Two-Generation Programs: Design, Cost, and Short-Term Effectiveness

Robert G. St. Pierre
Jean I. Layzer
Helen V. Barnes

Abstract

Two-generation programs are relatively new attempts to deal with the nation’s social ills. In two-generation programs, services such as early childhood educational programs are offered to children to help them get the best possible start in life, while, at the same time, parents are offered training to help enhance their parenting skills, and education, literacy, or job training to help them become economically self-sufficient. These multistategy programs are relatively new additions to the broad array of programs designed to serve children and families, but many have already been the subjects of fairly sophisticated evaluations.

This article describes two-generation programs and how they differ from earlier single-focus approaches to serve children and families. In-depth descriptions of six premier two-generation programs are used to illustrate the variability in content and costs of these programs. The short-term results of these six programs are reviewed and indicate mixed and modest results in promoting the development of children and improving the parenting skills and economic self-sufficiency of parents. The results suggest several lessons, and the article concludes with recommendations for program improvement and future research.

In spite of three decades of antipoverty efforts, U.S. Census data indicate that the number of children living in poverty has increased greatly in recent years.1 Numerous forces have driven the increase, including an increase in the number of single-parent families, a poor labor market, and declines in benefits to poor families.2 Poverty has adverse effects on parental well-being, family functioning, and child development. Although poverty does not by itself fully determine life course, it can have serious negative consequences for many children and families. Parents, for example, can suffer from psychological consequences such as low self-esteem and depression, and from health problems such as untreated chronic illnesses and anemia. They may have unfinished education and poor job skills and
Prospects. Poverty can strain family relationships, leading to spousal conflict, marital dissolution, and spousal and child abuse. Infants and young children who live in poverty suffer higher levels of prematurity, infant mortality and morbidity, and subsequent developmental delay, behavior problems, and inadequate preparation for school. They are less likely to see a pediatrician and to receive dental care and vaccinations. Adolescents suffer higher rates of school dropout, teen pregnancy, substance abuse, delinquency, and death from accidents or homicide.

Over the past 25 to 30 years, federal, state, and local governments, private foundations, and private industry have funded a stunning array of interventions to address the problems associated with poverty. For the most part, these interventions have focused either on children or on parents, but not on both simultaneously. Nevertheless, policymakers and program designers have sometimes assessed these programs by how well they affect outcomes for both children and parents, even if the programs were designed for only one group. The following section contrasts some of these single-focus approaches with the new two-generation approach.

Program Design

Single-Focus Programs

Single-focus programs attempt to intervene with children directly, with children indirectly via their parents, or directly with the parents.

Child-Focused Approaches

Many single-focus programs attempt to address the problems of poverty by intervening in the lives of poor preschool children to improve their cognitive and social competence and prepare them to enter school on equal terms with more fortunate children. This approach is typified by Head Start, the major federal early childhood program for preschoolers, and other similar preschool programs. Such programs are typically part-day, part-year programs that deliver high-quality, intensive early childhood services to three- to five-year-olds. In some programs, these services include health and social welfare services as well as traditional cognitive and social services for children. As summarized in other articles in this journal issue, these sorts of programs can help prepare children for school and can confer longer-term benefits which can be detected in the public schools and beyond. However, their effectiveness varies with their intensity and comprehensiveness. (See the article by Barnett in this journal issue.)

Parenting Programs

Other single-focus programs seek to affect children indirectly, by helping parents learn to care for their children in ways that will promote the children’s development. Proponents of this approach believe that parents are their children’s first and best teachers and that parents must be first-rate teachers so that their children can succeed. This approach underlies programs such as Head Start’s Parent-Child Development Centers or home visiting programs such as Missouri’s Parents as Teachers (PAT) or Arkansas’s Home Instruction Program for Preschool Youngsters (HIPPY).
Some researchers argue that parenting programs alone are not sufficient to improve children’s outcomes, both because (1) at least some important aspects of child development occur on their own timetable, and children therefore cannot wait for the benefits of parenting programs to trickle down to them from the parents, and also because (2) parenting programs alone do not provide interventions that are broad enough to address the range of issues which parents face and which can affect child development.10–13

Adult-Focused Programs
A third program strategy focuses primarily on adults and, in particular, on adult single parents. Welfare (that is, Aid to Families with Dependent Children [AFDC]), welfare-to-work (for example, the Job Training Partnership Act, the Job Opportunities and Basic Skills program, California’s Greater Avenues for Independence program), and adult education all have the dual aim of moving women off welfare into work and increasing their economic well-being.

A recent review of the impact of welfare-to-work programs14 concluded that, while almost all of these programs led to small gains in earnings, many participants remained in poverty and continued to receive welfare. Even mothers who obtained jobs through such programs frequently left or lost them because of a lack of transportation or child care, or because their jobs did not provide health benefits for their children.

In a related area, most reviews conclude that adults’ literacy skills and job opportunities have not been greatly increased by adult basic education programs, which are equivalent to instruction provided in grades 1–8; by adult secondary education programs, which are equivalent to instruction provided in grades 9–12; or by English as a second language programs for individuals whose native language is other than English.15,16 Such programs have high dropout rates (more than 50% participate for fewer than 17 weeks) and low intensity levels (the average participant receives about 80 hours of instruction), making it difficult to achieve positive effects.16,17 Though many of these programs do lead to increased rates of attaining a General Education Development (GED) certificate, having a GED does not relate positively to enhanced skill levels and is not the economic equivalent of a high school diploma.18

Little is known about child outcomes in families targeted by welfare-to-work programs, and some researchers10 question the premise that adult education programs necessarily benefit children, arguing that no studies have demonstrated that increasing parental job competence and self-esteem are sufficient to enhance short- or long-term outcomes for children.

Two-Generation Programs
As indicated above, based on both research evidence and theory, many researchers believe that single-focus approaches have not proved completely successful individually, or even when taken in combinations of two. Early childhood education may improve children’s cognitive development, but perhaps not as much as when parents also strengthen their parenting skills. Parenting programs may improve parenting skills, but children’s development often does not improve in a commensurate amount. Neither type of program addresses outcomes such as parental employment, and parent job training programs probably do not lead to large changes in child development or parenting skills.

In response, two-generation programs were designed to recognize the multigenerational, multidimensional aspects of family poverty and to attack problems associated with poverty from multiple directions.19 Such programs have probably proliferated because research has indicated the limitations of single-focus approaches, rather than because research has demonstrated the benefits of two-generation programs. Nevertheless, hundreds of two-generation projects now exist across the nation, serving thousands of families, and funded by millions of public and private dollars.20

Goals
Designers of two-generation programs hope to produce effects for adults and children as
shown in Figure 1. Under the umbrella of a single integrated program, the two-generation approach seeks to solve the problems of parents and children in two contiguous generations by offering services such as early childhood education and parenting education to help young children get the best possible start in life and, at the same time, by offering services such as job training, literacy training, and vocational education to help their parents become economically self-sufficient.

The following hypotheses underlie two-generation programs:

- Early childhood education will have a direct effect on children’s cognitive skills 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 skills.

- Adult education, literacy, and job skills programs will have a direct effect on 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 by their experience in an early childhood program, as well as by their parents’ enhanced parenting skills.

- In the long run (high school and beyond), all three program components will enhance the life chances of both parents and their children. Both generations will demonstrate reduced delinquency levels, reduced pregnancy rates, the ability to be informed and responsible citizens, and improved economic self-sufficiency.

**Programmatic Variation**

Two-generation programs attempt to address these goals by offering three key services: (1) a developmentally appropriate early childhood program, (2) a parenting education component, and (3) an adult education, literacy, or job skills and training component. In addition, two-generation programs typically employ case managers who coordinate services, ensure that families are enrolled in appropriate services, cajole families to participate fully, provide on-the-spot counseling and crisis intervention, and provide some direct service. These programs often enroll families in existing educational and social services instead of creating duplicate service structures, and they typically provide ancillary services—such as transportation, meals, or child care—so families can participate in the main programmatic services.

Beyond these common characteristics there exists a great deal of variation in content, in the intensity and duration of the services, in the modes used to deliver these services, in the ages of the children served, and in the costs of the programs.

**A Closer Look at Six Two-Generation Programs**

This section summarizes some of the differences among two-generation programs based on examinations of six such programs (Table 1). These six were selected because they represent large and well-known federal, state, and locally developed programs; they exhibit variation in programmatic approach; and they have been or are being evaluated via randomized trials. These six programs as as follows:

- **Avance.** The Avance Family Support and Education program began in the 1970s in San Antonio, Texas. It seeks to help children succeed in school by teaching parents to teach their children and by meeting parents’ educational and job training needs. About 2,500 families participated in Avance programs during 1994.

- **Child Family Resource Program (CFRP).** The Child and Family Resource Program (CFRP) was funded from 1973 to 1983 by the U.S. Department of Health and Human Services. CFRP was based on the premise that the best way to promote children’s growth and development is by supporting families and helping parents become more effective caregivers and educators. Comprehensive social and educational services
Figure 1

Two-Generation Programs: Typical Services and Hypothesized Effects on Parents and Children

Child Age 1–5 Years

- **Children**: Early Childhood Education
  - **Children: Cognitive Effects**
    - Improved school readiness
    - Improved literacy skills
  
- **Parents**: Parenting Education
  - **Parents: Improved Parenting Practices**
    - Enhanced parenting and personal skills
    - Improved parent/child interactions
    - Improved home learning environment
    - Increased involvement with schools

Child Age 6–12 Years

- **Children**: Parenting Education
  - **Children: Behavioral Effects**
    - Improved classroom behavior
    - Improved attendance
    - Reduced in-grade retention
    - Reduced special education placement
    - Improved grades/achievement

- **Parents**: Parenting Education
  - **Parents: Improved Parenting Practices**
    - Reduced delinquency
    - Reduced pregnancy
    - Reduced welfare dependency
    - Better educated citizens
    - Better income/job

Child Age 13+ Years

- **Children**: Adult Education
  - **Children: Cognitive Effects**
    - Improved functional literacy
    - Attainment of GED

- **Parents**: Adult Education
  - **Parents: Economic Self-Sufficiency**
    - Additional credentials
    - Better job
    - Improved earnings
Two-Generation Programs: Design, Cost, and Short-Term Effectiveness

were provided by 11 projects to more than 1,000 families per year.

- **Comprehensive Child Development Program (CCDP)**: The Comprehensive Child Development Program (CCDP) began in 1990. Five-year grants were made by the U.S. Department of Health and Human Services to 34 projects which provide comprehensive, continuous, coordinated social, health, and educational services to low-income families with a newborn child for up to five years. More than 4,000 families participated in CCDP during 1994.

- **Even Start**: The Even Start Family Literacy Program was first funded in 1990 by the U.S. Department of Education. It allows great local discretion to more than 400 grantees but mandates that participating families take part in early childhood education, parenting education, and adult education. About 30,000 families participated in Even Start during 1994.

- **Head Start Family Service Centers (FSCs)**: Sixty-six projects were funded by the U.S. Department of Health and Human Services. Each provides regular Head Start child development and parenting, augmented by case managers who assess adults' needs, deliver services to adults, and make referrals for literacy, substance abuse, and employment training. The FSCs served more than 4,000 families in 1993.

- **New Chance**: New Chance was a comprehensive program for disadvantaged young mothers and their children. Funded with a combination of public and private dollars, it operated between 1989 and 1992 at 16 locations, serving more than 1,500 families. Program components included case management, intensive educational services, and free child care.

### Program Components

#### The Early Childhood Component

Two-generation programs vary in the age of the children they serve, the duration and intensity of the services offered, and the way in which services are delivered. For example, some programs target three- and four-year-olds (Head Start FSCs), and some focus on children from birth to school entry (CFRP and CCDP), while others specify a wider age range, such as birth through age eight years, 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 ranging from one year (Head Start FSCs) to five years (CCDP), while others allow this dimension to vary according to family needs (Even Start).

Child-focused services are usually delivered via home visits (CCDP, CFRP) or in centers (Avance, New Chance), with center-based programs usually providing more intensive services. For example, CCDP provides relatively low-intensity services to children from birth through age three using biweekly home visits for a maximum of 30 minutes during which the focus of instruction is on teaching parenting skills. CFRP’s early childhood component was even less intensive, providing 15 minutes of child development during monthly home visits. However, most CCDP and CFRP projects and all Head Start FSCs enroll their four-year-old children in Head Start which provides a year-long, half-day, center-based program.

Avance offers educational child care for infants and toddlers for three hours per 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.

Even Start projects exhibit huge variation in intensity of early childhood services across sites. Children in the middle 50% of the projects (in terms of number of hours of early childhood services received) receive between 21 and 330 total hours of service during their period of participation.

#### The Parenting Education Component

Most two-generation programs include a set of services for parents designed to enhance parenting skills, increase parent involvement in schools, improve parental self-esteem and
### Table 1

**Descriptions of Selected Two-Generation Programs: Costs\(^a\), Duration\(^b\), and Services**

<table>
<thead>
<tr>
<th>Program</th>
<th>Early Childhood Education</th>
<th>Parenting Education</th>
<th>Adult Education, Literacy, Job Training</th>
<th>Other Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Avance Family Support and Education (1973 to present)</strong></td>
<td>Children age birth through two years participate in educational child care for three hours per week while parenting services are delivered to the mother. Child age at entry: Birth to two years.</td>
<td>Mothers attend three-hour classes once per week for first year of program. Avance staff members make monthly home visits.</td>
<td>Second year (and thereafter) adult literacy component, added in 1981, provides basic literacy and advanced education for families who complete the parenting program.</td>
<td>Enhanced early childhood component being added as part of involvement with Comprehensive Child Development Program.</td>
</tr>
<tr>
<td>Cost: $1,616 Duration: 2 years</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Child and Family Resource Program (1973 to 1983)</strong></td>
<td>Intended to serve families from child’s birth through age five. Service for ages zero to three years through monthly home visits (about 15 minutes of home visit time devoted to this service). Twice-per-quarter center-based sessions; attendance very sporadic. Children ages three to four in regular Head Start. Child age at entry: Birth.</td>
<td>Parenting, child development, support, social services delivered through twice-per-quarter center-based activities. About 30 minutes of home visit time devoted to parenting. Attendance at center activities very sporadic.</td>
<td>Offered by case managers on an as-needed basis. Not a strong component of Child and Family Resource Program.</td>
<td>No performance standards; much site-to-site variation in each component. Strong case management component.</td>
</tr>
<tr>
<td>Cost: $3,222 Duration: 6 years</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Comprehensive Child Development Program (1990 to present)</strong></td>
<td>Intended to serve child, birth through age five. Services based on Department of Health and Human Services performance standards, for ages zero to three years, including developmental screening and child developmental experience through either center-based or home-based instruction. Aim for six or more 45-minute home-based contacts per quarter; focus on training parent as teacher. Head Start is main source of ECE at age four. Child age at entry: Birth.</td>
<td>Parenting education includes child development, health care, nutrition, parenting skills, life skills. Mostly delivered through bi-weekly case management visits.</td>
<td>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 linkage made with employers and agencies.</td>
<td></td>
</tr>
<tr>
<td>Cost: $8,632 Duration: 5 years</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Even Start Family Literacy Program (1990 to present)</strong></td>
<td>No performance standards. Ages served, program intensity, and duration are all determined locally. Obtain services from local Head Start; Chapter 1, other local, or Even Start preschools; local schools. National average of 232 hours. Child age at entry: Birth.</td>
<td>Intensity, duration determined locally. National average of 58 hours. Services typically provided by Even Start case managers.</td>
<td>Service typically provided by local community college adult education programs in adult basic education, adult secondary education, GED preparation, English as a Second Language. National average of 107 hours.</td>
<td>Emphasizes use of existing services, provision of support service to enable participation in core services. Average of seven months of participation.</td>
</tr>
<tr>
<td>Cost: $2,663 Duration: 1 year</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Head Start FSCs (1990 to present)</strong></td>
<td>Normal Head Start services for four-year-olds, based on Head Start performance standards. Child age at entry: Four years.</td>
<td>Case management approach builds on normal Head Start parent involvement services. Great variation in extent to which parenting education goes beyond Head Start requirements.</td>
<td>Case management includes needs assessment, referral to services, and support services. Adult literacy and employment training are provided through partnerships with local service agencies.</td>
<td></td>
</tr>
<tr>
<td>Cost: $3,507 Duration: 1 year</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>New Chance (1989 to 1992)</strong></td>
<td>Free child care in high-quality centers. No special curriculum. Child age at entry: Majority younger than two.</td>
<td>Phase 1 is full-day, full-week program for mothers including life skills, parenting education, and pediatric health education.</td>
<td>Phase 1 is full-day, full-week education program for mothers including GED preparation, adult education. Phase 2 is vocational training, internships, job placement.</td>
<td>Case management through biweekly visits. Program designed for 18 months. Average of 6 months of participation.</td>
</tr>
<tr>
<td>Cost: $8,311 Duration: 1.5 years</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Notes**

\(^a\) Cost per year in 1994 dollars, including only the direct costs of the program (excluding any referred or brokered services).

\(^b\) Intended duration of participation in the program.
coping skills, alleviate parental depression, and develop parents as teachers and role models. Programs, however, exhibit the same variation in service delivery mode, intensity, and duration of parenting services as do child-focused services.

Avance takes a high-intensity approach in which mothers attend a center for three hours per week for one school year to strengthen parenting skills, learn about toy making, and become familiar with community resources. New Chance is another higher-intensity parenting program in which mothers attend full-day classes; parenting education is included as part of the daily curriculum.

The Head Start FSCs, which rely on the basic Head Start model of involving parents in governance and service delivery, offer a lower-intensity parenting intervention. CFRP and CCDP both deliver parenting education through home visits (monthly for CFRP and biweekly for CCDP). Even Start allows projects flexibility in designing the parenting component. The average Even Start adult receives 58 hours of parenting education over a seven-month period, sometimes delivered in the home, sometimes in group sessions.

The Adult Education/Employment Training Component

Programs also vary considerably in how they deliver adult education or job training services. 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 adult education (adult basic education, adult secondary education, GED preparation, or English as a Second Language courses); but local projects vary in the degree to which they emphasize this component and in the intensity and duration of services provided. The Head Start FSCs typically do not offer adult literacy or employment training services directly but provide them through case management and referrals to other community agencies. CCDP sites rely heavily on case manager intervention with parents to help them obtain adult literacy education, vocational training, employment counseling, and job training. The 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 to provide basic literacy instruction for mothers who complete the parenting program; if desired, these services are available for multiple years.

In sum, while all six of these two-generation programs offer early childhood, parenting, and job training or adult literacy services, they vary considerably in how these services are delivered and in their intensity and duration. Such wide variation in services and in delivery amounts may well lead to variation in program effects.

**Program Effects**

The six programs reviewed in this article have been or are being evaluated using high-quality, randomized experimental studies (see Table 2). Child outcomes that were investigated and that are summarized below include cognitive and literacy skills. Outcomes for parents include assessments of attitudes toward parenting, parenting behaviors, and self-sufficiency behaviors such as attainment of GED and literacy skills. At this time, most of these evaluations have reported only on the relatively short-term effects of two-generation programs, having followed families from the birth of their children through the children’s fifth birthday (Figure 1).

**Short-Term Effects on Children**

On the whole, the studies reviewed here show small or no effects on child development (see Table 2). Neither Avance nor CFRP had any effects on several measures of child development. CCDP had a small positive effect on child development for children at age two years. Even Start had a medium-sized effect on a measure of school readiness skills nine months after entry to the program; however, children in the control group caught up once they entered school. Even Start children also demonstrated gains on a test of language development; however, control group children achieved similar gains. Neither the New Chance nor the Head Start FSC evaluations measured child development outcomes.

**Short-Term Effects on Parenting**

Several programs had positive effects on parenting. For example, 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 attitudes and practices relevant to child rearing 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.

**Short-Term Effects on Adult Education/Job Training**

Even Start, New Chance, and Avance led to large increases in the percentage of mothers who attained a GED certificate (22% of Even Start mothers versus 6% of controls; 37% of New Chance mothers versus 21% of controls). Unfortunately, attainment of a GED was not accompanied by corresponding positive effects on standardized tests of adult literacy.

Participants in two-generation programs increased their use of federal benefits such as AFDC and food stamps (CCDP, CFRP, New Chance). In each instance, this finding resulted either from increased numbers of families eligible for benefits because of increased participation in educational classes, or simply through increased awareness of the availability of federal benefits.

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

**Who Benefits Most?**

Some of the evaluations included analyses to determine what types of families benefit
Two-Generation Programs: Design, Cost, and Short-Term Effectiveness

most from participation in a two-generation program and what types of services are most beneficial. These analyses are correlational in nature, and conclusions drawn from them are subject to competing explanations; for example, self-selection of families into service categories or amounts of service, or differential motivation of families. However, the findings are provocative and suggestive of potentially important trends.

Evaluations of Even Start, New Chance, and CFRP all found a positive relationship between amount of participation and program benefits. The Even Start evaluation found that high levels of participation in early childhood education were associated with larger gains in school readiness skills and vocabulary, and that high levels of participation in adult education were associated with larger gains in adult literacy and increased rates of GED attainment. The New Chance evaluation found that amount of participation was positively related to GED attainment and to reduced pregnancies.

Results of the Even Start evaluation also suggest that the children of parents who participate the most in parenting education show greater gains in language ability than children with less participative parents. This suggests that, even in the short term, it is possible to find the parent-to-child linkage hypothesized by two-generation programs.

Several of the evaluations conducted analyses to determine whether program effects varied across demographic subgroups such as teenage versus nonteenage mothers, mothers who completed high school versus mothers without a diploma, male children versus females, relatively high-income versus relatively low-income families, and so on. None of the evaluations in which these questions were addressed (CCDP, CFRP, New Chance, Even Start) found that effects differed across subgroups, except for Avance, which found better educational and parenting outcomes for mothers who were better educated and married at enrollment.

Each evaluation in which the effects for individual sites were investigated found large site-to-site variation.

Program Costs

These program outcomes were achieved at widely varying costs, both in direct program costs and in the costs of all leveraged or brokered resources used by the program in question. CFRP, CCDP, Head Start FSCs, and Even Start are federally funded programs which require that grantees not use federal funds to duplicate services that can be obtained locally. Rather, they must build on existing services and use program funds only to “fill the gaps” in service provision and to ensure that families receive required services. 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. Calculating the costs of these leveraged or brokered services is necessary to understand the full cost of two-generation programs.

Direct Costs

Direct costs for two-generation programs vary widely, both on a per-year basis and in terms of the number of years that a family might participate in the program. (Table 1 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, and New Chance costs $8,311 per family for 6 months, the average length of participation 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 $1,600 per family per year. Families in CFRP and CCDP can participate for up to five years,
### Table 2

<table>
<thead>
<tr>
<th>Program and Related Endnote Number</th>
<th>Effects on Children</th>
<th>Effects on Parenting</th>
<th>Effects on Adults</th>
<th>Who Benefits Most?</th>
</tr>
</thead>
</table>
| **Avance**<sup>a</sup> (Johnson and Walker, 1991)<sup>22</sup> | Cognitive: E = C  
Child behavior: E = C | Parenting attitudes/ efficacy: E > C  
Maternal behavior: E > C  
Home learning environment: E > C  
Use of community resources: E > C | Psychological outcomes: E = C  
Participation in GED or English as a Second Language courses: E > C  
(E = 67%; C = 33%) | Married, better-educated mothers had more positive education and parenting outcomes. |
| **Child and Family Resource Program (CFRP)** (Travers, Nauta, and Irwin, 1982)<sup>23</sup> | Cognitive: E = C  
Child development: E = C  
Child behavior: E = C  
Child health: E = C  
Participation in Head Start: E > C  
(E = 62%; C = 32%) | Parenting attitudes: E > C  
Parent-child interaction: E > C | Employment and training: E > C  
(E = 74%; C = 68%)  
Psychological outcomes (locus of control): E > C  
Use of public assistance (AFDC, food stamps, WIC, Medicaid): E > C | Stronger program effects on many measures for active participants and for those who saw themselves as able to cope with life problems.  
No differences by demographic subgroups. |
| **Comprehensive Child Development Program (CCDP)** (St. Pierre, Goodson, Layzer, and Bernstein, 1994)<sup>24</sup> | Cognitive: E > C  
Child cooperative behavior: E > C  
Heavier and healthier infants: E > C  
Child health behaviors: E > C  
Participation in child care (formal group care): E > C  
(E = 36%; C = 16%) | Parenting attitudes: E > C  
Expectations for child: E > C  
Home learning environment: E = C  
Parent-child interaction: E > C  
Time with child: E > C  
Participation in parenting classes: E > C  
(E = 34%; C = 11%)  
Use of case management: E > C  
(E = 58%; C = 18%) | Employment and income: E = C  
Job satisfaction: E > C  
Literacy activities: E > C  
Health: E = C  
Delayed next pregnancy: E > C  
Life skills: E = C  
Psychological outcomes: E = C  
Participation in academic training: E > C  
(E = 38%; C = 26%)  
vocational training: E > C  
(E = 18%; C = 13%)  
Use of AFDC: E > C  
(E = 66%; C = 63%)  
food stamps: E > C  
(E = 81%; C = 78%) | No differences by demographic subgroups.  
No differences by length of participation. |

**Notes**

a. All program evaluations used a randomized experimental design.

b. See the related endnotes at the end of this article for complete citation of reports and/or studies in which the outcomes of these programs are described.

c. Throughout the table, E refers to the experimental, or intervention, group which received program services, and C refers to the control, or comparison, group.

d. Throughout the table, E > C or E < C refers to a statistically significant effect, that is, an effect that would be expected by chance no more than 5 times out of 100.

e. E = C means that differences between groups were not statistically significant. These outcomes cannot be attributed to the intervention, but instead, could be due to chance.
Table 2 (continued)

<table>
<thead>
<tr>
<th>Program(^a) and Related Endnote Number(^\text{b})</th>
<th>Effects on Children(^c)</th>
<th>Effects on Parenting(^d)</th>
<th>Effects on Adults</th>
<th>Who Benefits Most?</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Head Start FSCs</strong>&lt;br&gt;(Swartz, Smith, Berghauer, et al., 1994)(^26)</td>
<td>No measurement in this area.</td>
<td>Findings not yet published; measures include reading at home.</td>
<td>Findings not yet published; measures include employment, income, adult literacy skills, psychological outcomes, drug/alcohol use, health, and participation in literacy and employment services.</td>
<td>Findings not yet published.</td>
</tr>
<tr>
<td><strong>New Chance</strong>&lt;br&gt;(Quint, Polit, Bos, and Cave, 1994)(^27) (Findings 18 months after enrollment)</td>
<td>Child health: E = C Use of child care (center-based): E &gt; C (E = 63%; C = 33%)</td>
<td>Parenting attitudes: E &gt; C Home learning environment: E = C Emotional support for children: E &gt; C Participation in parenting programs: E &gt; C (E = 67%; C = 21%) health education: E &gt; C (E = 49%; C = 11%)</td>
<td>GED attainment: E &gt; C (E = 43%; C = 30%) College credit: E &gt; C Adult literacy: E = C Employment: E = C Earning: E &lt; C Maternal health: E = C Birth rate: E = C Psychological outcomes: E = C Participation in skill-building activities: E &gt; C (E = 33%; C = 22%) education programs: E &gt; C (E = 85%; C = 60%) family planning: E &gt; C (E = 52%; C = 12%) Use of AFDC: E = C</td>
<td>No difference by demographic subgroups. No clear site-level effects. Amount of participation positively related to GED attainment and reduced pregnancies.</td>
</tr>
</tbody>
</table>

**Notes**

\(^a\) All program evaluations used a randomized experimental design.

\(^b\) See the related endnotes at the end of this article for complete citation of reports and/or studies in which the outcomes of these programs are described.

\(^c\) Throughout the table, E refers to the experimental, or intervention, group which received program services, and C refers to the control, or comparison, group.

\(^d\) Throughout the table, E > C or E < C refers to a statistically significant effect, that is, an effect that would be expected by chance no more than 5 times out of 100. E = C means that differences between groups were not statistically significant. These outcomes cannot be attributed to the intervention, but instead, could be due to chance.
families in the Head Start FSCs can participate for three years, families in Avance participate for up to two years (53% participate for nine or more months), and there is no set length of participation in Even Start (the average is less than one year).

Per-family costs typically vary substantially across program sites. In Even Start, for example, about half of the projects spent $2,000 to $4,000 per family, but 22% spent less than $2,000 per family, and 33% spent more than $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 direct costs discussed above do not include the costs of referred or brokered services. Studies of two programs (New Chance and Even Start) calculated the costs of those additional services. In 1991, leveraged or referred services added 54% to federal program costs for Even Start sites: federal Even Start costs were $2,663 per family per year; referred and leveraged services such as adult education, meals, or transportation cost $1,438, yielding a total cost of $4,101 per family per year (in 1994 dollars). For New Chance, the cost of services supplied by other agencies added 18% ($1,496) to the cost of services supplied by the sponsoring agency ($8,311), so that the total cost per family was $9,807 for six months of service.

**Allocation of Program Costs**
Even Start and New Chance varied in how they allocated program costs among service components in 1991. Although both spent about two-thirds of program funds on the direct provision of services and about one-third of program costs on other functions, there are differences in how costs are allocated within those two categories. Even Start emphasizes early childhood education (31%), adult education (15%), and parenting education (9%), while New Chance emphasizes child care (29%) and case management (27%).

In contrast, in 1991, the overall allocation of costs in Head Start programs was also about 70% for direct service provision and 30% for other costs, but again, the distribution of costs within categories varied with the majority being spent on education (41%), administration (13%), and occupancy (13%).

**Comparative Cost of Single-Component Programs**
One of the most intensive and effective child-focused programs (the Infant Health and Development Program) costs about $10,000 per family per year, and the intent is that families participate for a three-year period.28 Head Start, the largest and oldest child-focused program in the nation, costs about $4,000 per child per year.29 Because few families have more than one child in Head Start at the same time, $4,000 is considered to be Head Start’s annual per-family cost. At less than $1,000 per year, the Missouri PAT program—which involves monthly, 60-minute home visits, primarily for parenting education, and monthly parent group meetings—is a much less intensive and less expensive child-focused program.30

A range of estimates is 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.37 Costs for Job Opportunities and Basic Skills (JOBS) training programs range from $100 to $1,000 per participant for less comprehensive programs14 to $1,400 to $3,900 per participant for more comprehensive versions of the programs.31,32 California’s Greater Avenues for Independence (GAIN) program costs about $3,000 per participant.33

**Conclusions**
By design, two-generation programs strive to 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, multigenerational

---

**CCDP costs $8,632 per family per year; Even Start, CFRP, and the Head Start FSCs each cost between $2,500 and $3,500 per family per year:**

Start costs were $2,663 per family per year; referred and leveraged services such as adult education, meals, or transportation cost $1,438, yielding a total cost of $4,101 per family per year (in 1994 dollars). For New Chance, the cost of services supplied by other agencies added 18% ($1,496) to the cost of services supplied by the sponsoring agency ($8,311), so that the total cost per family was $9,807 for six months of service.
programs can and have been implemented, with varying degrees of success, in a wide range of settings.

**Evidence About Effects Is Mixed**

Evidence about the short-term effects of two-generation programs is mixed. On balance, 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 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 attaining a GED, but these are not accompanied by effects on 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.

- Many 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 any more or less effective for important subgroups of participants.

- Where we find 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 it is not reasonable to expect long-term effects in the absence of substantial short-term effects. The Even Start evaluation provides some evidence supporting the hoped-for cross-generational effectiveness of these programs because it found the amount of parenting services provided to mothers to be related to children’s vocabulary. However, this is not an experimentally derived finding, nor has it been replicated in other studies.

**Services Should Be Provided Directly to Children and Adults**

How can two-generation programs be improved to maximize their short-term success? There is substantial evidence that effects on children are best achieved by services aimed directly at children, and effects
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.

...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, that is, achieving effects on children through earlier effects on parents. (See the article by Barnett in this journal issue.) 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 children’s lives.

**Intensity Is Important**

Intensity of services matters for each component of a two-generation program. No program reviewed here (and no other to our knowledge) provides anything close to the intensity of child-focused services delivered by the highest quality early childhood programs such as the Infant Health and Development Program (IHDP), which calls for a full-day, full-year, center-based program for children from age one through age three years. The consequence of having a low-intensity early childhood component is that two-generation effects on children’s cognitive development, while real, are small. High-intensity programs such as the IHDP have short-term cognitive effects on children which are on the order of 5 to 10 times as large as the effects of low-intensity programs.

The parenting component of the two-generation programs reviewed here also is relatively weak. Wasik and Karweit compared the effectiveness of interventions that included parent-focused and child-focused components of different intensity levels. They classified as “low intensity” those parenting interventions that consisted mainly of weekly or biweekly home visits along with occasional parent meetings. This level of intervention sounds a lot like what is provided in many of the two-generation programs described in this article. Wasik and Karweit concluded that the most effective interventions included intensive child and parent services which 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 much, if anything, to the effectiveness of a high-intensity child component.

The same worry applies to the intensity of adult education or job training services: two-generation programs may not deliver enough of any adult-focused 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 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 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. Programs that provide high-quality infant stimulation as one component (IHDP) cost at least $10,000 per child per year. High-quality parenting programs such as Avance’s add at least $1,000 per year to this total, 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% greater than the most expensive two-generation programs (CCDP and New Chance).

However, considering the high costs of several other educational or social “programs” may help put the costs of two-generation programs in perspective. 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 high-quality two-generation programs do not seem so intimidating. Why should high-quality preschool, parenting, and adult education services,
Two-Generation Programs: Design, Cost, and Short-Term Effectiveness

delivered to disadvantaged children and parents, cost less than high-quality educational services delivered in other settings?

**Planned Variation Research Should Be Conducted**

The two-generation intervention strategy was initiated with limited evidence about the most effective way in which 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 different promising parenting and/or adult education strategies are systematically appended to a single high-quality early childhood program to test experimentally their differential effectiveness in producing positive outcomes for parents and in 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 suggests that most adult education programs tend to replicate the poor high school settings in which participating adults initially failed. When this happens, the common two-generation strategy of using existing community-based adult education services is doomed to failure.

Before high-quality adult education can be satisfactorily incorporated into two-generation programs, better approaches need to be developed.

**Longitudinal Research Is Needed**

The modest results described here are sobering but not surprising because 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, and based upon the mixed evidence presented in this article, it is naive to think that there will be quick, easy, or inexpensive fixes. Further, current welfare reform efforts may 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. However, the results of the two-generation programs reviewed here follow children only through their fifth birthday, although some of the programs are designed to continue until children are age eight or older. Follow-up data should be collected regarding the families participating in these evaluations to determine whether hypothesized longer-term effects and linkages between effects on parents and effects on children do, in fact, occur.

---

8. Randomized trials of PAT are being sponsored by the Center for the Future of Children, The David and Lucile Packard Foundation, Los Altos, CA.

9. Ongoing evaluations of HIPPY are being conducted by the Center for the Child, National Council of Jewish Women, New York, NY.


21. Several programs were not reviewed because they do not meet our definition of a two-generation program. Many of these arose from a child development perspective (for example, Head Start, the Early Childhood Education and Assistance Program developed in Washington State, the Infant Health and Development Program, Parents as Teachers, and the Home Instruction Program for Preschool Youngsters), while others grew from a welfare and job training perspective (for example, the Teenage Parent Demonstration; the Learning, Earning, and Parenting program; the JOBSTART demonstration; and Project Redirection). The Kenan Trust Family Literacy Program does meet the criteria for a two-generation program and is an important national model but is not reviewed here because the evaluation did not include a comparison group.


