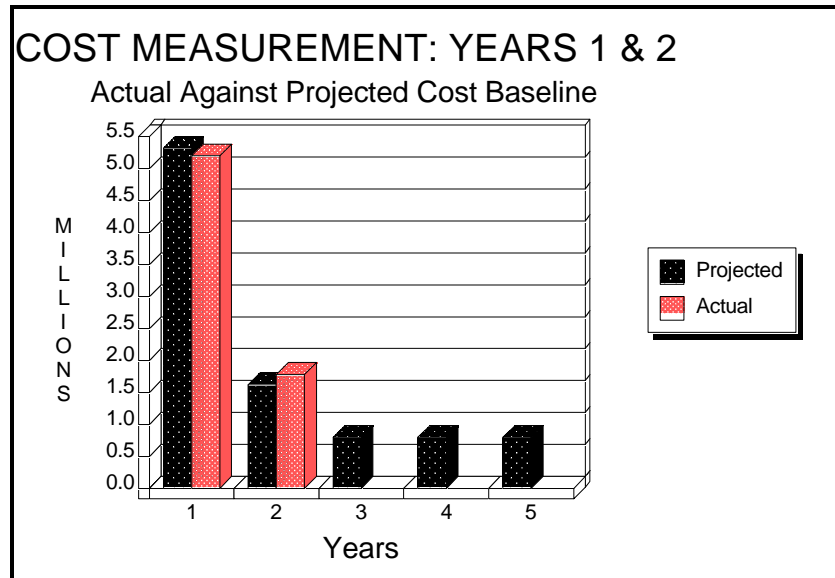


[Editor's Note: This chapter is an example of a cost/benefit measurement report. It is written as though reporting in the second year of the project described in Chapter 2. This clarifies the relationship between the planning stage studies and the post-implementation measurement and reporting phase. As a reminder, the costs that States will measure against during implementation are the projected costs for the selected alternative from the cost/benefit analysis. Status quo costs are not used, present value discounted costs are not used, and measurement dollars are not discounted.]

Annual APD Update: Section VII **Cost / Benefit Measurement Report: Year 2**

- Overview:** Costs and benefits conformed reasonably well this year with those projected during the planning phase of this systems development project. Although benefits have been, in some cases over the last two years, lower than anticipated, they reflect (in absolute terms) significant improvement over prior systems and program operations.
- Costs:** Costs incurred this fiscal year were about ten percent more than anticipated, primarily due to higher-than-projected support services and training costs. In response, the State has (1) provided more in-house training and (2) initiated cost control procedures to closely regulate contractor task assignments and performance. Another important measure will be taken to reduce expenditures in the support services category. Rather than rely on a single contractor as originally planned, the State will award two support services contracts against which individual tasks will be competed. Note that part of this year's higher costs were offset by last year's lower than anticipated prices, which resulted from keen competition for



the system hardware contract.

The graph at the top of the next page depicts the relationship of actual costs to projected costs. Details are on page 3-11.

Benefits
Measurement:

Quantifiable benefits. Dollar-quantifiable benefits topped those projected for this year, and were lower than anticipated in only one of the six benefits. Details follow.

Benefit 1: Improve efficiency and effectiveness of caseworkers and reduce program costs. This benefit is based on using productivity improvements to increase the time caseworkers spend in prevention services and, consequently, to shift placement from more to less expensive means of care. As described in more detail later in this section, caseworkers have achieved the expected productivity improvements. This has resulted in an increase in the time caseworkers spend on average in prevention services. As predicted, there has been a measurable change in the distribution of placement, representing major improvement over last year in the value of this benefit.

Measure	Family Pres.	Foster Homes	Group Homes	Res. Homes
1994	66%	22%	1%	11%
Projected*	73%	18%	1%	8%
1995	70%	18%	1%	11%
1996	72%	19%	1%	8%

* Based on Benefits 1 and 2, Year 2

In conformance with the measurement plan described in our Implementation APD, we are *measuring this benefit primarily on the basis of percentage and not absolute population numbers*. The table on the top of page 3-3 indicates the baseline population distribution in 1994, our projected goal, and the actual distributions achieved in 1995 and 1996. Although we have not yet achieved the predicted distribution, this year's actuals came very close and represent a significant improvement over 1995 and prior years.

1994: Baseline	Family Preserv.	Foster Homes	Group Homes	Res. Homes	Total
Population	6,100	2,000	135	975	9,210
% of All	66%	22%	1%	11%	100%

Cost per Month	451	546	3250	2918	
Annual Cost	33,013,200	13,104,000	5,265,000	34,140,600	85,522,800
1995 Distribution	Family Preserv.	Foster Homes*	Group Homes*	Res. Homes*	Total
Population	6,447	1,658	92	1,013	9,210
Percentage	70%	18%	1%	11%	100%
Cost per Month	451	546	3250	2918	
Annual Cost	34,891,164	10,863,216	3,588,000	35,471,208	84,813,588
Benefit					709,212
1996 Distribution	Family Preserv.	Foster Homes*	Group Homes*	Res. Homes*	Total
Population	6,631	1,750	92	737	9,210
Percentage	72%	19%	1%	8%	100%
Cost per Month	451	546	3250	2918	
Annual Cost	35,886,972	11,466,000	3,588,000	25,806,792	76,747,764
Benefit					8,775,036

In the table at the bottom of page 3-3, the actual distributions achieved in 1995 and 1996 are measured against the baseline population (9,210) and constant dollar costs (\$451, \$546, \$3250, and \$2918) projected in the Implementation APD. By this measure, the State has achieved significant dollar-quantifiable benefits of \$709,212 (1995) and \$8,775,036 (1996), the latter exceeding the annual projection of \$7,136,796 (Benefit 1).

In actuality, benefits are more impressive in 1996 than those claimed using the strategy set forth in the measurement plan. It is true that the State did not achieve the projected distribution. However, the State did achieve an improved distribution *against a higher population and higher costs*. (These factors are both unpredictable and largely outside the control of the State; hence, we did not attempt to predict them in our projected benefits or cost/benefit measurement plan.)

If we analyze the benefit of shifting the distribution against the higher population at the higher costs, we can compare actual costs to "would-have" costs. We provide these calculations in the table on page 3-5 as an *indicator of the project's success*. By either measure, the project is delivering important benefits and achieving measurable program savings.

Benefit 2: Use productivity gains to increase the foster home pool and decrease group and residential home placements. Caseworker productivity improvement (made possible by the new system) allowed the State to reassign one caseworker to a new community outreach program (expanding the existing foster family recruitment program), with the objective of increasing the number of foster homes. This benefit is based on the concept that, if more foster homes are available, the State will be able to decrease the percentage of the population in group and residential homes.

We had projected in the Implementation APD that the new outreach program would have the effect of increasing the foster home pool by 50 homes per year. We did not reach this goal. Nevertheless, we did achieve some success. We credit the program with adding 20 new foster families.

1995: Baseline Distribution	Family Preserv.	Foster Homes	Group Homes	Res. Homes	Total
Population*	6,402	2,134	97	1,067	9,700
% of All	66%	22%	1%	11%	100%
Cost per Month*	465	560	3340	3005	
Annual Cost	35,723,160	14,340,480	3,887,760	38,476,020	92,427,420
1995: Actual Distribution	Family Preserv.	Foster Homes*	Group Homes*	Res. Homes*	Total
Population*	6,790	1,746	97	1,067	9,700
Percentage*	70%	18%	1%	11%	100%
Cost per Month*	465	560	3340	3005	
Annual Cost*	37,888,200	11,733,120	3,887,760	38,476,020	91,985,100
Difference					442,320
1996: Baseline Distribution	Family Preserv.	Foster Homes*	Group Homes*	Res. Homes*	Total
Population*	6,547	2,182	100	1,091	9,920
Percentage	66%	22%	1%	11%	100%
Cost per Month*	480	575	3350	3005	
Annual Cost	37,710,720	15,055,800	4,020,000	39,341,460	96,127,980
1996: Actual Distribution	Family Preserv.	Foster Homes*	Group Homes*	Res. Homes*	Total
Population*	7,142	1,885	99	794	9920
Percentage*	72%	19%	1%	8%	100%
Cost per Month*	480	575	3350	3005	8,040,380
Annual Cost*	41,137,920	13,006,500	3,979,800	28,631,640	86,755,860
Difference					9,372,120

*Actuals

In retrospect, when we projected benefits for the new program, we underestimated the difficulty of recruiting and retaining foster families. The question the State must now address is whether the program is of sufficient promise to merit its continuance.

Two major factors are critical. First, twenty new homes have absolute value, primarily in the quality of the children's lives, but also in the dollars saved from more expensive means of care. In measurable terms, for example, if one foster home is available to a child in residential care, its value in dollars is nearly \$150,000 — far more than the annual costs of running the program. [\$3005 (1996 monthly residential care costs) less \$575 (1996 monthly foster care costs) equals \$2430 difference per month, times 60 months average stay, equals \$145,800.]

Second, we do not believe the program has been in place long enough to accurately gauge its effectiveness. Interviews with some of our current foster parents indicate that it is not unusual for people to consider becoming foster parents for several years. If this is true, our outreach program may have had an effect we cannot yet discern.

For purposes of measurement, this benefit is accounted for in Benefit 1. The new foster homes are part of and contributed to the new distribution, helping to absorb the increased population and to reduce the percentage of children in residential housing. As we indicated in the Implementation APD, the analysis associated with these two benefits is not a pure cause-effect analysis. The real world cannot be managed like a laboratory environment, eliminating external influences. Consequently, we find it sufficient to achieve measurable improvement and to know that the system has contributed in a large degree to that improvement.

Benefit 3: Reduce the duration of stay for children who can safely be returned home. With the new system, caseworkers have more time for client services, and administrative and intake processing is more streamlined and efficient. These changes have resulted in the predicted effect: The average duration of foster care placement for temporary-needs children has decreased from 120 days to 45

days. The anticipated benefit has been achieved without negative effect on these children (as measured by the absence of child abuse/neglect reports).

Because the population of these children was in actuality larger than we anticipated, the benefits are also larger. In 1996, there were 345 temporary-needs children (compared to our predicted population of 300). By reducing the average duration of stay, the State achieved meaningful results. [120 days less 45 days equals 75 days times \$3 less cost per day (constant dollars) equals \$225 less cost per child: \$225 times 345 children equals \$77,625.]

Benefit 4: Consolidate databases to reduce the interval until adoption. Under the old system, even when children were matched with potential adoptive parents, the interval to adoption was ten months; much of this time was attributable to lack of centralized information and extremely inefficient procedures and scheduling information.

The State has not yet achieved the predicted improvement in time, but there has been significant improvement. Once matched, the State has placed children with adoptive parents within four months. (Last year's average was 117 days.) More than 100 children were matched and adopted last year. (Management has made additional administrative changes that should bring the two month goal within reach next year.)

In 1996, 123 children moved from foster care to adoptive parents with a four month rather than ten month delay. The benefit is based on \$276 (in constant dollars) less per month times six months or \$1,656 for each child, times 123 children a year equals \$203,688. [Note that if this benefit is calculated with actual (current) dollars, benefits are higher: \$293 less per month times six months or \$1,758 for each child, times 123 children a year equals \$216,234.]

[Editor's Note: For consistency, the State is measuring and claiming benefits based on the Implementation APD's constant dollar projections. Note also that the State provides additional

support to the analysis by using current dollars (actuals) to determine the "would-have" costs.]

Benefit 5: Increase child support collections. Automated interfaces between the child welfare system and the IV-D child support system have dramatically increased collections. Under the old system, only 10% of child welfare cases were referred to IV-D for collection. Under the new system, 100% of cases are referred.

We exceeded our projections for the value of this benefit. The Implementation APD's projections were based on 1994's collection rate (15%) and population owed child support (1,865). Last year's collection rate was 15.5% and the population was 2,162. The benefit is claimed after adjusting for the prior collection rate. (See the table below.) Using constant dollars, this represents \$906,000 in claimed benefits. [Using actual or current dollars for average monthly payment (\$262), the value to the State is higher: \$949,488.]

Actual Child Support Collections			
Population Owed Child Support	Cases Collected (15.5%)	Av. Monthly Payment* (\$ 250)	1996 Collections
2,162	335	83,750	1,005,000
Adjustment for Prior Collection Rate			
Cases Referred (10% of Population)	Cases Collected (15.5%)	Av. Monthly Payment* (\$ 250)	1996 Collection Adjustment
216	33	8,250	99,000
Difference / Benefit			906,000

* Constant dollars

Benefit 6: Reduce AFDC Overpayments. The new system's automated interface with the system processing Aid to Families with Dependent Children (AFDC) has dramatically reduced overpayments as projected.

Before the interface, AFDC payments to families whose children had entered foster care continued on average five months. With the new system, overpayments have been reduced to (on average) just under one month. The projected benefit was achieved again this year.

Summary of dollar-quantifiable benefits. The graph below depicts the relationship of actual benefits to projected benefits. Details are provided on page 3-11.

ANNUAL AND SYSTEM LIFE BENEFITS BASELINE				
Benefit	Year 1		Year 2	
	Projected	Actual	Projected	Actual
Benefits 1 and 2	7,136,796	709,212	8,589,637	8,775,036
Benefit 3	67,500	68,175	67,500	77,625
Benefit 4	220,800	140,760	220,800	203,688
Benefit 5	735,000	742,000	735,000	906,000
Benefit 6	233,600	233,600	233,600	233,600
Total	8,393,696	1,893,747	9,846,537	10,195,949

Other Measurable Benefits. The State's plan to reduce caseworker administrative duties and increase time devoted to caseworker prevention services has been realized, as indicated in the table on the following page. Some final adjustments are needed to decrease internal reporting requirements and to increase program analysis. Management is currently taking action on these items.

Performance Baseline and Target: Weekly Average			
Description	Current	Proposed	Actual
Maintaining Tickler Files	1	0	0
Work Scheduling	2	1	1
Manual Tracking	2	1	1
Internal Reporting	3	2	3
Data Entry	4	2	2
Client Services	12	16	16
Program Analysis	0	2	1

Projected
 Breakeven:

The systems project has broken even, at approximately the same time as originally projected. In accordance with ACF guidance, *the State requests release from future cost/benefit measurement reporting.*

Cost / Benefit Measurement Profile: Year Two

COST/BENEFIT MEASUREMENT: ACTUALS, YEARS 1 AND 2						
SYSTEM LIFE COST PROFILE						
Description	Year 1	Year 2	Year 3	Year 4	Year 5	Total
Non-Recurring Costs*	3,580,472	0	-	-	-	3,580,472
Recurring Costs*	1,621,868	1,782,320	-	-	-	3,404,188
Total Costs*	5,202,340	1,782,320	-	-	-	6,984,660
Total Projected Costs	5,321,868	1,621,868	796,145	796,145	796,145	9,332,171
Difference	-119,528	160,452	-	-	-	40,924
SYSTEM LIFE BENEFITS PROFILE						
Description	Year 1	Year 2	Year 3	Year 4	Year 5	Total
Total Benefits*	1,893,747	10,195,949	-	-	-	12,089,696
Total Projected Benefits	8,393,696	9,846,537	11,293,641	12,740,745	14,187,849	56,462,468
Difference	-6,499,949	349,412	-	-	-	-44,372,772
CUMULATIVE BENEFIT / COST PROFILE (ACTUAL AND PROJECTED)						
Description	Year 1	Year 2	Year 3	Year 4	Year 5	Total
Cumulative Total Actual and Projected Benefits*	1,893,747	12,089,696	23,383,337	36,124,082	50,311,931	N/A
Cumulative Total Actual and Projected Costs*	5,202,340	6,984,660	7,780,805	8,576,950	9,373,095	N/A
COMPARISONS						
Description	Actual to Date		Current Projected		Baseline	
Total Benefits	12,089,696		50,311,931		56,462,468	
Less Total Costs	6,984,660		9,373,095		9,332,171	
Net Benefit (Cost)	5,105,036		40,938,836		47,130,297	
Benefit/Cost Ratio	1.73		1		6.05	
Breakeven	has broken even		has broken even		has broken even	

* Actuals, years 1 and 2.

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