

Program Outcomes and Oversight

SUMMARY

Existing research indicates that well-implemented early childhood programs can provide educational benefits to children—although the evidence is mixed regarding whether these benefits persist over time. Claims of widespread program successes should be viewed skeptically because early childhood programs differ considerably from site to site, and studies have not conclusively identified which program components produce good outcomes. Presently, Minnesota’s statewide education information systems cannot readily track the progress of children from Head Start, Early Childhood Family Education (ECFE), or School Readiness programs who have entered the K-12 education system. Also, federal and state officials regularly conduct on-site reviews of individual Head Start programs, but external reviews of local ECFE and School Readiness programs are not required and have been done on a very limited basis.

Previous chapters of this report described the participants in Minnesota’s early childhood programs, the services provided, and the way these programs are funded. Ultimately, however, it is important to consider the impacts these programs have on their participants. This chapter addresses the following questions:

- **What has research nationally and in Minnesota shown about the outcomes of early childhood education programs? Does research provide clear guidance about when interventions should start, how long they should last, or the best types of services?**
- **How, if at all, has Minnesota measured the progress of children who have participated in Head Start, Early Childhood Family Education (ECFE), and School Readiness?**
- **To what extent do state, federal, and other agencies monitor local early childhood education programs on an ongoing basis?**

To answer these questions, we examined the findings of existing research on early childhood programs in Minnesota and elsewhere. To examine practices for overseeing early childhood programs, we interviewed state, federal, and other officials, reviewed information reported to state officials by service providers, and obtained external monitoring reports.

GENERAL RESEARCH FINDINGS

Most research on early childhood education programs in the U.S. has been conducted during the past 40 years. This section briefly summarizes what research has indicated about program outcomes and the timing of early childhood interventions.

Program Effects

Early childhood education programs take a variety of forms but, in general, they are intended to enhance children's cognitive, social, emotional, and physical development. Usually these programs try, at a minimum, to lay a foundation for subsequent success in school. Many program advocates have suggested that early interventions might also help disadvantaged children lead more productive lives—through higher earnings, less criminal behavior, and improved health. We found that:

- **Researchers generally agree that well-implemented, high-quality preschool programs can help children, at least in the short term.**

“Model” early education programs have demonstrated some strong, positive effects.

Some of the strongest evidence has come from “model” early education programs implemented during the past 40 years. Model programs have usually been small, generously funded, and carefully implemented, so they are not necessarily typical of large-scale programs operating elsewhere. Nevertheless, it is noteworthy that a summary of research from model programs concluded that:

[Model programs] demonstrate unequivocally that quality preschool programs can provide an immediate boost to children's intellectual performance and reduce their rate of placement in special education classes. The studies also provide moderate evidence that quality preschool programs decrease grade retention and increase the likelihood of high school graduation.¹

Likewise, RAND researchers reviewed model programs and reported that “in some situations, carefully targeted early childhood interventions *can* yield measurable benefits.”² RAND concluded that long-term cost savings to government outweighed program costs in the two programs targeting at-risk children for which the researchers could reliably make such comparisons.³

1 Ron Haskins, “Beyond Metaphor: The Efficacy of Early Childhood Education,” *American Psychologist* 44, n. 2 (February 1989), 276.

2 Lynn A. Karoly, Peter W. Greenwood, Susan S. Everingham, Jill Hoube, M. Rebecca Kilburn, C. Peter Rydell, Matthew Sanders, and James Chiesa, *Investing in Our Children: What We Know and Don't Know About the Costs and Benefits of Early Childhood Interventions* (Santa Monica, CA: RAND, 1998), xiii. One of the nine programs reviewed by RAND was a large-scale program, not a model program.

3 *Ibid.*, 73-103. One of the studies involved a preschool for children ages three and four; the other involved home visits to families with children age two and under. The savings included increased tax revenues and reduced expenditures for welfare, criminal justice, education, health, and other services.

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Table 4.1 presents excerpts from several sources that have summarized research literature on early childhood programs' impacts on children. The summaries by Haskins and Barnett note that studies of ongoing, large-scale early education programs, such as Head Start, have usually found smaller impacts than have studies of model programs. For instance, the widely-heralded outcomes of the Perry Preschool Program in Michigan occurred in a model program that looked quite different from traditional Head Start or other preschool programs.⁴ Compared with most other preschool programs, the Perry program had more favorable staff-to-child ratios, better educated teachers, more frequent home visits, and better technical assistance for staff.

In addition,

- **Research has reported mixed findings regarding the extent to which the benefits of preschool programs have been sustained in the years following program completion.**

Many studies of model and large-scale programs have reported that early education interventions have positive initial benefits for children, including increased IQ and improved school achievement. Often, however, the IQ gains of participants erode within a few years—contrary to some of the claims made by early advocates of these programs. Studies of early childhood programs have reported somewhat more promising program results using measures other than IQ. For example, some studies have linked program participation with long-term school success, using measures such as achievement tests, grade retention rates, and special education placement rates. Even with these measures, however, the research findings are mixed.⁵ In cases where long-term effects have faded over time, some researchers have partly attributed this to the low quality of grade schools attended by the participants.⁶

In addition,

- **Studies have not provided very conclusive evidence about the characteristics of effective early childhood programs.**

RAND's recent summary of research said: "The two most important things we don't know about early childhood intervention programs is why the successful

⁴ In the Perry study, 58 children participated in a model preschool program for one or two years, and 65 were in a control group. Based on more than two decades of tracking, researchers found that the program reduced participants' grade retention, welfare usage, and crime and increased their school completion rates and employment levels. However, as one of the founders of Head Start (Edward Zigler) has observed, the Perry program had "few resemblances to Head Start"—see Zigler and Sally J. Styfco, "Head Start: Criticisms in a Constructive Context," *American Psychologist* 49, n. 2 (February 1994), 128.

⁵ In addition to mixed overall findings in the reports, the findings for particular subgroups of participants have also varied. For instance, four experimental studies of model programs found larger effects on achievement test scores for girls than boys—see W. Steven Barnett, "Long-Term Effects of Early Childhood Programs on Cognitive and School Outcomes," *The Future of Children* 5, n. 3 (Winter 1995), 41.

⁶ Valerie E. Lee and Susanna Loeb, "Where Do Head Start Attendees End Up? One Reason Why Preschool Effects Fade Out," *Educational Evaluation and Policy Analysis* 17, n. 1 (Spring 1995), 62-82.

Table 4.1: Impacts of Preschool Programs--A Sampling of Research Summaries

W. Steven Barnett, Rutgers University: "The weight of the evidence establishes that [early childhood care and education] can produce large effects on IQ during the early childhood years and sizable persistent effects on achievement, grade retention, special education, high school graduation, and socialization. In particular, the evidence for effects on grade retention and special education is overwhelming. Evidence is weaker for persistent achievement effects.... Comparison of estimated long-term effects between model programs and large-scale programs indicates that the latter tend to have smaller effects."¹

Ron Haskins, staff for U.S. House of Representatives Committee on Ways and Means: "Research has shown that both model programs and Head Start have immediate positive impacts on tests of intellectual performance and social competence but that this impact declines over the first few years of public schooling. The evidence of improvement on long-term measures of school performance such as special education placement is substantial for model programs but thin and inconsistent for Head Start. There is limited but provocative evidence that model programs may have positive effects on life success measures such as teen pregnancy, delinquency, welfare use, and employment, but there is virtually no evidence linking Head Start attendance with any of these variables."²

Edward Zigler and Sally J. Styfco, Yale University: "Studies of Head Start and other early intervention programs reached the same conclusion: Preschool graduates generally show immediate gains in intelligence and achievement test scores, but these benefits do not appear to be permanent.... The evidence—disappointing to some—is that early intervention cannot guarantee success for life.... Evaluators have focused almost exclusively on the preschool education component and its effects on intelligence and achievement. Possible effects to physical health, nutritional status, social behavior, parents' child-rearing abilities, family functioning, parental empowerment, and community development have been under-evaluated and undervalued."³

U.S. General Accounting Office: "Although an extensive body of literature exists on Head Start, only a small part of this literature is program impact research. This body of research is inadequate for use in drawing conclusions about the impact of the national program in any area in which Head Start provides services such as school readiness or health-related services. Not only is the total number of studies small, but most of the studies focus on cognitive outcomes, leaving such areas as nutrition and health-related outcomes almost completely unevaluated."⁴

Craig T. Ramey and Sharon Landesman Ramey, University of Alabama-Birmingham: "The evidence accumulated over the past 25 years indicates that early intervention programs can produce modest to large effects... on children's cognitive and social development.... Over time, the initial positive effects of early interventions will diminish to the extent that there are not adequate environmental supports to maintain children's positive attitudes and behavior and to encourage continued learning related to school."⁵

U.S. Administration on Children, Youth, and Families: "Exposure to Head Start does not usually eliminate developmental disparities between groups of children that originate in the diverse cultural backgrounds of families, though it may reduce them. At the end of the Head Start year, children in the best programs are at national norms for early literacy and math skills, but children in many programs are not."⁶

¹W. Steven Barnett, "Long-Term Effects of Early Childhood Programs on Cognitive and School Outcomes," *The Future of Children* 5, n. 3 (Winter 1995), 43, 44.

²Ron Haskins, "Beyond Metaphor: The Efficacy of Early Childhood Education," *American Psychologist* 44, n. 2 (February 1989), 274.

³Edward Zigler and Sally J. Styfco, "Head Start: Criticisms in a Constructive Context," *American Psychologist* 49, n. 2 (February 1994), 128, 129.

⁴U.S. General Accounting Office, *Head Start: Research Provides Little Information on Impact of Current Program* (Washington, D.C., April 1997), 2.

⁵Craig T. Ramey and Sharon Landesman Ramey, "Early Intervention and Early Experience," *American Psychologist* 53, n. 2 (February 1998), 115, 117. The authors define "modest to large" effects as ranging from "0.2 to over 1 standard deviation."

⁶U.S. Department of Health and Human Services, Administration on Children, Youth, and Families, *Head Start Program Performance Measures: Second Progress Report* (Washington, D.C., June 1998), 47.

Early childhood programs may differ considerably from site to site.

programs work—and why those not shown to be successful don’t.”⁷ It noted, for instance, that research has not yet revealed clear answers about whether programs should focus services on the child, the parent, or both.⁸ The summary also noted that there is limited evidence on how to identify children who would benefit most from interventions. Some researchers have concluded that more intensive early childhood services are likely to produce better results, but the research has not provided clear answers about the preferred amount of service hours per week or the frequency of home visits.⁹

In the case of Head Start, a forthcoming national study may shed some light on its effectiveness. In 1998, Congress mandated completion of a national analysis of the impact of Head Start programs by September 2003.¹⁰ The study will examine factors that may affect program impact, such as program quality, a child’s length of time in the program, the child’s age when entering the program, and the intensity of services. Such a study may be useful, but there will always be questions about how to apply the findings from large-scale research to programs that were not direct subjects of study.¹¹ Early childhood programs often differ considerably from site to site—for instance, in their daily curricula, quality of staff, scope of services, and the skill with which they have been implemented. For this reason,

- **The findings of individual early childhood research studies should be applied with considerable caution to programs elsewhere.**

Most of the discussion in this section has focused on preschool-type programs, which often provide direct services to children for many hours each week. One of Minnesota’s main early childhood programs—Early Childhood Family Education (ECFE)—is quite different from this model. ECFE is sometimes referred to as a “two-generation” program because it aims to inform and educate parents—through classes, discussions, or structured parent-child activities—in addition to offering developmentally appropriate activities for children. ECFE classes

7 Karoly and others, *Investing in Our Children*, 108-109.

8 A National Academy of Sciences report recently said that “programs that offer both a parent and a child component appear to be the most successful in promoting long-term developmental gains for children from low-income families”—see *From Neurons to Neighborhoods: The Science of Early Childhood Development*, ed. Jack P. Shonkoff and Deborah A. Phillips (Washington, D.C.: National Academy Press, 2000), 345. In contrast, another extensive review of the literature found that “there is no evidence that the type of parent involvement used in past research studies has led to greater benefits for children, more cost-efficient programs, better maintenance of effects, or benefits for other family members”—see Karl R. White, Matthew J. Taylor, and Vanessa D. Moss, “Does Research Support Claims About the Benefits of Involving Parents in Early Intervention Programs?,” *Review of Educational Research* 62, n. 1 (Spring 1992), 120.

9 Karoly and others, *Investing in Our Children*, 109-111; Ramey and Ramey, “Early Intervention and Early Experience,” 115-116; Barbara A. Wasik and Nancy L. Karweit, “Off To a Good Start: Effects of Birth to Three Interventions on Early School Success,” in *Preventing Early School Failure: Research, Policy, and Practice*, ed. Robert E. Slavin, Karweit, and Wasik (Boston: Allyn and Bacon, 1994), 13-57.

10 *Head Start Reauthorization Act*, 42 U.S. Code 9844 (g) (1998).

11 Recently, a study of 1970-71 Head Start participants from selected Florida and Colorado sites reported evidence of some long-term program impact, based on a 17-year follow-up—see Sherri Oden, Lawrence J. Schweinhart, and David P. Weikart, *Into Adulthood: A Study of the Effects of Head Start* (Ypsilanti, MI: High/Scope Educational Research Foundation, 2000). Nearly one-third of Minnesota’s Head Start grantees use in whole or part the type of curriculum used in this study. On the other hand, there have been many changes in Head Start standards and practices since the program examined in this study was in place.

Parent education may be one component of an effective service strategy.

typically meet for just two hours per week. Two-generation programs can take many forms, but:

- **Studies of two-generation programs have generally found small or no effects on child development, although many have reported some positive impact on parenting skills.**

Researchers at Abt Associates reviewed six “premier” two-generation programs and reported few measurable impacts on children.¹² Several of the programs had positive effects on parenting—for example, resulting in increased time spent with children, improved teaching skills, and improved parent-child interactions. The Abt researchers said that the intensity of these programs was an important factor in their impact, with “low intensity” programs (such as weekly or biweekly home visits, combined with occasional parent meetings) providing limited opportunity to have an impact. Based on the Abt review and others, a recent summary of research concluded that: “Fairly strong evidence suggests that the best way to promote child development is to work directly with children and not to assume that changes in parents will lead to changes in children.”¹³ Likewise, a summary of research by Craig and Sharon Ramey concluded that early childhood programs emphasizing direct educational experiences for children have shown larger and more enduring benefits than programs that rely on indirect ways to improve child competencies (such as parent training).¹⁴

But parent-focused services alone have shown limited impacts on children.

Even if the outcomes of two-generation programs have not been dramatic, it is possible that parent-focused services might be one important element of broad, multi-faceted strategies to support families with young children. Still, the relatively weak child impacts found in studies of parent-focused programs may indicate that programs such as ECFE should not, by themselves, be viewed as a substitute for more intensive, child-focused services—particularly in the case of children considered to be at risk for later school problems.

Timing of Program Interventions

Policy makers are interested not only in whether early interventions are effective in general, but also in which specific strategies work. They would like to know when to intervene with young children, whether to have special follow-up services in grade school for preschool graduates, and how long early interventions should last. In general,

¹² Robert G. St. Pierre, Jean I. Layzer, and Helen V. Barnes, “Two-Generation Programs: Design, Cost, and Short-Term Effectiveness,” *The Future of Children* 5, n. 3 (Winter 1995), 76-93. The studies also indicated that two-generation programs increased the rate of participation by children and their parents in relevant social and educational services, and they found that programs had large variations in outcomes among individual sites.

¹³ Deanna S. Gomby, Mary B. Lerner, Carol S. Stevenson, Eugene M. Lewit, and Richard E. Behrman, “Long-Term Outcomes of Early Childhood Programs: Analysis and Recommendations,” *The Future of Children* 5, n. 3 (Winter 1995), 16.

¹⁴ Ramey and Ramey, “Early Intervention and Early Experience,” 116. Based on such findings, the authors said, “The practical question for the field of early intervention, however, is whether parent education and general family support programs can be justified if they do not produce child benefits.”

- **Research has provided only limited guidance about the “right” age to intervene with at-risk children and how long to intervene, although there is general agreement that it would be unrealistic to expect brief interventions to have lifelong impacts.**

Service providers have tried many program options to prevent children’s failure in school—including various interventions in preschool, kindergarten, and early elementary grades. Few studies have compared these options, but one found that short-term preschool programs were not enough, by themselves, to prevent early school failure. It reported that the program with the strongest results through third grade offered a variety of interventions from prekindergarten through elementary years—including high quality preschool, full-day kindergarten, enhanced curriculum and instruction, tutoring, parent involvement, family support programs, and small classes.¹⁵

Another study that addressed the issue of program duration was the Abecedarian Project, a model program involving 111 at-risk children in North Carolina. This study looked at the impact of a long-term intervention that, for some study participants, started shortly after birth. It found that eight-year-olds who received continuous intervention for their first eight years of life academically outperformed children who only participated in preschool and those who only received three years of assistance in elementary grades.¹⁶ Other analysts observed, however, that the study was not able to disentangle whether the program’s positive outcomes were attributable to its duration, its intervention at infancy, or some other aspect of the way the program was delivered.¹⁷ Regarding the grade school portion of this program, some researchers have questioned the effectiveness of school-age interventions that are intended to help prolong the positive effects of preschool programs. A forthcoming, federally-sponsored study found that programs specifically designed to help Head Start children make the transition into regular schools had little measurable impact on children’s academic and social development.¹⁸

Researchers continue to debate the merits of services for children under age three.

In recent years, there has been considerable discussion about the need for early childhood programs for children under age three. Researchers continue to debate what the evidence shows about intervention with infants. Researchers who worked on the Abecedarian Project noted that “five major studies demonstrating some of the largest effects of early intervention on children’s early cognitive and social development... all enrolled children during infancy.”¹⁹ However, one recent

¹⁵ Robert E. Slavin, “Preventing Early School Failure: Implications for Policy and Practice,” in *Preventing Early School Failure: Research, Policy, and Practice*, 206-229. This study found that “the most effective [strategies] by far for preventing early reading failure are approaches incorporating one-to-one tutoring of at-risk first-graders” (p. 212).

¹⁶ Frances A. Campbell and Craig T. Ramey, “Effects of Early Intervention on Intellectual and Academic Achievement: A Follow-Up Study of Children From Low-Income Families,” *Child Development* 65, 684-698.

¹⁷ For example, see John T. Bruer, *The Myth of the First Three Years: A New Understanding of Early Brain Development and Lifelong Learning* (New York: The Free Press, 1999), 169-170.

¹⁸ Mr. Tom Schultz, U.S. Head Start Bureau, interview by author, Telephone conversation, St. Paul, September 27, 2000. In addition, Barnett, “Long-Term Effects,” reported that, “The only direct support for the need for prolonged, schoolage intervention comes from a single quasi-experimental study,” but he said that improvements in poor-quality schools might independently improve child development (p. 44).

¹⁹ Ramey and Ramey, “Early Intervention and Early Experience,” 115.

literature review said that “evidence about when programs should begin and how long they should last is mixed,”²⁰ and another described the issue of when to intervene as an “unanswered” issue.²¹ More generally, the National Academy of Sciences recently said that “the research literature on service intensity, duration, and age of initiation is perhaps the most complex and inconclusive aspect of the early childhood intervention knowledge base.”²² It noted that evidence has shown earlier interventions to be more justifiable for some specific conditions—such as hearing loss, vision impairment, and major delays in motor skill development—than for others.²³

Some advocates for expanded birth-to-three services have cited recent research on brain development—suggesting, for example, that early stimulation causes brain synapses to form, or that missed opportunities to help children’s brains develop before age three will adversely affect them for the rest of their lives. We found that:

- **For the most part, brain research does not offer clear evidence about the right time to begin programmatic interventions in young children’s lives or the types of care and instruction that should be provided.**

Most brain researchers agree that early experiences are important and help to build the foundation for subsequent brain development. On the other hand, they generally do not believe that brain research provides much insight into how to raise children or accelerate brain development. As one recent review of the research concluded:

The new scientific research doesn’t say that parents should provide special “enriching” experiences to [babies] over and above what they experience in everyday life. It does suggest, though, that a radically deprived environment could cause damage.²⁴

Some people regard the first three years of life as the critical period for brain development—and, thus, the time when interventions should occur in order to maximize their impact. As noted above, this appears to be true for some children—such as those with serious disabilities or those subject to neglect or abuse. However, two recent research summaries suggest that the birth-to-three years are not the only time for effective interventions with most children:

First, ...most learning is not subject to critical-period constraints, not confined to windows of opportunity that slam shut. Second, neuroscientists do not think that the quantity of experience or stimulation during the critical period is the key variable in brain development. Third, critical periods are complex. There are distinct phases within critical periods; there are distinct critical periods for specific functions within a system like vision or language; and the periods and phases within them

Research has not clearly indicated how to encourage brain development in very young children.

²⁰ Barnett, “Long-Term Effects,” 44.

²¹ Karoly and others, *Investing in Our Children*, 109.

²² *From Neurons to Neighborhoods*, 362.

²³ *Ibid.*, 216, 364.

²⁴ Alison Gopnik, Andrew N. Meltzoff, and Patricia K. Kuhl, *The Scientist in the Crib: Minds, Brains, and How Children Learn* (New York: William Morrow and Company, 1999), 182.

There is limited evidence about the components of effective early education programs.

extend over considerable periods of time—years—and well into children’s second decade of life. Finally, critical periods do not all fit neatly into the first three years of life.²⁵

Available evidence indicates that such critical periods are more exceptional than typical in human development.... Assertions that the die has been cast by the time the child enters school are not supported by neuroscience evidence and can create unwarranted pessimism about the potential efficacy of interventions that are initiated after the preschool years.²⁶

Overall, early childhood education research provides limited guidance regarding the design of effective early childhood education programs. The research results are complex and sometimes contradictory. In general, we think that policy makers should be cautious and even skeptical about claims of widespread, long-term impacts demonstrated in previous research. It is hard to predict how long it will take for the research evidence to provide clearer insights, but for now policy makers will have to continue making important decisions about program funding and design based on limited knowledge of program results.

MINNESOTA STUDIES OF PROGRAM OUTCOMES

ECFE Evaluations

Over the past 25 years, there have been many studies of Minnesota’s ECFE program by state agencies and private consultants. Before the Legislature authorized statewide implementation of the program in 1984, reports generally praised the quality of the programs that had been implemented.²⁷ For example, a consultant offered the following comments on 13 pilot projects:

On the whole, these are outstanding demonstration programs—carefully conceived, diligently implemented and enthusiastically received by program participants. As full-time evaluators, we see a large variety of programs.... It is unusual to find programs where implementation so closely follows intent, and where program implementation has been so thorough, so intense, and so successful.²⁸

In surveys initiated by state agencies during the program’s pilot phase (before 1984), parents generally expressed satisfaction with ECFE. More recently, state evaluators have used surveys and interviews mainly to help assess the impact of the ECFE program on parents. For example, based on standardized interviews of

25 Bruer, *The Myth of the First Three Years*, 103.

26 *From Neurons to Neighborhoods*, 216.

27 For a summary of pilot program evaluations, see Minnesota Department of Education, *Evaluation Study of Early Childhood Family Education: Report to the Legislature* (St. Paul, March 1, 1986).

28 Michael Q. Patton, *An External Review of Early Childhood and Family Education Pilot Programs* (Minneapolis: Minnesota Center for Social Research, March 1977), 2, 4.

183 parents at the beginning and end of their ECFE programs, a 1992 report concluded that “the majority of coded parent responses reflected parent change in feelings, knowledge, expectations, and behavior” after participating in ECFE.²⁹ Examples of these changes included increased feelings of support from others and increased confidence and self-esteem as parents. In a 1996 report, a large majority of 239 low-income parents from 14 school districts reported that ECFE participation improved their understanding of child development and their relationships with their children.³⁰

There have been several efforts to evaluate ECFE programs using measures other than parent perceptions. Most recently, a 1996 study of ECFE programs in 14 school districts found that ECFE staff gave fewer participating parents low ratings on various parenting measures at the end of the school year than at the beginning—based on analyses of parent interviews.³¹ For instance, staff rated 39 percent of participating parents as having low knowledge and awareness of their children at the beginning of the year, compared with 17 percent at the end of the year. In this same study, independent raters who viewed videotapes of parent-child interactions gave 8 percent of the parents higher ratings at the end of the year than at the beginning.³²

Overall, we conclude that:

- **Department of Children, Families, and Learning staff have demonstrated ongoing interest in evaluating the ECFE program. However, these evaluations have not provided definitive evidence of ECFE’s impact on parents or children.**

ECFE evaluations have helped state staff identify program improvements and plan training activities.

The studies of ECFE have been ambitious and time-consuming, and they have involved close working relationships between state and local ECFE staff. Department staff indicated that the ECFE evaluations have helped state and local staff identify program improvements and plan staff training activities. Staff from the department raised money from private sources to pay for the most recent study, which received a national award as an exemplary evaluation.³³ Nevertheless, the limitations of the various ECFE studies are notable.

29 Betty Cooke, *Changing Times, Changing Families: Minnesota Early Childhood Family Education Parent Outcome Interview Study* (St. Paul: Minnesota Department of Education, March 1992), ix.

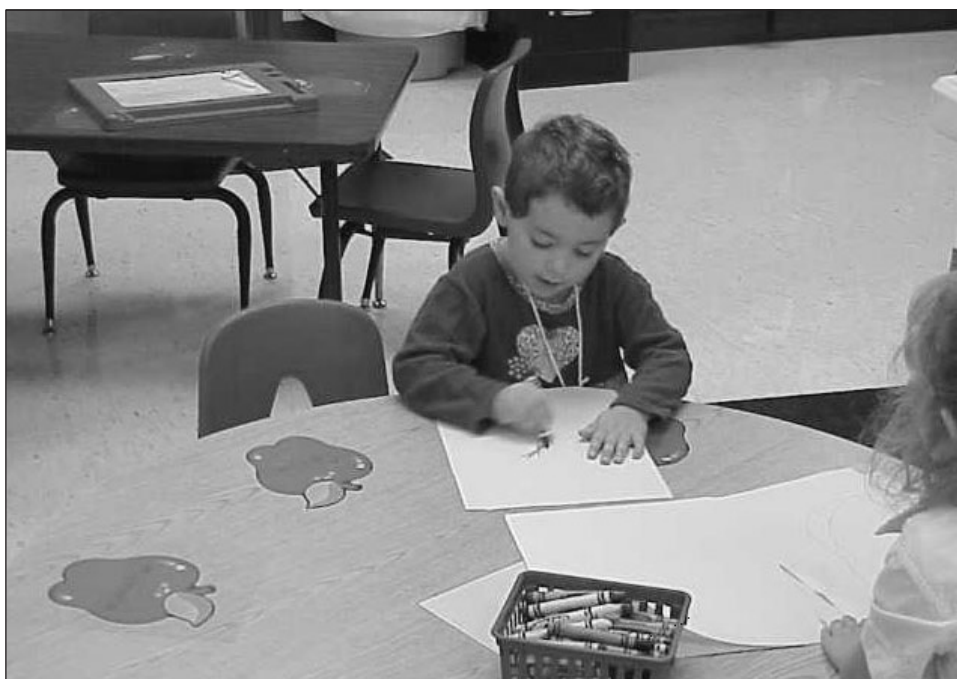
30 Marsha R. Mueller, *Immediate Outcomes of Lower-Income Participants in Minnesota’s Universal Access Early Childhood Family Education* (St. Paul: Minnesota Department of Children, Families, and Learning, April 1996), 60.

31 Mueller, *Immediate Outcomes*, 42, 64. For example, staff rated parent behavior by asking parents how they maintained self-control when they were frustrated with their children, how they guided their children’s behaviors, and how they responded to an angry child.

32 *Ibid.*, 75. In 1979, a survey of about 50 kindergarten teachers indicated that most perceived that children from ECFE programs had better attitudes toward school, better school-readiness, and better relationships with their parents than other kindergarten children—see Michael Q. Patton, *The Council on Quality Education Administered Early Childhood Family Education Program: A Perspective on Impact* (Minneapolis: Minnesota Center for Social Research, 1979). In 1980, teachers and independent observers in two school districts rated the characteristics of ECFE participants and non-participants when they were in kindergarten; they did not find measurable differences—see Anderson and Berdie Associates, Inc., *Early Childhood and Family Education: A Program Outcome Assessment* (St. Paul: Minnesota Council on Quality Education, December 1980).

33 The evaluation was funded with a \$150,000 McKnight grant and a \$20,000 legislative appropriation. It received an exemplary evaluation award from the American Evaluation Association.

It is difficult to determine whether parenting improvements reported in previous studies were caused by ECFE or other factors.



First, the only sure way to attribute parent changes to the ECFE program would be through the use of a “control group” study that carefully compares groups of randomly-selected ECFE participants and non-participants. The two most recent ECFE studies (1992, 1996) reported that parents experienced changes in their feelings, knowledge, expectations, and behavior during the year. But such changes might be typical of people gaining experience as parents, talking with other parents, and reading child-rearing books. The changes could also have been caused by participation in other early childhood programs, such as Head Start or private preschools. Our recommendations on program monitoring (later in this chapter) do not include implementation of control group studies, but we think that future evaluations by the department should acknowledge the possible impact of factors other than the ECFE program on child development.

In addition, the ECFE studies have not tested whether the improvements they reported in parent ratings were large enough to be statistically significant.³⁴ Furthermore, none of the ECFE parent surveys or interviews conducted over the past 25 years have been based on samples that could be presumed to be representative of participants statewide.

Finally, the studies have provided little evidence of effects on parenting or school readiness subsequent to the end of the ECFE program year. A 1986 report said that the most effective way to measure ECFE outcomes would be to track differences in participants and non-participants over a 10- to 20-year period, and it outlined a series of tasks that would be needed to monitor program quality and

³⁴ The editor of an evaluation journal expressed concern about this absence of standards for judging the size of the changes reported in the 1996 study—see Jody L. Fitzpatrick, “Dialogue With Marsha Mueller,” *American Journal of Evaluation* 19 (1), 1998, 97-98. The *Immediate Outcomes* report said that “designing the evaluation to test statistical significance would have required a research design that would not have been as useful to program staff and their questions even though it would have been useful to research and policy communities” (p. 92).

costs.³⁵ Likewise, the 1996 ECFE evaluation said: “Behavior change is often a long-term proposition requiring support, practice, and reflection.”³⁶ A full evaluation of such changes would require a longer follow-up than the ECFE studies have provided.

School Readiness Evaluations

The Minnesota Department of Children, Families, and Learning has issued several evaluation reports on the School Readiness program since 1995.³⁷ In a 1999 study of 177 children in School Readiness programs, a majority of the children were rated as “proficient” at the end of the school year on various measures of child development.³⁸ The study also found that most of the children rated as *not* proficient at the beginning of the year had improved by the end of the year. In addition, kindergarten teachers said that 66 percent of the former School Readiness participants were “doing well” in kindergarten, 27 percent were “making adequate adjustment” to kindergarten, and 7 percent were experiencing a “difficult” adjustment. The report also said that 99 percent of interviewed parents described changes their children experienced during the school year “as a result of their [School Readiness] experience.”³⁹

Again, as with ECFE, we think the department has demonstrated ongoing interest in evaluating the School Readiness program. However, we think it is also important to convey to policy makers that:

- **Evaluations of the School Readiness program have not provided definitive evidence of its effects.**

The department has sometimes declared that School Readiness has a positive impact without acknowledging other possible explanations for the results of its evaluations. According to the department, “Completed studies show young children benefit from participation in the School Readiness program.”⁴⁰ However, the progress shown by children during the school year on developmental checklists might be explained by normal maturation or factors other than the School Readiness program. Without a study that compares a control group of

35 Minnesota Department of Education, *Evaluation Study of Early Childhood Family Education*, 2, 27-29.

36 Mueller, *Immediate Outcomes*, 76.

37 Early reports included Marsha R. Mueller, *Learning Readiness: Parent and Teacher Perspectives About Minnesota’s Learning Readiness Programs—A Report of Findings From the 1994 Pilot Evaluation* (St. Paul: Minnesota Department of Education, January 1995) and Marsha R. Mueller, *Learning Readiness: 1996-1997 Evaluation Summary* (Roseville, MN: Minnesota Department of Children, Families, and Learning, February 1998).

38 Marsha R. Mueller, *Minnesota’s Learning Readiness: 1997-98 Evaluation* (Roseville, MN: Minnesota Department of Children, Families, and Learning, January 1999), 4. On 16 measures of personal and social development, the percentage of children rated as proficient ranged from 55 (“uses words to resolve conflicts”) to 90 (“uses classroom materials purposefully and respectfully”). On 11 measures of literacy and language, the percentage of children rated as proficient ranged from 65 (“recognizes the association between spoken and written words”) to 89 (“listens with interest to stories read aloud”). The sample consisted of children from eight school districts.

39 *Ibid.*, 10. Seventy-four parents were interviewed.

40 Minnesota Department of Children, Families, and Learning, *Evaluation of Minnesota’s School Readiness Program (Formerly Learning Readiness), 1995-2001* (Roseville, MN, undated), 1.

School Readiness participants with a group of non-participants, it would be difficult to conclude whether the program has had an impact. The department's evaluations do not discuss the possibility that factors other than the School Readiness program may have contributed to the children's development or to parents' perceptions of improvement.

Head Start Evaluations

Head Start grantees regularly report information to federal and state agencies on the characteristics of children they serve and the services they provide. This information was the basis for much of our discussion of the Head Start program in Chapter 1. But, in contrast to ECFE and School Readiness,

- **No large-scale studies have examined the effects of Minnesota's Head Start program on its participants.**

This may reflect the limited goal of Minnesota's Head Start subsidy program: to expand the availability of the federal Head Start program to additional Minnesota families. Also, some program staff told us that Head Start's effectiveness was sufficiently established in national studies, thus minimizing the need for state-specific studies. As discussed earlier in this chapter, however, national research on Head Start has shown mixed results, and findings from research elsewhere may not necessarily apply to Minnesota programs due to site-to-site program differences.

A new federal law will require Head Start agencies to track children's progress while they are in the program.

Presently, individual Head Start grantees are considering ways to measure children's progress while in the program. A 1998 federal law required each federal Head Start grantee serving children ages three to five to create a system to track child and program outcomes.⁴¹ Grantees must fully implement this tracking system no later than the 2001-02 program year, and they will be expected to include child outcome information in annual self-assessment reports. Grantees have been instructed to collect "some data" about each of eight areas of child learning and development, but the federal government has not prescribed which measures grantees should use or set standards for acceptable levels of performance.⁴² Grantees are only required to collect information about children's progress during the time they are attending Head Start, so these new outcome tracking systems will not necessarily yield insights into the success of children's transition into the regular school system.

In addition to these efforts, the Minnesota Department of Children, Families, and Learning is working with consultants to identify outcome measures for state-funded Head Start services for children under age three.

⁴¹ *Head Start Reauthorization Act*, 42 U.S. Code 9836a (b)(2)(B) (1998).

⁴² U.S. Department of Health and Human Services, Administration on Children, Youth, and Families, to Head Start Grantees and Delegate Agencies, *Using Child Outcomes in Program Self-Assessment*, August 10, 2000, memorandum.

ONGOING STATE OVERSIGHT

One way to improve program quality and accountability is to periodically conduct evaluations of program results, such as those discussed in the previous sections of this chapter. Another approach is through ongoing oversight of the programs offered by individual service providers. In the following sections, we discuss the extent to which the Department of Children, Families, and Learning (CFL) and others have monitored local service delivery practices.

CFL monitors individual Head Start programs more actively than it does ECFE or School Readiness programs.

In general, the department oversees the ECFE and School Readiness programs somewhat differently than it oversees Head Start. Department staff told us that they prefer to let local school districts have primary responsibility for overseeing and supervising district programs, with CFL providing policy leadership and technical assistance to improve program quality. In contrast, department staff told us that they have traditionally played a more active oversight role with grantees other than school districts—such as agencies that receive state and federal Head Start grants.

Monitoring Local ECFE and School Readiness Programs

- **The Department of Children, Families, and Learning provides ongoing training and technical assistance to local ECFE and School Readiness programs, but it has not conducted regular, on-site reviews of these programs.**

State staff help local school districts implement ECFE and School Readiness programs. For instance, when the Legislature authorized statewide development of ECFE programs in the early 1980s, state officials prepared a “best practices” guidebook to help school districts.⁴³ Recently, CFL staff prepared a resource guide with benchmarks that local program staff can use to evaluate the social, intellectual, physical, and emotional development of four-year-olds.⁴⁴

In addition, state law requires districts to biennially submit summaries of their School Readiness programs to CFL, including program descriptions and lists of cooperative arrangements with other service providers.⁴⁵ Districts are not eligible for state aid until this “plan update” has been approved by the CFL commissioner. School districts are not required to submit such reports for their ECFE programs.

CFL asks each school district to annually submit data on the number of early childhood program participants and the types of services provided.⁴⁶ For ECFE, districts report information on the number of participants in (1) classes and home

⁴³ Minnesota Council on Quality Education, *A Guide for Developing Early Childhood Family Education Programs* (St. Paul, January 1984).

⁴⁴ Department of Children, Families, and Learning, *Minnesota Early Childhood Indicators of Progress: A Resource Guide* (Roseville, MN, 2000).

⁴⁵ *Minn. Stat.* (2000) §124D.16, subd. 1.

⁴⁶ For the 1998-99 program year, CFL received reports from 97 percent of ECFE programs and 96 percent of School Readiness programs.

visits, and (2) special activities.⁴⁷ For School Readiness, districts report the total number of participants during the year, as well as the number who participated for at least 30 hours during the year. Districts keep attendance records but are not required to report to CFL how many times during the year each participant attended an ongoing activity, such as a parenting class or a daily preschool.

CFL staff also request districts to collect demographic information on all ECFE and School Readiness participants, using a participant questionnaire. Statewide, however, a majority of participants did not complete questionnaires during the 1998-99 program year, so it is unclear whether the data collected by districts on ECFE and School Readiness participants are representative of all participants in these programs.⁴⁸

Recently a report by the Children's Defense Fund identified Minnesota as 1 of 21 states that has "insufficient monitoring" of local prekindergarten programs.⁴⁹ It cited Minnesota's lack of regular, on-site reviews as the basis for this judgment, and it said that:

No matter how comprehensive a prekindergarten initiative's standards are, states cannot ensure that programs achieve positive results without regularly scheduled monitoring visits. Monitoring enables states to identify programs that are not maintaining an adequate level of quality.⁵⁰

The Children's Defense Fund report noted that 15 states monitor their public prekindergarten programs (other than Head Start) on site on a regular basis. Some of these states specify how often programs must be reviewed (for example, six states require annual visits); other states schedule on-site reviews on a less regular schedule.

CFL should do more on-site monitoring of ECFE and School Readiness, but it has less than 2.0 FTE staff assigned to these programs.

Minnesota law does not require CFL to conduct on-site reviews of ECFE and School Readiness programs, and staffing constraints presently limit the agency's ability to do more on-site monitoring. CFL has less than 2.0 full-time-equivalent professional staff assigned to ECFE and School Readiness. In our view, state officials should monitor local ECFE and School Readiness programs more directly than they do now, but it would be unrealistic for CFL to do this without additional staff.

Although CFL does not conduct regular on-site program reviews, a small number of districts have arranged for peer reviews of their programs. The Minnesota Community Education Association has a long-standing process by which districts may request peer reviews of their community education programs. The requesting district can determine the scope of the review, but nearly all such reviews examine ECFE programs and many also examine School Readiness programs. Typically,

⁴⁷ Districts are supposed to report unduplicated counts of participants in these two categories, but some district staff told us that they have not ensured that double-counting between these categories does not occur.

⁴⁸ In the 1998-99 program year, districts received completed parent questionnaires from 29 percent of School Readiness participants and 36 percent of ECFE participants in classes or home visits.

⁴⁹ Karen Schulman, Helen Blank, and Danielle Ewen, *Seeds of Success: State Prekindergarten Initiatives, 1998-1999* (Washington, D.C.: Children's Defense Fund, 1999), 121-123. For Minnesota, the report focused on the School Readiness program.

⁵⁰ *Ibid.*, 121.

On average, only five school districts per year have had peer reviews of their early education programs.

staff from other school districts spend two days reviewing documents and conducting interviews. The studies generally look at organizational structure, administrative procedures, strategic planning, community involvement practices, program services, collaborative efforts, and facility use. Statewide, however, an average of only five such reviews were conducted annually during the past decade. Twenty districts have undergone two or three peer reviews since 1979, while most districts were never reviewed during this period.⁵¹

In 1998, CFL staff began developing a “program enhancement process” for ECFE, with the intent of increasing the number of on-site program reviews beyond those conducted by the Minnesota Community Education Association. CFL officials hope that this process will enable each district to have a peer review every four years. CFL will present details of this process to local ECFE program coordinators statewide in Fall 2001.

A final mechanism for ongoing program oversight is local advisory councils. State law requires school boards to establish advisory councils to help oversee ECFE and School Readiness programs. A majority of ECFE council members must be participating parents, and they are supposed to help the school board in “developing, planning, and monitoring” the ECFE program.⁵² The law specifies that School Readiness advisory councils contain a mixture of service providers and parents, and the council must “monitor the progress of the program” and advise the school board on administrative matters.⁵³ School Readiness advisory councils also must review and approve local School Readiness plans and plan updates. We did not examine the activities of local advisory councils in our study.



Overall, we think that some additional state oversight of ECFE and School Readiness would be helpful—to more effectively monitor the finances of local programs (discussed in Chapter 3) and to monitor compliance with state program standards or “best practices.”⁵⁴ Such monitoring might improve quality in locally-administered programs and provide greater accountability for state expenditures.

⁵¹ For instance, Minnesota Community Education Association records dating to 1979 indicate that there have been no reviews of the programs in the state’s largest school district (Minneapolis). The most recent reviews for some other large districts include St. Paul (1980), Duluth (1985), Rochester (1983), and Anoka (1979).

⁵² *Minn. Stat.* (2000) §124D.13, subd. 9.

⁵³ *Minn. Stat.* (2000) §124D.15, subd. 7.

⁵⁴ CFL has issued guidance to districts that describes ECFE program expectations in areas such as parent education, administration, budgeting, staffing, and linkage with other programs.

RECOMMENDATION

The Department of Children, Families, and Learning should consider the need for additional staff to oversee the ECFE and School Readiness programs—through internal reallocation or through a legislative request.

Monitoring Local Head Start Programs

The federal government has adopted performance standards for Head Start services, and agencies receiving federal funds are expected to comply with these standards. To ensure compliance,

- **Minnesota Head Start grantees receive annual on-site monitoring reviews. Over a three-year period, each grantee is reviewed once jointly by federal and state staff and twice by state staff only.**

Federal reviewers observe Head Start services and facilities on site, and they interview staff responsible for administrative, fiscal, health, nutrition, and educational services. Minnesota is 1 of only 12 states in which state-level Head Start staff participate in the federal reviews or conduct their own reviews.⁵⁵ When federal reviewers find instances of non-compliance, they require the grantee to submit a letter outlining how the problem will be corrected. If reviewers find a more serious problem—referred to as a “deficiency”—they require grantees to submit a quality improvement plan within 30 days, and subsequent reviews are more stringent. Unresolved deficiencies can result in termination or sanction of a grantee; a 1999 study by the U.S. Department of Health and Human Services reported that over 100 grantees nationwide have lost their funding since 1993.⁵⁶ No Head Start grantees in Minnesota have been terminated.

We examined 33 reports on individual Minnesota Head Start grantees that federal officials issued between 1996 and 2000, based on triennial monitoring visits. Nearly every triennial review noted some sort of compliance issue—such as improper placement of a fire alarm, lack of individualization in the curriculum, missing records, or inadequate financial monitoring systems. Five of the federal reviews found deficiencies, and the grantees were asked to develop quality improvement plans.

We also reviewed 31 reports of Minnesota grantees that resulted from monitoring visits by state officials only. These reviews were less comprehensive and formal than the joint federal-state reviews. For instance, state staff examined a limited number of compliance issues in these reviews, and they used the reviews partly to explore program concerns with grantees (such as difficulties finding dentists to provide services to children in Head Start). State officials told us that these reviews are an important, ongoing means of identifying program improvements.

⁵⁵ Schulman and others, *Seeds of Success*, 123.

⁵⁶ U.S. Department of Health and Human Services, Advisory Committee on Head Start Research and Evaluation, *Evaluating Head Start: A Recommended Framework for Studying the Impact of the Head Start Program* (Washington, D.C., 1999), 7. Many other grantees received intensive technical assistance to help them return to compliance.

Minnesota is 1 of 12 states in which state staff help review Head Start grantees.

We found that federal and state regulators collect a wealth of information about Head Start participants and services. Federal Head Start performance standards require grantees to annually submit a comprehensive Program Information Report (PIR).⁵⁷ The PIR provides detailed data about the characteristics of families served, program operations, enrollment, staffing, and community outreach. In 1999, grantees provided answers to more than 260 questions on the PIR questionnaire, including information on all individual participants. In general, we think that:

- **There is more complete, detailed information about services and participants in Head Start than there is for ECFE or School Readiness.**

Finally, it is worth noting that all Head Start grantees are subject to oversight by members of their local communities. Federal standards require each Head Start grantee to have a policy council of parents and community members. The policy council conducts an annual self-assessment of the grantee, and it has authority to make various decisions regarding the grantee's staffing, services, and enrollment priorities.

Monitoring Long-Term Educational Outcomes

One of the underlying goals of Head Start, ECFE, and School Readiness is to lay a foundation for children's school success in kindergarten and subsequent grades. We found that:

- **The Minnesota Department of Children, Families, and Learning has not systematically tracked the progress of early childhood program graduates who have entered the K-12 school system, although some individual school districts have done so.**

Some school districts regularly assess the progress of children in early childhood programs.

In recent years, some Minnesota districts have used the nationally-recognized "Work Sampling System of Child Assessment" to measure child progress. This assessment can be used from preschool through Grade 5 to monitor child development and identify ways to enhance instruction. Presently, 111 districts are using the Work Sampling System to assess children in their School Readiness programs, although state officials have very limited information about specific ways in which the assessments have been implemented and what they have shown.⁵⁸

One Minnesota district (Minneapolis) formally assesses all children during the first weeks of kindergarten, and it has specifically examined the performance of children who have participated in various early education programs. Two years

57 U.S. Department of Health and Human Services, Head Start Bureau, *Head Start Program Performance Standards and Other Regulations* (Washington, D.C., 1996), 186 (45 CFR 1304.51(h)(2)).

58 For the most part, CFL officials do not know which grade levels or curriculum areas are a part of individual districts' tracking systems. The assessment can track seven curriculum areas (personal and social development, language and literacy, mathematical thinking, scientific thinking, social studies, the arts, and physical development), but districts using the assessment do not necessarily track progress in all of these areas.

**Minnesota
should track
the K-12
performance of
former
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programs.**

ago, the results of these assessments led Minneapolis district officials to urge publicly-funded preschool programs to implement curricula with stronger cognitive elements.

In our view, the state should develop the capacity to directly measure the performance of former early childhood program participants in the K-12 school system. It is probably impractical for the state or individual districts to initiate “experimental” studies that would compare the progress of randomly-selected program participants with non-participants. However, it would be useful for state officials to examine trends in grade retention rates, special education placement rates, and standardized test scores among children previously served by Minnesota’s early education programs. Such tracking would not provide definitive evidence of program results, but it might help state and local officials detect emerging issues.⁵⁹ Early childhood programs can vary considerably from site to site, so it makes sense for state officials to build the capacity to directly measure child outcomes, rather than presuming that outcomes in Minnesota programs will mirror those found in other studies.

Officials with the Minnesota Department of Children, Families, and Learning told us that they thought it would be valuable to track the performance of Head Start, ECFE, and School Readiness participants once they enter the K-12 school system. This could be done with a *retrospective* approach—that is, by looking at the early childhood and K-12 records of a group of school-age children who were previously in early childhood programs. Alternatively, it could be done *prospectively*—by assigning identification numbers to children as they enroll in early childhood programs, which could subsequently be linked with CFL’s K-12 records. CFL officials said that either strategy is technically feasible, but both would require additional resources. In general, we think that the prospective approach has the advantage of allowing CFL to track child progress on an ongoing basis, rather than relying on a one-time study.

RECOMMENDATION

The Legislature should ask the Department of Children, Families, and Learning to determine the steps and resources that would be required to track the elementary school progress of children who participated in Head Start, School Readiness, or ECFE.

The department may be able to provide legislators with information during the 2001 session regarding the merits of child tracking options. If not, the Legislature should require the department to prepare a report on this topic before the next session.

⁵⁹ For instance, low or declining third grade test scores among School Readiness graduates might indicate a need to explore service improvements for at-risk children—such as more intensive or higher quality preschool services, or better ways of helping children sustain their preschool progress in elementary school. Also, it might be useful to look for differing trends among subgroups of participants.

