



State of Arizona Office of the Auditor General

PERFORMANCE AUDIT

FAMILY LITERACY PILOT PROGRAM

**Report to the Arizona Legislature
By Douglas R. Norton
Auditor General
December 1997
Report #97-22**



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December 11, 1997

Members of the Arizona Legislature

The Honorable Jane Dee Hull, Governor

The Honorable Lisa Graham Keegan
State Superintendent of Public Education
Department of Education

Transmitted herewith is a report of the Auditor General, A Final Evaluation of the Family Literacy Pilot Program. The evaluation is in response to the provisions of Session Laws 1994, Ninth S.S., Ch. 1, §9.

This is the last in a series of three reports to be issued on the Family Literacy Pilot Program. The report describes successes the Family Literacy Pilot Program has had during its first two full years of program operation. The Program has been successful in improving adult participants' literacy, and adults enrolled in the Program's parenting skills component made gains in their parenting skills, though not to the degree they made in their literacy skills. While the children in the Program are, in general, developmentally behind where they should be for their age, the Program keeps them from falling further behind and reduced the differences in achievement between them and their non-at-risk peers.

A higher degree of quality and compliance with program requirements by program contractors during the 1996-97 school year in comparison with the previous year reflects hard work on the part of the contractors, improved monitoring from the ADE, and continued technical assistance from the model programs. As a result of the successes the Program has had, the report recommends that the Program be continued and expansion to additional sites be considered. It is also recommended that sites serve up to 20 families, an increase from the current maximum of 15, in order to reduce the costs per family. If the Program is continued, it is recommended that model program sites also be continued in order to assist with ongoing programs' training and technical assistance needs. In addition, the report also recommends that the ADE continue to monitor and report annually through 2002 to the Legislature on the progress of Family Literacy participants.

As outlined in its response, the Department of Education agrees with all of the findings and recommendations.

My staff and I will be pleased to discuss or clarify items in the report.

This report will be released to the public on December 12, 1997.

Sincerely,

Douglas R. Norton
Auditor General

Enclosure

SUMMARY

The Office of the Auditor General has completed the final in a series of three annual evaluations of the Family Literacy Pilot Program. This evaluation was conducted pursuant to the provisions of Session Laws 1994, Ninth S.S., Ch. 1, §9. This third-year evaluation report provides information regarding the Program's effectiveness in achieving its goals.

The Legislature established the Family Literacy Pilot Program through legislation known as the Children and Family Stability Act of 1994. The Program is administered by the State Board of Education through the Arizona Department of Education (ADE) Division of Adult Education. ADE contracts with local school districts and other community and educational organizations to provide program services.

The Family Literacy Program's intent is to increase the basic academic and literacy skills of undereducated parents of preschool children in order to break the intergenerational cycle of poverty and illiteracy. The Program is based on the belief that children's early learning is greatly influenced by their parents. Therefore, parents must develop and value their own literacy skills in order to support their children's educational success. More important, parents are their children's first and best teachers.

Family literacy programs incorporate adult, child, and parent education in a manner that is theoretically more effective than programs that focus exclusively on adults or exclusively on children. Arizona's program uses a model that integrates components recommended by the National Center for Family Literacy. Families receive services in a classroom setting for at least 15 hours a week, and programs generally operate on regular school year calendars. The Program's four main components are: 1) adult literacy instruction, 2) parent and child together (PACT), 3) parent education discussion and support, and 4) early childhood education for children ages 3 to 4 years.

Adult Family Literacy Participants Show Gains in Literacy Skills (See pages 9 through 14)

The Program is successful in improving adult participants' literacy. Standard test scores increased both for adults enrolled in English for Speakers of Other Languages (ESOL) and for those enrolled in adult basic education/general equivalency degree preparation (ABE/GED). Twenty-six percent of the participants either completed their GED through the Program or were in the process of taking the examinations at the end of the school years. Although many participants are focusing on raising families, and therefore not seeking

employment, three-fourths of those participants seeking employment have entered the workforce.

Although it is too early to measure long-term effects, the positive adult education outcomes offer the possibility that the Program may have the intended impact of breaking the intergenerational cycle of poverty and illiteracy. As the parents' educational and literacy skills improve, it is expected that their children will do better in school. Not only should the preschool children in the Family Literacy Program do better, but their older and younger siblings should also do better.

Family Literacy Pilot Program Participants Show Slight Improvements in Parenting Behaviors (See pages 15 through 19)

The model used by Arizona's Family Literacy Program recognizes the importance of parenting skills and focuses on developing these skills through the parent and child together (PACT) and parenting group discussion components.

Most parents entered the Program with relatively good attitudes about parenting. Adults enrolled in the parenting skills component of the Family Literacy Program made gains in their skills, though not to the degree that they made gains in their literacy skills. However, the parents who had the poorest parenting attitudes when they entered the Program showed significant improvement in their parenting attitudes. In addition, parents' comments regarding their parenting behaviors indicate that their behaviors may have changed more than the measured changes in their attitudes would indicate.

Family Literacy Preschool Participants Making Progress (See pages 21 through 23)

A major objective of the Family Literacy Pilot Program is to improve the school readiness of the 3- and 4-year-old children in the Program by providing developmentally appropriate preschool education. A kindergarten readiness assessment suggests that children who participate in the Program, as a result of their participation, show a developmental rate that is an average of four months ahead of nonparticipating children. While children are still generally behind where they should be for their age, the Program keeps them from falling further behind and reduces the differences between them and their non-at-risk peers. As a result of the Program, children are reducing the degree to which they are behind and are more likely to start school prepared to learn.

Program Implementation and Monitoring Improves in Second Full Year of Operation

(See pages 25 through 31)

Most contractors operating sites for the Family Literacy Program have made progress in offering quality programs since last year's report. Site evaluations showed that 20 of the 23 sites that were evaluated made progress in meeting statutory requirements and correcting previous quality-related problems in such areas as integrating components, collaborating with other providers, providing childcare, and maintaining enrollments at required levels. The higher degree of quality and compliance reflects hard work on the part of the sites, improved monitoring from ADE, and continued technical assistance from the model programs.

However, three of the sites, Pinon, Leupp, and Phoenix Indian Center, continue to have serious implementation problems. These sites have made staff changes but continue to struggle with quality and enrollment. ADE has made efforts to improve the programs and all three have developed plans to implement changes for improvement. These programs have been funded for the 1997-98 school year on a month-to-month contract instead of the quarterly payment plan used for the other programs.

If the Legislature continues the Program, it is recommended that ADE continue monitoring efforts to ensure program quality remains. And, if the Program is expanded to additional sites, it is recommended that model program activities designed to provide technical assistance are continued to ensure that new sites have the assistance they need to succeed.

Statutory Evaluation Components

(See pages 33 through 46)

Laws 1994, Ninth S.S., Ch.1, §9 requires the Office of the Auditor General to report whether program participants have achieved goals and objectives, and make recommendations regarding program expansion.

The Family Literacy Pilot Program positively impacts the families who choose to enroll into and stay in the Program. The Program appears to be successful in improving the literacy rates of the adult participants, and has some positive effects on their parenting behaviors. In addition, preschoolers in the Program are making gains beyond what is predicted for them.

Based on positive program outcomes and the achievement of program goals and objectives, it is recommended that the Program be continued and expansion to additional sites considered. Positive impacts were found even though there were serious problems during the first two years of program implementation. As noted in our second evaluation of the Program last year (Report No. 96-20), only 7 of 26 programs complied with all program criteria. The

second-year evaluation warned that the problems with implementation threatened the Program's potential for success. The fact that positive impacts were found despite the implementation problems suggests that greater impacts may be found in the future if the implementation problems continue to be addressed.

However, if the Program is continued or expanded, because Arizona's family literacy model cannot meet the needs of all adults and children in need of literacy services, any additional monies should be directed to areas with the greatest opportunity to make an impact. Monies should be distributed through a request for proposal process requiring potential contractors to demonstrate high rates of economic and educational disadvantage in their service area and a workable plan to attract and retain the target population.

It is also recommended that model program sites be continued in order to assist with ongoing programs' training and technical assistance needs as they experience staff turnover, and new sites as they begin to provide services. Model programs should provide technical assistance, training, and basic monitoring in cooperation with ADE staff.

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INTRODUCTION AND BACKGROUND

The Office of the Auditor General has completed the final in a series of three annual evaluations of the Family Literacy Pilot Program. This evaluation was conducted pursuant to the provisions of Session Laws 1994, Ninth S.S., Ch. 1, §9. This final evaluation report provides information regarding the Program's effectiveness in achieving its goals and recommendations regarding it.

The Family Literacy Program: What It Does

The Legislature established the Family Literacy Pilot Program in 1994 with legislation known as the Children and Families Stability Act. The Program's intent is to increase the basic academic and literacy skills of undereducated parents of preschool children in order to break the intergenerational cycle of poverty and illiteracy. The Program is based on the premise that in order to increase literacy and reduce poverty among the current generation, the educational skills of parents and children must increase.

The National Center for Children in Poverty reports that children whose parents lack a high school diploma are more than twice as likely to live in poverty than children whose parents are high school graduates. When parents improve their literacy skills, they can improve their families' lifestyles by improving such things as employment options, consumer and financial skills, and knowledge of health and personal safety techniques (improved knowledge and use of medicines, instructions, first aid, and emergencies). In terms of children, other researchers, such as the Perry Preschool researchers, have found that preschool participation for at-risk children leads to positive long-term outcomes, such as increased levels of high school completion, better employment, higher incomes, a reduced dependency on welfare, and lower rates of involvement in the criminal justice system.

The Arizona Family Literacy Program is based on the belief that children's early learning is greatly influenced by their parents. Therefore, parents must develop and value their own literacy skills in order to support their children's educational success. More important, parents are their children's first and best teachers. The skills that they bring to the task are critical to their children's healthy development and acquisition of literacy.

Not only is the Family Literacy model designed to help the entire family, research suggests the family members who are direct participants in the Program are not the only ones to benefit. For example, older siblings begin to perform better in school after their parents enroll in the Program. Additionally, research shows that family literacy means earned income, a healthy family, better use of community resources, reduction in school failure, and reduction in need for special services for children.

Participants

Eligible parents 1) have a three- or four-year-old child; 2) lack sufficient mastery of basic educational or basic English language skills needed to function in society, or lack a high school diploma or its equivalent; and 3) are U.S. or legal residents, or are otherwise lawfully present in this country. Programs are located in areas with high rates of unemployment and low rates of literacy. Families enroll in the Program through a variety of local program recruitment efforts.

Components

Family literacy programs incorporate adult, child, and parent education in a manner that is theoretically more effective than programs that focus exclusively on adults or exclusively on children. Arizona's program uses a model that integrates components recommended by the National Center for Family Literacy. Families receive services in a classroom setting for at least 15 hours a week, and programs generally operate on regular school year calendars. The Program's main components are as follows:

- **Adult literacy instruction**—Adult literacy education takes two basic forms: 1) adult basic education (ABE) and preparation for the general education diploma (GED), or 2) instruction in English for Speakers of Other Languages (ESOL). Parents can receive one or both components depending on their needs.
- **Parent and Child Together (PACT)**—Through situations in which the family plays together or is involved in more structured activities, PACT tries to show parents how to teach and communicate with their children using positive parenting skills that are transferable to the home.
- **Parent education discussion and support groups**—Along with PACT, these components of the Program attempt to provide parents with opportunities that will help them learn how to best meet their children's developmental needs. Discussion and support groups make it easier for parents to discuss issues or problems surrounding parenting. Participants learn from the experiences of their peers, receive encouragement from the group, and practice collective problem solving.
- **Early childhood education**—A major component of the model used by the Family Literacy Pilot Program is the provision of early childhood education to the young children in the Program in order to improve their school readiness and increase their chances of future academic success. Each program site is to provide participating children with a developmentally appropriate preschool to improve motor, language, and problem-solving skills.

When the Family Literacy Program is working effectively, it can produce results like the following, which are quotes from actual program participants:

I made the effort and changed my life to set an example for my daughters. Now I don't get afraid when people speak to me in English, because thanks to this program I can understand what they are saying.

(Before Family Literacy) my daughter would spend hours in front of the TV always bored. (Now) she has learned more skills and to share with her friends, and has improved her language and she learned words, songs, colors, how to use the computer, counting, to tell stories, to read books, how to brush her teeth, and the classroom rules, the parts of her body. . . she doesn't feel embarrassed with her friends and she is more independent about how to make her own decisions.

How the Program Is Operated

The Program is administered by the State Board of Education through the Division of Adult Education, Arizona Department of Education (ADE). ADE contracts with other organizations to provide services. The Legislature mandated that contractors provide the following basic services:

- Identify and recruit eligible parents and children.
- Screen and prepare parents and children for participation in the Program.
- Serve at least 10 but no more than 15 parents with children eligible for the Program.
- Provide instructional programs that promote academic and literacy skills and equip parents to provide needed support for their children's educational growth and success.

To encourage families to fully participate, contractors must also have a plan for providing food services, childcare, and transportation for participants.

The Program is flexible in the length of time families are served. Families must have an age-eligible child and the parent(s) must have literacy goals that can be met through the Program. While most families are only in the Program one year, some families return for a second or third year.

Contractors for 1996-97 include 9 school districts, 2 community-based organizations, 1 college, and 1 adult education provider. In all, these contractors operate 23 sites, 18 of which

serve metropolitan Phoenix, Tucson, or Yuma. The remaining 5 sites serve Arizona's rural population, with 2 sites in Coconino County and 1 site each in Apache, Cochise, and Navajo Counties. Two model programs, Mesa Family Tree and Pima County Adult Education, provide technical assistance to all sites and training to family literacy staff.

Appropriations for the Family Literacy Pilot Program were \$975,000 and \$1,000,600 for school years 1994-95 and 1995-96, respectively. The Legislature appropriated \$1 million for both the 1996-97 and 1997-98 school years. Table 1 (see page 5) shows the contractors and state Family Literacy Pilot Program grant amounts for the 1994-95, 1995-96, 1996-97, and 1997-98 school years.

Although funding began in the 1994-95 school year, contractors generally did not provide direct services to families until the 1995-96 school year, because implementation was delayed due to the lengthy grant award process. Grant amounts for the 1994-95 school year reflect that most contractors provided only minimal services. Two rural sites that provided services during the 1995-96 school year did not have contracts renewed for 1996-97 because they failed to meet their contractual obligations.

As described in this Office's first- and second-year reports, ADE had carryover monies from the 1994-95 school year that allowed the agency to support programs beyond the appropriations level in the 1995-96 school year. However, since then ADE has had to reduce the level of funding for each site, and no new sites have been funded since the 1994-95 school year.

Follow-Up of Previous Evaluation Reports

Program Model

The first and second evaluation reports (Report No. 95-20—December 1995, and Report No. 96-20—December 1996), focused on program implementation. In the first year, it was reported that the program model used by the Family Literacy Pilot Program followed recommended standards. The second year it was reported that many sites failed to comply with guidelines and consequently, the model described in the first report was in some cases poorly implemented. Failure to adhere to the program model resulted in two sites not having their contracts renewed. In this third and final report, compliance improvements at most sites are noted (see Finding IV, pages 25 through 31). However, three sites continue to have implementation problems and ADE is closely monitoring them to ensure they meet the program guidelines. Additionally, providers chose to close two sites and use these monies for their other sites.

Table 1**Family Literacy Pilot Program
Contractors and Contract Amounts
Years Ended or Ending June 30, 1995 through 1998
(Unaudited)**

Contractor	1995	1996	1997	1998
Apache County				
Red Mesa USD No. 27	\$ 73,178	\$ 87,930	\$ 66,387	\$ 66,387
Cochise County				
Cochise Community College	17,746	44,265	33,420	33,419
Council for Family Concern	18,875	43,500		
Coconino County				
Flagstaff USD No. 1 (2 sites)	157,794	74,888	56,541	56,540
Maricopa County				
Isaac ESD No. 5 (2 classes)	19,927	87,997	66,438	66,438
Literacy Volunteers of Maricopa County	16,420	40,064	30,248	30,248
Mesa USD No. 4 (3 sites)	56,341	110,543	83,460	83,460
Phoenix Indian Center	20,712	43,234	32,642	32,642
Tempe ESD No. 3	50,000	44,000	33,220	33,220
Navajo County				
Pinon USD No. 4	83,676	121,222	91,523	91,523
Pima County				
Pima County Adult Education (3 sites)	137,531	131,984	99,648	99,648
Tucson USD No. 1 ^a	80,000	220,000	166,100	165,968
Yavapai County				
Chino Valley USD No. 51	6,942	24,549		
Yuma County				
Crane ESD No. 13 (morning session)	21,400	37,632	28,412	28,412
Crane ESD No. 13 (afternoon session)	21,400	37,632	28,412	28,412
Somerton ESD No. 11	30,000	61,600	46,508	46,508
Model Programs				
Mesa USD No. 4	52,045	61,324	69,686	69,688
Pima County Adult Education	69,915	61,560	67,355	67,355
Total	<u>\$933,902</u>	<u>\$1,333,924</u>	<u>\$1,000,000</u>	<u>\$999,868</u>

^a Tucson USD No. 1 had five sites in 1995 and 1996 and four in 1997, and has two in 1998.

Source: Auditor General staff analysis of data provided by the Arizona Department of Education.

Budgeting Problems

In the first year it was reported that ADE's poor budgeting resulted in a money shortage for second-year services. In the second-year report, the negative impact of the problems caused by the first-year budgeting error was discussed. While this issue has not been focused on in this final report, there remains a concern that low funding levels may continue to impact the quality of some programs. Funding is discussed in the Statutory Annual Evaluation Components.

Inadequate Monitoring

The first-year report identified inadequate program monitoring and oversight by the ADE. In the second year the problem continued, with ADE failing to provide adequate monitoring for compliance with the program model. In Finding IV (see pages 25 through 31) of the third report, it is reported that ADE made great improvements in program monitoring and providing technical assistance during the 1996-97 school year.

Scope and Methodology

Methods used in this evaluation include pretesting to posttesting analysis of nationally standardized tests designed to measure adult basic education skills, English language skills, and parenting skills. Pre- to post-analysis of parents' reported behaviors specific to parenting and pre- to post-analysis of children's development was also performed. All pre- to post-analysis is for both the 1995-96 and 1996-97 school years. Additional methods include analysis of reported outcomes for families in the Program as reported in exit forms for both program years. During the 1996-97 school year, 2 structured site observations were conducted at 21 of the 23 sites and 1 structured observation at the remaining 2 sites. Program trainings were observed, and site documents were reviewed. In addition, 4 families were interviewed 2 times over the course of the Program and participants' journals were reviewed to determine what impact, if any, program participation had on the families' lives.

The design used in this evaluation of the Family Literacy Pilot Program is quasi-experimental, with pre- and post-assessment of participants and a comparison group of families served by Even Start. Even Start is the federally funded family literacy program, with sites funded at levels similar to those for the family literacy sites. The Even Start Program is a national leader in providing family literacy programs. Attempts to recruit adult education and at-risk preschool participants into the comparison group, which would allow for an assessment of how effective this family literacy program is in contrast to stand-alone programs, were unsuccessful because of program staff's concerns about the testing and possible results. Therefore, the only comparison made was to the Even Start Program, which allows for an assessment of how this Family Literacy Pilot Program compares to another family literacy program.

This third and final report focuses on the Family Literacy Pilot Program's effectiveness in:

- Improving the basic literacy skills and educational and employment achievements of the adults in the Program;
- Improving the parenting skills of the adults in the Program; and
- Improving the school readiness skills of the three- and four-year-old preschoolers in the Program.

The report also focuses on improvements in program implementation issues.

In the Statutory Evaluation Component, evaluation requirements as defined by Laws 1994, Ninth S.S., Ch. 1, §9 are addressed. Included in these requirements are recommendations regarding program administration and expansion. Based on the conclusions regarding positive program effects and noted improvements in the program administration and implementation, a recommendation is made to continue, and possibly gradually expand, the Program.

This report also contains three technical appendices. Appendix A (see pages a-i through a-iv), provides a detailed description of the instruments used to evaluate the program outcomes. Appendix B (see page b-i), describes the testing protocols. Appendix C (see pages c-i through c-vii), provides summary statistical tables presenting the results of statistical analysis of the data used in this evaluation.

The Auditor General and staff express appreciation to the Superintendent of Public Instruction, staff of the Arizona Department of Education's Adult Education Division, and the Family Literacy and Even Start Programs' staff and families for their cooperation, assistance, and hospitality as auditors visited their classrooms throughout the three years of this evaluation.

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FINDING I

ADULT FAMILY LITERACY PARTICIPANTS SHOW GAINS IN LITERACY SKILLS

Nearly all of the participants in the Family Literacy Program showed improvements. Adults enrolled in the adult literacy component made gains in their literacy skills. Standard test scores increased both for adults enrolled in English for Speakers of Other Languages (ESOL) and for those enrolled in adult basic education/general equivalency degree preparation (ABE/GED). Twenty-six percent of the participants either completed their GED through the Program or were in the process of taking the examinations at the end of the school years. Although many participants are focusing on raising families and, therefore, are not seeking employment, three-fourths of those participants seeking employment have entered the workforce. The Family Literacy Program's success is equal to that of Even Start, a comparable program that is federally funded and operated.

Background

Family Literacy's adult education component is founded on the theory that by improving parents' literacy skills, their children will do better in school and parents will have better economic and family skills. To determine if Family Literacy participants made significant improvements, participants were tested and their results were compared to those participants in a similar federal program. ESOL and ABE/GED participants from two separate school years (1995-96 and 1996-97) took standardized tests before entering the Family Literacy Program and at the end of each school year. Analysis of the scores pre- and post-program was used to determine if the Family Literacy Pilot Program was effective in improving their literacy skills.

English for Speakers of Other Languages participants were pre- and posttested using the *Language Assessment System* to assess their English language reading and writing skills and the *Comprehensive Assessment System of Academic Skills* to assess their English language listening comprehension. ABE/GED participants were pre- and posttested using the *Tests of Adult Basic Education* for mathematics, language, reading, and spelling. A comparison was made between parents participating in Family Literacy and parents participating in Even Start, the federally funded family literacy program. Even Start participants were pre- and posttested using the same assessments to determine if there was any difference in the effectiveness of the two programs.

A description of the tests is provided in Appendix A (see pages a-i through a-iv). The testing protocol is described in Appendix B (see page b-i).

ESOL Parents Improve Their English Language Skills

The 342 adults who participated in the ESOL component in either the 1995-96 or 1996-97 school year made modest gains in English language skills (for complete results see Table 10, page c-i in Appendix C). They made statistically significant, though modest, gains on all four standardized tests for both years. Their improvements in reading and writing were greater than their gains in ability to understand spoken English.

English language reading and writing skills improve—Participants' abilities in their English reading and writing skills, as measured by reading, writing, and the combined reading/writing score on the Language Assessment System, increased in both years. All of the gains were statistically significant at the .001 level, meaning there is a less than 1 in 1,000 chance of the average gain occurring by chance.

In addition to being statistically significant, the Language Assessment System gains suggest real improvements in the participants' abilities to read and write English. Language Assessment System reading and writing scores can range from a low of 0 to a high of 100. On this 100-point scale, the 1996-97 participants' median reading gain was 14 points, and the median writing gain was 18 points. The developers of the test group scores into five categories of competence so that the numeric scores can be understood. The five categories are low beginner (0 to 20), high beginner (21 to 40), low intermediate (41 to 60), high intermediate (61 to 80), and competent (81 to 100). Generally, Family Literacy participants advanced to higher groups. More specifically: first-year and second-year participants moved their average reading scores from low intermediate to high intermediate and their writing scores from high beginner to low intermediate.

As seen in Table 2, page 11, the majority of participants made gains that moved them into at least one higher level or category of literacy as defined by the developers.

Gains in listening comprehension skills more modest— While both first- and second-year participants made gains in English listening comprehension skills, the gains were more modest than for reading and speaking skills. In both years the participants' scores moved up minimally but stayed in the category the Comprehensive Assessment System of Academic Skills publishers call "low literacy." During the second year, 78 percent of the ESOL participants improved their listening scores, compared with 65 percent the first year, although these participants are still in the "low literacy" range.

Table 2

Family Literacy Pilot Program
Percentage of Adults Whose Literacy Level Improved
As Measured by Pre- to Posttesting on the
Language Assessment System
1996-97 School Year

Literacy Level	Reading	Writing
Improved	57%	66%
Stayed the same	40	32
Decreased	3	2

Source: Auditor General staff analysis of data provided by Family Literacy Program staff.

ABE/GED Parents Show Improvements

Like the ESOL participants, the 159 adults who participated in the ABE/GED component and were both pre- and posttested in either the 1995-96 or 1996-97 school year made gains. They recorded gains in all four categories tested in the Tests of Adult Basic Education—applied math, language, reading, and spelling abilities (see Table 11, pages c-iii through c-iv, Appendix C). The gains in most of the pre- and posttests were statistically significant at the .001 level or less, meaning that they would have less than a 1 in 1,000 likelihood of occurring by chance.

The extent of these gains may be more understandable if the scores are converted to grade levels (see Table 3, page 12). Grade equivalent scores have a potential range of 0 (kindergarten) to 12.9 (9 months into 12th grade). For example, 1995-96 participants began with an applied math skill level equivalent to an ending third grader. They completed the year scoring at the equivalent of an average student 6 months into sixth grade. In language skills, the first-year group started the year equivalent to 9 months into second grade and finished the year equivalent to 4 months into fifth grade.

Table 3

Family Literacy Pilot Program
Adult Pre- and Posttest Scores in Grade Equivalents¹
1995-96 and 1996-97 School Years

Test component	1995-96		1996-97	
	Pretest	Posttest	Pretest	Posttest
Applied math	3-9	6-6	4-8	6-4
Language	2-9	5-4	5-2	6-8
Reading	4-4	6-3	5-2	7-3
Spelling	6-5	7-5	7-6	9-0

¹ A score reported as a grade equivalent means it is the score typical for a student in that grade. For example, 3-9 means it is the typical score for a student in the ninth month of third grade.

Source: Auditor General staff analysis of data provided by Family Literacy Program staff.

As with the ESOL program, gains were widespread rather than concentrated among a few participants, and more participants experienced gains in the second year than in the first year. The percentage of second-year ABE/GED participants who had gains ranged from 64 percent for language to 79 percent for reading. First-year participants who had gains ranged from 54 percent for spelling to 85 percent for applied mathematics.

Some Participants Received GEDs; a Few Attended College

Of the 351 parents who participated in the adult education component of the Family Literacy Program in the 1995-96 and 1996-97 school years, more than 40 have received their GED, and more than 50 were reportedly in the process of taking the GED tests at the end of the school year but had not yet taken or passed all of them. Another 201 participants were reported to be continuing to work toward their GED at the end of the school years.

A small number of Family Literacy participants have continued on to college. Four participants have been accepted to attend college. Since there is little follow-up of participants after they leave the Program, it is possible that more adult participants have continued their education after completing their GED.

Family Literacy Participants Enter the Workforce

Of those Family Literacy participants who sought employment at the end of the Program, 76 percent were employed. One of the Program's goals is to increase participants' self-sufficiency, and employment is one measure of self-sufficiency.

At the end of the 1995-96 school year, 30 percent of the participants were employed either full- or part-time or through a job training program. An additional 14 percent were enrolled in a vocational program, and 15 percent were looking for work. Almost identical employment outcomes were present at the end of the second year. For both years, approximately 40 percent of the participants ended the school year unemployed but currently not seeking employment.

Participants Self-Report Positive Impacts

The statistical results are further substantiated with qualitative information on program impacts. Participants' statements report a positive impact from the adult education component:

"I met new friends and started learning English. It was good for me because I can speak English with the doctor. . . Also I know how to use the computer . . . it is good for me, because this can help me to get a job."

"My life is clear now and my future is also. They are possible because of the knowledge I gained in my English class. My opinion has a voice and my thoughts carry weight. I'm a person with a good future."

"And my wish was to learn English and to be more prepared to get a better job. . . I have better communication when I go to store, bank, or hospital."

"I feel more sure of myself. I am starting a road but still lack many things to achieve my dreams, to learn better English, and to graduate from the U of A."

Family Literacy Results Similar to Even Start Results

Even Start sites across Arizona were assessed using the same tests as Family Literacy sites. No significant differences in gains were found between the Family Literacy and Even Start participants on the Language Assessment System, Comprehensive Assessment System of Academic Skills, or Test of Adult Basic Education, or on the GED and employment

outcomes. This suggests that the state program is having about the same level of success as the federal program.

Conclusions

The Program is successful in improving the adult participants' literacy rates. Although it is too early to measure long-term effects, the positive adult education outcomes offer the possibility that the Program may have the intended impact of breaking the intergenerational cycle of poverty and illiteracy. As the parents' educational and literacy skills improve, it is expected that their children will do better in school. Not only should the preschool children in the Family Literacy Program do better, but their older and younger siblings should also do better.

Recommendations

If the Program is continued, the Arizona Department of Education should monitor the progress of adult participants after leaving the Program for 1) GED completion; 2) college acceptance and attendance; and 3) employment. The ADE can accomplish this by requiring sites to follow up on participants at six-month intervals for the first two years after they leave the Program and reporting this information to the ADE.

FINDING II

FAMILY LITERACY PILOT PROGRAM PARTICIPANTS SHOW SLIGHT IMPROVEMENTS IN PARENTING BEHAVIORS

Adults enrolled in the parenting skills component of the Family Literacy Program made improvements in their attitudes, though not to the degree that they made gains in their literacy skills. Most parents in both years entered the Program with relatively good parenting attitudes and did not show great improvements. However, large improvements in parenting attitudes were found in the parents who had the poorest parenting attitudes when they entered the Program. In addition, parents' comments regarding their parenting behaviors indicate that their behaviors may have changed more than the measured changes in their parenting attitudes would indicate. A comparison with gains made by participants in the federally funded Even Start Program showed that both programs had essentially the same impacts on participants' skills.

Background

The model used by Arizona's Family Literacy Program recognizes the importance of parenting skills and focuses on developing these skills through the parent and child together (PACT) and parenting group discussion components. These components are intended to help parents help their children learn through play and more structured activities and provide parents with opportunities to learn how to best meet the developmental needs of their young children.

To assess the extent to which the Family Literacy Pilot Program impacted adults' parenting skills, participants were pre- and posttested on two instruments. See Appendix A (pages a-i through a-iv), for additional information regarding the assessments and Appendix B (page b-i), for a discussion of the testing protocols.

The first instrument is the **Parent as a Teacher Inventory (PAAT)**. The PAAT identifies favorable qualities and realms in which personal growth is needed in regard to parenting children ages 3 to 9. PAAT items include a variety of statements on what parents want or expect of their child, how they interact with the child, and what actions are taken in response to specific child behavior. The responses are grouped into five areas with subscores computed for each area and a total score. The five areas are:

- **Creativity**—parental acceptance of the child’s creativity and willingness to encourage its development;
- **Frustration**—parental frustration with the child and focus of the frustration;
- **Control**—parental feelings about the need to control the child’s behavior;
- **Play**—parental understanding of play and its influence on child development; and
- **Teaching/Learning**—parental views about child development and their ability to provide a supportive home environment.

The second instrument is a **behavior frequencies assessment (BFA)**, which was developed specifically for the Family Literacy Pilot Program evaluation. The BFA is a self-report instrument on which parents indicate how frequently they engage in ten different behaviors, such as reading to their children and helping their children with homework.

Parents Enter Program with Good Parenting Attitudes

Most of the parents in the Program entered with good parenting attitudes as measured by the PAAT. Ninety-five percent of the first-year parents entered the Program with PAAT scores of 125 or greater, the number which the PAAT developers recommend for determining if parents have “favorable” parenting attitudes. Eighty-six percent of the second-year parents had pretest scores of 125 or greater on the PAAT. Since the overwhelming majority of parents in the Program already have favorable parenting attitudes, it is unlikely that large improvements can be made.

Parents Who Enter with Unfavorable Parenting Attitudes Make Large Gains

Parents most in need of the parenting support made significant gains on the PAAT. The group of 34 parents who entered the Program with PAAT scores below 125 points gained an average of 23 points. As a result, 24 of the 34 participants, or 71 percent, had scores above 125 at the posttest. These parents made much greater gains than the parents who already had “favorable” scores. Their average improvement of 23 points compares to only 3 points overall.

Most Parents Show Minimal Gains in Parenting Attitudes As Measured by the PAAT

Since most participants already had fairly good parenting attitudes, few gains were seen. While parents in the 1995-96 school year showed improvements in parenting attitudes in only one subscore and the total score of the PAAT, the second-year parents show very small improvements in all of the subscores and in the total score.

First-year parents showed improvements in their control score from pre- to posttesting but did not show significant improvements on the other four scores. However, the 159 parents who were pre- to posttested during the first year showed small but statistically significant improvement in their total score, which increased from an average of 136 to an average of 139 on a scale of 0 to 200.

Second-year parents made improvements in all five of the parenting areas measured by the PAAT but the gains were small and would likely result in only minor changes in parents' attitudes. For example, on the subareas with scores that have a 30-point range of 10 to 40, all of the average gains are fewer than 2 points. (See Table 12, pages c-v through c-vi, in Appendix C for the analysis of the gains.)

Behavior Frequency Assessment Shows Little Overall Change in Behaviors

Parents' responses to the BFA show that they made few consistent improvements in the behaviors assessed by this instrument. The only areas that show improvements in both areas are going to school activities, and volunteering for school activities. While the parents were more likely to read to their children at the end of the first year than they were at the beginning, this positive outcome is not evident in the second year. Table 4 (see page 18) summarizes the BFA changes.

Family Literacy and Even Start Show Same Impacts

Analysis of the changes for Family Literacy Pilot Program participants and Even Start participants on both the PAAT and the behavior frequencies show that both programs have essentially the same impacts on parenting skills. There are no statistically significant differences between the two groups on any of the parenting assessment pre- to posttest results.

Table 4

**Family Literacy Pilot Program
Pre- to Post-Program Changes in Parenting Behaviors
1995-96 and 1996-97 School Years**

Behavior	<u>Pre- to Post-Program Changes</u>	
	1995-96	1996-97
Number of days per week parents:		
Talk about children's day	Improved	No difference
Read or look at book with children	Improved	No difference
Let children see them writing	Improved	No difference
Take children to the library	No difference	Improved
Play with children	No difference	No difference
Number of days per month parents:		
Go to a school activity	Improved	Improved
Volunteer for a school activity	Improved	Improved
Help children with homework	No difference	Improved
Talk to children's teacher	No difference	No difference
Talk to children about school	No difference	No difference

Source: Auditor General staff analysis of data provided by Family Literacy Program staff.

Parents Report Improved Parenting Behaviors

A review of statements made by Family Literacy participants shows they believe the Program's PACT and parent time components helped them improve their parenting.

We learned how to work together, to share, and to be patient to each other. I learned to respect my daughter's decisions.

I learned how important is the attention from the parents to the children in their education.

We can learn how we can help our children, talk with the teachers, and how the education system is. . .how we can educate our children.

While parents report that the program components have helped them in their parenting skills, they also say their parenting behaviors have improved as a result of their changes in attitudes about parenting:

The most important thing to me is that I don't yell at my children anymore and I don't hit them because I love my children. Through this program I have been learning how to teach my children, and I try to be a good parent.

Before I entered the program...I didn't know how to listen to my children so I yelled at them all the time. But now everything has changed. I am more patient, I understand that it is better to talk and listen to them instead of yelling at them. When my children cry or ask for something I don't get mad, I talk to them.

Conclusions

Overall, the Program's parenting and PACT components have minimal impacts on improving the parenting skills of the adults in the Program. However, for parents with the greatest needs in this area, the Program has had significant impact on improving their skills. The parents' comments demonstrate that they believe the Program has had a positive impact.

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FINDING III

FAMILY LITERACY PRESCHOOL PARTICIPANTS MAKING PROGRESS

The Family Literacy Program's preschool component appears to keep at-risk children from falling further behind their not-at-risk counterparts, and to a degree, it may be helping them to catch up. Analysis of program children's scores on a kindergarten readiness assessment shows they had a developmental rate that averaged four months ahead of nonparticipating children. Finally, a comparison of progress made by Family Literacy children with Even Start children suggests the Family Literacy children may be doing slightly better.

Background

A major objective of the Family Literacy Pilot Program is to improve the school readiness of the 3- and 4-year-old children in the Program by providing developmentally appropriate preschool education.

In order to assess children's progress toward school readiness, children were pre- and post-tested on the **Activity Evaluation System for Observing Preschoolers (AESOP)**. The assessment was selected for evaluation primarily due to its developmentally appropriate testing methodology, and because teachers enjoy giving it and are therefore more likely to comply with the testing schedule and protocol. The AESOP provides a total score and subscores in three areas: 1) problem solving; 2) gross motor skills; and 3) language development. Age-equivalent scores are reported from a youngest range of 1 year, 6 months to 2 years, to an oldest category of 5 years, 6 months and older.

Data Analysis Reveals Program Has Impact on Children's Development

AESOP scores for children after one year in the Program were compared to AESOP scores for children who had not had the program experience. Using this method of analysis, it appears that the program intervention that children receive increases their development by 1 to 7 months, or an average of 4 months above their expected developmental progress without the Program. While children are still generally behind where they should be for their age, the Program keeps them from falling further behind and reduces the differences in performance between them and their non-at-risk peers.

Analysis was conducted on children in four age ranges.¹ Children's AESOP average (median) scores after having been in the Program were compared to scores for children of the same age who had not been in the Program.

Children who had been in the Program had higher scores than children who had not been in the Program. Gains in favor of the program children are found on all three subscores and on the total scores. For the two younger groups of children, the gains in favor of the program children were as much as seven months. For the two older groups of children, the gains in favor of the program children range from one to three months. The children's performance, as measured in months, is presented in Table 5.

Table 5
Family Literacy Pilot Program
Activity Evaluation System for Observing Preschoolers
Median Score in Months by Age Group
1995-96 and 1996-97 School Years

Age Range in Months	Children <i>without</i> Family Literacy Participation	Children <i>with</i> Family Literacy Participation	Difference Attributable to Family Literacy
1995-96 School Year			
33 to 46	41	48	7
47 to 51	44	51	7
52 to 57	47	51	4
58 to 66	51	52	1
1996-97 School Year			
32 to 45	41	48	7
46 to 52	47	50	3
52 to 57	49	51	2
58 to 70	51	53	2

Source: Auditor General staff analysis of data provided by Family Literacy Program staff.

The average of 7 months of program time that children receive appears to increase their development by 1 to 7 months above their predicted developmental progress without the Program. Although program children are still generally developmentally behind for their chronological age, the Program keeps them from falling further behind and may help them to catch up to their non-at-risk peers.

¹ Children were grouped into four quartile (groups of equal size whose values are mutually exclusive) age ranges. The grouping allowed for adequate numbers for each analysis while also limiting the age range being analyzed.

AESOP May Fail to Measure Some Growth

AESOP may not fully measure growth for older children as well as it does for younger children because of what is known as a “ceiling effect” of the instrument. There is a direct relationship between the amount of improvement registered by AESOP and the children’s average developmental age on the pretest. Because AESOP is a kindergarten readiness test, it is best able to measure a child’s developmental growth when the child’s initial performance score is considerably below the norm for kindergarten. It is less sensitive to measuring growth that may occur in children whose pretest developmental age is closer to a kindergarten norm.

Comparison Reveals Family Literacy Children May Be Doing Better Than Even Start Children

A comparison of the Family Literacy children’s gains to the gains made by Even Start children reveals Family Literacy children made slightly better gains in language and on their total AESOP scores than did the Even Start children. No differences in the gains are found for the motor skills and problem-solving domains in the second year. Analysis for the 1995-96 school year reveals that the Even Start group had slightly higher gains in problem solving.

Conclusion

Children in the Family Literacy Program appear to make performance gains greater than expected for an at-risk population of children. As a result of the Program they are reducing the degree to which their pre-literacy skills are behind their non-at-risk peers’ and are more likely to start school ready to learn.

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FINDING IV

PROGRAM IMPLEMENTATION AND MONITORING IMPROVES IN SECOND FULL YEAR OF OPERATION

Since last year's report, most contractors operating sites for the Family Literacy Program have made progress in offering quality programs. Site evaluations showed that 20 of the 23 sites that were evaluated made progress in meeting statutory requirements and correcting previous quality-related problems in such areas as integrating components, collaborating with other providers, providing childcare, and maintaining enrollments at required levels. The higher degree of quality and compliance reflects hard work on the part of the sites, improved monitoring from ADE, and continued technical assistance from the model programs.

Background

Last year's evaluation report raised concerns regarding the sites' failure to meet criteria required by Arizona's Family Literacy Pilot Program. The framework in which family literacy programs must operate is clearly defined. The Children and Stability Act of 1994 established specific criteria for family literacy providers to meet. Contractors are required to enroll a set number of families, enroll only families who meet specific eligibility criteria, provide and integrate the four major components of a family literacy program, collaborate with other agencies, and help families meet their childcare and transportation needs. Sites are also contractually required to provide a minimum number of service hours per family. During the first year of program implementation many sites did not meet statutory or contractual criteria. Only 7 of 26 family literacy sites met all 8 requirements. Two of the sites were closed in the second half of the 1995-96 school year due to their failure to provide contracted services, and the other 17 sites did not fulfill between 1 and 4 requirements.

Last year's evaluation also reported that ADE's monitoring of most sites during the 1995-96 school year was inadequate. The few site visits ADE conducted were not formally structured, and ADE did not provide formal feedback to contractors regarding deficiencies. The lack of adequate monitoring contributed to the compliance problems and poor program operations found at many of the sites. Due to the relationship between monitoring and program operations, it was recommended that ADE improve its monitoring procedures.

During the 1996-97 school year, Auditor General staff assessed program quality and adherence to program criteria through visits to all 23 Family Literacy sites. Two visits were made to 21 of the sites, and because of scheduling problems, 2 sites were visited only once. The **Site Observation Form** and the **Adult and Early Childhood Education Interview Rating Form**, described in Appendix A (see pages a-i through a-iv), were used to record data regarding program operations.

Sites Improve Compliance with Statutory and Contractual Guidelines

In 1996-97, Family Literacy sites improved their compliance with program criteria specified in laws and contracts. Programs are more conscientious about meeting the legislative and recommended criteria and most programs made efforts to address compliance issues discussed in last year's evaluation report. However, a few sites still did not meet some of the criteria.

Improvements were noted in much of the criteria—Improvements made by Family Literacy sites are described as follows:

- Twenty-two sites are implementing programs based on standards specified in the National Center for Family Literacy model and are making sure that the components recommended in the model are integrated. While seven sites were noted to have problems in this area last year, only one site still lacks integration.
- Twenty sites have ensured that they are providing at least 15 hours of service to families. Two of the sites with problems in this area during the 1995-96 school year are now offering at least 15 hours of service. Two other sites are close to the minimum, providing over 14 hours per week.
- Twenty-two sites have made efforts to provide childcare for families with infants. Three of 4 sites cited last year for lack of childcare have identified various resources and have referred families for these services.
- All sites have strengthened relationships with collaborators by working with them to improve and expand services. For example, Tucson High staff has fostered strong support from the school principal to maintain the Program next year as one of two remaining Tucson Unified School District (TUSD) sites. The Cochise College site improved its early childhood component by collaborating with the local Head Start provider.
- One of 2 programs cited for problems in eligibility screening has been more thorough and did not have ineligible participants enrolled this year.

Table 6 (see pages 28 through 29) provides the instances of noncompliance for the 1996-97 school year in contrast to the instances found during the 1995-96 school year. Only Leupp, Pinon, and Phoenix Indian Center remain out of compliance with 2 or more of the 8 criteria.

Some problems continue with eligibility and enrollment—Although most sites successfully addressed participants' eligibility, two still had families of questionable eligibility in the Program. The Leupp site served families who, based on legislative requirements, were not qualified for the Program since they had no age-eligible children. Without these families in the Program, the site would be considered to have low enrollment. Pinon is another program with families enrolled who are of questionable eligibility, since they do not have age-eligible children; however, with the exclusion of these families the Program still meets the enrollment criteria of a minimum of 10 families.

Enrollment continued to be a problem at some sites. Programs such as Leupp, Killip, and Pinon are examples of sites that have had enrollment and attendance problems. Two additional programs with questionable enrollment were closed for the 1997-98 school year (Tucson Unified School District's Pueblo Gardens and Lawrence sites).

ADE Improves Monitoring

Some of the improvements sites have made in compliance with Family Literacy criteria can be attributed to ADE's greater attention to site monitoring during the 1996-97 school year. ADE staff visited all sites and during their visits paid specific attention to sites' compliance with program guidelines. ADE also followed up with sites after visits and communicated frequently with sites that continued to have difficulties. ADE's improved monitoring required sites to address compliance issues or face the possibility of having their contracts terminated. Three sites began the 1997-98 school year on a month-to-month contractual basis due to poor performance during the 1995-96 and 1996-97 school years.

In addition to improving its program monitoring, ADE implemented the Auditor General recommendation to work more closely with the federally funded counterpart of Family Literacy, the Even Start Program. Beginning in the 1996-97 school year, Even Start and Family Literacy Program coordinators held joint meetings each month.

Model Sites Provide Valuable Technical Assistance

The two Model Programs, Pima County Adult Education (PCAE) and Mesa Family Tree, continued to provide valuable technical assistance to the sites. This technical assistance further contributed to sites' compliance with Family Literacy criteria.

Table 6

Family Literacy Pilot Program
Instances of Noncompliance by Site and Requirement
Years Ended June 30, 1996 and 1997

Site	Enrollment		Eligibility		Offers all 4 NCFL Components ¹		Components Integration		Collaboration		Child Care		Transportation		Service Hours		Total	
	'96	'97	'96	'97	'96	'97	'96	'97	'96	'97	'96	'97	'96	'97	'96	'97	'96	'97
Crane ESD No. 13																		
Crane Morning Session	X																1	0
Crane Afternoon Session	X																1	0
Flagstaff USD No. 1																		
Killip	X										X						2	0
Leupp	X	▲	X	▲	X		X	▲									4	3
Isaac ESD No. 5																		
Isaac English for Speakers of Other Languages							X								X	▲	2	1
Isaac GED							X								X	▲	2	1
Mesa USD No. 4																		
Eisenhower	X														X		2	0
Lincoln																	0	0
Longfellow					X												1	0
Pima County Adult Education																		
Liberty																	0	0
Nash																	0	0
Ochoa																	0	0
Pinon USD No. 4	X	▲	X								X	▲					3	2
Red Mesa USD No. 27																	0	0
Somerton ESD No. 11							X								X		2	0
Tempe ESD No. 3	X				X		X								X	▲	4	1
Tucson USD No. 1																		
Lawrence													X				1	0
Meyers-Ganoung	X												X				2	*

* Site closed.

(Continued)

Table 6

**Family Literacy Pilot Program
Instances of Noncompliance by Site and Requirement
Years Ended June 30, 1996 and 1997
(Concl'd)**

Site	Enrollment		Eligibility		Offers all 4 NCFL Components ¹		Components Integration		Collaboration		Child Care		Transportation		Service Hours		Total	
	'96	'97	'96	'97	'96	'97	'96	'97	'96	'97	'96	'97	'96	'97	'96	'97	'96	'97
Tucson USD No. 1 (cont'd)																		
Pueblo Gardens																	0	0
Tucson High School	X										X						2	0
Wakefield																	0	0
Other																		
Cochise Community College	X				X		X		X								4	0
Literacy Volunteers of Maricopa County	X				X		X				X						4	0
Phoenix Indian Center	X	▲				▲		▲									1	3
Total	12	3	2	1	5	1	7	2	1	0	4	1	2	0	5	3	38	11

^{1.} Adult Education, Early Childhood Education, Parent Time, and Parent and Child together.

Note: Chino Valley USD No. 51 and the Council for Family Concern in Willcox were closed and are not included in the table.

X = Noncompliance in 1996.

▲ = Noncompliance in 1997.

Source: Auditor General staff analysis of data provided by the Arizona Department of Education and Family Literacy Program contractors.

All the Family Literacy sites are serviced by one of the two training resources. The Pima County Adult Education program trainers provide family literacy support services and training to sites in southern Arizona, and the Mesa program assists sites in Phoenix and northern Arizona. The trainers also work with ADE to provide statewide training for new and returning program staff.

Program coordinators, administrators, and staff were interviewed regarding their opinions about the technical assistance. Overall, the staff's responses to technical assistance services are positive. Most found the services helpful and indicated the model programs helped them to implement the Program in accordance with the statutory guidelines.

The model programs have an advantage over any ADE staff in providing technical assistance. While ADE staff can provide guidance, unlike the model programs, they do not have direct, current experience operating family literacy programs. If the Family Literacy Program is expanded to new sites, the model programs could provide valuable technical assistance and training to the staff at new sites. They also can continue to provide training to established sites as staff turnover occurs. The ADE and model programs have positively responded to the recommendation in last year's report to collaborate in the development of a monitoring plan and site visits. As a result, the model programs also provide some assurance that sites are operating in compliance with the Program's criteria. They help programs come into compliance in such areas as enrollment criteria, collaboration, and the integration of program components.

Quality Improves at Family Literacy Sites

As a result of sites' improved compliance with criteria, ADE's improved monitoring, and the ongoing support provided by the model programs, quality has improved at most family literacy sites throughout Arizona. Auditor General staff rated the 23 sites visited on the basis of 82 quality standards, such as whether the adults' lessons include regular large- and small-group activities, paired learning, and peer tutoring, and whether children can choose their own activities during specific times of the day. Twenty of the sites have improved the quality of services offered to program participants. Sites with prior family literacy experience continue to do well and some new sites have also made gains in the quality of services they offer. However, some other sites are not doing well despite technical assistance and ADE monitoring.

Quality closely related to compliance—As sites increased their compliance with Family Literacy Program criteria, the quality of services offered to participants improved. For example, as sites offer daycare for younger children of program families, lack of daycare as a deterrent to program participation is eliminated. Sites' increased emphasis on collaboration, such as the Cochise College site's collaboration with the local Head Start provider, resulted in improvements.

Sites that have operated for several years offer quality services—Programs that have operated for several years tend to have excellent teachers and strong teams to provide quality literacy services. Even when there is staff turnover at these sites, new staff is skilled at continuing where the last teacher left off. These programs have established reputations in their communities and utilize their experiences and resources well to recruit and retain families. Most of these sites tend to have waiting lists as opposed to newer sites that struggle to recruit. The experiences and reputations these sites have are an advantage over those who are new at providing family literacy services.

New sites make improvements—There are also some new sites doing well this year, such as Literacy Volunteers of Maricopa County, Tempe, and Cochise. At these sites, improved collaboration and the addition of new staff have contributed immensely to the programs' improved quality. Last year these three sites had many quality problems and low enrollment. Inexperienced staff and poor program implementation were contributing factors, but these problems have now largely been resolved.

Some programs continue to struggle—Three of the 23 sites evaluated, Pinon, Leupp, and Phoenix Indian Center, are not doing well. These sites have made staff changes but continue to struggle with quality and enrollment. ADE has made efforts to improve the programs, and all three sites have developed plans to implement changes for improvement. These are the programs that have been refunded for the 1997-98 school year on a month-to-month contract instead of the quarterly payment plan the other programs use.

Recommendations

If the Legislature continues or expands the Family Literacy Program, the following should be included in the legislation:

1. ADE should be required to continue program monitoring and technical assistance efforts to ensure program quality remains.
2. Current statutory provisions providing for two existing programs to serve as models and training resources for other sites should be retained.

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STATUTORY EVALUATION COMPONENTS

Pursuant to Laws 1994, Ninth S.S., Chapter 1, §9, the Office of the Auditor General is required to include the following information in the annual program evaluation.

C.1. Information on the number and characteristics of the program participants.

The participant information that follows is presented in composite from all 23 sites for the 1996-97 school year. The demographics are very similar to the demographics that were reported in Report No. 96-20 for the 1995-96 school year.

- **Program Families**—Typically, the family members directly served by the Family Literacy Pilot Program include a mother and her three- or four-year-old child. Occasionally a mother may have more than one child in the preschool component (a three- and a four-year old, or twins). In addition, there are some cases in which a grandparent, aunt, or father is served by the adult education component. There are also several cases of more than one adult from the family being enrolled in the adult education component.
- **Program Parents**—Most family literacy adult participants are mothers, though there are a few who are fathers, a grandparent, or an extended family member. Eight percent of the adults in the program are men. Participants' ages range from 18 to 59. The median age is 29, and 95 percent are 40 or younger.
- **Program Children**—One-third of the children served are three-year-olds and two-thirds of the children are four-year-olds. Eighty percent of the families in the Program have three or fewer children.
- **Number of Enrolled Participants**—Throughout the 1996-97 school year, 23 sites enrolled at least 482 families. By statute, family literacy sites target between 10 and 15 families per site. In an attempt to maintain the minimum enrollment of 10 families, sites enrolled participants continuously throughout the year as enrollment fluctuated due to attrition. The 482 participants did not necessarily complete a full year in the Program. The data reflects participants' status at enrollment. Several of the participants returned to the Program from the 1995-96 school year.
- **Family Ethnicity**—The majority of families enrolled are Hispanic (78 percent). Other ethnicities represented are Native American (13 percent); White, non-

Hispanics (4 percent); African-American (1 percent); and Asian/Pacific Islanders (1 percent). “Others” or “unknown” make up the balance. English language literacy is low, with only 18 percent of the families reporting English as the primary language spoken at home and an additional 10 percent reporting English as one of the languages spoken at home. Two-thirds report they speak only Spanish at home. Navajo and other languages are spoken at home in a small percentage of families.

- **Family Status**—Participants come from poor and undereducated backgrounds. Fifty percent of the families have incomes of less than \$10,000, and over half of the adult participants have a ninth-grade education or less.

While almost 80 percent of the participants’ spouses (mostly male) work and provide the primary source of income for the family, only 13 percent of adult participants are employed. Twenty-eight percent of the families rely, at least partly, on some government assistance.

Two-thirds of the participants in the family describe their living situation as a couple with children. An additional 17 percent live in extended families, and only 16 percent are single parents with child(ren).

C.2. Information on contractors and program service providers.

- **Fifteen Original Pilot Program Contractors**—The State Board of Education initially approved family literacy project monies for 15 contractors serving 26 sites in Arizona. Contractors included 10 school districts, 3 community-based organizations, 1 college, and 1 adult education provider. These contractors provided services during the 1995-96 school year. For 1996-97, 13 contractors were serving 23 sites. ADE did not renew contracts for Chino Valley Unified School District’s and Willcox’ Council for Family Concern’s sites for 1996-1997, and one site was closed at the request of the contractor, the Tucson Unified School District (TUSD). For the 1997-98 school year, the same 13 contractors are providing services at 21 sites. The TUSD also requested the closure of 2 sites at the end of the 1996-97 school year. Contract award amounts are presented in Table 1 (see page 5 in the Introduction and Background).
- **Two Model and Training Resource Contractors**—Mesa Unified School District’s Family Tree Project and Pima County Adult Education served as model and training programs. Both models also served as contractors for a total of 6 sites during the 1995-96 and 1996-97 school years. Mesa Unified School District serves 12 sites in Arizona’s northern region (including Maricopa County), and Pima County Adult Education serves the remaining 11 southern Arizona sites.

- **Program service providers given extensive opportunities for family literacy training**—Prior to the beginning of the 1995-96, 1996-97, and 1997-98 school years, Arizona's Family Literacy Pilot Program staff received training in implementing a family literacy program. ADE's Adult Education Division collaborated with the two model programs, the State's Even Start coordinator, and the Arizona Adult Literacy and Technology Resource Center, Inc., to provide a weeklong summer institute. The comprehensive statewide training included Family Literacy Pilot Program and Even Start staff, program coordinators, and administrators. The summer 1995 training was supported with state Family Literacy monies and the summer 1996 and summer 1997 training with federal adult education and Even Start monies.

The extensive trainings were supplemented by training sessions conducted in June, August, and December 1995, and January 1996, and by on-site training provided by the model programs' staff.

C.3. Information on program revenues and expenditures.

Appropriations for the Family Literacy Pilot Program total \$975,000 in school year 1994-95 and \$1,000,600 in school year 1995-96. School years 1996-97 and 1997-98, respectively, have been appropriated \$1,000,000. Family Literacy Pilot Program monies for 1994-95 were nonreverting, allowing ADE to carry over unspent monies.

ADE reduced 1995-96 contracts' budgets by 12 percent to correct budgeting errors made in school year 1994-95. Sites were forced to revise their budgets mid-year to operate on the reduced monies. Program budgets for 1996-97 were cut an additional 24.5 percent from the 1995-96 levels.

C.4. Information on the number and characteristics of enrollment and disenrollment.

The 23 sites served 482 families over the course of the 1996-97 school year. Of these families, 213 families have pre- and posttest data indicating that they successfully completed their goals for the Program. The sites have retained 54 percent¹ of the families long enough for pre- to posttesting; however, there is great variability among these sites as far as their success in retaining participants. Of the 3 sites that have been problematic, 1 has the lowest retention rate, only 18 percent, and the other 2 did not submit the end-of-year data required to compute the retention rate. Sites that have been in existence for a long time tend to have better retention rates. For example, 2 of

¹ Percentage is based on sites with complete posttest and exit data. Since some participants entered the Program too late for both pre- and posttesting, the reported rate is modestly deflated.

Pima County Adult Education's sites have very high retention rates, 89 and 80 percent. One of the Mesa sites has a high rate of 67 percent, and Crane and Isaac, who have operated programs since the early 1990s, have rates of 69 and 75 percent, respectively. One new site, Red Mesa, also has a commendable rate of over 75 percent. Enrollment information for each site in operation during the 1996-97 school year is summarized in Table 7 (see page 37).

Families who exited the Program prior to the end of the school year did so for a variety of reasons. Almost half of the early exits were for positive reasons. For example, of the 289 families who exited prior to completion of the Program, almost 30 percent did so because they had met the adult participants' goals. Another 16 percent left due to employment. However, 21 percent left because of a lack of interest or poor attendance. Some type of family crisis, such as illness or other conflict, caused another 20 percent to leave the Program before the end of the school year. The balance of the terminations was due to a variety of other reasons.

The overall retention rate for 1996-97 is improved over the 1995-96 rate of 40 percent. However, some sites did not make improvements in retention. Somerton and Tempe saw decreases in their retention rate, as did the Ochoa model site. Overall, however, the Program's higher retention rate indicates improvements in program operations.

Retention rates for the Family Literacy Sites are similar to family literacy programs across the country. National Center for Family Literacy (NCFL) reports that programs across the country have a 50 percent rate of attrition, and national studies of program effects are reported on an average of only 10 percent of the families with matched pre- and posttest scores.

C.5. Information on the average cost for each family in the Program.

The Family Literacy model is based on the premise that a program incorporating adult, child, and parent education is more effective than independent adult or early childhood components. The complexity and variety of services provided by a family literacy program requires multiple resources. In addition, budgets required to operate a family literacy program can vary depending on the number of days per week the program operated, the program size, and the cost of conducting the program in a community. NCFL estimates a full-time program requires a budget of \$50,000 to \$90,000 per site per year.

Cost per family—Family literacy programs spent a median of \$4,024 of state monies per family for family literacy services during the 1995-96 school year and \$3,038 during the 1996-97 school year.

Table 7

**Family Literacy Pilot Program
Number and Percentage of Families
Who Completed Programs per Site
1995-96 and 1996-97 School Years
(Unaudited)**

Site	1995-96			1996-97		
	Number Completed ¹	Number Served	Percentage Completed	Number Completed	Number Served	Percentage Completed
Crane ESD 13 (2 classes)	19	25	76%	18	26	69%
Flagstaff USD No. 1						
Killip	5	12	42	12	22	55
Leupp ²	1	25	4	--	23	NA
Isaac ESD No. 5 (2 classes)	28	49	57	24	32	75
Mesa USD No. 4						
Eisenhower	4	25	16	11	29	38
Lincoln	6	23	26	11	28	39
Longfellow	12	18	67	16	24	67
Pima County Adult Education						
Liberty	10	22	45	16	18	89
Nash	12	26	46	12	15	80
Ochoa	14	19	73	6	16	38
Tucson USD No. 1						
Lawrence	13	30	43	5	11	45
Pueblo Gardens	11	32	34	6	20	30
Tucson High School	4	19	21	6	18	33
Wakefield	9	34	26	13	27	48
Contractors with single classroom sites						
Cochise Community College	11	33	33	11	19	58
Literacy Volunteers of Maricopa County	13	35	37	11	23	48
Phoenix Indian Center ²	6	27	22	--	13	NA
Pinon USD No. 4	7	28	25	7	39	18
Red Mesa USD No. 27	20	30	67	22	29	76
Somerton ESD No. 11	11	15	73	11	28	39
Tempe ESD No. 3	<u>12</u>	<u>28</u>	43	<u>6</u>	<u>22</u>	27
Total	<u>228</u>	<u>555</u>	41	<u>224</u>	<u>482</u>	50 ³

¹ Based on additional data, totals were adjusted from the number reported in Auditor General Report No. 96-20.

² Completion data was not submitted for the 1996-97 school year.

³ Excludes sites with no completion data.

Source: Auditor General staff analysis of data provided by Family Literacy Program staff.

Auditor General staff calculated the cost per family using state monies allocated to contractors for school years 1995-96 and 1996-97 and the estimated number who completed services each year at each site.

Costs vary substantially across programs—Cost per family using state monies allocated to contractors for school years 1995-96 and 1996-97 varied considerably across sites. Variation is attributable to the different amount of monies allocated to each site and the number of families served. Costs per family for each site are presented in Table 8 (see page 39).

Family literacy programs cost an average of \$6,830 in state monies per family for family literacy services during the 1995-96 school year and \$4,208 during the 1996-97 school year. However, there are 3 programs with typically high costs in the 1995-96 school year, and 1 such program in the 1996-97 school year. Excluding these atypical sites from the calculation reduces the average cost to \$4,567 for the 1995-96 school year and \$3,765 for the 1996-97 school year.

For some sites, the estimated costs may reflect the total costs for the Program. However, many sites collaborate with other providers. For example, Literacy Volunteers of Maricopa County collaborates with Head Start for early childhood education services. The costs for this site reflect only about half of the actual program costs. However, Somerton relies more exclusively on the state monies for their program and their costs reflect most of the actual program costs.

High program costs are generally associated with programs that have been identified as having implementation difficulties. For example, Leupp and Phoenix Indian Center had high costs per family for 1996 and did not provide data for 1997. These sites, along with Pinon, which has high costs for both years, are receiving extra scrutiny by ADE to ensure they meet their contractual obligations. Two other sites that had high 1997 costs, Lawrence and Pueblo Gardens, have been discontinued for the 1997-98 school year at the request of the contractor, Tucson Unified School District No. 1.

Comparable programs' cost comparisons—Cost comparisons with other similar programs, such as the federally funded Arizona Even Start, show those programs to be providing family literacy services at a cost similar to Arizona Family Literacy Pilot Program sites during the second full year of implementation.

Arizona Family Literacy Pilot Programs and Even Start both deliver family literacy services to parents and their children. The differences between the two programs are their sources of financial support, and their age eligibility requirements for children. Even Start is a federally supported program that provides services to families with children ages 0 to 7, while the Arizona Family Literacy Pilot Program serves families with three- and four-year-old children. Additionally, Even Start has no class size limitation or citizenship eligibility requirement.

Table 8
Family Literacy Pilot Program
State Cost per Family per Site ¹
Years Ended June 30, 1996 and 1997
(Unaudited)

Site	1996	1997
Crane ESD No. 13		
Crane morning session	\$ 3,961	\$ 3,157
Crane afternoon session	3,961	3,157
Flagstaff USD No. 1		
Killip	7,489	2,356
Leupp	37,444	NA
Isaac ESD No. 5		
Isaac English for Speakers of Other Languages	3,143	2,768
Isaac GED	3,143	2,768
Mesa USD No. 4		
Eisenhower	8,962	2,529
Lincoln	6,141	2,529
Longfellow	3,071	1,739
Pima County Adult Education		
Liberty	4,400	2,076
Nash	3,666	2,768
Ochoa	3,143	5,536
Tucson USD No. 1		
Lawrence	3,385	8,305
Pueblo Gardens	4,000	6,921
Tucson High School	11,000	6,921
Wakefield	4,889	3,194
Contractors with single classroom sites		
Cochise Community College	4,024	3,038
Literacy Volunteers of Maricopa County	3,082	2,750
Phoenix Indian Center	7,206	NA
Pinon USD No. 4	17,317	13,075
Red Mesa USD No. 27	4,397	3,018
Somerton USD No. 11	5,600	4,228
Tempe USD No. 3	3,667	5,533
Average	\$ 6,830	\$ 4,208

¹ The actual cost per family was calculated using the number of families who completed the Program. The actual cost per family reported in Auditor General Report No. 96-20 was calculated using the average number of families served per month.

Source: Auditor General staff analysis of data provided by Family Literacy Program site staff.

Arizona's federally supported Even Start programs closely resemble the Family Literacy Pilot Program sites; in fact, there is collaboration between Family Literacy Pilot Program and Even Start sites. Programs collaborate to reduce service costs and increase available resources, and both programs adhere to National Center for Family Literacy models. The costs for the two programs are very similar.

Other comparable programs in the country, such as the federally supported Head Start Family Service Centers, privately supported Kenan Family Literacy Project, and PACE, provide similar services to families at costs comparable to Arizona's Family Literacy Pilot Program. As seen in Table 9 (see page 41), cost comparisons show that these programs provide services at costs very similar to the average for Arizona's 1996-97 pilot sites. Table 9 also shows the costs per family for these and the family literacy programs.

C.6. Information concerning progress of program participants in achieving goals and objectives.

Finding I (see pages 9 through 14), describes the progress adult participants have made in improving their literacy skills, attaining GEDs, and obtaining employment. We report that adults have made significant improvements in their literacy skills, a small number have successfully completed their GED, and many more are continuing to work toward their GED. Additionally, more participants are employed.

In Finding II (see pages 15 through 19), modest improvements in adults' parenting skills are reported.

Finding III (see pages 21 through 23), discusses the developmental gains the participating children are making as a result of the Program. Children who participate in the Program show a developmental rate that is an average of 4 months ahead of nonparticipating children as a result of their participation in the Program.

In addition to the progress reported in Findings I through III, participants have accomplished other outcomes. For example, 88 participants received library cards, 40 participants earned their First Aid card, and 23 participants received CPR certification. One participant became a U.S. citizen while in the Program, and 23 worked on acquiring their citizenship. Four other participants became newly registered voters while in the Program.

Table 9

**Family Literacy Pilot Program
Cost of Comparable Programs
1995-96 and 1996-97 School Years**

Program	Average Annual Cost per Family
1996 Family Literacy Pilot Program	\$6,830
1997 Family Literacy Pilot Program	4,266
Arizona Even Start (includes local effort)	4,975
Head Start Family Service Centers	3,507
Kenan Family Literacy Project	4,000 to 6,060

Source: Auditor General staff analysis of data provided by the Arizona Department of Education, Family Literacy Program contractors, and information published on other programs.

C.7. Recommendations regarding program administration.

In our first annual evaluation (Auditor General Report No. 95-20), we recommended that:

- The Legislature should consider increasing the number of families to be served at each site from 10 to 15 families to 15 to 20 families.

This recommendation has not yet been implemented. Implementation of this recommendation could make the Program more cost-effective, while maintaining an appropriate educational environment. Programs can serve up to 20 families at almost the same cost it takes to serve between 10 and 15 families. The range increase would thus allow programs to serve more families at a decreased cost per family. The increase would also be in keeping with guidelines for early childhood programs for 3- and 4-year-olds. We again make this recommendation in order to reduce the Program's costs per family.

In Finding IV (see pages 25 through 31), we recommend that the Legislature consider the following if the Program is continued or expanded:

- ADE should continue its program monitoring and technical assistance efforts to ensure program quality remains.

- Model program activities should continue in order to ensure that new and continuing sites have the assistance they need to succeed.

The Family Literacy Pilot Program initially had a difficult start-up period but has improved its program administration and delivery. In addition, the Program's long-term impact has not been measured. In order to ensure the Program continues to make an impact, and to assess long-term outcomes, ongoing evaluation of the Program is warranted. The ADE has continued all of the data collection that was initiated by the Office of the Auditor General. In addition, the Auditor General's staff have met with ADE staff regarding a system for electronically capturing the data. With the data collection already in place, it is recommended that:

- The ADE report annually, through December 31, 2002, to the Legislature on the Program's impacts on improving adult literacy, parenting skills, and the developmental progress of the children in the Program.
- The ADE report annually, through December 31, 2002, to the Legislature on the educational and employment status of the adults and the educational progress of the children who have been out of the Program for 6 months to 3 years.

C.8. Recommendations regarding informational materials distributed through the programs.

The model programs have provided pilot programs with training and material useful in the program implementation and no recommendations specific to the informational materials are made.

Model programs disseminated family literacy manuals developed by the National Center for Family Literacy (NCFL) to all pilot program staff. The manuals familiarized staff with family literacy components and provided a comprehensive guide for pilot program service delivery. NCFL manuals include extensive information on topics such as recruitment and retention, adult education, early childhood education, parenting discussion groups, parent and child interaction time, and assessment and program evaluation.

Staff also received information and materials specifically relating to each of the four program components. For example, adult education materials included GED study books, pre-GED books, and reading books at various proficiency levels. Early childhood education materials included children's books and devel-

opmentally appropriate toys. In addition, staff received materials through vendor fairs involving numerous adult and early childhood vendors, nutrition classes offered by the University of Arizona, early childhood training from a nationally recognized organization, and educational computer software.

C.9. Recommendations pertaining to program expansion.

The Family Literacy Pilot Program has positive impacts on the families who choose to enroll into and stay in the Program. The Program appears to be successful in improving the literacy rates of adult participants, and has some positive effects on their parenting behaviors. In addition, preschoolers in the Program are making gains in school readiness. Further, these gains were made despite a number of problems in the manner in which the Program was implemented.

The evaluation has focused on benefits to the family members who have directly participated in the Program. It should be remembered that the model is designed to benefit not just the participating members, but all family members. Through improved adult (parent) literacy skills, all the children in the home can be expected to make academic gains. And, as families improve their income and self-sufficiency, there will be additional benefits to the family. While improvements for other family members have not been directly measured, it is assumed that such benefits have and will occur. The benefits to the entire family, and not just the direct benefits measured by the evaluation, are taken into account in making recommendations about program continuation and expansion.

In Finding I (see pages 9 through 14), we report that the Program is successful in improving the literacy rates of the adult participants. Although it is too early to measure long-term effects, the positive adult education outcomes offer the possibility that the Program may have the intended impact of breaking the intergenerational cycle of poverty and illiteracy. As the parents' educational and literacy skills improve, it is expected that their children will do better in school. Not only should the preschool children in the Family Literacy Program do better, but their older and younger siblings should also do better.

In Finding II (see pages 15 through 19), we report that most parents enter the Program with positive parenting attitudes and that the parenting and PACT components of the Program only minimally impact their parenting skills. However, those parents still demonstrate that they better understand their role as their children's first teacher and some are engaging in more positive forms of discipline, as well as developing a better understanding of the education system and how they can help their children. A small group of parents do enter the Program with unfavorable parenting attitudes. Approximately 70 percent of those parents show significant improvement while in the Program.

In Finding III (see pages 21 through 23), we report that the preschool children in the Family Literacy Program appear to make performance gains greater than predicted for an at-risk population of children. As a result of the Program, they are “catching up” to their non-at-risk peers and are more likely to start school ready to learn. The amount of “catching up” they are doing might be greater than what is actually measured, since they would be expected to fall further behind if they were not in the Program.

In Finding IV (see pages 25 through 31), we report that sites have made improvements in complying with program criteria and offered higher quality services during the 1996-97 school year than in previous years. Serious problems with program implementation were found during the 1995-96 school year. Some of the improvements can be attributed to the better monitoring and technical assistance provided by the ADE and to ongoing services by the model programs that have paid more attention to compliance with program criteria.

In the statutory section the Program’s costs are contrasted to other family literacy programs and are found to be comparable.

Based on these positive outcomes from the Program that occurred despite problems with implementation, it is recommended that the Program be continued and expansion to additional sites considered. Positive results are being seen even though there were serious problems during the first two years of program implementation. As noted in our second evaluation of the Program last year (Report No. 96-20), only 7 of 26 programs complied with all program criteria. The second-year evaluation warned that the problems with implementation threatened the Program’s potential for success. The fact that positive impacts were found despite the implementation problems suggests that greater impacts may be found in the future if the implementation problems continue to be addressed.

However, if the Program is continued and possibly expanded, because Arizona’s family literacy model cannot meet the needs of all adults and children in need of literacy services, any additional monies should be directed to the areas with the greatest opportunity to make an impact. Monies should be distributed through a request for proposal process requiring potential contractors to demonstrate high rates of economic and educational disadvantage in their service area and a workable plan to attract and retain the target population.

It is also recommended that the model program sites be continued in order to assist with training and technical assistance needs of ongoing programs as they experience staff turnover, and new sites as they begin to provide services. Model programs should provide technical assistance, training, and basic monitoring in cooperation with ADE staff.

Pursuant to Laws 1994, Ninth S.S., Chapter 1, §9, the Office of the Auditor General is required to include the following information in the final program evaluation.

E.1. Statistical information measuring the effectiveness of the programs in accomplishing the goals and objectives established in this act.

In Finding I (see pages 9 through 14), statistical information specific to the Program's effectiveness in improving the literacy skills of adult participants is provided.

In Finding II (see pages 15 through 19), statistical information specific to the Program's effectiveness in improving the parenting skills of adult participants is provided.

In Finding III (see pages 21 through 23), statistical information specific to the Program's effectiveness in improving the school readiness of preschool participants is provided.

In Appendix C (see pages c-i through c-vii), additional statistical information supplementing Findings I, II, and III is presented.

E.2. The attitudes and concerns of program participants.

In Findings I and II and the Introduction, some of the participants' attitudes regarding the Program are presented through quotes from their written work. These quotes generally reflect the participants' attitudes concerning the assistance they have received from the Program in regard to improving literacy, parenting skills, and helping their children to learn. The participants acknowledge gains they have made in these areas.

F.1. Evaluate the educational process for parents on developmental assessments so that early identification of any learning disabilities, physical handicaps, or behavioral health needs are determined.

Family Literacy, unlike Health Start and Healthy Families, the companion programs created with the Family Stability Act of 1994, does not focus on educating parents as to the early identification of learning disabilities, physical handicaps, or behavioral health needs. The Program does provide developmental assessments of three- and four-year-olds and information from these assessments may be used to refer children for additional early intervention services.

F.2. Measure the effects on program participants of promoting family unity and strengthening family relations.

Qualitative data collected during participants' interviews and through review of written materials suggest the Program has improved family relations. For example, one participant writes of the increased involvement by her husband in parenting while another states that her husband has become a better father. Participants routinely report improved relations with their children.

F.3. Review the impact on program participants of the counseling and coping support services received.

Family Literacy does not provide direct counseling services. Through parent time, participants receive coping support from their instructors, from outside presenters, and from other participants. Qualitative data collected during participants' interviews and through review of written material suggests the Program has provided valuable coping support services for some participants. Participants report their fellow classmates helped them develop the skills necessary to effectively address and deal with family and economic difficulties.

F.4. Evaluate the method for selecting eligible participants.

Family Literacy participants are required to 1) have a three- or four-year-old child; 2) lack sufficient mastery of basic educational or basic English language skills needed to function in society, or lack a high school diploma or its equivalent; and be 3) United States citizens or legal residents, or otherwise be lawfully present in this country.

Sites use a variety of methods to recruit program participants. Methods include activities such as door-to-door recruitment, school districts referring families of preschoolers if the parent(s) meet the criteria, and recruitment through local stores and community centers and churches. Once established in communities, sites rely on participants referring friends and relatives to the Program and general word of mouth. Problems with low enrollments reported in Finding IV (see pages 25 through 31), and in the Statutory Annual Evaluation components suggest that sites need to improve their recruitment and retention efforts and enroll participants who are a good match for the Program.

Methods of determining eligibility vary across sites. While some sites require formal documentation to ensure participants are United States citizens or legal residents, other sites accept participants' written or verbal assurance that they are citizens. As reported in last year's evaluation, some sites have enrolled adult participants who do

not meet the criteria, and in both last year and this year's reports it is noted that some sites have enrolled families without age-eligible children.

The ADE should provide guidelines for eligibility determination by local sites. The guidelines should specify the types of documentation necessary for proof of citizenship or legal residence, and clear guidelines for determining if a participant meets the educational criteria. Additionally, the ADE should have guidelines defining allowable relationships between the adult and child in the Program and the maximum number of adults per child who can be served through the Program.

F.5. Evaluate the overall effectiveness of the program based on performance-based outcome measurements, including a reduced dependency on welfare, increased employment, and increased self-sufficiency.

As reported in Finding I, many Family Literacy participants have spouses who are employed, and therefore the participants themselves are focusing on raising families and are not currently seeking employment. However, two-thirds of those participants seeking employment have entered the workforce.

Due to problems with data collection, reliable data on participants' welfare dependence was not available.

Agency Response

December 9, 1997

Mr. Douglas R. Norton
Auditor General
State of Arizona
2910 North 44th Street
Suite 410
Phoenix, AZ 85018

Dear Mr. Norton:

I am responding to your agencies final evaluation of the Family Literacy Pilot Program.

A meeting to review the report draft was held, in our office, with members of my staff on December 2, 1997. The discussion was very beneficial.

The report contains six recommendations for program improvement and our agency addresses the recommendations as follows:

- Adult participants and their children, who were enrolled in the family literacy program, will be required to complete follow-up inquiries through longitudinal studies. This output measure study will be conducted four times during a twenty-four month period after the family has finished or withdrawn from the program.

The first effort to determine program impact is presently underway through a research study conducted in Arizona by the National Center for Family Literacy.

Results of the primary and secondary group sites will be available to your office by January 5, 1998.

(Reference page 14)

- The Department will continue program monitoring through a process of on-site visitations, program evaluation and technical assistance workshops. In addition, institutes for administrators and instructional staff will be conducted by the Department and the Arizona Academy for Literacy Resources and Professional Development. Each program will have a site visitation for technical assistance purposes no less than twice each contract year.

(Reference: page 31)

- The Department will recommend to the legislature the continuation of model training resources as presently required in Section E of the Family Literacy Pilot Program.

(Reference: page 31)

- The Department will recommend to the legislature that Section I-5 of the Family Literacy Pilot Program be changed to read; ten but no more than twenty parents...

(Reference: page 41)

- The Department will issue a report annually to the State Board of Education and the legislature concerning program impact on parents and children.

(Reference: page 42)

- With the passage of family literacy legislation in the 1998 session of the legislature, the Department will expand the program to include additional sites. Applications for a Family Literacy grant award will follow the requirements of the Request for Proposal (RFP) process.

(Reference: page 44)

Again, our agency extends our appreciation to your staff for the outstanding assistance provided in the evaluation of the Family Literacy Pilot Program.

Sincerely,

Lisa Graham Keegan
Superintendent of Public Instruction

Cc: Kathryn Kilroy
Jennifer Mabry
Gary A. Eyre
Lisa Rundle

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Appendix A

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APPENDIX A

FAMILY LITERACY ASSESSMENTS

Background

The assessments selected and developed for the evaluation of the Family Literacy Pilot Program were chosen to provide valid and reliable evaluations of the Program, and because they are easy to administer and useful to the service providers. The assessments were selected by the Office of the Auditor General staff in cooperation with ADE staff including the state Even Start Coordinator, Family Literacy Coordinator, and the Director of Adult Education. In addition, staff from the Pima County Adult Education Model Program and the Mesa Family Tree Model Program were involved in the decision making. Finally, staff from the Arizona Adult Literacy and Technical Resource Center provided assistance, along with preschool educators from the Isaac Elementary School District.

Assessments of Adult Literacy

Adult Language Assessment Scales (LAS): CTB Macmillan/McGraw-Hill, Monterey, California. 1993. The Adult LAS reading and writing test is made up of two subcomponents consisting of a total of five sections. The first three assess specific reading skills and are administered in a multiple-choice format. The writing section is made up of two sections and is scored holistically. The reading section includes 1) vocabulary, which measures the ability to match pictures to English words; 2) fluency, which measures overall language fluency and ability to infer a word or phrase based on knowledge of American English language usage and semantics; and 3) reading for information, which measures the ability to gather information from and answer questions based on printed materials. The writing section includes 1) sentences in action, which measures the ability to write original sentences in English; and 2) adventures in writing, which measures the ability to write an expository essay in English. The LAS is designed to assess the probability of students' success in the American mainstream. Separate reading and writing scores are provided along with a combined score.

The LAS can be individually or group administered. The LAS has two forms, allowing for pre- to posttesting using a different form. LAS reading and writing scores range from 0 to 100. The numeric results of the tests are grouped into five ranges: 1) low beginner (0 to 20); 2) high beginner (21 to 40); 3) low intermediate (41 to 60); 4) high intermediate (61 to 80); and 5) advanced (81 to 100).

Comprehensive Adult Student Assessment System (CASAS): CASAS, San Diego, California. 1994. The CASAS is a comprehensive curriculum management and assessment system designed to assess identified competencies of educational programs for all levels of English as a Second Language. A CASAS appraisal is to be given prior to assessment to determine the level at which participants should be tested. The Listening test contains 25 to 34 items, depending on the test level.

The CASAS listening test is administered from tape and generally is individually administered. The numeric CASAS scores, which have a potential range of 169 to 228, are grouped into four levels of functioning: 1) adults scoring below a 200-scaled score are beginners and have difficulty with basic literacy skills; 2) adults scoring between 200 and 214 can function in intermediate levels requiring minimal literacy skills; they are able to satisfy basic survival needs and some limited social demands; 3) adults scoring between 215 and 224 are functioning above a basic level; they are generally able to function in jobs or job training that involves oral instruction, but usually have difficulty following more complex sets of directions; and 4) adults scoring at or above 225 can perform work that involves following oral directions in familiar and unfamiliar situations.

Tests of Adult Basic Education (TABE) 7 & 8. CTB/McGraw Hill Publishing Company, Monterey California. 1994. TABE 7 & 8 includes subtests in reading, applied mathematics, language, and spelling. The parallel versions, 7 and 8, allow for pre- to posttesting using different forms. Tests are available in four skill levels: 1) easy; 2) medium; 3) difficult; and 4) advanced; and were administered based on participants' level of functioning.

The TABE can be group or individually administered. The TABE provides grade level equivalents ranging from 0 (kindergarten) to 12.9 (12th grade, 9 months) and scale scores, which allows for the accurate measurement of growth in the skills measured. Scale scores on applied math range from 200 to 795, language ranges from 235 to 826, reading from 160 to 812, and spelling from 220 to 745.

Assessments of Parenting Skills

Parent as a Teacher (PAAT). Scholastic Testing Service, Inc. Bensenville, Illinois. 1984. The PAAT is intended for mothers and fathers with children between three and nine years of age. This composite attitude scale reveals how individuals feel about certain aspects of the parent-child interactive system, their standards for assessing the importance of various child behaviors, and their value preferences concerning child behavior. The content for PAAT items was derived from a search of the literature regarding parental influence upon child development. The PAAT includes five 10-item subscales: 1) creativity; 2) frustration; 3) control, 4) play; and 5) teaching learning. Subscores range from a low of 10 to a high of 40 with 25 the average, and the point of differentiation between desirable and undesirable parental attitudes based on the consen-

sus of child development research. On the total score, which ranges from 50 to 200, 125 is the point between desirable and undesirable parenting attitudes.

The PAAT can be administered individually or in a group setting. Spanish and Navajo versions of the assessment are available. The Spanish version was used extensively in the evaluation.

Behavior Frequency Assessment (BFA). Office of the Auditor General staff developed the BFA specifically to measure frequencies of ten specific behaviors related to parental involvement in their children's education. Parents were asked to report how frequently during a week they engaged in the following behaviors during the past week: 1) talk to their children about what they did that day; 2) read or look at books with their children; 3) read or write in the presence of their children; 4) take their children to the library; 5) play with their children. Parents with school-aged children were also asked to report how often during the last 30 days they engaged in the following additional items: 6) talk to your children's teacher; 7) go to school activities; 8) volunteer with school activities; 9) help your children with homework; and 10) talk to children about school.

Child Development Assessment

Activity Evaluation System for Observing Preschooler (AESOP). Dowling, J., L. Wiener, and J. Creighton. *Syndactics*; Phoenix, AZ. 1994. The AESOP was developed under contract to the U.S. Department of Education and a prepublication version of the AESOP has been used for the evaluation.

The AESOP is designed in recognition of the fact that in the early years, a child's growth is uneven at different ages and across developmental domains. The assessment provides multidimensional contexts in which the child has the opportunity to demonstrate strengths and weaknesses across several domains. It meets the demands required of systematic observation: it is selective and unobtrusive, and it allows for the observation of several aspects or components of a child's behaviors. The AESOP provides raw scores, which can be interpolated into age-performance scores for a total and three subscores: 1) problem solving; 2) language; and 3) motor skills.

Family Assessments

The **Intake Form** was developed by the Office of the Auditor General staff in collaboration with Model Program staff specifically to gather information on the demographics and background of program participants. Information such as family size, income, marital status, and previous participation in adult education programs is collected on the form.

The **Exit Form** was also developed by Auditor General and Model Program staff specifically to gather information on the services each family received and the outcomes they achieved. Information such as whether families received transportation and child-care and employment status at the end of the school year, or when the family exited the program, is recorded on the form.

Site Assessments

The **Site Observation Form** was developed specifically by Auditor General staff to evaluate the services provided by the Family Literacy Pilot Program sites. It was modeled after the validation instruments used by the National Center for Family Literacy and the National Association for the Education of Young Children.

The Site Observation Form includes items specific to the four major components of Family Literacy: 1) adult education; 2) parent time; 3) early childhood education; and 4) parent and child together time. In addition, there is an item specific to program integration. Items that are observed are rated as “no implementation,” “partially implemented,” or “fully implemented.”

The **Adult and Early Childhood Education Interview Rating Form** was designed to complement the Site Observation Form. It was designed for use during site observation visits and includes questions for the adult educators, early childhood educators, and program coordinators.

The Interview Rating Form contains items specific to assessment, student orientation, retention efforts, curriculum, and integration of program components.

The **Contractor Survey** supplemented the data recorded on the observation and interview rating forms during the site visits. The survey contains information specific to schedules, funding, and staffing.

Appendix B

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APPENDIX B

TESTING PROCEDURES

Teachers Were Provided Training to Administer Assessments

Family Literacy Pilot Program staff were provided training on how to administer the assessment instruments. Two regional trainings were held in the summer of 1995. Adult educators were trained by staff from the Arizona Adult Literacy and Technical Resource Center in the use of the TABE and LAS. As required by the developers, a trainer from CASAS provided the CASAS training. Staff from the Auditor General's Office provided training on the use of the Parent as a Teacher Inventory and on completing the Behavior Frequencies and Intake and Exit Forms. In addition, one of the AESOP developers provided training to the early childhood educators on the proper use and scoring of the AESOP.

Despite the efforts to ensure all staff were competent in using the instruments, there is evidence that some less-than-adequate procedures were used at some sites. Data on some participants has been excluded from analysis due to observed problems with the data and some AESOP scores may be deflated due to the testing problems.

Administration

Family Literacy staff were instructed to administer all pretest assessments within 30 days of participants entering the Program. All posttest assessments were to be administered within 30 days of the end of the Program, or at the time a family leaves the Program if they exited before the end of the school year.

Dates of administration indicate that site staff complied with the instructions. However, since many families left the Program without notifying the staff, many families do not have posttest data.

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Appendix C

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Appendix C

Table 10

Family Literacy Pilot Program
English for Speakers of Other Languages
Participants Matched Pre- to Post-t-test
Language Assessment Scales (LAS) and
Comprehensive Adult Student Assessment System (CASAS) Tests
1995-96 and 1996-97 School Years

	Mean Standard Score	Standard Deviation	Mean Difference	Standard Deviation of Mean Difference	t-value	Probability	Number of Cases
LAS Reading							
1995-96 school year							
Pretest	52.0694	21.815	10.4440	19.876	4.46	<.001	72
Posttest	62.5139	20.825					
1996-97 school year							
Pretest	52.2000	22.623	17.4600	18.298	9.54	<.001	100
Posttest	69.6600	16.223					
LAS Writing							
1995-96 school year							
Pretest	31.0154	23.384	12.3077	21.124	4.70	<.001	65
Posttest	43.3231	26.607					
1996-97 school year							
Pretest	33.2323	24.097	20.8081	20.401	10.15	<.001	99
Posttest	54.0404	21.919					
LAS Reading and Writing							
1995-96 school year							
Pretest	80.3380	39.386	21.6620	31.899	5.72	<.001	71
Posttest	102.0000	43.315					
1996-97 school year							
Pretest	82.4242	40.234	39.0808	29.881	13.01	<.001	99
Posttest	121.5051	35.520					

(Continued)

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Table 10

**Family Literacy Pilot Program
English for Speakers of Other Languages
Participants Matched Pre- to Post-t-test
Language Assessment Scales (LAS) and
Comprehensive Adult Student Assessment System (CASAS) Tests
1995-96 and 1996-97 School Years
(Concl'd)**

	Mean Standard Score	Standard Deviation	Mean Difference	Standard Deviation of Mean Difference	t-value	Probability	Number of Cases
CASAS Listening							
1995-96 school year							
Pretest	203.0625	12.052					
			5.8750	11.655	5.51	<.001	80
Posttest	208.9375	11.552					
1996-97 school year							
Pretest	201.0978	22.348					
			5.7283	24.103	2.28	.025	92
Posttest	206.8261	32.510					

Source: Auditor General staff analysis of data collected at Family Literacy Program sites.

Appendix C

Table 11

**Family Literacy Pilot Program
Adult Basic Education Participants Matched Pre- to Post-t-test
Test of Adult Basic Education (TABE)
1995-96 and 1996-97 School Years**

	Mean Standard Score	Standard Deviation	Mean Difference	Standard Deviation of Mean Difference	t-value	Probability	Number of Cases
TABE Applied Mathematics							
1995-96 school year							
Pretest	444.64	108.450	81.2667	87.496	8.04	<.001	75
Posttest	525.91	70.240					
1996-97 school year							
Pretest	467.23	99.460	51.3594	85.068	4.83	<.001	65
Posttest	518.59	85.360					
TABE Language							
1995-96 school year							
Pretest	455.59	123.650	58.7703	96.483	5.24	<.001	74
Posttest	514.36	77.690					
1996-97 school year							
Pretest	512.93	115.260	26.2471	78.047	3.10	.003	85
Posttest	539.18	78.030					
TABE Reading							
1995-96 school year							
Pretest	471.47	139.420	56.4872	97.598	5.11	<.001	78
Posttest	527.96	81.420					
1996-97 school year							
Pretest	495.26	120.000	47.0494	87.308	4.85	<.001	80
Posttest	542.26	62.068					

(Continued)

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Table 11

Family Literacy Pilot Program
Adult Basic Education Participants Matched Pre- to Post-t-test
Test of Adult Basic Education (TABE)
1995-96 and 1996-97 School Years
(Concl'd)

	Mean Standard Score	Standard Deviation	Mean Difference	Standard Deviation of Mean Difference	t-value	Probability	Number of Cases
TABE Spelling							
1995-96 school year							
Pretest	478.45	97.200					
			24.0135	84.467	2.45	.017	74
Posttest	502.46	84.300					
1996-97 school year							
Pretest	503.16	91.380					
			44.9620	73.090	5.47	<.001	79
Posttest	548.13	71.500					

Source: Auditor General staff analysis of data collected at Family Literacy Program sites.

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Table 12

Family Literacy Pilot Program
Parent As a Teacher Inventory
Matched Pre- to Post-t-test
1995-96 and 1996-97 School Years

	Mean Standard Score	Standard Deviation	Mean Difference	Standard Deviation of Mean Difference	t-value	Probability	Number of Cases
Creativity							
1995-96 school year							
Pretest	25.0629	6.580					
			.1447	3.257	.56	.576	159
Posttest	25.2075	6.904					
1996-97 school year							
Pretest	26.6927	3.788					
			1.3021	4.610	3.91	<.001	192
Posttest	27.9948	3.650					
Frustration							
1995-96 school year							
Pretest	25.7736	6.828					
			.4465	3.339	1.69	.094	159
Posttest	26.2201	7.196					
1996-97 school year							
Pretest	27.8906	4.120					
			1.3698	5.025	3.78	<.001	192
Posttest	29.2604	4.127					
Control							
1995-96 school year							
Pretest	22.2264	5.981					
			1.1195	3.333	4.24	<.001	159
Posttest	23.3459	6.319					
1996-97 school year							
Pretest	24.4555	3.633					
			1.7068	4.480	5.27	<.001	190
Posttest	26.1623	3.899					

(Continued)

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Table 12

**Family Literacy Pilot Program
Parent as a Teacher Inventory
Matched Pre- to Post-t-test
1995-96 and 1996-97 School Years
(Concl'd)**

	Mean Standard Score	Standard Deviation	Mean Difference	Standard Deviation of Mean Difference	t-value	Probability	Number of Cases
Play							
1995-96 school year							
Pretest	27.0189	6.972					
Posttest	26.9057	7.249	.1132	3.830	.37	.710	159
1996-97 school year							
Pretest	28.8796	3.325					
Posttest	29.6702	4.336	.7906	3.965	2.76	.006	191
Teaching Learning							
1995-96 school year							
Pretest	26.1761	7.071					
Posttest	26.6415	7.344	.4654	3.928	1.49	.137	159
1996-97 school year							
Pretest	28.3037	3.438					
Posttest	29.9791	4.292	1.6754	4.783	4.84	<.001	191
Total							
1995-96 school year							
Pretest	135.8734	8.743					
Posttest	138.8671	10.822	2.9937	11.294	3.33	<.001	158
1996-97 school year							
Pretest	137.0354	11.922					
Posttest	143.2626	12.579	6.2273	13.391	6.54	<.001	198

Source: Auditor General staff analysis of data provided by Family Literacy Program staff.

Appendix C

Table 13

Family Literacy Pilot Program Preschoolers' Pre- to Posttest Gains in Performance Age 1995-96 and 1996-97 School Years

Skills	1995-96			1996-97		
	Pretest Score in Months	Posttest Score in Months	Average Gain in Months	Pretest Score in Months	Posttest Score in Months	Average Gain in Months
Language	44.625	49.408	4.783	47.211	50.599	3.388
Motor	49.983	52.033	2.050	49.569	52.333	2.764
Problem solving	47.525	52.183	4.658	49.575	54.070	4.495
Total score	45.796	50.331	4.535	48.197	51.672	3.475

Source: Auditor General staff analysis of data provided by Family Literacy Pilot Program staff.

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