs. through a collaborating agency), but unfortunately, we only have the beginnings of research evidence which can be used to help local program implementers decide which of these programs is most cost-effective.

Comparative Cost of Single-Component Programs

For comparative purposes, the most intensive and effective child-focused program, the Infant Health and Development Program (IHDP, 1990), costs about \$10,000 per family per year, and the intent is that families will participate for a three-year period. Head Start, the largest and oldest child-focused program in the Nation costs about \$4,000 per child per year. Since few families have more than one child in Head Start at the same time, we consider \$4,000 as Head Start's annual cost on a per-family basis. At less than \$1,000 per year, the Missouri PAT program is a much less intensive and inexpensive child-focused program. It involves hourly home visits once a month, primarily for parenting education, and occasional group meetings.

A range of estimates are available for the per-participant cost of an adult education/job training program. Basic adult education programs funded by the federal government cost quite little--between \$100 and \$500 per participant (Development Associates, 1994). Gueron & Pauly (1991) reviewed data from seven JOBS programs and found that costs ranged from \$100 to \$1000 per participant. More comprehensive JOBS programs including the Teenage Parent Demonstration (Maynard, 1993) and the Minority Female Single Parent Demonstration (Burghardt & Gordon, 1990) had correspondingly higher costs--between \$1,400 and \$3,900 per participant. Finally, California's Greater Avenues for Independence (GAIN) program had costs of about \$3,000 per experimental subject (Riccio, Friedlander & Freedman, 1994).

A final comparative assessment can be made by examining data on the allocation of Head Start federal funds which are available from the Head Start cost management system. In 1991, about 70 percent of Head Start federal costs were spent on direct service provision (41 percent on education, 8 percent on transportation, and about 3 or 4 percent each on health, nutrition, social services, parent involvement, and disabilities services). The remaining 30 percent was spent on administration (13 percent), occupancy (13 percent), and other (4 percent).

Program Effects

There is not yet a long history of research findings on the effects of two-generation programs. There certainly are extensive literatures on the effects of programs which provide individual service components as well as programs which provide both early childhood and parenting components, and some of these literatures were discussed above. Here we review findings from evaluations of the two-generation programs that were described earlier.

All of the programs reviewed in this paper have been or are being evaluated using high-quality, randomized experimental studies (see the citations in Table 3). At this point in time, most of these evaluations have reported only on the relatively short-term effects of two-generation programs. According to model of two-generation program effects presented in Figure 1, this corresponds to effects on children from birth through age

five. We hope that follow-up data will be collected on the mothers and children participating in at least some of these evaluations so that it will be possible to determine whether the hypothesized linkages between effects on parents and effects on children do, in fact, hold true.

Variation in Short-Term Effects on Children

Two-generation programs have positive effects on the participation of children in early childhood programs, i.e., by taking part in a two-generation program, young children are more likely to have an early childhood educational experience than they would be in the absence of the program. However, scanning the summary of effects of two-generation programs on children leads us to conclude that there are small or no effects on a wide range of measures of child development (Table 3). Neither Avance nor CFRP had any effects on several measures of child development. CCDP had a small positive effect (about .10 standard deviations) on the Bayley Scales of Infant Development for children at age two. Even Start had a medium-sized effect of about .5 standard deviations on the PreSchool Inventory nine months after entry to the program; however, children in the control group caught up once they entered school and this early effect disappeared. Even Start children also demonstrated gains on the Peabody Picture Vocabulary Test; however, control group children achieved similar gains. Neither the New Chance nor the Head Start FSC evaluations measured child development outcomes.

Variation in Short-Term Effects on Parenting

Two-generation programs clearly have positive effects on participation in parenting education programs. However, parenting is a broad concept and the hypothesized outcomes of parenting education as part of two-generation programs are many and varied. As might be expected, the effects of parenting education on a host of potential outcomes are mixed and are scattered across the studies examined here.

The only parenting outcome variable that seems to be consistently affected by multiple programs has to do with the attitudes of parents towards child-rearing. In particular, Avance reported positive effects on the home learning environment, child-rearing behaviors and attitudes, maternal role as a teacher and sense of parental efficacy, and use of community resources; New Chance showed positive effects on child-rearing attitudes and on emotional support for children; Even Start had a positive effect on the presence of reading materials in the home; CFRP had positive effects on the Parent as a Teacher scale, and on parent/child interactions; and CCDP had positive effects on parenting attitudes, expectations for child's success, time spent with child, and mother/child interaction.

Variation in Short-Term Effects on Adult Education/Job Training

As was the case for early childhood education and parenting education, two-generation programs increase the rate of participation of mothers in adult education and job training programs including academic classes and vocational training. Further, programs such as Even Start, New Chance, and Avance were able to achieve large effects on the percentage of mothers who attained a GED certificate. Unfortunately, in each of these studies, attainment of a GED was not accompanied by a corresponding effect on tests of adult literacy such as the CASAS or the TABE. This fits with prior research which suggests that while the GED is an important credential, it bears little relationship to literacy skills (Cameron & Heckman, 1993).

Another area in which two-generation programs had effects was in the increased use of Federal benefits such as AFDC and food stamps. This occurred in CCDP, CFRP, and New Chance, each of which explained this finding as resulting either from new eligibility for benefits because of increased participation in educational classes, or simply as an increased awareness of the availability of these Federal benefits.

None of the programs which measured annual household income (Even Start, New Chance, CCDP, CFRP) were able to demonstrate a positive effect on this variable, and only CFRP had a positive effect on employment. Further, none of the programs were able to make a measurable difference on variables such as maternal depression, maternal self-esteem, or the use of social supports.

Who Benefits Most from Two-Generation Programs?

Some of the evaluations reviewed included analyses which went beyond their experimental designs in an attempt to address questions about what types of families benefit most from participation in a two-generation program and what types of services are most beneficial. These analyses were generally correlational in nature, and conclusions drawn from them are subject to a host of competing explanations. However, the findings are provocative and are suggestive of potentially important trends.

Evaluations of Even Start, New Chance, and CFRP all investigated the relationship of amount of participation to outcomes and all found a positive relationship. That is, higher levels of participation were associated with greater program benefits. The Even Start evaluation found that high levels of participation in early childhood education were associated with larger gains on the PreSchool Inventory and on the Peabody Picture Vocabulary Test, and that high levels of participation in adult education were associated with larger gains on the CASAS and with GED attainment. The New Chance evaluation found that amount of participation in the intervention was positively related to GED attainment and to reduced pregnancies. The CFRP evaluation found that "active" participants gained more from the program than participants who were less active.

Additional analyses were conducted in several of the evaluations in order to determine whether program effects varied across demographic subgroups such as teenage mothers vs. older mothers, mothers with a high school diploma vs. mothers without a diploma, male children vs. females, relatively high income vs. relatively low income families, and so on. None of the evaluations in which these questions were addressed (CCDP, CFRP, New Chance) found important subgroup differences among program effects, except for Avance, which found better educational and parenting outcomes for better-educated, married mothers.

All of the evaluations which investigated effects for individual sites (Even Start, New Chance, CCDP, CFRP) found large site-to-site variation. One of the strengths and at the same time one of the weaknesses of large-scale research conducted on ongoing demonstration programs is that such studies are based on data from individual projects which vary widely in terms of the quality of implementation and even in terms of the activities implemented from project to project within the same general program. For example, Even Start mandates that each project deliver three core instructional services (adult education, early childhood education, parenting education), but makes no demands about the amount of these services to be offered, the intensity of the services, how they are to be delivered, the types of staff involved, and so on. Naturally, an evaluation based on data from many Even Start projects will end up averaging together the results from sites which have taken some quite different approaches to implementation. This same issue holds with all of the evaluations described as part of this paper--the amount of site-to-site variation within an individual program is large, and the relative effectiveness of individual sites varies considerably.

Conclusions

The randomized studies reviewed in this paper show that comprehensive two-generation programs increase the participation of mothers and children in early childhood education, parenting education, and adult education/job training. Case management services are delivered, services are brokered, and support services are made available and utilized. These comprehensive, multi-generational programs can and have been implemented, with varying degrees of success, in a very wide range of settings.

Evidence About Effects is Mixed

Evidence about the short-term effects of participating in two-generation programs is mixed. The evidence supports the following conclusions:

- Two-generation programs increase the rate of participation of children and their parents in relevant social and educational services.
- As currently designed, two-generation programs have small or no short-term effects on a wide set 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 have large short-term effects on attainment of a GED, but these are not accompanied by effects on tests of adult literacy. There are few effects on income or employment. There are no effects on the psychological status of participating mothers as measured by level of depression, self-esteem, or use of social supports.
- Correlational 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 is a mixed assessment of the short-term effects of two-generation programs. It says little about anticipated long-term effects, but many researchers believe that it is not reasonable to expect long-term effects in the absence of substantially large short-term effects.

Provide Services Directly to Children and Adults

How could two-generation programs be improved to maximize their short-term success? There is substantial evidence cited in this paper which points out that effects on children are best achieved by services aimed directly at children, and effects on parents are best achieved by services aimed directly at parents. There is only limited evidence to support the indirect method of achieving large effects, i.e., achieving effects on children through earlier effects on parents.

Thus, it is important for a two-generation program to provide early childhood education services directly for the benefit of children, and not to assume that it is just as good to provide parenting services to mothers who will then act as enhanced intervenors in their childrens' lives. This may well be a reasonable theoretical approach, but the evidence is that large short-term effects on children are best achieved through direct, intensive intervention with children, not with mothers.

Intensity is Important

Intensity of services matters for each component of a two-generation program. No program reviewed here (and no others to our knowledge) provide anything close to the intensity of child-focused services provided by high-end early childhood programs such as the IHDP which calls for a full-day, full-week, full-year, center-based early childhood program for children from age one through age three, under the assumption that the home environments of many disadvantaged children are inimical to optimal development and that substantial amounts of time must be spent in an improved environment in order to make an importantly large difference to childrens' development.

The parenting component of some (not all) of the two-generation programs reviewed here also is weak. Karweit (1994) compared the relative effectiveness of interventions that included both parent-focused and child-focused components of different degrees of intensity. She classified as "low-intensity" those parenting interventions that consisted mainly of weekly or bi-weekly home visits along with occasional parent meetings. This level of intervention is similar to what is provided in many of the two-generation programs described in this paper. Karweit concluded that the most effective interventions were ones that included intensive child and parent components, and that a low-intensity parent component did not add much, if anything, to the effectiveness of a high-intensity child component.

The same worry applies to the intensity of adult education/job training services--two-generation programs may not deliver enough of any particular service to match the service levels offered by the best of the single-component programs. Because all three components must be included in a two-generation program, along with a range of case management and support services, two-generation programs are in danger of taking a broad-based approach that does not provide enough of any single type of service to be effective.

High-Intensity, High-Quality Programs Are Expensive

There are practical limits on the amount of public funds that program administrators (and taxpayers) are willing to allocate to disadvantaged families. However, programs that provide high-quality infant stimulation as one component (IHDP) cost at least \$10,000 per child per year. We estimate that high-quality parenting programs such as Avance's adds at least an additional \$1,000 per year, and a high-quality adult education and job training program such as California's GAIN costs another \$3,000 per year. This means that a two-generation program which incorporates three high-intensity components could easily cost \$12,000 to \$15,000 per family

per year. This is 50 to 100 percent greater than the most expensive two-generation programs (CCDP and New Chance).

Thinking about the annual costs of several other educational or social "programs" for which we commonly pay helps us to better judge the magnitude of two-generation program costs. For example, a year of public schooling costs about \$6,000 to \$10,000; a year of special education in the public schools costs about \$20,000; a year of private schooling costs about \$10,000 to \$15,000; and a year of private higher education costs \$20,000 to \$30,000. Viewed from this perspective, the costs of a high-quality two-generation program do not seem so intimidating. Why should we expect high-quality preschool, parenting, and adult education services, delivered to disadvantaged children and parents, to cost less than high-quality educational services delivered in other settings?

Regenerate Two-Generation Programs

The two-generation intervention strategy was initiated with limited evidence about the most effective way to implement the parenting and adult literacy components. A conservative strategy for enhancing two-generation programs would be to conduct planned variation research by building on known effective practices. A reasonable approach would be to conduct a series of small-scale research studies in which we systematically append different promising parenting and/or adult education strategies to a single high-quality early childhood program in order to test experimentally their differential effectiveness in producing positive outcomes for parents and enhancing children's development.

One problem with this approach is that while considerable research evidence exists on what constitutes a high-quality early childhood program, no consensus exists on what constitutes a high-quality parenting or adult education/job training program. The research on adult education programs cited earlier in this article, as well as our own observations, suggests that most adult education programs tend to replicate the poor high school settings in which participating adults initially failed. When this is the case, the common 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 need to be developed.

Longitudinal Research is Needed

The modest results described here are sobering but not surprising--two-generation programs may well be struggling to fix problems that are beyond their grasp. Many families recruited to participate in these programs are deep in poverty, facing the most adverse circumstances of substandard housing, substance abuse, inadequate incomes, and dangerous neighborhoods. Given the history of small effects commonly associated with programs aimed at alleviating poverty (see the introduction to this article), it is naive to think that there will be quick, easy, or inexpensive fixes. Further, our conclusions suggest that current welfare reform efforts face an uphill task. There is no evidence that the two-generation approach, as currently structured, can move substantial numbers of families from the welfare rolls in two years, or for that matter, in any amount of time.

The studies of the two-generation programs reviewed here follow children only up through their fifth birthday, although some of the programs are designed to continue until children are age eight or older. We hope that follow-up data will be collected so that we can determine whether hypothesized longer-term effects and linkages between effects on parents and effects on children do, in fact, occur.

Table 1
Summary of Two-Generation Program Characteristics

Program/ Sponsor	Early Childhood Education	Parenting Education	Adult Education, Literacy, Job Training	Other Notes
Advance Family Support and Education (San Antonio, TX, 1973 to present)	Children age birth through 2 participate in educational day care for 3 hours a week while parenting services are delivered to mothers.	Mothers attend 3-hour classes, once per week for Year 1 of program. Advance staff make monthly home visits.	Year 2 adult lit. component added in 1981 provides basic literacy and advanced educ. for families who complete the parenting program.	Enhanced early childhood component being added as part of involvement with CCDP.
Child and Family Resource Program (U.S. Dept. of Health and Human Services, 1973 to 1983)	Services provided from child's birth through age 5. Children age 0-3 years served through monthly home visits and twice a quarter center-based sessions. 15 minutes of home visit time devoted to this service. Sporadic attendance at center. Children age 3-4 participated in regular Head Start.	Parenting, child dev., social services delivered through monthly home visits and twice a quarter center-based activities. 30 minutes of home visit devoted to parenting. Sporadic attendance at center activities.	Offered by case managers on an as-needed basis. Not a strong component of CFRP.	No performance standards, much site-to-site variation in each component. Strong case management component.

Table 1 (Continued)				
Summary of Two-Generation Program Characteristics				
Program/ Sponsor	Early Childhood Education	Parenting Education	Adult Education, Literacy, Job Training	Other Notes
Comprehensive Child Development Program (U.S. Dept. of Health and Human Services, 1990 to present)	Services provided to families from child's birth through age 5. Services based on DHHS performance standards. Children age 0-3 years receive developmental screening and child dev. experience through center-based or home-based instruction. Aim for 6 or more home-based contacts per quarter which focus on training parent as a teacher (about 45 minutes per contact). Head Start is primary source of ECE at age 4.	Parenting education includes child development, health care, nutrition, parenting skills, life skills, mostly delivered through case management visits which occur on a bi-weekly basis.	Adult literacy education, vocational training, employment counseling, job training and placement are typically done through linkages and referrals to local community colleges and other local educational institutions. Job linkages made with employers and agencies.	Strong case mgmt. CCDP provides physical health, mental health, child care, substance abuse, other support services. 20% dropout in first year, 40% dropout by 2.5 years.
Even Start Family Literacy Program (U.S. Dept. of Education, 1990 to present)	No performance standards. Ages served, intensity, duration all determined locally. Obtain services from local Head Start, Chapter 1 preschool, other local preschool, public schools. Even Start preschool. National average of 232 total hours.	Intensity, duration determined locally. National average of 58 total hours. Services typically provided by Even Start case managers.	Services typically provided by local programs in adult basic education, adult secondary education, GED preparation, English as a second language. National avg. of 107 hours.	Heavy use of existing services, provision of support services to enable participation. Avg. of 7 months participation.

Table 1 (Continued) Summary of Two-Generation Program Characteristics				
Program/ Sponsor	Early Childhood Education	Parenting Education	Adult Education, Literacy, Job Training	Other Notes
Head Start Family Service Centers (U.S. Dept. of Health and Human Services, 1990 to present)	Normal Head Start services for 4 year olds, based on Head Start performance standards.	Case mgmt. approach builds on Head Start parent involvement services. Great variation in extent to which parenting education goes beyond Head Start requirements.	Case mgmt. includes needs assessment, service referral, support services. Adult lit. and employment training provided through partnerships with local agencies.	This demonstration adds adult-focused services to regular Head Start early childhood services.
New Chance (MDRC, 1989 to 1992)	Free child care in high-quality centers. No special curriculum.	Phase 1 is full-day, full-week program for mothers including life skills, parenting education, pediatric health education.	Phase 1 is full-day, full-week education program for mothers including GED preparation, adult education. Phase 2 is vocational training, internships, job placement.	Case mgmt. through bi-weekly visits. Program designed for 18 months; avg. participation was 6 months.

Table 3 Summary of Two-Generation Program Effects				
Program	Effects on Children	Effects on Parenting	Effects on Adults	Who Benefits Most?
Advance Family Support and Education (Johnson & Walker, 1991)	No effect on the Bayley Scales of Infant Development, Kaufman-ABC, or Stanford-Binet. No effect on maternal report of child behaviors.	Pos. effect on the home learning environment, maternal behavior and attitudes about child-rearing, maternal role as a teacher, sense of parental efficacy, use of community resources.	Pos. effect on enrollment in GED courses. No effect on maternal self-esteem, depression.	Mothers who were married, with more education had more positive education and parenting outcomes.
Child and Family Resource Program (Travers, Nauta & Irwin, 1982)	No effect on Bayley Scales of Infant Development, PreSchool Inventory, High/Scope Pupil Observation Checklist, Schaefer Behavior Inventory; no effect on child health. Pos. effect on Head Start enroll.	Pos. effect on Parent as a Teacher, parent/child interaction.	Pos. effect on employment and training; greater use of AFDC, food stamps, WIC, Medicaid. No effect on locus of control.	"Active" participants gained more from the program, as did mothers whose "coping" scores were high. No differences by demographic subgroups.

Table 3 (Continued)				
Summary of Two-Generation Program Effects				
Program	Effects on Children	Effects on Parenting	Effects on Adults	Who Benefits Most?
Comprehensive Child Development Program (St.Pierre, Goodson, Layzer & Bernstein, 1994)	At age 2, pos. effect on participation in work-related child care, Bayley Scales of Infant Development, child health behaviors, cooperative behaviors.	Pos. effect on delayed pregnancy, heavier and healthier infants. Pos. effect on use of case management, participation in parenting classes, parenting attitudes (AAPI), expectations for child's success, time spent with child, mother/child interaction (NCATS). No effect on home environment.	Pos. effect on enrollment in academic, voc. training classes, lit. activities, job satisfaction. Increased AFDC, food stamps. No effect on employment, income. No effect on use of health services, maternal physical health, depression, locus of control, coping, positive outlook, social supports, self-esteem, life skills, social connectedness.	No differences by demographic subgroups. No difference by length of participation.
Even Start Family Literacy Program (St.Pierre, Swartz, Gamse, Murray, Deck & Nickel, 1995)	Pos. effect on participation in early childhood programs. At 9 mos, pos. effect on PreSchool Inventory which disappears at 18 mos. Children moved from 9th to 19th percentile on PPVT, but no significant effect.	Pos. effect on participation in parenting programs, presence of reading materials in the home. No effect on home environment, parental expectations for child, parent/child reading.	Pos. effect on participation in adult education programs. Pos. effect on GED attainment. No effect on CASAS reading literacy (same size gains as in other adult educ. studies). No effect on employment, income, sense of mastery, depression, family resources.	Pos. relationship between amount of participation in parenting and child's PPVT score. Pos. relationship between amount of instruction and PSI, PPVT, CASAS gains as well as GED attainment.

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