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EVALUATION OF CHILD ABUSE AND NEGLECT DEMONSTRATION PROJECTS  
1974 - 1977. VOLUME VII: COST; FINAL REPORT

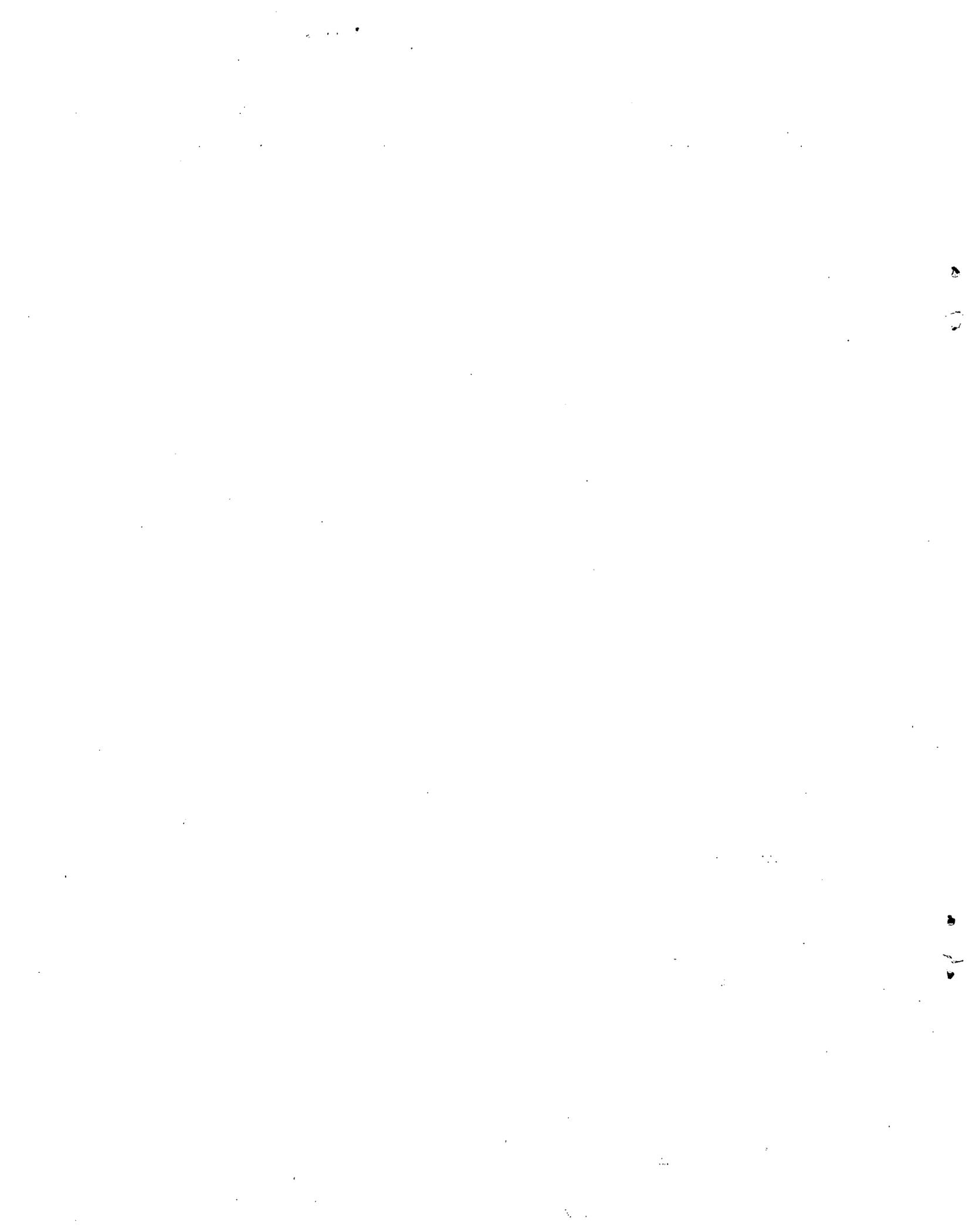
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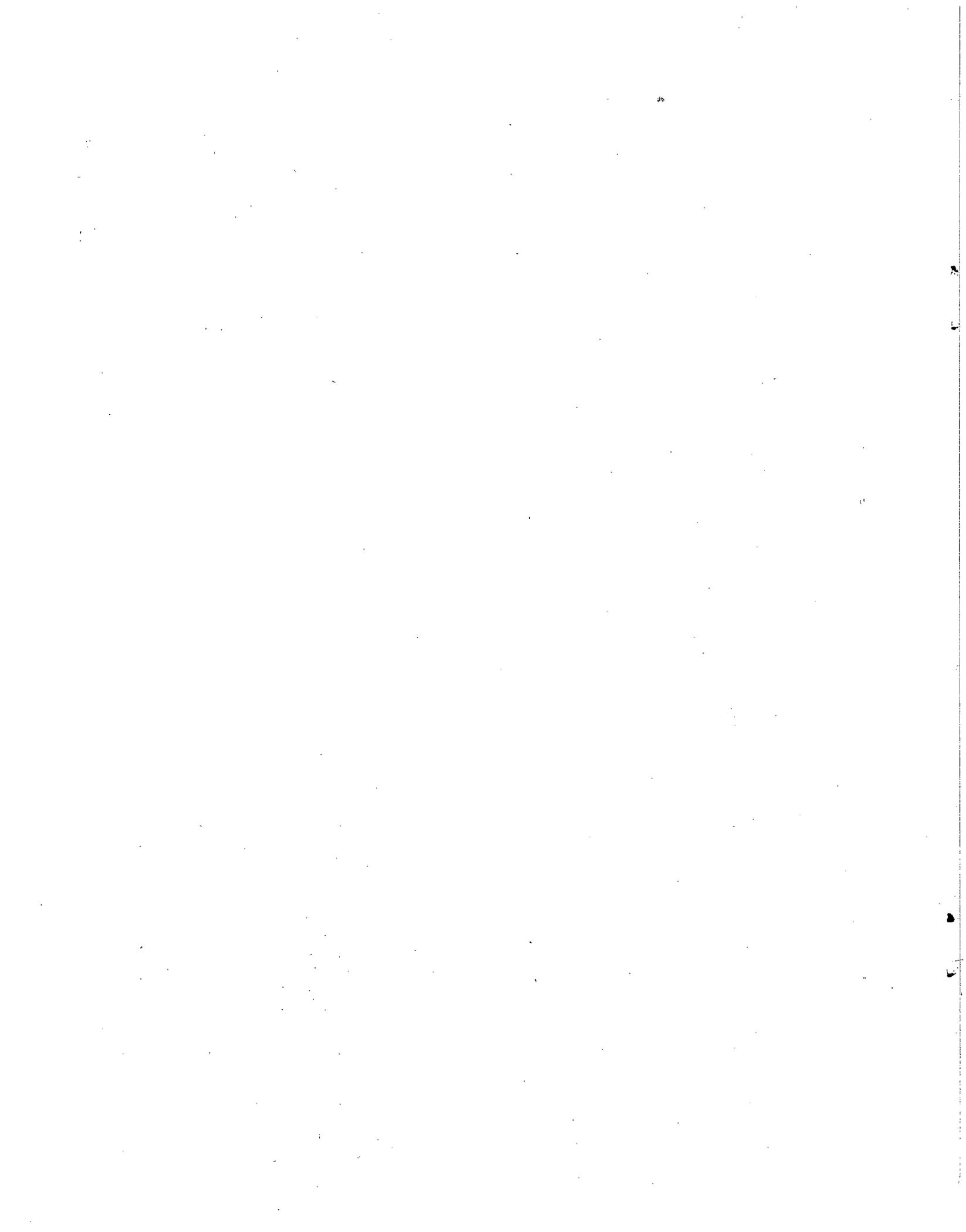
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16. Abstracts This report provides an analysis of the utilization of resources (both dollars and personnel) in eleven demonstration child abuse and neglect service projects. The allocation of individual project and overall program resources to different service and treatment activities are presented. The unit costs of different treatment services and the consequent costs of alternative service program models are discussed. The report includes analysis of service volume and the factors associated with cost efficiency in child abuse programs. Also included is a detailed discussion of the cost analysis methodology.					
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## PREFACE

In May of 1974, the Office of Child Development and Social and Rehabilitation Services of the Department of Health, Education and Welfare jointly funded eleven three-year child abuse and neglect service projects to develop strategies for treating abusive and neglectful parents and their children and for coordination of community-wide child abuse and neglect systems. In order to document the content of the different service interventions tested and to determine their relative effectiveness and cost-effectiveness, the Division of Health Services Evaluation of the National Center for Health Services Research, Health Resources Administration of the Department of Health, Education and Welfare awarded a contract to Berkeley Planning Associates to conduct a three-year evaluation of the projects. This report is one of a series presenting the findings from that evaluation effort.

This evaluation effort was the first such national study in the child abuse and neglect field. As such, the work must be regarded as exploratory and suggestive, not conclusive. Many aspects of the design were pioneered for this study. Healthy debate exists about whether or not the methods used were the most appropriate. The evaluation focused on a demonstration program of eleven projects selected prior to the funding of the evaluation. The projects were established because of the range of treatment approaches they proposed to demonstrate, not because they were representative of child abuse programs in general. The evaluation was limited to these eleven projects; no control groups were utilized. It was felt that the ethics of providing, denying or randomly assigning services was not an issue for the evaluation to be burdened with. All findings must be interpreted with these factors in mind.

Given the number of different federal agencies and local projects involved in the evaluation, coordination and cooperation was critical. We wish to thank the many people who helped us: the federal personnel responsible for the demonstration projects, the project directors, the staff members of the projects, representatives from various agencies in the projects' communities. Ron Starr, Shirley Langlois, Helen Davis and Don Perlmut are all to be commended for their excellence in processing the data collected. And in particular we wish to thank our own project officers from the National Center for Health Services Research--Arne Anderson, Feather Hair Davis and Gerald Sparer--for their support and input, and we wish to acknowledge that they very much helped to ensure that this was a cooperative venture.

Given the magnitude of the study effort, and the number and length of final reports, typographical and other such errors are inevitable. Berkeley Planning Associates and the National Center for Health Services Research would appreciate notification of such errors, if detected.

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## SUMMARY

### Introduction

In May of 1974, prior to expenditure of funds appropriated to the Child Abuse and Neglect Prevention and Treatment Act, Public Law 93-247 the Office of Child Development and Social and Rehabilitation Services, of DHEW, jointly funded eleven three-year child abuse and neglect service projects in order to develop and test alternative strategies for treating abusive and neglectful parents and their children and alternative models for coordination of community-wide child abuse and neglect systems. The projects, spread throughout the country and in Puerto Rico, differed by size, the types of agencies in which they were housed, the kinds of staff they employed, and the variety of services they offered. In order to document the content of the different service interventions tested and to determine their relative effectiveness and cost-effectiveness, Health Resources and Administration awarded a contract to Berkeley Planning Associates to conduct a three-year evaluation of the projects. This report presents the final analyses of project resource allocations, based on that evaluation. The purpose of this report is to describe the costs associated with different project activities and to suggest how this information may be useful to program planners and managers.

### I. Methodology

A system for collecting, processing and analyzing information from the projects on how their resources were expended was developed. This system included the identification of discrete project activities to which resources were allocated and the careful monitoring of project resources to these activities. Monitoring occurred for one-month intervals every three or four months during the demonstration period; project staff recorded their own time expenditures in relation to project activities and project directors accounted for all other, non-personnel, expenditures for the month. Donated resources (including volunteered time) were also accounted for. A percentage distribution of all resources to discrete activities and the unit costs of activities were generated. Costs were adjusted to reflect regional wage and price differences, allowing for across-project comparisons and averages. Given that the data collected and analyzed are from eleven different projects, which are not necessarily representative of child abuse and neglect programs across the country, care must be used in generalizing from the findings.

### II. Cost Findings

The demonstration projects as a group, staffed by approximately 450 people (including volunteers), spent \$2.21 million annually, which was matched by over \$330,000 a year in donated resources. With an average

of 800 cases in treatment per month, over 2200 new cases were opened by the projects each year. Countless others received minimal, supportive services from the projects. Direct treatment services focused on the abusive or neglectful parent, with individual counseling being the most widely offered service, supplemented by crisis intervention, multidisciplinary team review and lay therapy services. Fewer than 175 children received direct treatment services from the projects each year. However, over 50,000 professional and lay people annually received direct education or training in matters pertaining to child abuse and neglect.

The unit costs of direct treatment services varied considerably with lay and group services being about the least expensive (with an across project average of \$7.25 per lay therapy counseling contact; \$9.50 per person for a parent education class; \$10.50 per person for a group therapy session). Individual counseling cost about twice as much as lay therapy counseling (\$14.75 per contact). Multidisciplinary team reviews cost the projects an average \$54.75 per review; however, when the volunteered time of consultants is ascribed a dollar value, the cost per review rises to \$125.50. Comparisons across projects revealed that projects with larger service volumes provided group services at lower unit costs; unit costs of individual-client services were not a reflection of service volume.

The factors most strongly associated with efficiency (the ability of a project to offer its mix and volume of services at a cost lower than the average across projects) appear to be organizational characteristics including larger staff size, fewer supervisors per staff and greater explicitness of rules and procedures. Workers satisfaction has a negative relationship with efficiency.

### III. Using the Cost Findings for Program Planning

The above cost findings can be used for treatment program planning purposes, particularly in determining how resources will likely be allocated, how program economy and efficiency can be enhanced and what the costs associated with service delivery packages would be. Examples of the adaptation of the cost data to program planning are presented.

## INTRODUCTION

### History of the Demonstration Effort

During the fall of 1974, prior to the passage of the Child Abuse Prevention and Treatment Act, Public Law 93-247, the secretary's office of the federal Department of Health, Education and Welfare (DHEW) decided to allocate four million dollars to child abuse and neglect research and demonstration projects. A substantial portion of that allotment, approximately three million dollars, was to be spent jointly by the Office of Child Development's (OCD) Children's Bureau, and Social and Rehabilitation Services (SRS) on a set of demonstration treatment programs. On May 1, 1974, after review of over 100 applications, OCD and SRS jointly selected and funded eleven three-year projects.<sup>1</sup> The projects, spread throughout the country, differ by size, the types of agencies in which they are housed, the kinds of staff they employ, and the variety of services they offer their clients and their local communities. However, as a group the projects embrace the federal goals for this demonstration effort, which include:

- (1) to develop and test alternative strategies for treating abusive and neglectful parents and their children;
- (2) to develop and test alternative models for coordination of community-wide systems providing preventive, detection and treatment services to deal with child abuse and neglect;
- (3) to document the content of the different service interventions tested and to determine their relative effectiveness and cost-effectiveness.

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<sup>1</sup>The projects include: The Family Center: Adams County, Colorado; Pro-Child: Arlington, Virginia; The Child Protection Center: Baton Rouge, Louisiana; The Child Abuse and Neglect Demonstration Unit: Bayamon, Puerto Rico; The Arkansas Child Abuse and Neglect Program (SCAN): Little Rock, Arkansas; The Family Care Center: Los Angeles, California; The Child Development Center: Neah Bay, Washington; The Family Resource Center: St. Louis, Missouri; The Parent and Child Effective Relations Project (PACER); St. Petersburg, Florida; The Panel for Family Living: Tacoma, Washington; and The Union County Protective Services Demonstration Project, Union County, New Jersey.

## Overview of the Demonstration Evaluation

In order to accomplish the third goal, as part of DHEW's strategy to make this demonstration program an interagency effort, the Division of Health Services Evaluation, National Center for Health Services Research of the Health Resources Administration (HRA) awarded an evaluation contract to Berkeley Planning Associates (BPA) in June 1974, to monitor the demonstration projects over their three years of federal funding, documenting what they did and how effective it was. The overall purpose of this evaluation was to provide guidance to the federal government and local communities on how to develop community-wide programs to deal with problems of child abuse and neglect in a systematic and coordinated fashion. The study, which combined both formative (or descriptive) and summative (or outcome/impact-related) evaluation concerns, documented the content of the different service interventions tested by the projects and determined the relative effectiveness and cost-effectiveness of these strategies. Specific questions, addressed with quantitative and qualitative data gathered through a variety of collecting techniques, notably quarterly five-day site visits, special topic site visits and information systems maintained by the projects for the evaluators, include:

- What are the problems inherent in and the possibilities for establishing and operating child abuse and neglect programs?
- What were the goals of each of the projects and how successful were they in accomplishing them?
- What are the costs of different child abuse and neglect services and the costs of different mixes of services, particularly in relation to effectiveness?
- What are the elements and standards for quality case management and what are their relationships with client outcome?
- How do project management processes and organizational structures influence project performance and, most importantly, worker burnout?
- What are the essential elements of a well-functioning child abuse and neglect system and what kinds of project activities are most effective in influencing the development of these essential elements?

- What kinds of problems do abused and neglected children possess and how amenable are such problems to resolution through treatment?
- And finally, what are the effectiveness and cost-effectiveness of alternative service strategies for different types of abusers and neglectors?

During the summer of 1974, the projects began the lengthy process of hiring staff, finding space and generally implementing their planned programs. Concomitantly, BPA collected baseline data on each of the projects' community child abuse and neglect systems and completed design plans for the study. By January 1975, all but one of the projects was fully operational and all major data collection systems for the evaluation were in place. Through quarterly site visits to the projects and other data collection techniques, BPA monitored all of the projects' activities through April 1977, at which time the projects were in the process of shifting from demonstrations to ongoing service programs. Throughout this period, numerous documents describing project activities and preliminary findings were prepared by the evaluators. This report presents part of the final knowledge gained from the projects' joint experience.<sup>1</sup>

### Project Profiles

As a group, the projects demonstrated a variety of strategies for community-wide responses to the problems of abuse and neglect. The projects each provided a wide variety of treatment services for abusive and neglectful parents; they each used mixes of professionals and paraprofessionals in the provision of these services; they each utilized different coordinative and educational strategies for working with their communities; and they were housed in different kinds of agencies and communities. While not an exhaustive set of alternatives, the rich variety among the projects has provided the field with an opportunity to systematically study the relative merits of different methods for attacking the child abuse and neglect problem.

Each project was also demonstrating one or two specific and unique strategies for working with abuse and neglect, as described below:

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<sup>1</sup>For a listing of other major study reports and papers, see Appendix A.

The Family Center: Adams County, Colorado

The Family Center, a protective services-based project housed in a separate dwelling, is noted for its demonstration of how to conduct intensive, thorough multidisciplinary intake and preliminary treatment of cases, which were then referred on to the central child protective services staff for ongoing treatment. In addition, the Center created a treatment program for children, including a crisis nursery and play therapy.

Pro-Child: Arlington, Virginia

Pro-Child demonstrated methods for enhancing the capacity and effectiveness of a county protective services agency by expanding the number of social workers on the staff and adding certain ancillary workers such as a homemaker. A team of consultants, notably including a psychiatrist and a lawyer, were hired by the project to serve on a multidisciplinary diagnostic review team, as well as to provide consultation to individual workers.

The Child Protection Center: Baton Rouge, Louisiana

The Child Protection Center, a protective services-based agency, tested out a strategy for redefining protective services as a multidisciplinary concern by housing the project on hospital grounds and establishing closer formal linkages with the hospital, including the half-time services of a pediatrician and immediate access of all Center cases to the medical facilities.

The Child Abuse and Neglect Demonstration Unit: Bayamon, Puerto Rico

In a region where graduate level workers are rarely employed by protective services, this project demonstrated the benefits of establishing an ongoing treatment, under the auspices of protective services, staffed by highly trained social workers with the back-up of professional consultants to provide intensive services to the most difficult abuse and neglect cases.

The Arkansas Child Abuse and Neglect Program: Little Rock, Arkansas

In Arkansas, the state social services agency contracted to SCAN, Inc., a private organization, to provide services to all identified abuse cases in select counties. SCAN, in turn, demonstrated methods by which a resource-poor state, like Arkansas, could expand its protective services capability by using lay therapists, supervised by SCAN staff, to provide services to those abuse cases.

The Family Care Center: Los Angeles, California

The concept behind the Family Care Center, a hospital-based program, was a demonstration of a residential therapeutic program for abused and neglected children with intensive day-time services for their parents.

The Child Development Center: Neah Bay, Washington

This Center, housed within the Tribal Council on the Makah Indian Reservation, demonstrated a strategy for developing a community-wide culturally-based preventive program, working with all those on the reservation having parenting or family-related problems.

The Family Resource Center: St. Louis, Missouri

A free-standing agency with hospital affiliations, the Family Resource Center implemented a family-oriented treatment model which included therapeutic and support services to parents and children under the same roof. The services to children, in particular, were carefully tailored to match the specific needs of different aged children.

Parent and Child Effective Relations Project (PACER):  
St. Petersburg, Florida

Housed within the Pinellas County Juvenile Welfare Board, PACER sought to develop community services for abuse and neglect using a community organization model. PACER acted as a catalyst in the development of needed community services, such as parent education classes, which others could then adopt.

Panel for Family Living: Tacoma, Washington

The Panel, a volunteer-based private organization, demonstrated the ability of a broadly-based multidisciplinary, and largely volunteer program, to become the central provider of those training, education and coordinative activities needed in Pierce County.

The Union County Protective Services Demonstration Project:  
Union County, New Jersey

This project demonstrated methods to expand the resources available to protective services clients by contracting for a wide variety of purchased services from other public and, notably, private service agencies in the county.

## The Cost Analysis Component of the Evaluation

A key question raised of any new program is "How much does it cost?"; frequently followed by "How much does it really cost?" and "Is it worth it?". The questions have obvious significance for every participant in the program--clients, workers, administrators, program planners, legislators, and tax payers--although each of these audiences is, in fact, interested in a different aspect of the question. While the bottom line concern is one of cost-effectiveness (that is, what does it cost to successfully treat program clients or successfully carry out the project activities), there are numerous intermediary issues to be explored.

The evaluation of the Joint OCD/SRS National Demonstration Program in Child Abuse and Neglect addresses these issues. Interest has been in determining how project resources are being allocated across different project activities and in analyzing the unit costs of various services in individual projects, over time and across projects. The purposes of the cost analysis are:

- (1) To determine the efficiency and service volume economies within the eleven demonstration projects;
- (2) To determine the costs of pursuing different generic activities in the child abuse and neglect field and the unit costs of related services;
- (3) To develop information necessary for determining the cost-effectiveness of alternative service strategies for abusive and neglectful parents and their children;
- (4) To provide cost control and management information to the projects and their funding agencies on how project resources are used.

Within this report summary profiles of the costs of the demonstration effort as a whole, the average project and service unit costs and measures of project efficiency are presented along with suggestions for program planners on costing out new programs. The appendices include final cost summaries of the individual projects and comparison across projects; the complete methodology of data collection instruments; and comparison tables

detailing the data collected. Cost-effectiveness findings appear in a companion document: The Adult Client Impact Report<sup>1</sup>. The reader is advised that because the projects studied are not necessarily representative of child abuse and neglect programs across the country, care must be used in generalizing from the findings.

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<sup>1</sup>In earlier reports published by Berkeley Planning Associates, most of the purposes of the cost component have been addressed in detail, including the efficiency and service volume economy issue, unit cost concerns, impact on resources in the communities, and cost monitoring information for the projects' management. Relevant reports include: Cost Analysis Design and Pretest Results, April 1975; Cost Analysis: January Through May 1975, September 1975; Cost Analysis: Months of January, May and October 1975, February 1976; Full Cost Analysis: Methodology and Preliminary Data, September 1976; Full Cost Analysis: Findings to Date, November 1976; Project Accomplishment: The First Two Years of Operation, July 1976; and Community Systems Interim Report: Early Findings of the Demonstration Experience, August 1976.

## SECTION I: METHODOLOGY<sup>1</sup>

In order to address the cost questions of interest, we established a system for collecting, processing and analyzing information from the projects on how their resources were expended. This system required the identification of discrete project activities to which resources were allocated and the careful monitoring of project resources in relation to these activities. BPA developed cost accounting forms and trained the projects in their use during site visits in the fall of 1974. In January 1975, a pretest was conducted which led to instrument revision and a second data collection effort in May of 1975. Significant gains in data reliability were made following this effort. Our final data analysis is based on the last three data collection periods (October 1975 and April and October 1976) during the peak of program operations, after start-up costs and before the demonstration effort ended.

The cost accounting forms required the projects to allocate their time, expenses, purchased services and durable equipment costs across the 40-odd activities in which a project might participate. In addition, they monitored the volume of service units delivered during the accounting month. Extensive clarification and correction procedures were undertaken prior to and after data processing. After the cost data had been collected and reviewed internally by the project's administration, each cost accounting booklet and employee time sheet was reviewed by the BPA project site liaison and the cost analyst for reasonableness, based on site visit observations and previous reporting periods. The data was subsequently coded, keypunched and processed using a multiple-stage computer program. The output was subjected to a similar review and correction process. The data emerging from this effort are viewed by all participants as accurately reflecting program operations.

In order to arrive at discrete costs for different program activities, the computer program distributed each employee's payroll expenses across

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<sup>1</sup>See Appendix C of this report for the detailed methodology and examples of the data collection instruments and computer output.

the service activities in proportion to the hours of effort they devoted to each and distributed non-payroll expenses, purchased services and durable equipment costs across the service components in proportion to the project directors' estimates. In addition to providing cumulative hours and costs for each service component, the program calculated the unit costs of direct services to clients. Several adjustments to the data were required in order that legitimate across project comparisons could be made. The first major manipulation was the application of wage and price factors to adjust for regional differences.<sup>1</sup> The second adjustment involved uniformly distributing the overhead costs<sup>2</sup> across the direct service components in order to represent the true costs to a project of delivering specific services. And the third adjustment consisted of ascribing values to the donated resources utilized by the projects, in order to represent the total costs of replicating a project model in the face of unknown levels of contributed goods and services.

Utilizing the computerized data, the following analyses were conducted:<sup>3</sup>

- Individual project descriptions of resource allocation and service unit costs, including trends over time;
- Comparisons across projects of resource utilization and service unit costs, including trends over time;
- Program trends, including service volume economies and relative cost efficiencies of project service packages.

In this final cost report, the data from the three accounting months have

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<sup>1</sup>Since an Arkansan dollar simply will not buy the same services or supplies in New Jersey, we felt it was important to standardize dollar values for across-project comparison purposes.

<sup>2</sup>Overhead costs include: general management, program planning and staff development and training.

<sup>3</sup>The findings of these analyses are detailed in the interim reports cited in the introduction.

been averaged for each of the 12 project sites.<sup>1</sup> The resultant data are used to develop summary profiles of the costs of the demonstration effort as a whole and the average project costs. In addition, a variety of questions concerning the costs and merits of assembling different program models are addressed, as well as final assessments of the factors associated with cost efficiency.

As with any social program research, caution must be used in the interpretation of this study's findings. Findings are based on eleven projects, spread throughout the country, which differed in a number of important ways. The projects were selected and studied because of their differences, because they were demonstrating new ways to work with the problem of child abuse and neglect. As such, the findings reflect the experiences of these eleven projects; they are not necessarily generalizable to all child abuse and neglect programs.

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<sup>1</sup>While there were eleven demonstration projects funded, the Arkansas model was developed in two counties. For cost control and management purposes throughout the evaluation, the cost data from the two sites were treated independently. For cost efficiency correlations, the two Arkansas projects were averaged so as not to skew the distribution.

## SECTION II: THE COST FINDINGS

In this section the following are discussed: (a) the demonstration investment and what it bought; (b) the allocation of project resources; (c) the stability of program expenditures; (d) a project cost profile; (e) the unit costs of services; (f) service volume economies; and (g) cost efficiency.<sup>1</sup>

### A. The Demonstration Investment

In addition to a rich base of knowledge about coping with problems of child abuse and neglect, the demonstration effort resulted in the production of a large and varied number of services and other products which did not previously exist in the demonstration communities.

The eleven demonstration projects spent approximately \$2.21 million annually, or \$6.63 million over the three year period. For every thousand dollars spent by the program, an average of at least \$150 worth of donated resources were utilized. This amounts to over \$330,000 worth of contributed time, services and goods being leveraged by the federal investment over the course of a year and close to one million dollars over the three year period. This reflects a growing commitment on the part of local communities to coping with the problem of child maltreatment, a commitment spawned by activities on the federal level.

While there is no way to accurately sum the total numbers of clients, professionals and lay citizens with whom the projects came in contact and potentially influenced during the course of the demonstration effort through formal and informal service provision, an estimate can be derived based on average monthly figures supplied by the projects during sample

<sup>1</sup>In our presentation of findings, we have sought to describe the experiences of the demonstration projects as a group. For those readers interested strictly in protective service-based projects, we recommend that information be generated from the tables in Appendix D, using data from the Adams County, Arlington, Baton Rouge and Union County projects.

months. Approximately 2330 intakes were completed by the projects each year. Over the three years more than half of these cases, close to 4500, received the benefit of multiple-disciplinary diagnosis during the intake period, an approach rarely taken by treatment providers prior to the demonstration period. A far greater number of cases were referred to the projects or came in contact with the projects for a brief period of time; they receive minimal support, most often in the form of information and referral.

The average monthly caseload size for the projects as a group (or average number of clients in treatment at any time) was 800. The actual cost per case varied dramatically, depending upon the types and quantity of services a client received.

Individual counseling or therapy was the single treatment service provided to most clients (about 80%). The projects as a group provided over 12,000 individual counseling contacts a year, or close to 36,000 during the demonstration effort. In addition, over 9000 lay therapy counseling contacts were provided annually (or close to 27,000 over the demonstration period); 3400 parent education person sessions (10,500 over three years); 3300 group therapy person sessions (9900 over three years); and 3100 couples or family counseling sessions (9300 over the three years). These figures reflect a greatly expanded capacity in the communities to provide an array of treatment services to abusive and neglectful parents.

As a group the projects made only a small contribution toward the development and provision of treatment services directly to children. Fewer than 500 children received direct treatment services over the three year period, even though large numbers of children undoubtedly benefited indirectly from services offered to their parents and families. The children impacted on directly by the project did receive intensive services; annually about 2400 days of residential care, 6600 child development or individual therapy sessions, and 1500 days in a crisis nursery were provided. Beyond these "treatment services" well over 7000 days of day care were provided as a result of project activities.

In addition to the number of clients served, and the volume of treatment services offered, the federal investment in the demonstration projects resulted in other significant accomplishments; notably in the

area of education and training. At least 50,000 professionals and lay people annually were provided with education and training on issues pertaining to child abuse and neglect by demonstration project staffs. This translates into at least 150,000 people in these 10 communities whose awareness and knowledge about the problem was undoubtedly increased during the demonstration period. Each of the projects pursued public awareness efforts through the media as well. There is no way to count the numbers of persons or agencies influenced by such activities, but it is clear that the numbers are far greater than was the case prior to the demonstration effort. Coordinative efforts carried out by project staff on an ongoing basis through the demonstration period "bought" each community a better functioning community system.<sup>1</sup>

Finally, approximately 450 people were employed part or fulltime by the demonstration projects each year. Given annual turnover rates of 30% on average, close to 725 individuals worked closely with the demonstration projects, gaining skills and knowledge about child abuse and neglect which they will likely pass on to others in the field in years to come. Given the dearth of individuals well-trained in child abuse and neglect at the beginning of the demonstration effort, the cadre of professionals and lay people alone serves as a significant contribution of the demonstration investment.

#### B. Allocation of Program Resources

While there were wide variations among the demonstration projects in terms of the proportion of their resources committed to different activities (and an understanding of these differences, as discussed in Appendix B, is most important), it is useful, for planning purposes, to look at the average resource allocation. With a range of budgets from \$55,000 to \$670,000 per year, on average the annual operating budget of the projects was approximately \$185,000; this money was spent on four discrete program activities: Overhead, Direct Services to Clients, Community-Oriented Activities and Research.

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<sup>1</sup>See the Community Systems Impact Report for a detailed discussion of projects' community-oriented activities and their apparent effects.

The range of the proportion of a project's budget spent on overhead activities was from 21% to 64%, with an average 40% of a project's budget allocated to the overhead functions of staff development and training, program planning and development, and general management. With respect to service delivery, the function of case management and case reviews, which on average consumed another 12% of the budget, could be regarded as the indirect cost of handling cases. As such, on average, over half of these demonstration projects' budget was used for those activities necessary to facilitate the direct provision of services. While this figure is substantially lower than many large bureaucracies, it is likely that the figure would have declined even more had the projects continued to be fully operational for an additional three years, particularly as demands for staff-training diminished.

Once all overhead costs were distributed (as discussed in Appendix C) across other program activities, the average expenditures by the eleven projects as a group were as follows:<sup>1</sup>

DIRECT SERVICES TO CLIENTS	65% (of the total budget)
Casework Activities	(16%)
Treatment Services to Parents	(27%)
Treatment Services to Children	(13%)
Support Services to Families	(9%)
COMMUNITY-ORIENTED ACTIVITIES	25%
RESEARCH AND EVALUATION	10%

Clearly the focus of the projects, as a group, was on delivery of direct services to clients, particularly adults. On average, 65% of a project's budget was expended on direct services although individual project's expenditures ranged from as little as 33% (Tacoma) to as much as 89% (Arlington), as shown in Table II-1. Within this direct service category,

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<sup>1</sup>See Appendix C for the methodology used for these distributions and for the discrete service activities included in each grouping.

Table II-1: Percentage Distribution of Total Number of Hours and Dollars  
by Discrete Project Activities for Each Project and the Demonstration Program

	Average Project		Adams County		Arlington		Baton Rouge		Bayamon		Union County		St. Louis		Los Angeles		Tacoma		Jefferson County		Washington County		Neah Bay		St. Petersburg	
	% Hr	% \$	% Hr	% \$	% Hr	% \$	% Hr	% \$	% Hr	% \$	% Hr	% \$	% Hr	% \$	% Hr	% \$	% Hr	% \$	% Hr	% \$	% Hr	% \$	% Hr	% \$	% Hr	% \$
Overhead Operations <sup>1</sup>	27	41	20	36	15	21	28	35	23	36	30	33	21	42	22	47	34	47	26	40	32	40	49	64	29	45
Direct Services	68	65	82	74	90	89	81	81	47	52	78	82	83	80	92	86	32	33	79	70	69	63	37	37	49	38
Casework Activities	16	16	18	19	26	27	33	32	9	10	35	28	9	11	3	5	6	6	22	17	23	22	15	13	3	5
Treatment Services for Parents	27	27	16	19	23	26	14	14	30	30	32	37	25	24	3	6	24	24	53	49	45	40	16	18	42	31
Treatment Services for Children	16	13	43	31	33	18	1	0	5	6	0	4	34	32	81	68	0	0	0	0	0	0	0	0	0	0
Support Services to Families	9	9	5	5	18	18	33	35	2	6	11	13	15	13	5	7	3	3	4	4	1	1	6	6	4	2
Community Activities	23	25	9	13	6	7	16	16	38	30	11	10	9	11	7	12	53	52	14	19	19	23	51	52	41	51
Research	9	10	9	13	4	4	3	3	15	18	11	8	8	9	1	2	15	15	7	11	12	14	12	11	10	11

<sup>1</sup>The percentages allocated to overhead operations reflect the raw data distributions before these overhead functions are distributed across the other program activities. The percentages allocated to Direct Services, Community Activities, and Research reflect the allocations after the distribution of these indirect costs.

most projects devoted more of their resources (on average 27%) to serving parents; projects in Adams County, St. Louis and Los Angeles placed a greater emphasis on children's services although the across-project average amounted to only 13% of the budget. Casework activities, including intakes and initial diagnosis, multidisciplinary team reviews and followup, utilized an average of 16% of the budget. Support services to families commanded the smallest proportion of the budget at 9%, although the range (from 1% in Washington County, Arkansas, to 35% in Baton Rouge) was considerable.

All the demonstration projects provided some services to their communities as a whole, either in prevention efforts, community and professional education, agency coordination, and/or legislative and policy activities. For some projects, notably Neah Bay, Tacoma and St. Petersburg, community activities were a major objective of their programs; for others, efforts were more focused on direct services. On average, approximately 25% was allocated to community activities, in order to provide the essential interface between the project and the rest of the community and to improve the community response to problems of child abuse or neglect.

Research and evaluation activities received approximately 10% of the project's resources, although the individual projects spent as little as 2% (Los Angeles) and as much as 18% (Bayamon) of their budgets on such activities. It would be unlikely that an ongoing, non-demonstration effort (e.g., a typical children's protective service agency) would utilize such a high proportion of funds for research or even for community-oriented activities.

The allocation of staff time to project activities is not always the same as the allocation of dollars. Although the projects' allocation of time and money are in comparable proportions for some activities, they are not for overhead operations and treatment services to children, as shown on Table II-1. Uniformly, overhead operations utilized a significantly larger proportion of the budget than of the staff effort, whereas the reverse was true for children's services. This can be explained by the fact that overhead activities are usually carried out by higher paid personnel--project directors and administrative assistants, as well as staff trainers--whereas a large proportion of the staff working with children are volunteers, reimbursed and unpaid, with resulting lower associated costs.

### C. The Stability of Program Expenditures

Overall, the allocation of resources remained quite stable during the year the cost data were collected--a year in which all projects were fully operational. Only a minor shift in resources from Community Activities to Direct Services, mostly to children's services, was observed. Earlier in the demonstration, however, when projects were becoming operational, a greater proportion of resources was allocated to research. As projects began to perceive that many of their information needs would be filled by the outside evaluation (and as record-keeping activities for that evaluation became more routine and less time consuming), projects in general substantially cut back on their own planned research activities. And, as projects' direct service activities became operational, more resources were devoted to community-oriented activities. Also, whereas the same proportion of the budget, 65%, was utilized for the Direct Services category before and after projects were operational, the internal distribution of these resources changed over time. Casework activities (i.e., organizing the delivery of services) received the lion's share of the direct services budget during project start-up and collectively, only 35% was expended on actual services to parents, children and families. Once the projects were underway, however, an equal proportion of these expenditures (50%) was spent for both.

Arlington, Union County, St. Louis and the two Arkansas sites had extremely stable expenditures throughout the demonstration period. In addition to being the largest of the projects in terms of number of clients served, all had well-articulated and operational goals from the beginning of the demonstration effort. On the other hand, Neah Bay and St. Petersburg fluctuated considerably in their allocation of resources. Both had small caseloads and although originally oriented to community activities, expanded their program design to include treatment services, resulting in dramatic reallocations of resources. Adams County decreased the proportion of their time and budget expended on casework activities, while increasing resource allocations to children's services. Baton Rouge shifted resources committed to treating parents into support services for families and increased community activities. Los Angeles, on the other hand,

decreased its community activities and redistributed the resources to the children's program. Bayamon substantially cut back research efforts and increased treatment services to children. Tacoma reallocated resources originally spent serving parents to increase research efforts.

D. A Project Cost Profile<sup>1</sup>

For purposes of future program planning, it is useful to determine the cost structure of different types of programs, beyond the general allocation of resources to different groupings of activities, discussed in the previous section. Some characteristics of the demonstration projects, such as budget, staff size, and client load can be readily averaged to generate a basic project profile. This basic profile should not itself be used directly in planning. However, this average of cost and related information from all projects reduces to manageable size a complex array of cost concerns and provides a point of departure for discussing the costs of different program models (see Section III).

The projects on average had a caseload of 70 clients.<sup>2</sup> While the actual experiences of the demonstration projects included programs operating at annual costs of less than \$56,000 (Neah Bay) and more than half a million dollars (Union County), an average annual budget was \$184,500. The caseload sizes ranged correspondingly from an average of eight cases to 294 cases a month. Assuming for analysis purposes that a typical client is in treatment for one year, the resulting average expenditure per case served is around \$2700 per year (with a range of \$1500 per case in Arlington to \$22,500 per case in Los Angeles).<sup>3</sup>

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<sup>1</sup>Throughout the demonstration period, the cost analyses have described in detail what services each of the projects delivers, in what volumes, at what unit costs, and how these figures have changed over time. The value of this final cost assessment is less one of chronicling the individual differences manifested in the demonstration projects and more one of synthesizing their experiences into a typical project profile.

<sup>2</sup>See Appendix D for detailed comparison tables of these data across projects.

<sup>3</sup>This dramatic range reflects differences in the types and quantity of services offered to clients by each project, as well as differences in the community education and coordination activities.

the community, otherwise known as hidden costs, are included in the program's operating resources, the average annual cost per case tops \$3000.

Although the range in staff size (including consultants and volunteers) was also considerable (from seven in Neah Bay to 98 in Arkansas), the average number of participants in a project was 37; two-thirds of these were non-regular staff members (e.g., consultants and volunteers, unpaid and reimbursed). These people, collectively, spent over 25,000 hours during the year (of which less than 20% was contributed by the non-regular staff members). Thus, an individual client, in treatment for one year, received about 375 staff hours of care or slightly under 50 days.

The complement of services typically offered by projects, as shown on Table II-2 (i.e., offered by at least three-fourths of the demonstration projects) and which might be regarded as core or basic services offered by these demonstrations include:

- Case management and regular review;
- Individual counseling;
- Intake and initial diagnosis;
- Court case activities;
- Crisis intervention;
- Multidisciplinary team case reviews.

Services offered less frequently (i.e., those provided by only two-thirds of the demonstration projects) and thus which might be regarded as important, supplemental services offered by these demonstrations include:

- Parent aide or lay therapy counseling;
- Couples counseling;
- Transportation and waiting;
- Psychological and other testing.

Table II-2

Average Unit Costs Across All Projects for Direct Services

Service	Unit Measurement	\$/Unit (average cost to project) <sup>1</sup>	\$/Unit (average cost to community) <sup>2</sup>	Number of Projects Providing Service
Outreach	cases	\$ 25.25	\$ 26.00	7
Intake & Initial Diagnosis	intakes	78.75	83.25	10
Court Case Activities	cases	126.00	132.25	10
Crisis Interv. During Intake	contacts	13.50	14.00	6
Multidisciplinary Review	reviews	54.75	125.50	9
Individual Counseling	contact hours	14.75	15.00	11
Parent Aide/Lay Therapy	contact hours	7.25	10.00	8
Couples Counseling	contacts	17.00	18.25	8
Family Counseling	contacts	30.00	31.50	6
Alcohol, Drug, Weight Couns.	pers. sessions	7.50	10.25	2
24-Hour Hotline	calls	7.50	7.50	2
Individual Therapy	contacts	21.25	22.75	7
Group Therapy	pers. sessions	10.50	12.25	6
Parents Anonymous	pers. sessions	5.75	7.00	4
Parent Education Classes	pers. sessions	9.50	11.00	7
Crisis Interv. After Intake	contacts	14.25	14.75	10
Day Care	child sessions	7.75	8.25	2
Residential Care	child days	37.75	38.50	1
Child Development Program	child sessions	21.50	24.00	4
Play Therapy	child sessions	11.75	14.25	4
Special Child Therapy	contacts	54.25	54.25	1
Crisis Nursery	child days	35.50	43.00	1
Homemaking	contacts	22.75	22.75	3
Medical Care	visits	23.50	25.25	7
Babysitting/Child Care	child hours	3.50	4.75	4
Transportation/Waiting	rides	8.75	9.00	8
Emergency Funds	no. of payments	--	--	3
Psychological & Other Tests	person tests	36.25	45.25	8
Family Planning Counseling	pers. sessions	--	--	0
Follow-Up	pers. followups	26.50	28.00	6

<sup>1</sup>These costs reflect raw data adjusted for wage/price differentials and overhead distribution.

<sup>2</sup>These are adjusted costs with values ascribed to donated resources.

## E. The Unit Costs of Services

The unit costs of these frequently offered services vary greatly, as discussed below.<sup>1</sup> Depending upon which of these services a project chooses to offer, and the volume at which they are offered, a project's cost profile will vary substantially.

### 1. Intake and Initial Diagnosis

As the gatekeeping function for any future service, intake and initial diagnosis is an essential service. It is also a costly and often time-consuming service. Based on the expenditures of the demonstration projects, a project on average would conduct 19 intakes each month or about one a day at a cost of \$78.75 per intake. Often the intake and diagnosis process will take up to two months for complex cases, raising the unit cost per case substantially. The monthly volume of intakes in the demonstration projects ranged from two (in Neah Bay) to 32 (in Arlington); the costs fluctuated from as little as \$14.00 per intake (Jefferson County) to as much as \$143.25 (Union County). In general, only a modest proportion of donated resources are utilized in this service, due primarily to the need for expertise and professional judgment to be used in the process. Thus, when added to project expenditures, contributed resources raise the cost per intake less than five dollars, to \$83.25.

### 2. Case Management and Regular Review

Any project must provide case management and review as part of a service package. Costs associated with this activity are included in other service categories since these are, in theory, the indirect costs associated with providing direct treatment services. Thus, unit costs were not calculated for the cases management and regular review functions, but on average these activities account for at least 10% of any service unit costs.

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<sup>1</sup>Throughout our discussion of the costs to provide various services, it is important to note that the figures cited include indirect costs, both general program overhead and the cost of case management and regular review. Hence, the unit cost to provide an individual counseling contact, for example, has overhead and case management costs built into it in proportion to the relative amounts of effort the staff (including paid, volunteer, and consulting) has invested in Individual Counseling as a discrete service activity.

### 3. Crisis Intervention

Although generally not provided in large volumes, typically 30 contacts per month, or one or two a day (with a range from 6 in Los Angeles to 181 in Union County), crisis intervention was provided by ten of the demonstrations at an average cost per contact of \$14.25. (Unit costs ranged from \$4.75 per contact in Washington County to \$78.00 per contact in Baton Rouge.) This is one of the few services that cannot be planned in advance for clients, and indeed some clients may require a great deal and others none.

### 4. Multidisciplinary Team Case Reviews

Multidisciplinary Team reviews are among the most costly services to provide. Averaging nearly \$55 per review, there was a range from \$25 per review in Adams County to \$189 per review in Bayamon. This unit cost represents the actual expenditures a project could anticipate allocating to multidisciplinary team reviews; however, the value to the project far outstrips that sum since the per review cost averages \$125.50 when donated resources are included. Donated resources were provided for Multidisciplinary Team reviews more often than other services; and this donated time has the greatest impact, since with rare exceptions the team members are highly paid professionals whose value on the consulting market would command from \$10 to \$75 per hour. The personnel donating their services often include psychologists, psychiatrists, physicians, pediatricians, public health staff, legal advisors, social workers, school teachers and counselors, ministers, police and/or court officials, private voluntary agency personnel, and private citizens. (While no one project's multidisciplinary team included all of the perspectives listed above, several were very comprehensive.) Multidisciplinary teams averaged five members; meetings were typically held weekly or bimonthly for an hour or two. While a few projects initially utilized multidisciplinary reviews for each intake, perceiving their function as critical to diagnosis and treatment planning, most reverted to calling on the team for reviewing particularly difficult or complex cases. On average this resulted in about 13 reviews each month or 3 to 5 per meeting (although the projects ranged from 3 to 49 reviews per month). These reviews permitted information sharing among multiple service providers and ready access to referral sources.<sup>1</sup>

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<sup>1</sup>By the end of the demonstration effort, all but one of the projects had developed multidisciplinary teams; and only one had been disbanded during that time. This certainly attests to the perceived value of having multiple perspectives and a range of expertise available during case review. A major benefit gained from this activity was in-service staff training, followed by increased coordination among service providers in the communities.

## 5. Court Case Activities

The supervision of cases requiring court intervention is the most costly of all services, at an average of \$126 per case. The range of costs across all projects, however, is vast -- from \$27 per case in Los Angeles to over \$500 per case in Union County. On average, however, a project only helped to process six court cases per month. Given that some cases may appear in court two or three times in a year for various dispositional or progress hearings, the unit cost per case while in treatment could be substantially higher than the figures cited here. The projects appear to bear the burden for most of the social service costs associated with delivering this service, since the average unit cost increased only marginally, to \$132.25, when donated resources were included. This unit cost to projects, of course, does not include the costs borne by the legal system itself in processing a case.

## 6. Individual Counseling

At an average of \$14.75 per contact, individual counseling is the most commonly delivered service to clients. While the large projects delivered several hundred counseling contacts per month, on average projects provided 93 such contacts or 20-25 a week. The impact of donated resources on the cost per contact is negligible since the service is normally delivered by paid professional staff members.

## 7. Parent Aide or Lay Therapy Counseling

The average cost per contact hour of lay therapy counseling is \$7.25 or just about half that of an individual counseling contact.<sup>1</sup>

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<sup>1</sup> While initial monitoring of lay therapy counseling contacts indicated a great similarity in costs to individual counseling contacts, we found this was due to the length of time involved in a "contact." An individual counseling contact requires an hour and a half of professional effort, including the worker's interaction with the client, the time associated with case management functions, and any supervisory time required for case review. In contrast, a lay therapy counseling contact includes three hours of effort, primarily contributed by the lay worker, but supplemented with considerable involvement by the worker's supervisor. As a consequence, a lay therapy contact involves twice the time investment of an individual counseling

(The range among the demonstration projects was from \$4.50 per contact hour in Jefferson County to \$16.75 in Tacoma.) Ascribing values to the donated resources, used extensively for this service, results in an average per unit cost of \$10. On average, projects providing lay therapy would deliver 96 contacts, or 192 contact hours, per month. (The volumes actually delivered ranged from 18 contacts--36 contact hours--in Tacoma to 225 contacts--450 contact hours--in Jefferson County.)

8. Couples Counseling

On average, 19 contacts of couples counseling were delivered by a demonstration project each month, or one a day, at an average cost of \$17 per contact. The ranges across projects, both in terms of volumes and per unit costs, were not very wide. And only small increases in the cost per contact resulted from including the value of donated resources.

9. Transportation and Waiting

Rides were provided by some projects regularly and sporadically by others. All but one project provided this service. At \$8.75 per ride, it is a surprisingly expensive support service; very often, however, during the driving time itself client counseling does take place. (The costs ranged from \$2.25 in St. Louis, which provided over 400 rides each month, to \$30.75 in Baton Rouge, where fewer than 20 rides a month were provided.) The average number of rides for a project was 130 per month, or between 30 and 35 a week.

10. Psychological and Other Testing

These tests, which were always administered by professionals and usually by paid professionals, are an understandably expensive service at an average of \$36.25 per test. (The range experienced by the demonstration projects ran from \$11.00 to \$89.75.) A few projects were able to secure some donated tests which, when ascribed value, increased the average cost per test to \$45.25. On average, projects would administer approximately nine tests per month, or a few a week.

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contact. In order to most appropriately compare the costs of the two services, we converted the unit of measurement to a "contact hour" of one and a half hours per "contact hour." The average cost per contact hour of lay therapy, then, is \$7.25, slightly less than half that for an individual counseling contact hour.

## F. Service Volume Economies

One question of particular interest to program planners is how the cost of a given service is related to the volume at which that service is provided. One would predict that the unit cost of services involving groups would decline as the number of group participants increased, since the staff requirements would not change substantially. However, individual-oriented services may not have such economies related to volume since most person-hours of contact in, for example, individual counseling, should consume corresponding amounts of staff time. Thus, it would be expected that services such as Multidisciplinary Team Case Reviews, Group Therapy, Parent Education Classes would exhibit service volume economies. Individual and Lay Therapy Counseling would not.

Two approaches can be used in determining the relationship between cost per unit and number of units provided. First, one can study differences in service unit costs for projects providing varying volumes of the service. Such a comparison refers to service volume economy across projects, and provides information on whether projects providing high volumes of a given service can do so at substantially reduced costs. Second, one can study for a given project different levels of service volume over time and the corresponding changes in unit cost.

Rather than looking at all services, a subset of the services is selected in order to determine whether service volume economies exist in the demonstration projects. The services included Individual Counseling and Lay Therapy Counseling as individual-oriented services and Group Therapy, Parent Education Classes and Multidisciplinary Team Case Reviews as services offered to more than one client at one time.

### 1. Across-project Comparisons

To identify across-project service provision economies, the projects were classified into two groups for each of their cost and volume characteristics: those above the median value and those below, based on the average cost to provide the service.<sup>1</sup> As was anticipated, the individual-oriented services (i.e., Individual Counseling and Lay Therapy Counseling) failed to show any

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<sup>1</sup>See Appendix C for the detailed methodology of this analysis, and Appendix D for the service unit costs (Table D-7).

strong relationships between service volume and unit costs. The group or multiple-client services, on the other hand, consistently revealed that for all three services (e.g., Group Therapy, Parent Education Classes, and Multidisciplinary Team Reviews), projects providing higher than median volumes of the service could do so at lower than median costs, whereas projects providing lower volumes did so at higher costs.

## 2. Within-project Comparisons

To identify within-project economies, changes in the costs and service volumes for the same subset of services between October 1975 and April 1976 and between April 1976 and October 1976 were studied for each project providing the service. The two variables were again dichotomized, but this time in terms of whether costs or volumes (1) increased during the time period or (2) stayed the same or decreased. While the hypothesis that service volume economies would not operate for individual-oriented services was borne out for individual counseling, it was not upheld for lay therapy counseling. In the latter service, increased volumes were associated with decreased costs. One speculation for the contrary finding may refer to the activities associated with the services that do not involve direct client contact. Perhaps as person-hours of direct contact increase, these associated activities (e.g., consultation, case review, record keeping) decrease; thus, while the worker records the same amount of time spent delivering the service (i.e., logs the same costs), more of the time is going to direct contact (i.e., greater service volume).

Of the group or multiple-client services, only Multidisciplinary Team Reviews substantiated the hypothesis that increased volumes would result in decreased costs and vice versa. The relationship does not hold for Group Therapy and, in the case of Parent Education Classes, the reverse is true; that is, increased volumes of parent education result in increased costs. The most likely explanation is that the unit volumes reflect increases in number of courses offered rather than in number of clients participating in a given course.

In general, the across-project comparisons, which would seem to be more relevant to policy makers, identify consistent and valuable findings about service volume economy, whereas within-project comparisons, which would seem to be more relevant to internal management decisions, do not reveal particularly useful information.

## G. Cost Efficiency

Analyzing each individual type of service is important to understanding the relative investments necessary for various service volumes. However, such an analysis does not take into account the fact that services are not offered in isolation but rather as part of a package of interrelated services. Accordingly, one should also analyze the cost relationships associated with this total package.

For this purpose, an index of relative cost efficiency was constructed. This index reveals the extent to which a project delivers a given package of services at a greater or lesser cost than would other projects which deliver these services. The exact formula for computing the index is shown on Table II-3 along with the resulting efficiency ratings for each of the projects. The formula, as can be seen, computes the ratio of a project's costs for its service package to the average costs for these services across all projects.<sup>1</sup> Thus, if the index is above one, the project delivers services at a greater cost than the average; below one, the project is relatively more cost efficient, i.e., delivers services at a lower cost.

Looking across projects, the Jefferson County, Arkansas project appears to be the most efficient ( $E = .49$ ), with the Baton Rouge project the least efficient ( $E = 1.69$ ). Seven projects fall above the mean ( $E > 1$ ), with the remaining five falling below ( $E < 1$ ). One interesting observation is that, of the more than 800 clients in the projects' cumulative annual caseload, approximately 80% were being served by the less efficient projects, or projects with larger caseloads offered services less efficiently.

Interestingly, the top ranking projects for cost efficiency based on actual costs do not remain the top ranking projects when donated resources are taken into account. These differences reveal the contribution of non-paid volunteers in helping a project deliver services more efficiently. For example, the Jefferson County project, while the most cost efficient when analyzing project expenditures drops to eighth when donated resources are included in the estimates, revealing a substantial contribution of volunteer effort.

The indexing of overall cost efficiency allows for assessment of the strength of association between efficiency and a variety of project and

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<sup>1</sup>The formula assumes that the units of service are the same across projects. In the course of the study, in depth process analyses were conducted of some named services across projects; that analysis, described in detail in the Adult Client Report, supports that assumption.

Table II-3

Relative Cost Efficiency of Projects

Project	Efficiency Based on Cost to Project <sup>1</sup>	Efficiency Based on Total Cost to Community <sup>2</sup>
Adams County, Colorado	0.80	0.86
Arlington, Virginia	1.05	1.01
Baton Rouge, Louisiana	1.69	1.57
Bayamon, Puerto Rico	1.19	1.08
Jefferson County, Arkansas	0.49	1.04
Washington County, Arkansas	0.71	0.84
Los Angeles, California	1.01	0.96
Neah Bay, Washington	1.49	1.53
St. Louis, Missouri	0.71	0.83
St. Petersburg, Florida	1.12	1.81
Tacoma, Washington	0.90	1.00
Union County, New Jersey	1.23	0.89

$$\text{When } E_j = \frac{\sum_i P_{ij} U_{ij}}{\sum_i \bar{P}_i U_{ij}}$$

Where  $E_j$  = relative cost efficiency of project j

$P_{ij}$  = price per unit service i at project j

$U_{ij}$  = units of service i delivered at project j

$\bar{P}_i$  = average price per unit service i across all projects

NOTE: If  $E_j > 1$ , then project more costly than average in delivering its package of services.

<sup>1</sup>Average efficiency index for actual project costs based on October 1975 and April and October 1976.

<sup>2</sup>Average efficiency index for project costs including donated resources based on October 1975 and April and October 1976.

case management characteristics. The projects were divided into three categories on the basis of the cost efficiency index: (1) those demonstrating highly cost efficient practice (i.e., Arkansas, Adams County, and St. Louis); (2) those functioning at average cost efficiency (i.e., Tacoma, Los Angeles, Arlington, and St. Petersburg); and (3) those functioning less efficiently than the average (i.e., Bayamon, Baton Rouge, Union County, and Neah Bay). The relationships between the projects' scores on a number of potentially explanatory variables--i.e., project and case management characteristics--and the efficiency ratings were studied.<sup>1</sup>

The program and case management characteristics used were those identified through other activities of this evaluation to have relevance in explaining project performance. The variables include management factors (variables which describe the work environment and worker attitudes), organizational factors, formalization factors and centralization factors (variables which describe the structural properties of the program).

Table II-4 displays the association between the select independent variables and cost efficiency; a positive association indicates that an increase or improvement in the causal factor improves a project's cost efficiency. Only one of the factors tested, total expenditure, appears to have no impact on a project's cost efficiency; all others tested had either a positive or negative association of varying strengths and levels of significance.

The structural properties significantly associated with cost efficiency are staff size, span of control and clarity; that is, the larger the staff, the wider the span of control (i.e. fewer supervisors) and the more explicit the rules and procedures, the greater the cost efficiency. These conditions minimize the cost of delivering services by providing a

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<sup>1</sup>Two or three point scales usually representing below average, average, and above average were used. Simple contingency tables were run with the Somer's D statistical test of the strength of association being calculated for each. While the sample size was quite small and our major concern was with the probability of the correlation more than with its stability, we did nevertheless test for statistical significance using Kendall's Tau with cost efficiency as the dependent variable.

Table II-4  
Correlates of Cost Efficiency

Factor	Strength of Association <sup>1</sup>	Level of Significance <sup>2</sup>
<u>Management Factors</u>		
Burnout	.13	.35
Worker Satisfaction	-.77	.02
Job Involvement	-.11	.38
Peer Cohesion	.13	.35
Staff Support	-.43	.12
Autonomy	-.37	.14
Task Orientation	.13	.35
Work Pressure	.07	.42
Clarity	.71	.02
Control	-.36	.16
Innovation	-.37	.14
Leadership	-.13	.35
Communication	.13	.35
<u>Organizational Factors</u>		
Total Staff Size	.66	.01
Average Monthly Client Load	-.33	.13
Complexity	.31	.15
Span of Control	.65	.01
Budget	0	.50
Sponsorship (CPS vs. Other)	.40	.12
<u>Formalization Factors</u>		
Recruitment	.21	.29
Job Codification	-.13	.35
Rule Observation	.11	.38
Job Specificity	-.11	.40
<u>Centralization Factors</u>		
Program Centralization	-.33	.13
Job Centralization	-.13	.33
Turnover	.25	.19
Overall Assessment of Quality of Case Mgmt.	.12	.01

<sup>1</sup>Somer's D

<sup>2</sup>Kendall's Tau

high ratio of volunteer staff, decreasing the number of firstline supervisors monitoring workers, and clarifying rules and procedures under which staff operate. Although these organizational factors are not necessarily unfavorable to high job morale, they are not the variables most conducive to job satisfaction. Rather, the work climate processes most highly associated with job satisfaction (e.g., job autonomy, staff support, opportunities to be innovative and creative) tend to increase the cost of administering the program, thereby reducing program efficiency. This explains the negative relationship between cost efficiency and job satisfaction. In these demonstration projects there appears to be a trade-off between cost efficiency and the quality of the work environment, including workers' attitudes and perhaps the quality of service delivery. An example illustrates this point. The data suggest that high turnover rates are associated with efficiency. Project turnover appears to be cost efficient because the externalities of turnover are not computed into the cost efficiency formula. A project often saves salary costs when workers terminate; senior staff are often replaced with new, inexperienced workers at lower salaries, and often the staff vacancy is not filled promptly, saving the organization money. The agency appears to be serving more clients with less resources. But what is overlooked is the extra caseload responsibilities imposed upon the remaining staff who must compensate for being understaffed, as well as the delays in service delivery and inadequate supervision of clients, and the costs of recruitment, and training. Consequently what appears to be a cost efficient condition may not, in the long run, be an obvious savings.

These data also demonstrate a number of other relationships between cost efficiency and organizational characteristics. Although they are not significant, and thus must be interpreted cautiously (due to the small number of projects involved in the study), they, nevertheless, are interesting to report. Projects that are highly bureaucratic, highly centralized in decision-making and that have large average monthly case-loads tend not to be cost efficient. Projects in which there are a large number of different professional disciplines represented tend to be cost efficient. Organizational complexity is cost efficient because the benefit derived to the projects from the multidisciplinary teams that assist

project staff in review of difficult cases are often donations from local agencies; pooling community expertise results in project cost efficiency because the cost of this service is absorbed by the other community agencies. But more interesting is the finding that bureaucratic structures and large caseloads tend not to be cost efficient. Larger and more structured programs simply do not do as well from a cost efficiency perspective.

Finally, it appears that the quality with which cases are managed is significantly related to efficiency. While the association is not a strong one, this does suggest that the methods workers use to manage the cases they deliver services to influences the efficiency with which services are delivered.

SECTION III. USING THE COST FINDINGS  
FOR PROGRAM PLANNING

While the cost analysis has been a useful tool in monitoring the demonstration projects, and in comparing the costs and effectiveness of difference service strategies, the primary use of the cost findings just presented is in program planning. Not only do the figures cited serve as benchmarks against which individual programs can begin to assess their own efficiency, but the figures and related findings provide the basis for designing service program structures and budgets. In this section, the following are discussed for program planning purposes: (a) determining the allocation of project resources; (b) methods to enhance project economy and efficiency; and (c) the costs associated with alternative treatment models.<sup>1</sup>

A. Determining the Allocation of Project Resources

Despite the range of experiences in the demonstration objects, program planners might find it useful to assume that most programs will utilize something in the vicinity of 40% of their budgets on overhead functions including staff development and training, program planning and review, and general management. An additional 10% or more will be used for general case management and case review (including record keeping). If these indirect costs are incorporated into the costs of other program activities, it can be expected that most direct service programs, once operational, will spend about 75% of their budget on direct client service activities and an additional 25% on community-oriented activities. An operational program should expect few shifts in budget allocations unless project goals change; however, about six months is required for program implementation and during this period budget allocations will not be stable. A substantially greater proportion of the budget must be spent on general case management functions--i.e., implementing a system for case management--and proportionately less time on community activities.

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<sup>1</sup>It must be kept in mind that the data used are those derived from 11 demonstration projects which are not necessarily comparable to child abuse and neglect programs in general. As most studies on other child abuse programs are completed, a refinement of these data would be valuable.

because of the current public concern about and commitment to problems of child abuse and neglect, programs can encourage volunteer participation in service delivery. Given the demonstration projects' collective experience of expanding resources by 15% through the use of volunteers and other donated goods and services, most local programs might anticipate an ability to expand program resources by at least 10%. Second, as discussed in the previous section, the unit costs of group-oriented services are lower than individual services and the differences are more dramatic as higher volumes of group services are offered. Thus, cost-conscious program planners and managers can build more group services into their program designs. Finally, certain management and organizational features of a program can be designed to enhance efficiency, including: larger staff sizes, small caseload sizes, fewer supervisory positions and greater job clarity.

### C. The Costs of Alternative Treatment Models.

For program planners, the overall costs associated with any single demonstration project may not be useful if a program with the same service mix and volume is being considered. However, using program averages of the costs of delivering each of a variety of services to a single client over the course of a year, annual budgets for all different program models can readily be estimated. The costs of the service mix planned is calculated and multiplied by the anticipated annual caseload. Table III-1 displays the average annual volumes of services and the associated costs to deliver them to a single client.

For the purposes of this report, the costs of five different program models are estimated, each of which minimally includes a set of essential services which we assume any program would provide. The costs of the models may appear higher than the budgets of the demonstration projects themselves; this is because the models are based on certain assumptions about standards for service provision which individual demonstration projects did not always meet. The models include: an Individual Counseling model, a Lay Therapy model, a Group Treatment model, a Children's Program, and a Family Treatment model. To facilitate budget calculations, an estimated caseload of 100 clients was used.

Table III-1  
Annual Cost Per Client to Deliver Services\*  
and Annual Volumes of Units

Service	Annual Units/Clients	Cost/Client
11. Outreach	Cases **	
12. Intake & initial diagnosis	Intake process over 2 months	\$ 157.50
14. Court-case activities	Case activities over 3 months	378.00
15. Crisis intervention during intake	Contacts 4	54.00
16. Multidisciplinary team case review	Reviews 2	109.50
17. Individual counseling	Contact hours 52	767.00
18. Parent aide/lay therapy counseling	Contact hours 52	377.00
19. Couples counseling	Contacts 52	884.00
20. Family Counseling	Contacts 52	1,560.00
21. Alcohol, drug & weight counseling	Person sessions 52	390.00
22. 24-Hour hotline counseling	Calls 78	585.00
23. Individual therapy	Contacts 52	1,105.00
24. Group therapy	Person sessions 52	546.00
25. Parents Anonymous	Person sessions 52	299.00
26. Parent education classes	Person sessions 20	190.00
27. Crisis intervention after intake	Contacts 26	364.00
28. Day care	Child sessions 260	2,015.00
29. Residential care	Child days 90	3,397.50
30. Child development program	Child sessions 260	5,590.00
31. Play therapy	Child sessions 104	1,222.00
32. Special child therapy	Contacts 52	2,821.00
33. Crisis nursery	Child days 14	497.00
34. Homemaking	Contacts 30	682.50
35. Medical care	Visits **	
36. Babysitting/child care	Child hours 104	364.00
37. Transportation/waiting	Rides 104	910.00
38. Emergency funds	Number of payments **	
39. Psychological & other testing	Person tests 2	72.50
40. Family planning counseling	Person sessions **	
41. Follow-up	Person follow-ups 2	53.00

\* Cost per client estimates include indirect costs such as general management, staff development and training, and case management and regular review.

\*\* Estimates not available from demonstration data.

The set of basic services that any project would provide include: intake and initial diagnosis, case management and regular review, crisis intervention, multidisciplinary team case reviews, court case activities, and follow-up. In a caseload of 100 clients, it can be assumed that all clients will receive intake and initial diagnosis over a two-month period, ongoing case management, semi-weekly crisis intervention contacts after intake, and two follow-up contacts. Approximately 25% of a program's caseload would receive two multidisciplinary team reviews and about 10% would require court case intervention extending over three months. This basic service package would require an annual budget of slightly less than \$60,000. While this basic model lacks any "ongoing treatment or therapeutic services," it is a close approximation of that offered in many of our public protective agencies. Table III-2 displays the annual costs associated with these basic services, as well as the budget supplement for each additional service provided by the project.

The INDIVIDUAL COUNSELING MODEL would supplement the basic service package with a weekly counseling contact for each client, as shown in Figure III-1. The annual cost of this model is close to \$136,000 for 100 clients or \$1360 per client. In contrast, the LAY THERAPY MODEL, substituting a weekly lay therapy contact for the individual counseling contact and including a weekly Parents Anonymous session for about a quarter of the caseload, would require an annual budget of slightly over \$104,000 or only \$1040 per client. If, following the philosophy underpinning the lay therapy concept of providing more frequent contact with the client of longer duration, the weekly contacts are doubled in the lay therapy model, the annual program cost very closely approximates the Individual Counseling Model at \$142,000.

The GROUP TREATMENT MODEL would augment the basic service package with group therapy once a week for one year for half the clients (or once a week for 6 months for all clients) and a series of parent education classes for all clients and weekly individual counseling for about a quarter of the clients. Such a treatment program would require an annual budget of nearly \$125,000 or \$1250 per client.

A model CHILDREN'S PROGRAM would add to the basic services a daily child development program for an average of one child in each client family and special child therapy once a week for about 10% of them. This

Table III-2

ANNUAL SERVICE STRATEGY COSTS

	<u>Annual Cost for 100 Clients</u>	
Basic Services: {	Intake and Initial Diagnosis	
	Case Management and Regular Review	
	Crisis Intervention After Intake	
	Multidisciplinary Team Case Reviews (25 % of caseload)	\$ 59,197
	Court Case Activities (10% of caseload)	
	Follow-up	

If supplemented with:

Then, add to annual costs:

Individual Counseling	\$ 76,700
Parent Aide or Lay Therapy Counseling	37,700
Parents Anonymous (25%)	7,475
Group Therapy (50%)	27,300
Parent Education Classes	19,000
Child Development Program	559,000
Special Child Therapy (10%)	28,210
Family Counseling (50%)	78,000
Babysitting (25%)	9,100
Transportation (25%)	22,750
Psychological Testing (25%)	1,813
Day Care	201,500

NOTE: If the service strategy is housed in a Protective Services Department, the service costs should be increased by a factor of about 10 percent.

Figure III-1  
PROGRAM COSTS OF THREE ALTERNATIVE SERVICE MODELS  
DESIGNED TO SERVE 100 CLIENTS

	<u>Basic Model</u>	<u>With Ancillary Services*</u>
<b>INDIVIDUAL COUNSELING MODEL:</b> Basic Services plus Individual Counseling	\$135,897	\$169,560
<b>LAY THERAPY MODEL:</b> Basic Services plus Lay Therapy Counseling Parents Anonymous (25%)	\$104,372	\$138,035
<b>GROUP TREATMENT MODEL:</b> Basic Services plus Group Therapy (50%) Parent Education Classes Individual Counseling (25%)	\$124,672	\$158,335
<b>CHILDREN'S PROGRAM:</b> Basic Services plus Child Development Program Special Child Therapy (10%)	\$646,407	\$680,070
<b>FAMILY TREATMENT PROGRAM:</b> Children's Program plus Individual Counseling Family Counseling (50%) Group Therapy (50%)	\$828,407	\$862,070

**BASIC SERVICES:**

- Intake and Initial Diagnosis
- Case Management and Regular Review
- Crisis Intervention After Intake
- Multidisciplinary Team Case Reviews (25% of caseload)
- Court Case Activities (10% of caseload)
- Follow-up

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\*Ancillary Services include Babysitting/Child Care, Transportation/Waiting, and Psychological and Other Testing.

NOTE: The costs estimated above include indirect costs of project operations and case management. If a project anticipated providing Community Activities (including Prevention, Community Education, Professional Education, Coordination, and Legislation & Policy), the above costs would constitute approximately 75 percent of the total program costs. If the model under consideration is to be housed in a Protective Services agency, the service costs should be increased by a factor of about 10 percent.

amounts to an extremely costly program model at \$646,000 per year. The FAMILY TREATMENT MODEL supplements the children's program with weekly individual counseling for one parent and weekly sessions of either family counseling or group therapy. The annual budget for such a program would exceed \$800,000 or \$8000 per family.

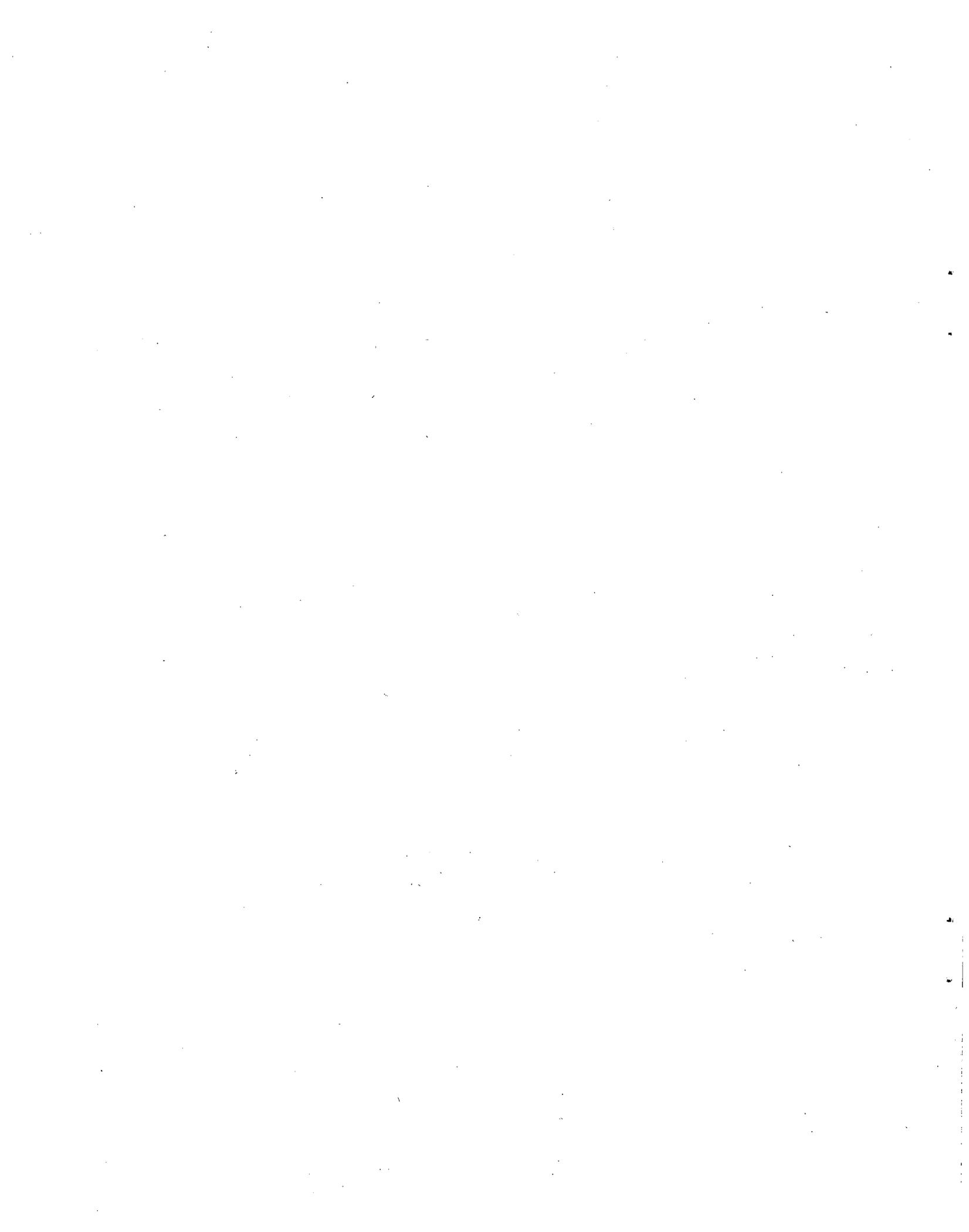
In addition to the basic treatment models proposed, several ancillary services, such as babysitting, transportation and psychological tests, may be offered to a subset of a project's clients. If one assumes that 25% of the 100 client caseload in each of the treatment models would receive these services, the annual budgets would increase by approximately \$33,500. The impact of providing daily day care sessions for at least one child in each family escalates the program costs by approximately \$2000 per child or \$200,000.

Since the unit cost figures used to calculate the preceding estimates included the overhead expenses of project operations and case management, the annual budgets already include indirect costs. Most projects, however, also will provide substantial community activities; in fact 25% of an average program budget is typically expended on prevention, community and professional education, coordination, and legislation and policy activities.<sup>1</sup> These services are essential for ensuring adequate interface between a project and the rest of the community. If one assumes, therefore, that the budget estimates provided on Figure III-1 comprise 75% of the total annual budget, the costs of the different models would range from less than \$200,000 to well over a million dollars a year.

A further determinant in estimating budgets for alternative treatment strategies is that of the sponsorship under which the program functions. Analyses revealed that several services delivered within Child Protective Services agencies are substantially more costly per unit than those delivered in other agency settings. On average, if a service program is housed in a Protective Services department rather than a private agency, the service costs should be increased by a factor of about 10%.

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<sup>1</sup>Another 10% of the average demonstration program budget was expended on research activities; however, we do not consider this to be part of a basic project's activities.



## Listing of Major Evaluation Reports and Papers

### Reports

- (1) A Comparative Description of the Eleven Joint OCD/SRS Child Abuse and Neglect Demonstration Projects; December 1977.
- (2) Historical Case Studies: Eleven Child Abuse and Neglect Projects, 1974-1977; December 1977.
- (3) Cost Report; December 1977.
- (4) Community Systems Impact Report; December 1977.
- (5) Adult Client Impact Report; December 1977.
- (6) Child Impact Report; December 1977.
- (7) Quality of the Case Management Process Report; December 1977.
- (8) Project Management and Worker Burnout Report; December 1977.
- (9) Methodology for Evaluating Child Abuse and Neglect Service Programs; December 1977.
- (10) Guide for Planning and Implementing Child Abuse and Neglect Programs; December 1977.
- (11) Child Abuse and Neglect Treatment Programs: Final Report and Summary of Findings; December 1977.

### Papers

"Evaluating New Modes of Treatment for Child Abusers and Neglectors: The Experience of Federally Funded Demonstration Projects in the USA," presented by Anne Cohn and Mary Kay Miller, First International Conference on Child Abuse and Neglect, Geneva, Switzerland; September 1976 (published in International Journal on Child Abuse and Neglect, Winter 1977).

"Assessing the Cost-Effectiveness of Child Abuse and Neglect Preventive Service Programs," presented by Mary Kay Miller, American Public Health Association Annual Meeting, Miami, Florida; October 1976 (written with Anne Cohn).

"Developing an Interdisciplinary System for Treatment of Abuse and Neglect: What Works and What Doesn't?", presented by Anne Cohn, Statewide Governor's Conference on Child Abuse and Neglect, Jefferson City, Missouri; March 1977 (published in conference proceedings).

"Future Planning for Child Abuse and Neglect Programs: What Have We Learned from Federal Demonstrations?", presented by Anne Cohn and Mary Kay Miller, Second Annual National Conference on Child Abuse and Neglect, Houston, Texas; April 1977.

"What Kinds of Alternative Delivery Systems Do We Need?", presented by Anne Cohn, Second Annual National Conference on Child Abuse and Neglect, Houston, Texas; April 1977.

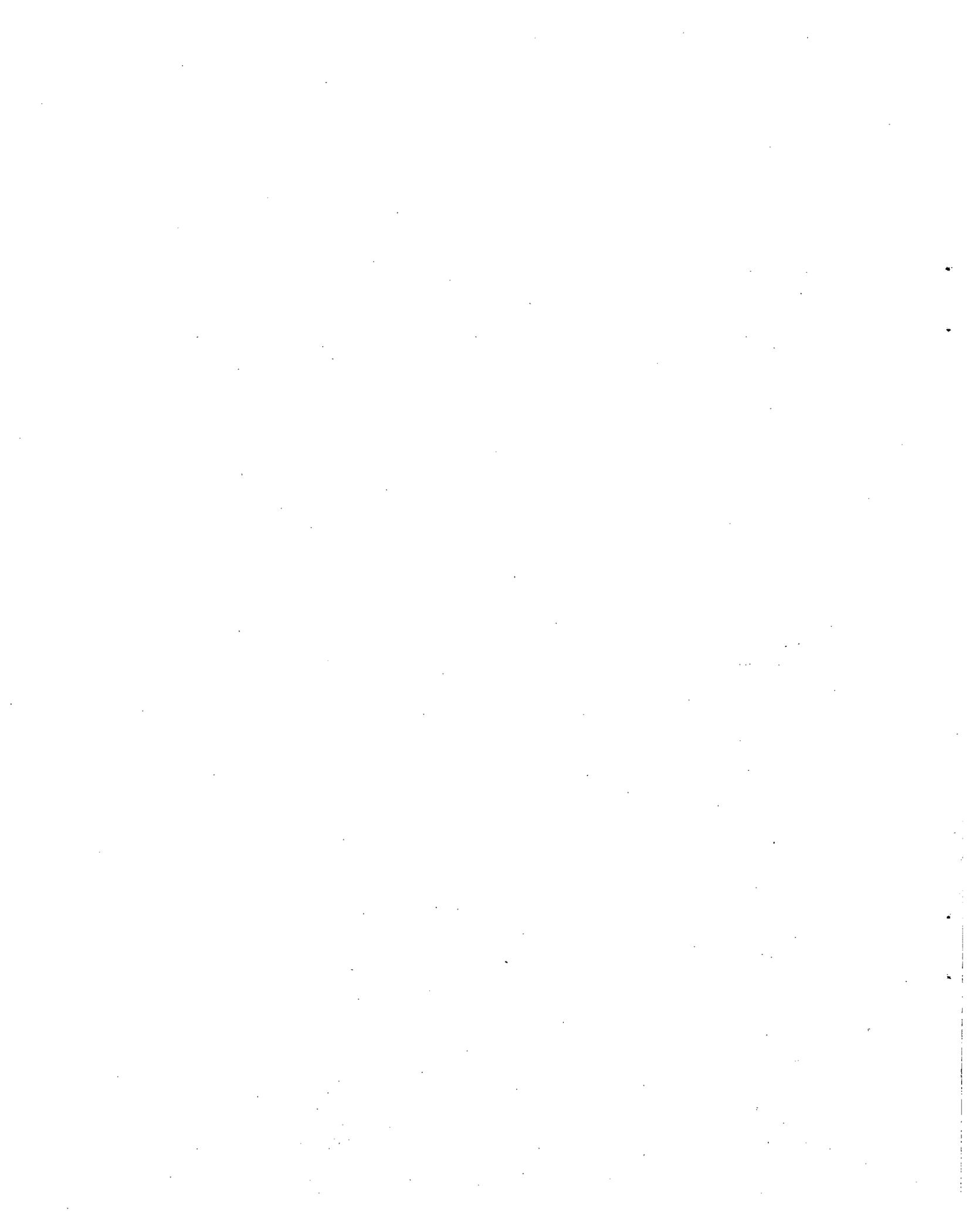
"How Can We Avoid Burnout?", presented by Katherine Armstrong, Second Annual National Conference on Child Abuse and Neglect, Houston, Texas; April 1977.

"Evaluation Case Management", presented by Beverly DeGraaf, Second Annual National Conference on Child Abuse and Neglect, Houston, Texas; April 1977.

"Quality Assurance in Social Services: Catching up with the Medical Field", presented by Beverly DeGraaf, National Conference on Social Welfare, Chicago, Illinois; May 1977.

APPENDIX B

Individual Project Descriptions  
and  
Across-Project Comparisons



## INDIVIDUAL PROJECT DESCRIPTIONS

### ADAMS COUNTY, COLORADO: THE FAMILY CENTER

This section of the case study is based on data collected over three sampled months during the course of a year (October 1975, April 1976 and October 1976). Staff time per service (including donated time) and budget allocations per service were compiled. It is estimated that the Adams County project staff and consultants put in 37,680 hours over a year's time (this equaled an 18 person-year effort), using an estimated average annual budget of \$186,696.

Of the client-related services of the project 7% of the staff (and consultant where applicable) went into intake and initial diagnosis, 4% went towards case management, 5% was devoted to multidisciplinary team review, and 5% was put into lay therapy. In contrast to these relatively small percentages spread over several services, 29% of total staff time was devoted to the project's crisis nursery. Of the non-client services, coordination and community education (including professional education) consumed 7% of the staff time, and general management took up 8% of the total time. Staff development and training used up 9% of the time, and the project's research effort took up 6% of the time.

Budget expenses generally reflected the allocation of staff time with two noticeable exceptions. Whereas general management used up only 8% of the staff time, it used up 24% of the budget. On the other hand, the crisis nursery took 29% of staff time on average, compared to only 10% of the budget. General management costs are high because of the use of very expensive time (that of the project director with no volunteers to speak of). The crisis nursery, which was staffed seven days a week, used comparatively less expensive time (that of houseparents and some volunteers).

On average, the project staff together worked on 22 intakes per month and maintained an active caseload of 26 per month. The monthly volume of services shows that the project intensively delivered a wide range of services per month including, among others, about 40 individual counseling contacts, 79 lay therapy counseling contacts, 44 group therapy sessions, 41 individual therapy contacts, and 33 medical care visits. The project's multidisciplinary team reviewed about 38 cases per month, and the crisis nursery covered on average 127 child-days per month.

Table B-1 displays two unit cost figures, one based on actual budget dollars per unit of service delivered, the other based on "social dollars" which are actual budget dollars plus a dollar value attributed for donated time and resources (e.g., volunteers, including students, and consultants who were either contributing their time or were reimbursed at less than their market rate). In general, there were minimal differences between the two types of unit costs, with the dramatic exceptions of the costs of multidisciplinary team reviews and psychological or other testing. Whereas the actual cost to the project budget for one multidisciplinary team review was \$13.76, the real costs of the team's time amounted to \$87.78 per review -- demonstrating the significant amount of valuable time contributed by various people to this work. The type of testing included in the category of psychological and other testing for this project is that of speech and hearing testing, which was provided free of charge by the University of Denver. This explains the large difference between the small administrative cost per test picked up by the project (\$.44) and the real cost of such tests (\$33.47).

In actual dollars, an intake cost the project \$50.95 per month, and carrying one case cost about \$27.00 per month. Some of the more expensive services were court case activities which cost \$42.85 per case, family counseling which cost \$20.42 per contact (because often more than one worker was involved in each contact with the family), and play therapy (\$13.16 per child-session). Parents Anonymous, which some project staff members sponsored, and group therapy were two of the most inexpensive services (at \$2.32 and \$3.05 per person-session, respectively).

Table B-1  
Adams County, Colorado  
Project Resource Allocation and Service Costs

Activity	Resource Allocation to Activities		Volume and Unit Costs of Services		
	Average Annual Time Allocation	Average Annual Budget Allocation	Average Monthly Volume	Average Annual Unit Cost	Average Unit Cost to Community
Community Education	2%	2%			
Professional Education	2	3			
Coordination	3	4			
Staff Development/Training	9	9			
Program Planning/Development	1	2			
General Management	8	24			
Project Research	6	9			
BPA Evaluation	1	2			
Outreach	--	--	10 cases	\$ 6.78	\$ 8.11
Intake/Initial Diagnosis	7	8	22 intakes	50.95	57.90
Case Management/Review	4	4	26 ave. caseload	27.01	27.26
Court Case Activities	1	1	6 cases	42.85	46.08
Crisis Intervention During Intake	--	--	7 contacts	7.71	7.71
Multidisciplinary Team Review	5	3	38 reviews	13.76	87.78
Individual Counseling	1	2	40 contacts	7.63	7.77
Parent Aide/Lay Therapy	5	4	79 contacts	8.78	8.82
Couples Counseling	1	1	19 contacts	10.34	10.68
Family Counseling	1	1	7 contacts	20.42	21.04
Individual Therapy	2	2	41 contacts	10.22	10.22
Group Therapy	1	1	44 person-sessions	3.05	4.05
Parents Anonymous	1	1	54 person-sessions	2.32	2.54
Parent Education Classes	1	1	33 person-sessions	4.83	5.49
Crisis Intervention After Intake	--	--	10 contacts	4.29	4.29
Child Development Program	2	2	22 child-sessions	6.71	6.71
Play Therapy	1	1	10 child-sessions	13.16	13.96
Crisis Nursery	29	10	127 child-days	12.63	12.66
Medical Care	2	2	33 visits	5.70	5.79
Transportation/Waiting	2	1	20 rides	11.97	14.60
Psychological/Other Testing	--	--	8 person-tests	.44	33.47
Follow-Up	--	--	5 person follow-ups	6.42	6.56
Total Annual Person Years/Budget	18.1	\$186,696	Average Monthly Caseload = 26		

ARLINGTON, VIRGINIA: PRO-CHILD

The allocation of both staff time and dollars during the project's operation reflects the project's emphasis on direct services to clients, both parents and children. During 1976, 14.23 person years of effort were expended on the project, at a total budget of \$225,984. Table B-2 depicts the average allocation and service unit costs.

With the exception of general management and day care, both the proportion of time spend on various project activities and the proportion of the budget those activities consumed are quite similar (within two percentage points). General management cost proportionally more due to the high salaries of senior level staff performing that function, and the actual cost of day care was lower than the proportion of staff time allocated because of the use of unpaid volunteers working in the day care program.

About 5% of the resources (staff time and dollars) were expended in educational activities, 1% of coordinating activities within the community, and 14% on general management, staff training and program development combined. Research and evaluation activities consumed 4% of the resources.

The project served an average of 179 clients per month, offering most clients a combination of counseling or therapy (individual, group, couples, family or lay therapy), crisis intervention, diagnostic services, and supportive services such as homemaking, medical care, babysitting, transportation and emergency funds. A small number of cases were reviewed by a multidisciplinary team, and about 19 cases per month were court-involved cases. The management and review of all cases consumed about 27% of the staff's time and the project resources, by far the largest proportion of

both expenditures on any single activity. Day care expenditures (6% of the dollars and 12% of the staff time) were also proportionally higher than other categories. Conducting intakes, providing individual counseling (the primary adult service offered), and transporting clients were the next largest resource-expensive activities.

As is depicted in Table B-2, the unit costs of activities remained relatively stable during the demonstration period, with a few notable exceptions. Case management, multidisciplinary review and play therapy unit costs were significantly higher as caseload size or the number of cases reviewed or the number of children in play therapy were lower than average, reflecting both more intensive services to fewer clients and the fixed costs of convening the team and having the play therapist conduct a session, irrespective of the number of cases reviewed or the children served per session. The wide fluctuation in unit costs of several other services, including homemaking, court case activities, crisis intervention and medical care appear to reflect primarily a difference in the intensity (staff time) with which the service was provided.

The unit costs of most services were well within the average for the demonstration projects as a whole. It is interesting to note that in Arlington, as in the other projects, the costs of multidisciplinary team reviews are high, \$50 actual cost per review and almost \$100 if the value of donated time is included in the calculation. Outreach services, intake and initial diagnosis, and court-case activities are also costly services, due to the amount of staff time required to carry out these activities (much of which is spent locating clients or waiting with them).

Table B-2  
Arlington, Virginia  
Project Resource Allocation and Service Costs

Activity	Resource Allocation to Activities		Volume and Unit Costs of Services		
	Average Annual Time Allocation	Average Annual Budget Allocation	Average Monthly Volume	Average Annual Unit Cost	Average Unit Cost to Community
Community Education	1	2			
Professional Education	3	3			
Coordination	1	1			
Staff Development/Training	7	7			
Program Planning/Development	1	1			
General Management	6	13			
Project Research	1	1			
BPA Evaluation	3	3			
Outreach	1	1	12 cases	\$23.53	\$23.87
Intake/Initial Diagnosis	8	8	32 intakes	46.42	46.42
Case Management/Review	26	28	179 average caseload	29.67	29.85
Court Case Activities	4	4	19 cases	38.75	44.12
Crisis Intervention During Intake	1	1	26 contacts	8.71	8.76
Multidisciplinary Team Review	1	1	6 reviews	51.96	99.57
Individual Counseling	7	8	273 contacts	5.92	5.97
Parent Aide/Lay Therapy	2	--	20 contacts	7.16	7.29
Couples Counseling	--	--	9 contacts	9.55	9.55
Family Counseling	1	1	23 contacts	9.95	9.95
24-Hour Hotline	--	--	12 calls	4.91	4.91
Individual Therapy	--	1	11 contacts	12.01	12.01
Group Therapy	1	2	72 person-sessions	4.18	4.29
Crisis Intervention After Intake	1	1	29 contacts	10.10	10.10
Day Care	12	6	153 child-sessions	6.96	8.42
Play Therapy	2	1	30 child-sessions	5.75	6.37
Homemaking	1	--	8 contacts	5.90	5.90
Medical Care	2	2	12 visits	12.40	12.60
Babysitting/Child Care	--	1	222 child-hours	.50	.52
Transportation/Waiting	8	6	293 rides	4.00	4.21
Emergency Funds	--	--	6 payments	--	--
Psychological/Other Testing	--	1	9 person-tests	26.37	26.37
Follow-Up	--	--	11 person follow-ups	4.05	4.05
Total Annual Person-Years/Budget	14.23	\$225,984	Average Monthly Caseload = 179		

BATON ROUGE, LOUISIANA: THE CHILD PROTECTION CENTER

This section of the case study is based on data from three sample months during one year (October 1975, April 1976 and October 1976). Staff time per service, including donated time, and budget allocations per service were collected. It is estimated that the Baton Rouge project staff and consultants put in 20,600 hours over a year's time; this equaled a 9.9 person-year effort, with an average annual budget of \$175,500.

For the client-related services, 27% of the time went into ongoing case management and review activities, 8% went into intake and 6% was put into homemaking. Coordination activities and professional and community education consumed 12% of staff time. Staff development and training activities took up 8% of the time, and general management used, on average, 18% of the time.

Budget expenses generally reflect the allocation of staff time, with some noticeable exceptions. Whereas case management took 27% of staff time, it used only 19% of the budget. On the other hand, general management used up 27% of the budget compared to 18% of the time, and medical care consumed 8% of the budget for only 2% of the total staff time. Both general management and medical care used proportionately large amounts of very expensive time (a physician and a large percentage of the project director) while case management used up comparatively less expensive time (social workers and a high percentage of typists' time to keep up the case records).

On average the project staff together did 27 intakes per month and maintained an active caseload of 83 per month. Fifty-two individual counseling contacts were made in a given month, which works out to less than

one (0.6) per month per case. Many crisis intervention contacts were also made in an average month -- 16 such contacts for clients in intake and 21 for clients in the active caseload. Other notable monthly outputs included six multidisciplinary reviews (one to two at each of the weekly meetings of the team), 20 homemaking contacts (about one per working day per month), and 21 medical visits (again, about one per day). The average of 19 rides provided per month cannot be considered typical, because it is the result of 40 rides provided in October 1975 when the project had an active volunteer component to a low of three in October 1976.

Table B-3 displays two unit cost figures; one based on actual budget dollars per unit of service delivered, the other based on "social dollars," or actual budget dollars plus a dollar value for donated time and resources (e.g., volunteers, including students, and consultants who were reimbursed at less than their going rate). In general, there were only minimal differences between the two figures for the Center, due to a relatively limited volunteer component. Most of the differences between the two unit costs for direct client services are accounted for by a social work student who worked at the project for her placement.

In actual dollars, an intake cost the project \$36.54 per month and carrying one case cost \$35.22 per month. Some of the more expensive services were court case activities, which cost \$175.40 per case (this included the use of a consulting lawyer), multidisciplinary team reviews at \$67.63 per review (many staff and consultants met to review only a limited number of cases), and medical care at \$90.48 per visit (this suggests under-utilizing the staff physician who was paid a flat rate regardless of the number of children brought in). The homemaking unit cost might seem high to some (\$21.46), but it must be pointed out that a typical homemaking contact for the project most often included the better part of one day.

Table B-3  
 Baton Rouge, Louisiana  
Project Resource Allocation and Service Costs

Activity	Resource Allocation to Activities		Volume and Unit Costs of Services		
	Average Annual Time Allocation	Average Annual Budget Allocation	Average Monthly Volume	Average Annual Unit Cost	Average Unit Cost to Community
Community Education	3%	3%			
Professional Education	6	5			
Coordination	3	3			
Staff Development/Training	8	7			
Program Planning/Development	1	1			
General Management	18	27			
Project Research	1	1			
BPA Evaluation	2	2			
Outreach	--	--	3 cases	\$12.85	\$16.98
Intake/Initial Diagnosis	8	6	27 intakes	36.54	40.54
Case Management Review	27	19	83 average caseload	35.22	36.99
Court Case Activities	2	3	3 cases	175.40	175.40
Crisis Intervention During Intake	2	2	16 contacts	7.83	7.83
Multidisciplinary Team Review	2	3	6 reviews	67.63	71.30
Individual Counseling	3	2	52 contacts	4.98	5.69
Couples Counseling <sup>a</sup>	--	--	14 contacts	3.75	3.75
Family Counseling	--	--	10 contacts	11.11	11.11
Individual Therapy <sup>a</sup>	--	--	16 contacts	9.84	9.84
Crisis Intervention After Intake	1	2	21 contacts	5.16	5.16
Homemaking	6	3	20 contacts	21.46	21.46
Medical Care	2	8	21 visits	90.48	90.48
Babysitting/Child Care <sup>a</sup>	3	2	110 child-hours	1.06	1.06
Transportation/Waiting	2	1	19 rides	17.45	19.04
Psychological/Other Testing	--	--	6 person-tests	32.50	32.50
Follow-Up	--	--	4 person follow-ups	11.92	11.92
Total Annual Person Years/Budget	9.9	\$175,524	Average Monthly Caseload = 83		

<sup>a</sup>Averages based on data from October 1975 and April 1976 only; these services were not provided in October 1976.

## BAYAMON, PUERTO RICO: THE CHILD PROTECTION CENTER

Table B-4 shows how project staff and consultant time and project budget were allocated, on average, to different project activities, as well as displaying typical monthly service volumes and unit costs for different activities.

A full 40% of staff time was spent on the provision of treatment services to clients; while over one-quarter of this was utilized in the review and management of cases, the project staff still managed to spend significant proportions of their time on different kinds of counseling and therapy services. With an average monthly caseload size of 70, and with up to eight new cases coming into the project in a typical month, the project offered: 92 individual counseling or therapy contacts a month; 34 sessions of family or couples counseling; 37 alcohol, drug or weight counseling sessions; and four group therapy person-sessions. One hundred fourteen person-sessions of parenting education were offered to clients and some members of the general community. The unit costs of services were quite stable over time with the exception of multidisciplinary team reviews which increased substantially when the project started to pay professionals to come and sit in on the team. The cost to the project to provide a unit of any of the services was not substantially different from the cost to the community, given that the project used very few donated or volunteered resources in

service provision. The unit costs, in general, are higher than one might find in the typical protective services department, undoubtedly due in part to the level of expertise on the staff.

Of the 60% of project resources not used for direct treatment services, 7% of staff time (and 4% of the budget) was spent on preventive activities; 16% of time (and 8% of the budget) was spent on community and professional education; and 23% of staff time (32% of the budget) was spent on overhead activities including staff development and training, program planning, and general management. The project additionally spent 11% of its budget on its own internal research.

Table B-4  
 Bayamon, Puerto Rico  
Project Resource Allocation and Service Costs

Activity	Resource Allocation to Activities		Volume and Unit Costs of Services		
	Average Annual Time Allocation	Average Annual Budget Allocation	Average Monthly Volume	Average Annual Unit Cost	Average Unit Cost to Community
Prevention	7%	4%			
Community Education	11	4			
Professional Education	5	4			
Coordination	7	4			
Staff Development/Training	8	8			
Program Planning/Development	1	1			
General Management	13	27			
Project Research	10	11			
BPA Evaluation	2	2			
Outreach	--	--	11 cases	\$ 7.75	\$ 8.75
Intake/Initial Diagnosis	2	2	8 intakes	16.00	19.00
Case Management/Review	10	9	70 average caseload	16.25	17.00
Court Case Activities	2	1	4 cases	33.50	33.75
Multidisciplinary Team Review	2	1	2 reviews	118.00	118.25
Individual Counseling	7	6	67 contacts	12.50	12.75
Couples Counseling	--	1	9 contacts	10.75	10.75
Family Counseling	3	2	25 contacts	12.25	12.50
Alcohol, Drug, Weight Counseling	1	1	37 person-sessions	10.50	10.75
Individual Therapy	2	2	25 contacts	10.50	10.50
Group Therapy	1	--	4 person-sessions	24.00	24.25
Parent Education Classes	1	1	114 person-sessions	4.75	4.75
Crisis Intervention After Intake	2	2	7 contacts	29.25	29.50
Child Development Program	5	4	--	--	--
Medical Care	--	1	6 visits	38.50	38.50
Follow-Up	1	1	8 person follow-ups	--	--
Total Annual Person Years/Budget	8.5	\$150,912	Average monthly caseload = 70		

JEFFERSON COUNTY, ARKANSAS: CHILD ABUSE AND NEGLECT PROJECT (SCAN)

With an annual budget of nearly \$62,000, the Jefferson County Child Abuse and Neglect project maintained an average caseload of 43 clients with a range from 38 to 48. Assuming a case would require a year of service provision, the average annual cost per case is \$1,435. As illustrated on Table B-5, approximately 60% of the project's time and 40% of its budget were expended on direct services, which reflects the intense usage of reimbursed volunteers in the delivery of the project's major treatment modality, i.e. lay therapy counseling. About 10% of the staff time and 15% of the budget are directed toward community activities; with another 5% of the time and 8% of the monies allocated to research activities. Project operations utilized the remaining 25% of staff time and 41% of the budget.

These allocations were quite stable during the year of intensive cost accounting months, with fluctuations occurring in only three service components. Resources allocated to staff development and training appeared to decrease as time went on; however, in actuality, two of the months overstated the normal investment in staff development since they coincided with intensive lay therapy training workshops held in Little Rock. Normally, these workshops occur only three times a year. Although the proportion of time allocated to general management decreased over time, the proportion of the budget increased substantially, reflecting salary increases and the concentrated efforts of the paid staff on these functions. The MDT reviews utilized significantly reduced resources during the last cost accounting month, which was not reflected in the budget distribution since the labor for this service was almost exclusively contributed professional time.

The service package offered by the Jefferson County project included intake and initial diagnosis, case management and regular review, MDT reviews, and lay therapy. Small proportions (2% or less) were devoted to court case activities, crisis intervention, individual counseling, Parents Anonymous, and transportation and waiting. This service mix was stable during the demonstration effort and represents the lay therapy model as practiced throughout Arkansas.

The volume of service units delivered each month was relatively stable, although the cost per unit did fluctuate modestly. Case management was provided at nearly \$10.50 per case per month, although it decreased considerably each month it was monitored. On average 225 lay therapy counseling contacts were provided monthly at an average cost of about \$3.50 per contact. Individual counseling, on the other hand, was provided in small amounts (on average only 12 contacts per month) at a substantially higher cost per unit (nearly \$7.50 per contact). At an average of 26 intakes per month, the cost per intake approached \$7, although it ranged from less than \$4 to over \$10 per unit.

Several services were provided very inexpensively: transportation at \$1.20 per ride; MDT reviews at \$2.00 per review; and Parents Anonymous at \$2.30 per person session. Court case activities, at an average of \$15.50 per case, and crisis intervention (at \$14.50 per contact during intake and \$11.00 per contact after intake) were the most expensive services provided by the project, before considering the impact of ascribing values to donated resources. The MDT reviews experienced a dramatic increase following this manipulation of the data to nearly \$600 per review; court case activities increased to approximately \$25.50 per case; and lay therapy counseling doubled to about \$6.50 per contact. Crisis intervention after intake, primarily provided by the lay therapist involved in the case, also increased substantially to approximately \$16 per contact.

WASHINGTON COUNTY, ARKANSAS: CHILD ABUSE AND NEGLECT PROGRAM (SCAN)

The Washington County Child Abuse and Neglect project maintained an average caseload of 30 clients on an annual budget of slightly more than \$67,000. Assuming a case would require a year of service provision, the average annual cost per case was \$2,242. As illustrated on the following table, approximately half of the project's time and 35% of its budget were expended on direct services, which reflects the intense usage of reimbursed volunteers in the delivery of the project's major treatment modality, i.e. lay therapy counseling. About 15% of the staff time and budget were directed toward community activities; with another 8% of the time and 10% of the monies allocated to research activities. Project operations utilized the remaining 30% of staff time and 40% of the budget.

These allocations were quite stable during the year of intensive cost accounting months; marked fluctuations occurred in only three service components. Resources allocated to staff development and training appeared to decrease over time; however, in actuality two of the months overstated the normal investment since they coincided with intensive lay therapy training workshops held in Little Rock. Normally these workshops occur only three times a year. Although the proportion of time allocated to general management decreased over time, the proportion of the budget increased, reflecting salary increases and the concentrated efforts of the paid staff on these functions. While case management and regular review consumed an increasing proportion of staff time, it did not utilize a corresponding increase of the budget. This implies an enlarging case management role for the lay therapists in addition to maintaining the level of direct counseling as initiated.

Jefferson County, Arkansas  
Table B-5: Project Resource Allocation and Service Costs

Activity	Resource Allocation to Activities		Volume and Unit Costs of Services		
	Average Annual Time Allocation	Average Annual Budget Allocation	Average Monthly Volume	Average Actual Unit Cost	Average Unit Cost to Community
Community Education	3	6			
Professional Education	2	2			
Coordination	4	5			
Legislation/Policy	1	1			
Staff Development/Training	13	14			
Program Planning/Development	3	4			
General Management	9	23			
Project Research	2	4			
BPA Evaluation	3	4			
Intake/Initial Diagnosis	4	3	26 intakes	\$ 6.81	\$ 6.96
Case Management/Review	10	9	43 average caseload	10.36	14.25
Court Case Activities	2	2	6 cases	15.53	24.64
Crisis Intervention During Intake	1	1	3 contacts	14.52	13.97
Multidisciplinary Team Review	8	--	7 reviews	2.01	584.24
Individual Counseling	2	2	12 contacts	7.41	8.11
Parent Aide/Lay Therapy	25	15	225 contacts	3.37	6.30
Parents Anonymous	2	2	31 person-sessions	2.31	4.37
Crisis Intervention After Intake	2	2	8 contacts	11.09	16.09
Transportation/Waiting	2	2	94 rides	1.20	1.16
Follow-Up	--	--	2 person follow-ups	15.40	15.40
Total Annual Person Years/Budget	8.94	\$61,704	Average Monthly Caseload = 43)		

B-17

The service package offered by the Washington County project included intake and initial diagnosis, case management and regular review, and lay therapy counseling. Small proportions (3% or less) were devoted to multidisciplinary team case reviews, court case activities, individual counseling, Parents Anonymous, and parent education classes. This service mix was stable during the demonstration effort and represents the lay therapy model as practiced throughout Arkansas.

Both the volume of service units delivered and the per unit costs of some fluctuated over the three accounting months. Case management, provided at approximately \$24.50 per case per month, however, was relatively stable. On average 143 lay therapy counseling contacts were provided monthly at an average cost of about \$3.30 per contact; the monthly volume increased dramatically from 108 in October 1975 to 170 in October 1976, with a corresponding decrease in the cost per contact (from \$5.50 to \$2.10). Individual counseling was provided in small amounts (on average only 7 contacts per month) at substantially higher cost per unit (nearly \$14 per contact). At an average of 18 intakes per month, the cost per intake was approximately \$14, although it ranged from \$10 to \$20 per unit.

Several services were provided quite inexpensively: parent education classes at \$.75 per person session; crisis intervention after intake at \$1.30 per contact; transportation at \$1.80 per ride; and Parents Anonymous at \$4.85 per person session. Court case activities was the most costly service provided by the project at \$95 per case per month. When the value of donated resources is considered, MDT reviews experienced a dramatic increase from \$12.65 per review to nearly \$230 per review. Only one or two court cases and MDT cases were handled by the project each month. The cost of lay therapy counseling contacts and crisis intervention after intake increased in substantial amounts when the value of donated resources was introduced.

Washington County, Arkansas  
 Table B-6: Project Resource Allocation and Service Costs

Activity	Resource Allocation to Activities		Volume and Unit Costs of Services		
	Average Annual Time Allocation	Average Annual Budget Allocation	Average Monthly Volume	Average Actual Unit Cost	Average Unit Cost to Community
Community Education	6%	7%			
Professional Education	2	2			
Coordination	6	6			
Legislation/Policy	1	1			
Staff Development/Training	18	17			
Program Planning/Development	4	5			
General Management	9	18			
Project Research	3	4			
BPA Evaluation	5	6			
Intake/Initial Diagnosis	5	5	18 intakes	\$14.07	\$13.91
Case Management/Review	16	14	30 average caseload	24.55	26.07
Court Case Activities	2	2	1 case	95.20	95.20
Crisis Intervention During Intake	--	--	2 contacts	17.10	16.22
Multidisciplinary Team Review	3	1	3 reviews	12.67	229.15
Individual Counseling	2	1	7 contacts	13.84	11.14
Parent Aide/Lay Therapy	15	9	143 contacts	3.29	5.33
Parents Anonymous	2	2	14 person-sessions	4.86	6.34
Parent Education Classes	1	1	69 person-sessions	0.74	0.74
Crisis Intervention After Intake	--	--	8 contacts	1.30	2.53
Transportation/Waiting	--	--	20 rides	1.81	1.81
Follow-Up	--	--	2 person follow-ups	11.59	11.59
Total Annual Person Years/Budget	7.54	\$67,272	Average monthly caseload = 30		

B-19

LOS ANGELES, CALIFORNIA: THE FAMILY CARE CENTER

The following table indicates the ways in which the Family Care Center allocated both staff time and project resources to various activities during the course of the project. These figures depict the major emphasis of the project, namely the provision of residential care for children, including a child development component, combined with minimal therapeutic service provision to parents. Fully 62% of the project staff time was spent in either the provision of residential care or child development sessions; although, due to the very large number of volunteers, this time only consumed 29% of the project's actual resources. The next largest expenditure was for overhead, including general management, staff training, and program planning. These activities accounted for 23% of the staff time spent on the project, but, due to the high salaries of the staff involved in program management/direction, fully 47% of the project's resources were expended carrying them out. Staff also spent about 7% of their time (and 9% of the project's resources) on educational activities and coordination endeavors in the community. Only 3% of the project's resources were spent on research or evaluation activities. In addition to the provision of residential care, including child development sessions, none of the other direct services provided to clients, including outreach and intake activities, general case management, individual parent counseling or therapy, babysitting and transportation, consumed more than 3% of the staff's time or the project's resources.

The Family Care Center staff spent about 19 person years providing services to nine families per month. Approximately 207 child days of residential care were provided each month at an average cost of \$36 per

day, and 155 child development sessions were provided to these same children each month at a cost of about \$16 per day. About 55 individual counseling or therapy sessions were provided each month to parents; the counseling cost about \$19 per session, while the therapy sessions averaged \$15 per contact. The overall management of the families at the Center, including regular review of cases cost \$33 per family per month. Working with cases requiring court intervention (four cases per month) cost \$34 per case. Psychological testing of children, which about four children received each month, was extremely expensive (\$55 per child), due primarily to the contracted service of an outside consultant to perform the tests.

It is interesting to note that while many project staff (primarily Foster Grandparents and CETA employees) were not paid out of grant monies, the costs of overall program management was so high that virtually no cost saving was experienced by using these "free" resources, as a comparison of the actual costs and hidden costs (which includes the ascribed cost of volunteers) shows.

Table B-7

Los Angeles, California  
Project Resource Allocation and Service Costs

Activity	Resource Allocation to Activities		Volume and Unit Costs of Services		
	Average Annual Time Allocation	Average Annual Budget Allocation	Average Monthly Volume	Average Actual Unit Cost	Average Unit Cost to Community
Community Education	2%	1%			
Professional Education	2	3			
Coordination	3	5			
Staff Development/Training	9	11			
Program Planning/Development	2	3			
General Management	12	33			
Project Research	1	1			
BPA Evaluation	--	2			
Outreach	--	2	5 cases	\$18.67	\$18.67
Intake/Initial Diagnosis*	--	2	18 intakes	3.93	3.93
Case Management/Review	2	3	9 average caseload	33.38	34.28
Court Case Activities	--	--	4 cases	33.98	33.98
Crisis Intervention During Intake*	--	--	4 contacts	9.10	9.10
Multidisciplinary Team Review	--	1	4 reviews	27.16	27.16
Individual Counseling	1	1	20 contacts	18.07	18.60
Parent Aide/Lay Therapy	--	--	5 contacts	18.45	18.45
Couples Counseling	--	--	4 contacts	16.87	16.87
Family Counseling*	--	--	2 contacts	17.19	17.19
Alcohol, Drug, Weight Counseling*	--	--	3 person-sessions	18.18	18.18
Individual Therapy	2	3	35 contacts	15.15	15.22
Parents Anonymous*	--	--	19 person-sessions	0.59	4.80
Crisis Intervention After Intake	--	--	6 contacts	12.58	12.58
Residential Care	44	19	207 child-days	35.94	36.22
Child Development Program	18	10	155 child-sessions	16.16	16.27
Play Therapy	--	--	10 child-sessions	3.18	5.84
Special Child Therapy*	--	--	46 contacts	2.12	2.12
Medical Care	--	--	19 visits	10.05	10.55
Babysitting/Child Care	2	2	--	--	--
Transportation/Waiting	2	3	42 rides	13.49	13.50
Psychological/Other Testing	--	--	4 person-tests	55.96	55.96
Follow-Up	--	--	6 person follow-ups	20.88	20.88
Total Annual Person Years/Budget	18.83	\$236,280	Average Monthly Caseload = 9		

\* Service provided for one month only.

NEAH BAY, WASHINGTON: THE CHILD DEVELOPMENT CENTER

Functioning on the smallest annual budget of the eleven demonstration projects at about \$56,000 per year, the Child Development Center maintained an average monthly caseload of eight clients, with a range from one to 14. Following the period of time used to generalize cost data (October 1975 through October 1976), the project's client load increased to 20 active cases with an additional 25 considered to be stabilized, but under observation. Certainly by the end of the project considerably larger proportions of the project's resources were being allocated to the direct service components of case management and review, MDT reviews and individual counseling; however, the allocation of time and money displayed on Table B-8 reflects the earlier orientation toward far more concentrated efforts in community activities and project operations. On average these data show that approximately half of the staff time and three-quarters of the budget were expended on staff development and training, program planning and development, and general management activities. The remaining half of the staff time and quarter of the budget were divided approximately equally between community activities and direct services, with a small proportion of each devoted to the BPA evaluation.

These allocations were very unstable over the year of intensive cost accounting, caused in part by the coincidence of the cost accounting periods occurring during months of intensive staff training or community workshops, and in part by shifts in the program orientation from a case monitoring and coordinating function within the community's social service structure to an active case managing and service providing role. Additionally, with an average staff of five persons, shifts in a single individual's role definition could and did dramatically affect the overall allocation of resources.

Service efforts were initially restricted to a small subset of those possible, and included intake and initial diagnosis, case management and regular review, MDT reviews, individual counseling, and parent education classes. As the service provision aspect of the project was stepped up, during the last cost accounting month (October 1976), additional services were added which more closely reflect the project's service package for the last year of operation. Supplementing those previously mentioned, these services included: outreach, court case activities, crisis intervention (both during and after intake), homemaking services and transportation.

The volume of service units delivered did not vary significantly for those services offered more than one month; however, the cost per unit, in some instances, did. For those services provided during at least two of the cost accounting months, the following average unit costs prevailed: intake and initial diagnosis cost approximately \$20 per intake when averaged, although the cost decreased considerably over time; case management averaged approximately \$30 per case per month, but fluctuated somewhat erratically; individual counseling averaged about \$6 per contact, and parent education classes averaged about \$21 per person-session -- both were quite stable over time. Multidisciplinary team case reviews, which gained a significant role during the last year, were provided at a cost per review of approximately \$30. As the only service for which donated resources were expended, the cost per review increased nearly five-fold to about \$140 per review when values were ascribed to these contributions of professional time.

Neah Bay, Washington  
 Table B-8: Project Resource Allocation and Service Costs

Activity	Resource Allocation to Activities		Volume and Unit Costs of Services		
	Average Annual Time Allocation	Average Annual Budget Allocation	Average Monthly Volume	Average Annual Unit Cost	Average Unit Cost to Community
Community Education	5%	2%			
Professional Education	4	5			
Coordination	7	4			
Legislation/Policy	7	6			
Staff Development/Training	19	17			
Program Planning/Development	16	13			
General Management	14	36			
BPA Evaluation	6	2			
Outreach	--	--	[9 cases	\$ 8.45	\$ 8.45]*
Intake/Initial Diagnosis	--	--	2 intakes	19.40	19.40
Case Management/Review	6	6	8 average caseload	29.88	29.88
Court Case Activities	--	--	[2 cases	8.60	8.60]
Crisis Intervention During Intake	3	1	[4 contacts	13.87	13.87]
Multidisciplinary Team Review	7	1	[5 reviews	28.20	137.80]
Individual Counseling	5	2	19 contacts	5.90	5.90
Alcohol, Drug, Weight Counseling	--	--	[5 person-sessions	3.94	3.94]
Individual Therapy	--	2	[2 contacts	41.25	41.25]
Parent Education Classes	1	2	5 person-sessions	20.90	20.90
Crisis Intervention After Intake	--	--	[9 contacts	3.65	3.65]
Homemaking	--	--	[10 contacts	5.91	5.91]
Transportation/Waiting	--	--	[5 rides	12.80	12.80]
Total Annual Person-Years/Budget	3.4	\$55,884	Average Monthly Caseload = 8		

\* Figures in brackets were offered during the last accounting month only.

ST LOUIS, MISSOURI: THE FAMILY RESOURCE CENTER

As the project resource allocation table shows, the Family Resource Center allocated almost half of its budget to direct treatment activities (48%). This included 15% of the budget for direct services to children, 12% for direct services to parents, and 21% for case management and services for families. Actual staff time allocation to direct services was greater in each case, however, with 65% of staff time going into direct treatment. Staff time was also more heavily allocated to children's services (28% for children's programs versus 15% for adult services). Community activities represented 8% of staff time (6% of the budget), research about 6-7% of time and budget, and "overhead" functions 20% of staff time, but 40% of the budget.

Child development classes and group therapy were the "staple" services of the project, with transportation and babysitting, as supportive services, also being very frequently offered. Unit costs for parents' services ranged from \$2.86 for one individual therapy session (one hour long) to \$14.24 for parent education sessions. Unit cost for a child development class (about three-hour sessions) were about \$6.00. Donated resources (student social workers, volunteer lay therapists, and "volunteer" physicians) were used in most treatment services with particularly heavy use in lay therapy, medical care, babysitting, parent education, and counseling and therapy.

The project carried a relatively small average monthly caseload of 40 cases, and had a total annual budget of about \$160,000.

Table B-9  
St. Louis, Missouri  
Project Resource Allocation and Service Costs

Activity	Resource Allocation to Activities		Volume and Unit Costs of Services		
	Average Annual Time Allocation	Average Annual Budget Allocation	Average Monthly Volume	Average Actual Unit Cost	Average Unit Cost to Community
Community Education	4%	3%			
Professional Education	2	2			
Coordination	2	1			
Staff Development/Training	10	8			
Program Planning/Development	6	5			
General Management	4	28			
Project Research	4	3			
BPA Evaluation	3	3			
Outreach	2	1	1 case	\$49.60	\$57.00
Intake/Initial Diagnosis	4	5	13 intakes	48.97	55.96
Case Management/Review	7	8	40 average caseload	33.60	35.01
Court Case Activities	1	1	4 cases	20.92	20.92
Crisis Intervention During Intake	1	1	8 contacts	9.97	9.97
Individual Counseling	2	2	67 contacts	3.19	4.39
Parent Aide/Lay Therapy	4	2	28 contacts	5.60	11.02
Couples Counseling	1	1	18 contacts	5.54	6.50
Family Counseling	1	1	9 contacts	8.93	15.92
24-Hour Hotline	--	--	12 calls	2.86	2.86
Individual Therapy	2	1	27 contacts	2.86	7.27
Group Therapy	4	4	106 person-sessions	4.24	6.00
Parent Education Classes	2	2	17 person-sessions	14.24	19.75
Crisis Intervention After Intake	1	1	22 contacts	4.60	4.78
Child Development Program	22	14	285 child-sessions	5.96	8.03
Play Therapy	1	1	16 child-sessions	5.24	8.34
Medical Care	--	--	4 visits	5.94	22.76
Babysitting/Child Care	5	1	87 child-hours	1.10	4.19
Transportation/Waiting	4	3	433 rides	0.92	0.95
Psychological/Other Testing	1	1	18 person-tests	8.31	8.54
Follow-Up	--	--	5 person follow-ups	5.75	11.35
Total Annual Person Years/Budget	11.27	\$160,068	Average Monthly Caseload = 40		

ST. PETERSBURG, FLORIDA: PACER

The allocation of the project's resources, time and dollars are good descriptors of the PACER program activities. Table B-10 depicts the average allocation of both time and dollars for the year 1976. As is evident in the table, a total number of 8.1 person-years or over 16,848 hours were used by the project. The corresponding budget for the year, not including the dollar value of donated resources, was \$122,472. Since the project's primary purpose is to provide community and professional education as well as community coordination, most of the project's resources are allocated to non-direct services. Nine percent of the budget was spent on prevention, 15% on community and professional education, and 4% on community coordination. About 28% of the budget was allocated to general overhead functions, staff development and planning, program planning and development, and general management.

Parents Anonymous and lay therapy are the only two treatment services provided by the project. About one-third of the project time and 17% of the budget is allocated to these direct service activities. One project staff member spends most of her time supervising the lay therapy program. This accounts for nearly 23% of the project time allocated to services. About 3% of a staff member's time is devoted to the multidisciplinary review team, and another 3% is spent on Parents Anonymous. About 378 lay therapy hours, or \$1719, was donated as time and resources to the project's lay therapy program. This donated time explains the project's relatively minor budget allocation for direct service in relationship to the amount of time spent in delivering the services.

Costs for the various components tended to decrease in the last cost accounting period, with two exceptions. The allocations for professional education and community coordination increased in the last year. This increase reflects the project's intense effort in their last year to provide professional education to everyone in the community. The increase in time and money allocated to community coordination indicates the project's increased efforts to establish the community-wide coordinating board that would replace PACER's coordination function in the community.

There was little noticeable change in project budget and time allocation for direct services, but in the last year less time was spent in providing direct services as lay therapists dropped out of the program and were not replaced. Also in preparation for project termination, the project staff spent less of their time supervising direct services and began to devote more time to hunting for new homes for the services they had developed.

St. Petersburg, Florida

Table B-10: Project Resource Allocation and Service Costs

Activity	Resource Allocation to Activities		Volume and Unit Costs of Services		
	Average Annual Time Allocation	Average Annual Budget Allocation	Average Monthly Volume	Average Annual Unit Cost	Average Unit Cost to Community
Prevention	9%	10%			
Community Education	5	7			
Professional Education	10	12			
Coordination	4	5			
Legislation/Policy	1	1			
Staff Development/Training	9	6			
Program Planning/Development	5	6			
General Management	14	31			
Project Research	3	2			
BPA Evaluation	4	4			
Case Management/Review	--	--	18 average caseload	\$ 2.06	\$ 2.06
Court Case Activities	--	3	--	--	--
Multidisciplinary Team Review	3	3	4 reviews	100.17	223.90
Parent Aide/Lay Therapy	23	5	135 contacts	3.71	13.86
Parents Anonymous	3	4	98 person-sessions	10.89	10.89
Parent Education Classes	--	1	15 person-sessions	4.84	20.28
Crisis Intervention After Intake	1	1	--	--	--
Babysitting/Child Care	2	--	15 child-hours	0	4.58
Transportation/Waiting	--	--	6 rides	0	9.29
Total Annual Person Years/Budget	8.1	\$122,472	Average Monthly Caseload = 18		

B-30

TACOMA, WASHINGTON: THE PANEL FOR FAMILY LIVING

The way project resources (both time and dollars) were allocated to different activities and services are good descriptors of the Panel's program. Table B-11 depicts the average allocation of both time and dollars for the year 1976. As can be seen on the table, a total of 11.9 person-years (or 24,660 hours) were used by the project, including the time of both paid staff and volunteers and consultants as well. The corresponding budget for a year, not including the dollar value of donated resources, was \$155,820.

Most of the project's resources were utilized for other than direct treatment services. Twenty percent of the time (and 17% of the budget) was used for community and professional education; another 14% of the time (and 10% of the budget) was for coordinative activities; and 33% of time (and 48% of the budget) was for general overhead functions including staff development and training, program planning, and day-to-day management. The discrepancies between the time and dollar percentages reflect the added resources of volunteers used extensively in education and coordination activities. Although not shown on the table, data from a sample of months in 1975 and 1976 indicates that these resource allocations were quite stable over time, reflecting few or no changes in this aspect of the program. Less than one-quarter of the project resources went directly to the service program.

Table B-11 also shows how time and dollars were allocated to specific treatment activities, the typical monthly volume of units offered in each treatment service category and the average unit costs. As discussed elsewhere, the Panel's mix of services included: intake and initial diagnosis (with a monthly average of seven); case management (with a monthly caseload

of 42); multidisciplinary team review (with a monthly average of three); individual counseling (with 114 contacts per month); lay therapy counseling (with 18 contacts a month); couples counseling (58 contacts a month); group therapy (20 person-sessions a month); and parent education classes (29 person sessions a month). Additionally, the Panel offered modest amounts of crisis intervention, transportation and babysitting. The unit costs of most of the Panel's activities were stable over time; the most dramatic change was in the cost of a review by the multidisciplinary review team, which dropped substantially over time due to decreased participation by both staff and consultants. The dollar cost of several of the service units increased substantially when one includes the dollar value of volunteers and unpaid consultants. Multidisciplinary team reviews, for example, cost the project, on average, \$23 per review, but "cost" the community \$88 in terms of total resources used. Likewise, the unit cost of parent aide counseling goes from \$15.75 per contact to \$19.25, and parent education classes go from \$13 per person-session to \$16.75.

## Tacoma, Washington

Table B-11: Project Resource Allocation and Service Costs

Activity	Resource Allocation to Activities		Volume and Unit Costs of Services		
	Average Annual Time Allocation	Average Annual Budget Allocation	Average Monthly Volume	Average Annual Unit Cost	Average Unit Cost to Community
Community Education	12%	9%			
Professional Education	8	8			
Coordination	14	10			
Legislation/Policy	1	1			
Staff Development/Training	17	10			
Program Planning/Development	4	4			
General Management	11	33			
Project Research	8	6			
BPA Evaluation	2	2			
Outreach	--	--	7 cases	6.75	7.50
Intake/Initial Diagnosis	1	1	8 intakes	16.25	17.00
Case Management/Review	6	5	42 average caseload	14.50	15.50
Court Case Activities	--	--	4 cases	16.75	18.25
Multidisciplinary Team Review	2	1	3 reviews	23.00	88.00
Individual Counseling	4	3	114 contacts	3.00	3.50
Parent Aide/Lay Therapy	3	2	18 contacts	15.75	19.25
Couples Counseling	2	2	58 contacts	4.50	5.00
Group Therapy	2	2	20 person-sessions	13.25	13.50
Parent Education Classes	3	3	29 person-sessions	13.00	16.75
Transportation/Waiting	--	--	12 rides	2.50	2.50
Psychological/Other Testing	--	--	10 tests	29.00	122.50
Total Annual Person-Years/Budget	11.9	\$155,820	Average monthly caseload = 42		

UNION COUNTY, NEW JERSEY: THE UNION COUNTY PROTECTIVE SERVICES PROJECT

The allocation of the project's resources, time and dollars are good descriptors of program activities. Table B-12 depicts the average allocation of both time and dollars for the year 1976. As is evident in the table, a total number of 23.72 person years, or 49,344 hours, were used by the project. The project's average monthly caseload was 294 cases. The corresponding budget for the year, not including the dollar value of donated resources, was \$669,744.

About one-third of the project resources were utilized for other-than direct treatment services. About 3% of the time and 2% of the budget was allocated for community and professional education activities, and 3% of the budget and time was allocated to community coordination. General overhead functions account for 30% of the time and 33% of the budget. These activities included staff development and training, program planning, and day-to-day project management.

Table B-12 also shows how time and dollars were allocated to specific treatment activities, the typical monthly volume of service units offered in each treatment service category, and the average unit costs. Over 57% of the project budget and 50% of the staff time was spent on direct services, intake and initial diagnosis, individual and group counseling, case management and referrals to contract and community agencies. The most frequently offered services were case management (with a monthly average of 294) and individual counseling (with a monthly average of 354), but other services offered consistently as part of the project's range of services included intake and initial diagnosis (with a monthly average of 30), multi-disciplinary team reviews (with a monthly average of 49), lay therapy

counseling (with 119 contacts a month), couples counseling (22 contacts a month), group therapy (28 person-sessions a month), and parent education classes (36 person-sessions a month). Additionally, the project offered 181 crisis intervention contacts, 11 units of babysitting and 148 transportation contacts. These service units tended to be under-reported because many of the services were provided by contracting private agencies in the community, and these agencies did not always keep precise counts of the number of individual contacts or attendance at their groups.

The project costs tended to be stable over time with several exceptions. Due to delays in activating the use of emergency funds, more was spent in the last year than in the first two years of the project. Also, there were fluctuations in the budget when contracts for the hotline and homemakers were finalized in the last year, increasing costs from those of the first two years. Other changes in costs over time are due to cost reporting procedures becoming more accurate in the later cost accounting periods. The only donated time, 140 hours or \$581 dollars, was devoted to the area of project research.

Table B-12

Union County, New Jersey  
Project Resource Allocation and Service Costs

Activity	Resource Allocation to Activities		Volume and Unit Costs of Services		
	Average Annual Time Allocation	Average Annual Budget Allocation	Average Monthly Volume	Average Annual Unit Cost	Average Unit Cost to Community
Community Education	1%	1%			
Professional Education	2	1			
Coordination	3	3			
Legislation/Policy	--	--			
Staff Development/Training	11	12			
Program Planning/Development	2	1			
General Management	17	20			
Project Research	3	2			
BPA Evaluation	5	3			
Outreach	1	2	40 cases	\$ 7.55	\$ 7.55
Intake/Initial Diagnosis	5	3	30 intakes	48.78	48.78
Case Management/Review	24	18	294 average caseload	33.36	33.70
Court Case Activities	4	2	6 contacts	238.64	238.64
Crisis Intervention During Intake	1	1	68 contacts	3.37	3.37
Multidisciplinary Team Review	3	2	49 reviews	22.33	23.65
Individual Counseling	7	4	354 contacts	6.25	6.25
Parent Aide/Lay Therapy	1	5	119 contacts	21.96	24.14
Couples Counseling	--	2	22 contacts	45.61	47.52
Family Counseling	1	2	31 contacts	37.29	39.06
24-Hour Hotline	--	--	31 calls	1.40	1.40
Individual Therapy	--	4	48 contacts	43.30	46.49
Group Therapy	--	--	28 person-sessions	10.39	10.39
Parent Education Classes	1	--	36 person-sessions	6.58	6.58
Crisis Intervention After Intake	1	3	181 contacts	10.14	10.14
Day Care	--	3	492 child-sessions	4.11	4.11
Child Development Program	--	3	7 child-sessions	197.43	197.43
Play Therapy	--	--	1 child-session	135.00	135.00
Special Child Therapy	--	1	7 contacts	69.75	69.75
Homemaking	--	4	191 contacts	12.99	12.99
Medical Care	1	1	64 visits	7.65	7.65
Babysitting/Child Care	1	1	11 child-hours	4.78	4.78
Transportation/Waiting	3	3	148 rides	10.51	10.61
Emergency funds	--	--	11 payments	--	--
Psychological/Other Testing	--	--	3 person-tests	39.46	39.46
Follow-Up	--	--	3 person follow-ups	80.47	80.47
<b>Total Annual Person Years/Budget</b>	<b>23.72</b>	<b>\$669,744</b>	<b>Average Monthly Caseload = 294</b>		

## ACROSS PROJECT COMPARISONS

While the projects did pursue many of the same activities, the amount of time spent on these activities, the magnitude or volume of the activities, and their related costs varied considerably across projects. Very few patterns emerge which allow for the neat grouping of projects into one or two categories.

### General Activities

In addition to general day-to-day management functions, all projects provided some staff development and training as well as devoting time to program planning and development (see Table B-13). The average amount of staff time spent on general management was 11%, with projects spending as little as 4% and 6% (St. Louis and Arlington, respectively) and as much as 17% (Union County).<sup>2</sup> Most projects spent about 5% or less of their time on program planning and development and an average of 12% on staff development and training. When one combines these different project operation activities, the tremendous variance across projects becomes apparent, with as little as 15% spent in Arlington on these functions and as much as 49% in Neah Bay; the average across all projects was 26%. While the variation is not reflective of top-heavy organizations, problem-laden organizations, well-run or poorly-run organizations, it does rather directly reflect a consumption of resources in one area which allows for more or less activity in the areas of services to the community or services to clients.

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<sup>1</sup>For more detailed discussions of project time and resource allocations to different activities, see evaluation cost reports, listed in Appendix A.

<sup>2</sup>Varying interpretations by projects of exactly what constituted "general management" may account for some, but not a significant proportion, of the variation.

Table B-13

## Project Percent Time Allocations

	Adams County	Arlington	Baton Rouge	Bayamon	Arkansas	Los Angeles	Neah Bay	St. Louis	St. Petersburg	Tacoma	Union County	Average Across Projects Doing Activity	Average Across Projects
Prevention	--	--	--	7	--	--	--	--	9	--	--	8	1
Community Education	2	1	4	16	5	2	5	4	5	12	1	5	5
Professional Education	2	3	9	5	3	2	4	2	10	8	2	5	5
Coordination	3	1	4	7	5	3	7	2	4	14	3	5	5
Legislation & Policy	--	--	--	--	1	--	7	--	1	1	--	3	1
Staff Development/Training	9	7	13	8	16	9	19	10	9	17	11	12	12
Program Planning & Development	1	1	1	1	4	2	16	6	5	4	2	4	4
General Management	8	6	15	14	9	13	14	4	14	11	17	10	10
Project Research	6	1	--	10	3	1	--	4	3	8	3	4	4
BPA Evaluation	1	3	1	2	4	--	8	3	4	2	5	3	3
Outreach	--	1	1	--	--	--	--	2	--	--	1	1	--
Intake & Initial Diagnosis	7	8	5	2	5	--	--	4	--	1	5	4	3
Case Management & Regular Review	4	26	28	10	13	2	2	7	--	5	24	12	11
Court Case Activities	1	4	1	2	2	--	--	1	--	--	4	2	1
Crisis Intervention During Intake	--	1	--	--	--	--	3	1	--	--	1	2	1
Multidisciplinary Team Review	5	2	3	2	6	--	7	--	3	2	3	4	3
Individual Counseling	1	7	1	7	2	1	5	2	--	4	7	4	3
Parent Aide/Lay Therapy Counseling	5	2	--	--	20	--	--	4	23	3	1	8	5
Couples Counseling	1	--	--	--	--	--	--	1	--	2	--	1	--
Family Counseling	1	1	--	3	--	--	--	1	--	--	1	1	1
Alcohol, Drug & Weight Counseling	--	--	--	1	--	--	--	--	--	--	--	1	--
24-hour Hotline Counseling	--	--	--	--	--	--	--	--	--	--	--	--	--
Individual Therapy	2	--	--	2	--	--	2	2	--	--	--	2	1
Group Therapy	1	1	--	1	--	--	--	4	--	2	--	2	1
Parents Anonymous	1	--	--	--	2	--	--	--	3	--	--	2	1
Parent Education Classes	1	--	--	1	--	--	1	2	--	--	1	1	1
Crisis Intervention After Intake	--	1	--	2	--	--	--	1	1	3	1	2	1
Day Care	--	12	--	--	--	--	--	--	--	--	--	12	1
Residential Care	--	--	--	--	--	44	--	--	--	--	--	44	4
Child Development Program	2	--	--	--	--	18	--	22	--	--	--	14	4
Play Therapy	1	2	--	--	--	--	--	1	--	--	--	1	--
Special Child Therapy	--	--	--	--	--	--	--	--	--	--	--	--	--
Crisis Nursery	29	--	--	--	--	--	--	--	--	--	--	29	3
Homemaking	--	1	9	--	--	--	--	--	--	--	--	5	1
Medical Care	2	2	2	--	--	--	--	--	--	--	--	2	1
Babysitting/Child Care	--	--	--	--	--	2	--	5	2	--	--	3	1
Transportation/Waiting	2	8	1	--	--	2	--	4	--	--	3	3	2
Psychological & Other Testing	--	--	1	1	--	--	--	1	--	--	--	1	--
Follow-Up	--	--	--	1	--	--	--	--	--	--	--	1	--
R & R	2	1	1	1	2	--	--	1	2	1	1	1	1
Summary Information:													
Project Operations	20	15	29	23	31	23	49	21	30	33	31	27	27
Community Activities	7	5	17	35	14	7	23	8	29	35	6	17	17
Treatment Activities	66	76	53	30	48	69	20	64	34	22	55	49	49
--Direct services to children	52	14	0	0	0	62	0	23	0	0	0	33	12
--Case management functions	17	42	39	24	26	2	12	16	3	9	38	21	21
Research & Evaluation	7	4	1	12	7	1	8	7	7	10	8	7	7

Please note that columns do not add to 100% owing to rounding.

Each of the projects pursued some number of activities with respect to their local communities. Only two, Bayamon and St. Petersburg, formally identified these activities as including those which were preventive in nature. Indeed, the community and professional education, coordination, and legislative and policy activities of all the projects had implications for the prevention of child abuse and neglect. Five of the projects (Adams County, Arlington, Los Angeles, St. Louis and Union County) spent well under 10% of their time on these community-oriented activities. These projects might be regarded as the more heavily direct treatment oriented projects. Their goals, their staffing patterns, their whole orientation was more to demonstrate methods for working with clients than methods of working with community systems. Three other projects, Bayamon, St. Petersburg and Tacoma, each spent close to 30% of their time on community activities, reflecting clear mandates in their goals to try to change the local child abuse and neglect systems either through coordinative or educational activities. The remaining projects had more mixed priorities.

The differences between projects become most clear in analyzing both the time allocated to direct treatment services, in general, to specific kinds of treatment, and the variations in caseload size and service unit volumes. Four of the projects (Adams County, Arlington, Los Angeles and St. Louis) spent well over 60% of their time on services to clients. Four others (Bayamon, Neah Bay, St. Petersburg and Tacoma) spent under 40%. The remaining three spent approximately half their time on direct client services. Of the eleven projects, only three (Adams County, Los Angeles and St. Louis) spent less than one-third of this direct services time on general case management functions (intake, diagnosis, review, referral, etc.) as opposed to the actual provision of services. These three projects additionally spent significant portions of the direct services time on the provision of treatment services to children (32%, 62% and 23%, respectively). These are the few projects out of the eleven which are regarded as having operational programs for children; Arlington also provided some direct services to children, but did not have a specific, identifiable

group of children enrolled in these treatment services over time. Thus, as a macro-level, one sees variations across projects in terms of how much effort overall was devoted to direct treatment services, how much of that was spent on management functions as opposed to the actual provision of services, and how much was spent on services to children as opposed to services for adults or support services for families.

#### Specific Service Activities

The specific services offered and their volume reflects variations across projects (see Table B-14). First, projects had dramatically different caseload sizes. Los Angeles and Neah Bay typically had fewer than 10 families in treatment (in Los Angeles the capacity of the residential facility for children and various management and staffing difficulties kept the caseload size small; in Neah Bay the community size--approximately 1000 people, the staff size--three people, and a basic orientation toward serving the community in general rather than specific families resulted in the small caseload size). St. Petersburg had, on average, 18 families in treatment (this project did not regard itself as a direct treatment program, but rather developed a small lay therapy program to test its feasibility in the community as one of many "community-oriented, community-organizing" activities). Of the remaining projects, six are regarded as having medium sized caseloads ranging from 26 to 83. Two of these, Baton Rouge and Arkansas, served all of the identified abuse, but not neglect, cases coming into the county protective services system and their caseload sizes were determined accordingly. Adams County and Bayamon, both parts of protective services, selected more interesting or serious cases coming into protective services; the number of cases selected was limited to meet internal criteria of desirable worker caseload size. Finally, St. Louis and Tacoma, private programs functioning as adjuncts to local protective services, received cases from a variety of sources and limited numbers depending upon their treatment capacity. In other words, all projects with medium or small caseload sizes selected out certain types or numbers of cases and did not service all "identi-

fied" cases in the community. The two projects with "large" caseloads, Arlington with an average of 179 cases and Union County with an average of 294, however, were set up to serve all cases referred to the local protective services.<sup>1</sup>

In addition to caseload size, there are many other variations across projects with respect to type and volume of services offered. All of the projects except St. Petersburg performed intake and initial diagnoses on cases (St. Petersburg generally worked with cases which had already been through this process at the local protective services department). The average number of "intakes" per month varied across projects (from two in Neah Bay, eight in Tacoma and Bayamon, to 44 in Arkansas) with the protective services based or affiliated projects handling significantly larger numbers. These projects had less choice in accepting cases for intake than did the private agency-based projects. The seemingly large number of intakes in Adams County relative to caseload size is explained by the fact that the project did intakes on many cases that were then referred on to another protective services unit for treatment.

All of the projects except for Neah Bay and St. Petersburg performed certain court-related functions for their cases; the number of cases per month with court-related activities was generally small, with an across-project average of about six (Arlington was the exception here, with 19 per month).

During most of the demonstration period, all projects but Neah Bay, St. Louis and St. Petersburg provided multidisciplinary team reviews for their cases. The different numbers of cases reviewed by such teams not only reflects different project caseload sizes but also differences in the kinds of teams and how cases were reviewed. In Adams County, for example, with an average of 38 reviews per month,

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<sup>1</sup>It is interesting to note that with the exception of Neah Bay and Union County, caseload size appears to have little or no relationship to a project's budget or staff size. Neah Bay, with the smallest budget and smallest staff size, also did have the smallest caseload size; likewise, Union County had the largest staff, budget and caseload size.

all new intakes into the protective services department, not all of which were seen by the project itself, received a review as mandated by state law. Thus, eight or 10 cases may have been reviewed at a single two-hour weekly meeting of the team. In Arlington and Baton Rouge, workers identified particularly problematic cases to bring to the team; the team reviewed two to three cases per meeting, thereby often spending a full hour on one case. Similarly in Tacoma, cases received very intense, thorough review; here, however, not only did project treatment workers present cases but any worker in the county was free to do the same. This team met more sporadically than did the one in Arlington, explaining the smaller number. In Los Angeles, with four team reviews per month and an average caseload of nine, it becomes apparent that cases were brought back to the team often for review (approximately every other month), whereas in projects such as Adams County or Union County, more than one team review per case was the exception rather than the rule. The most salient difference between team reviews seems to have been the amount of time spent per case, and thus the amount of detailed attention any case received from the team.

All of the projects except for St. Petersburg offered individual counseling or therapy to their clients.<sup>1</sup> The St. Petersburg clients received individual counseling from the local protective services department. Individual counseling or therapy served as the core treatment services provided to clients in these projects. Almost all clients received individual counseling or therapy and one or two other services. However, the amount of individual counseling or therapy provided to clients did vary across projects. On average, eight of the projects (Adams County, Arlington, Bayamon, Los Angeles, Neah Bay,

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<sup>1</sup>Other than multidisciplinary team reviews, a content analysis of the services offered by these projects showed that same-named services were actually delivered in the same way (if individual counseling and individual therapy are merged into one category), i.e., consisted of the same thing, across projects. See BPA Adult Client Working Paper #1.

St. Louis, Tacoma and Union County) provided individual counseling or therapy to cases more than once a month. Of these, only Los Angeles, Neah Bay and Tacoma provided, on average, more than two such contacts a month. This does not imply that in the other projects cases were not seen by the projects as often as twice a month, but rather that on average they received individual counseling or therapy, which was typically offered by the primary case manager, that infrequently. Of course, cases in the early stages of treatment were probably seen at greater frequency; cases which had been in treatment quite a while were probably seen less frequently.

Lay therapy or parent aide counseling was offered by all but Baton Rouge, Bayamon and Neah Bay. In most projects lay therapy counseling was provided to a subset of the projects' caseloads. In some of these projects, notably Tacoma and Union County, the lay therapy counseling was considered a primary service for these cases; the lay therapist or parent aide functioned very much as a case manager. In other projects, it was provided as an ancillary service. In Arkansas, however, lay therapy was provided to all clients, and it was the primary service offered.

All but Arkansas, Neah Bay and St. Petersburg offered family or couples counseling. In Adams County, St. Louis and Tacoma this particular service was used more frequently with clients than in any of the other projects, but not as frequently as individual counseling.

In terms of crisis oriented services, all projects but Neah Bay and St. Petersburg formally provided crisis intervention contacts. In addition, Baton Rouge, Arlington and St. Louis received crisis calls on a 24-hour basis. The amount of crisis intervention performed by projects did vary considerably, with Adams County, St. Louis and Union County providing on average about one per month per client, and Arlington, Baton Rouge, Bayamon and Tacoma providing less than one per client every two months.

All projects except for Baton Rouge and Los Angeles provided some form of group services for clients. In each of these projects only a small percentage of the clients received these group services,

however. Group therapy was offered in Adams County, Arlington, Bayamon, St. Louis, Tacoma and Union County. All but St. Louis had difficulty keeping this as a viable service with a constant group of six or more meeting once a month. Adams County, Arkansas and St. Petersburg offered Parents Anonymous as part of their programs; Tacoma also helped to sponsor such a group but not necessarily for their own clients. Parent education classes were offered directly to clients by Adams County, Arkansas, St. Louis, Tacoma and Union County. Bayamon and Neah Bay provided such classes for the community in general; St. Petersburg played a significant role in getting such classes started in local schools.

In looking specifically at which projects offered children's services, we concern ourselves with very few of the projects. As mentioned earlier, only Adams County, Los Angeles and St. Louis had fully developed treatment programs for children. In Adams County, the core of the program was a residential crisis nursery complemented by a child development program and play or other therapy for children. In Los Angeles, the core of the program was longer-term residential care for children which included child development-oriented group and individual services. And, in St. Louis, a therapeutic day care and child development program with specialized child therapy was provided. In Arlington, day care was provided in conjunction with a local private agency to a small number of children with some play therapy back-up, and in Union County day care was purchased for children from other agencies.

All of the projects were organized to be able to provide a variety of supportive or advocacy services to their clients; once again, however, some projects did so much more frequently than others. For example, Arlington, Arkansas, Los Angeles, St. Louis and Union County were all big providers of transportation, with St. Louis providing far more than any of the other projects, primarily through the use of their own bus. Arlington, Baton Rouge and Union County all provided homemaking services, with Union County providing, through purchase of service, significantly more than the others. Arlington exceeded the other projects in directly providing clients with babysitting.

As a final note on specific treatment services offered, none of the projects offered very much in the way of follow-up contacts in a typical month. Although all projects acknowledge the importance of this activity and many say that in theory they do it, it does not appear very often in project records as a service offered.

Table B-14  
 Typical Average Monthly Service Volume<sup>1</sup>

	Adams County	Arlington	Baton Rouge	Bayamon	Arkansas	Los Angeles	Neah Bay <sup>2</sup>	St. Louis	St. Petersburg	Tacoma	Union County	Average Across Projects Pro- viding Service
Caseload Size	26	179	83	70	73	9	8	40	18	42	294	77
Intakes/Initial Diagnosis	22	32	27	8	44	--	2	13	--	8	30	22
Cases with Court Activities	6	19	3	4	7	4	--	4	--	4	6	6
Multidisciplinary Team Case Reviews	38	6	6	2	10	4	--	--	--	3	49	14
Individual Counseling or Therapy Contacts	81	284	68	92	19	55	19	94	--	114	392	118
Lay Therapy Contacts	79	20	--	--	368	5	--	28	135	18	119	96
Family/Couples Counseling Sessions	26	32	--	34	--	4	--	27	--	58	53	33
Crisis Intervention Contacts	22	55	37	7	21	6	--	45	--	12	249	50
24 Hour Hotline Calls	--	12	--	--	--	--	--	12	--	--	--	12
Group Therapy Person Sessions	44	72	--	4	--	--	--	106	--	20	28	46
Parents Anonymous Person-Sessions	54	--	--	--	45	--	--	--	98	--	--	66
Day Care Child-Sessions	--	153	--	--	8	--	--	22	--	--	492	166
Crisis Nursery or Residential Care Child-Days	127	--	--	--	--	207	--	--	--	--	--	167
Child Development Program Child-Sessions	22	--	--	--	--	155	--	285	--	--	7	117
Child Play or Other Therapy Sessions	10	30	--	--	--	10	--	16	--	--	7	15
Homemaking Contacts	--	8	20	--	--	--	--	--	--	--	191	40
Babysitting Hours	--	222	--	--	--	--	--	87	15	--	11	84
Transportation Rides	14	293	19	--	114	42	--	423	--	--	148	150
Psychological & Other Tests	8	9	6	10	--	4	--	18	--	12	3	9
Follow-Up Contacts	5	11	4	--	4	6	--	5	--	10	3	6

<sup>1</sup> Does not include services a project may have provided sporadically.

<sup>2</sup> By October 1976, Neah Bay also offered court-case activities, multidisciplinary team reviews, and a crisis nursery and crisis intervention.

### Costs of Services

As seen in Table B-15, the costs of different activities were not the same at all projects. The average cost to the project for one hour of work at the projects ranged from \$4.00 or less in each of the Arkansas counties to \$11.00 in Bayamon and Union County. In general, those projects with a lower average cost per hour of work were those that relied more heavily on unpaid or modestly reimbursed volunteers. Likewise, the average monthly cost per case ranged from \$105 in Arlington (a project with a large caseload) to \$2,188 in Los Angeles (a project providing intense residential care to a small number of cases). The average monthly cost per case across projects of \$225 is probably quite close to what the typical protective services department can anticipate spending.

Unit costs for different services also varied across projects. One review by a multidisciplinary team cost a project as little as \$25 in Adams County and as much as \$189 in Bayamon. With an average cost per hour of individual counseling across projects at \$14.75, one county in Arkansas was well above the average at \$35.50, and the St. Louis project was well below the average at \$7.00. Variations across projects for lay therapy were not as great, with an average cost per hour of \$7.25. Group therapy unit costs (the cost per person session) were quite different across projects, as were parent education class unit costs. Differences here are largely explained by the credentials of the person(s) running the session, and thus the salary they command, as well as attendance (higher attendance results in substantially lower unit costs). The unit costs for transportation (cost per ride) also vary dramatically across projects. These differences are also explained by the credentials or position of the person offering the service ( in some projects it was the social worker) as well as the number of persons provided with rides at the same time (St. Louis used a bus to transport many people at the same time, greatly reducing the unit costs).

Table B-15  
Project Costs

	Average Across Projects	Adams County	Arlington	Baton Rouge	Bayamon	Jeff. Co Arkansas	Wash. Co Arkansas	Los Angeles	Neah Bay	St. Louis	St. Petersburg	Tacoma	Union County
Average Monthly Expenditures	\$15,720	15,558	18,832	14,627	12,576	5,142	5,213	19,690	4,657	13,339	10,206	12,985	55,812
Average Cost/Hour	\$ 7.50	5.00	9.50	8.25	11.00	3.25	4.00	5.25		9.00		7.75	11.00
Average Monthly Cost/Case	\$ 225	598	105	176	180	120	174	2,188	582	333	851	309	190
Unit Costs of Select Services*													
Cost/Multidisciplinary Team Review	\$ 4.75	25.00	137.00	125.50	189.00	54.75	76.75	31.75	--	--	--	98.00	51.25
Cost/Hour: Individual Counseling	\$ 14.75	8.25	11.00	14.50	28.75	14.75	35.50	9.75	24.75	7.00	--	7.75	18.50
Cost/Hour: Lay Therapy	\$ 7.25	7.75	7.75	--	--	4.50	5.75	--	--	10.50	8.50	17.00	10.50
Cost/Person: Group Therapy Session	\$ 10.50	3.75	9.00	--	69.25	--	--	--	--	9.50	--	27.25	9.00
Cost/Person: Parent Education Session	\$ 9.50	5.75	--	--	--	--	--	--	41.50	32.75	--	31.25	19.25
Cost/Ride: Transportation	\$ 8.75	30.00	10.50	30.75	--	2.50	--	14.25	--	2.25	--	4.00	21.75

\*These figures have been adjusted to account for regional wage and price differences.

APPENDIX C

Detailed Cost Analysis Methodology



## APPENDIX C

### DETAILED COST ANALYSIS METHODOLOGY

The basic objective of the cost analysis is to provide information on projects' costs in a different way from that used in traditional budget allocations. While it is useful, in fact essential, in program planning to know project costs in terms of budget items such as payroll, rent and utilities for certain evaluation questions and policy decisions, we would also like to have some knowledge of the costs of the individual services which projects are providing. The cost analysis methodology described here enables us to look at project costs in terms of individual services, such as the cost of providing day care services, or of providing group therapy. This is the basis for answering such questions as the cost-efficiency of service strategies, the cost-effectiveness of individual services, and the unit costs of various services.

The methodology, then, requires the translation of project resources from the traditional budget categories to service and operational components of the project. The resources which projects use include personnel (both paid and unpaid), space, supplies, equipment, telephone and other costs such as purchased services, travel and printing. The project components in which these resources are used include all discrete activities of the project related directly to serving clients and the general community, as well as internal activities necessary for the functioning and development of the project.

#### I. Monitoring Resource Utilization

Our methodology provides techniques for allocating each of the major types of resources to the project components. The resources which projects use include personnel (both paid and unpaid), purchased services, durable equipment, and non-payroll items (such as rent, utilities, supplies, travel and printing). For personnel, which represents the major resource in the projects, the technique is to have staff monitor the use of their time during periodic intensive cost accounting months, reporting the number of hours

they spend on each of the project's service components. With this information on time allocation of staff, volunteer and consultant time, we allocate personnel costs across services. For non-payroll expenses, durable equipment, and purchased services, projects report expenditures on each major item and also allocate these expenditures to the major project components for which they were used. Finally, the projects record the quantities of services provided during the month for the subset of the service components which reflect direct services to clients. Once this information on the amount and use of various project resources and the units of services delivered has been collected from the projects, BPA's computerized processing of the data aggregates the individual items of data into total costs for each of the project's service components, as well as the cost of delivering a unit of each of the services.

## II. Identification of Service Components

The objective in the cost analysis is to determine the costs of each of the project's activities. In order to ensure that comparisons across projects will be feasible, a standard listing of project activities or services components must be used by all projects. A major effort in designing the cost analysis was the identification and definition of a workable listing of these service components.

Initially, BPA staff studied the projects' original grant proposals and sought to identify discrete project activities. During the first site visit to projects, discussions were held with project directors and staff to further clarify what specific activities the project intended to pursue. The listings developed for each individual project were then combined, and generic titles for the different activities identified. The intent was to develop a listing which was exhaustive, non-duplicative and in sufficient detail to sort out the costs of discrete activities, but which also was clearly related to the service strategies being implemented by the projects. The purpose of the evaluation effort is, after all, to assess the effectiveness of service strategies and thus establish guidelines for other communities on how best to set up programs to respond to the problem of child abuse and neglect. This listing was then reviewed with the projects during the

second site visit. With further revisions, the listing constituted the set of service components utilized in the January cost analysis pretest. Refinements from experiences during the pretest resulted in a listing of 42 service components.

The listing is long, yet for any given project only a subset of the total listing of service components is relevant. The uniformity of the list, however, is essential in making across-project comparisons. Some compromises had to be made in the choice and scope of the service components in order to satisfy both the need to make the list appropriate for any given project while maintaining the possibility of analysis across projects. For example, a given service component may seem too broad for one project and too narrow for another. The one project may find that several of their important activities are included in one of the service components, as given, and some subdivision of that service component would be more useful to them for their own cost control. The other project may find that two service components are, in fact, activities that they carry out, but the two are so intimately mixed that staff members have difficulty deciding whether their time is going into one or the other and would prefer that they be combined. The service components and their definitions are shown in Table C-1; the clustering of service components into generic activity groups is shown in Table C-2.

#### Service Components and Their Definitions

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1. Prevention. Activities designed to reach persons "at risk," with general potential to abuse/neglect. For example, hospital visiting to new mothers and parents to develop their awareness of community resources and assess their potential for abuse/neglect; "family life"-type courses and presentations to high school students or adult education students; screening of medical clinic patients to identify "high risk" families. "Prevention" is closely related to "community education" but the essential distinction is that prevention deals specifically with groups in the population which are "at risk."
  2. Community Education. Activities designed to promote, among the general public, an awareness of the phenomena of child abuse and neglect, an understanding of the dynamics and causes of abuse/neglect, as well as an awareness of community resources available for treating the problem.

Table

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Includes speaking engagements, media appearances and interviews, workshops, poster and pamphlet preparation and distribution, etc.

3. Professional Education. Seminars, workshops and other training activities for professionals in fields related to children or in agencies dealing with abuse/neglect (doctors, police, court personnel, teachers, social workers, etc.). Designed to promote: awareness of and ability to identify abuse/neglect and of the project's role; understanding of reporting requirements and the dynamics of child abuse and appropriate treatment strategies; knowledge of community resources.
4. Coordination. Contacts with other community agencies in the child abuse and neglect system to increase coordination and develop a more effective network for receiving and treating child abuse and neglect cases. Includes one-to-one contacts with agency people, as well as meetings, etc. directed toward developing inter-agency procedures, new services, agreements and other general coordinative efforts. Many activities pursued by the project, such as a Multidisciplinary Review Team, will have spin-off effects on coordination. However, unless the main purpose of the activity is coordination, time should be allocated to another component. Thus, the time spent in Multidisciplinary Review Team meetings would be allocated to the category with that name and less formal review of cases would be allocated to Case Management & Regular Review.
5. Legislation & Policy. Activities directed toward effecting changes in local, state or federal laws and other written policies for child abuse and neglect. For example, helping to draft model legislation or proposed bills or amendments, meeting with legislators to promote legislative changes, etc.
6. Staff Development/Training. Staff meetings and informal interactions to enhance staff knowledge of abuse/neglect, treatment strategies, methods of case handling and modes of working together. May involve outside speakers, consultants. Includes weekly "staff sensitivity" or similar sessions. Includes time spent on giving or receiving "on-the-job" training for staff (paid or volunteer) and in staff supervision directed toward improvement of staff functioning.
7. Program Planning & Development. Developing overall plans for new project components that will have long-term effects. Includes changes in project operation, expansion, project goals and objectives, etc. Developing additional resources (e.g., fund-raising) for continuation of project after federal funding. (NOTE that time spent in planning for any specific project component, such as Day Care, should be allocated to it.)

Table

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8. General Management. Budgeting, personnel and other administrative activities not directly related to a specific project component. Includes communication and meetings to discuss administrative matters and routine monitoring of staff. NOTE that time spent on any activity (typing, budgeting, etc.) which is associated with a particular component or components should be allocated to that component, not General Management (e.g., a meeting to discuss staff assignments to Group Therapy and Individual Therapy should be allocated to those two components).
  9. Project Research. Project-generated research or research in which project plays a major role on aspects of child abuse/neglect and treatment of it, as well as evaluation research activities of monitoring and assessing your own project's activities, effectiveness, benefits and costs, etc. Includes developing project forms and client records.
  10. BPA Evaluation. Activities performed as part of the National Evaluation being conducted by BPA. Includes meetings with BPA staff, reviewing BPA reports, filling out BPA cost, log and client forms.
  11. Outreach. (1) After receiving referral or self-referral, this component involves contacts with the potential client to encourage him or her to participate in or accept the project's services. May be in the form of telephone calls or home visits. (2) Activities designed to identify abusive/neglectful families who could benefit from the project's services: e.g., screening of children in day care centers or schools.
  12. Intake & Initial Diagnosis. Initial interview and case evaluation (following outreach efforts, if they have occurred), to determine whether abuse/neglect or potential for abuse/neglect is present, and to determine appropriate treatments or assistance. Includes consultation with other agencies, weighing medical reports, sorting out family history and present circumstances. May include medical evaluation. Includes developing a service plan if this is not done by a special Diagnostic Team. Does not include case reviews after the initial intake and diagnostic process is completed. Time spent on such reviews (e.g., developing a revised service plan) should go under Case Management & Regular Review or Multidisciplinary Team Case Review.
  13. Case Management & Regular Review. Review of a case after intake, during treatment, for purposes of reviewing client progress and revising treatment plan. Monitoring client's receipt of services, arranging services for clients from other agencies (making appointments, etc.), discussing case with other involved agencies, follow-up. Advocacy services for the client are included here.

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14. Court Case Activities. Time spent preparing for and presenting all necessary documents and testimony for court proceedings. Includes other case management functions specifically related to court and legal matters such as meetings with attorneys. Excludes arranging for court ordered placements. Includes transportation and waiting time related to court activities.
  15. Crisis Intervention During Intake. Staff member intervenes in a client's crisis situation during intake. Includes emergency meetings at client's home or in the project offices. Does not include intakes which are not serious emergencies.
  16. Multidisciplinary Team Case Review. Review of case during intake and/or treatment by a team, typically composed of individuals representing many different disciplines, for diagnosis, case planning and case re-assessment. Not included here are the more frequent, more informal case reviews by staff.
  17. Individual Counseling. One-to-one counseling typically at worker's office or in client's home. Typically provided by a social worker or other staff (nurse, etc.) to discuss client's situation and problems (primarily social and economic), possible changes in them, and other issues. To be distinguished from Individual Therapy which is usually on a more formalized basis.
  18. Parent Aide/Lay Therapist Counseling. One-to-one counseling typically at client's home in which a person designated as a parent aide or lay therapist befriends client and discusses various issues of benefit to client.
  19. Couples Counseling. Counseling provided by a professionally trained counselor typically in the counselor's office for married couples or two adults living together to help them resolve difficulties they may be experiencing together.
  20. Family Counseling. Counseling provided by a professionally trained counselor typically in the counselor's office for families (parents and children) to help them resolve difficulties they may be having together. At times counseling may be provided to individual family members and at times is provided to the family as a group.
  21. Alcohol, Drug & Weight Counseling. Counseling provided either on a one-to-one or group basis directed at helping individuals overcome personal problems of alcoholism, drug addiction and overweight. Includes services offered at a drug abuse clinic, AA, Weight Watchers, Mental Health Center and other specialized treatment centers.

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22. 24-Hour Hot Line Counseling. A telephone number a parent can call any-time of day or night to reach out for help and receive therapeutic assistance or at least be assured of reaching a patient listener.
  23. Individual Therapy. One-to-one therapy provided to client, which includes all of the following characteristics: provided by a trained psychologist, psychiatrist, or social worker in an office setting; structured by both time (50-60 min.) and appointment (usually once/week, sometimes more often); primarily though not exclusively psychological in focus.
  24. Group Therapy. A therapeutic group session, typically two hours in duration, run by one or two persons qualified as group therapists and skilled in a variety of group techniques.
  25. Parents Anonymous. A therapeutic group session for abusive and neglectful parents typically organized and run by the parents with support from one or two resource persons who attend the group meetings.
  26. Parent Education Classes. A number of sessions provided, typically in a classroom setting, by persons qualified in child development to discuss issues of child development, parenting, etc.
  27. Crisis Intervention After Intake. Staff member intervenes in client's crisis situation, by means other than 24-hour hot line, e.g., emergency home visit, emergency meeting at project, etc. Excludes initial contact with client. This is a crisis for the family, not an emergency for the project.
  28. Day Care. Child is left at licensed or otherwise designated center for a certain number of hours during the day: Typically day care services are provided five days a week.
  29. Residential Care for Children. Long-term (i.e., longer than emergency basis) overnight care of children, providing a warm and reinforcing living environment.
  30. Child Development Program. A day care program in which activities are prescribed to deal with psychological, learning and other needs of the children in a therapeutic setting.
  31. Play Therapy. The counterpart, for children, of individual therapy, utilizing play equipment to promote the child's self-expression.
  32. Special Child Therapy. Speech therapy, physical therapy or other specialized therapy provided to child to fill a particular need or improve developmental ability.

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33. Crisis Nursery. A nursery to which a child may be brought any time of day or night and left for short periods of time when parent is in time of crisis.
  34. Homemaking. A qualified homemaker or equivalent visits client's home, provides instruction on such topics as nutrition and hygiene, and/or assists in alleviating household stress by helping with cleaning, cooking, child care, etc.
  35. Medical Care. Provision of medical services by a physician or other health professional. Includes dental and optometric care.
  36. Babysitting/Child Care. Parent is provided with babysitting service either in home or at the project while he/she attends to his/her own affairs.
  37. Transportation/Waiting. Client is provided with transportation to and from service appointments, shopping, etc. Excludes court-related transportation and waiting time.
  38. Emergency Funds. Client is provided with small amount of emergency money from project, either as a loan or as a gift. Time spent arranging for funds goes under Case Management & Review.
  39. Psychological & Other Testing. Psychological and personality testing administered to client by a person trained in the administration of the test as a diagnostic instrument, to be better able to specify client's problems.
  40. Family Planning Counseling. Parent is provided with counseling by a qualified family planning counselor, typically at a family planning center, on contraception techniques and the like.
  41. Follow-Up. All contacts, either by phone or in person, with clients after they have been terminated or stabilized, or contacts with other agencies/individuals about a terminated client.
  42. R & R. Recovery time, or "rest and relaxation." Time not spent directly on any component or service, but used to recoup one's energy after an exhausting client session, etc. Does not include lunch and prescribed breaks.
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Listing of Service Components by Component Group

Community Activities

- (1) Prevention
- (2) Community Education
- (3) Professional Education
- (4) Coordination
- (5) Legislation & Policy

Project Operations

- (6) Staff Development/Training
- (7) Program Planning
- (8) General Management
- (42) R & R

Research

- (9) Project Research
- (10) BPA Evaluation

Casework Activities

- (11) Outreach
- (12) Intake & Initial Diagnosis
- (13) Case Management & Regular Review
- (14) Court Case Activities
- (16) Multidisciplinary Team Case Review
- (41) Follow-Up

Treatment Services to Parents

- (15) Crisis Intervention During Intake
- (17) Individual Counseling
- (18) Parent Aide/Lay Therapist Counseling
- (19) Couples Counseling
- (20) Family Counseling
- (21) Alcohol, Drug & Weight Counseling
- (22) 24-Hour Hot Line Counseling
- (23) Individual Therapy
- (24) Group Therapy
- (25) Parents Anonymous
- (26) Parent Education Classes
- (27) Crisis Intervention After Intake

Treatment Services to Children

- (28) Day Care
- (29) Residential Care for Children
- (30) Child Development Program
- (31) Play Therapy
- (32) Special Child Therapy
- (33) Crisis Nursery

Support Services to Families

- (34) Homemaking
- (35) Medical Care
- (36) Babysitting/Child Care
- (37) Transportation/Waiting
- (38) Emergency Funds
- (39) Psychological & Other Testing
- (40) Family Planning Counseling

### III. Data Collection

In order to collect the data necessary for the cost analysis from the projects systematically, we developed a set of cost forms: the Monthly Cost Statement and the Time Allocation Form. The forms were designed to be general enough to accommodate all of the eleven projects in the same format. The forms are based on a format which uses columns for individual resources and rows for service components. The Monthly Cost Statement (N-C07B) is a booklet that was designed for the convenient collection of Personnel Information, Non-Payroll Expenses, Purchased Services, and Quantities of Project Services. This booklet was completed by the project director and/or the person(s) responsible for monitoring the project's budget. All necessary instructions are printed directly in this booklet. The Time Allocation Form (N-C01C) is used to monitor the time of projects' staffs. Examples of the data collection instruments follow this description of the complete methodology.

#### A. Personnel Time Allocations

The first set of information requested is a listing of all personnel contributing to the project. This includes all persons who regularly contribute directly to the project regardless of whether they are paid directly by the project or not. The status (regular staff, consultant, substitute or temporary staff, reimbursed volunteer and other volunteer), title, academic degrees and, if relevant, the gross pay during the month including fringe benefits, are requested. This listing then constitutes a roster of all individuals whose time allocations will be calculated in the cost analysis as well as a tally of all payroll expenses for the month.

Personnel expenditures represent both the largest item of a project's resources and the most complex. Care must be taken in identifying the many different types of personnel associated with a project and in accounting for the type of contributions each makes. Differences are due to (1) individual's generic work roles, (2) whether they are paid for their services or not, and if so, (3) what the source of that payment is. The status codes used to differentiate personnel are as follows:

Status Codes: R = Regular Staff.

Full or part-time staff members who are expected to be on duty for all or part of the work week and are accountable to project management for work performance in return for regular pay. Also staff members who are expected to be on duty at certain times, but are paid from some other source, e.g., VISTA, another agency, etc.

S = Substitute or Temporary

Same as above but, by agreement, are expected to stay with the project for only a short time, either to substitute for an absent staff member or to handle some extra work load of limited duration.

C = Consultant

A specialist who works now or has worked professionally in the field of specialty. May be paid by the project by the hour or may donate time which may or may not be compensated by some other source. Does not include regular staff members who are called consultants for special bookkeeping purposes.

RV = Reimbursed Volunteer

A volunteer who contributes to the project, is not paid by project or from any other source for the kind of work done for the project, but receives compensation for expenses, e.g., travel.

V = Volunteer

Same as above, but no compensation.

Since salaries are the dominant cost of projects, the allocation of such payments for staff time has a greater effect on the cost of individual project activities than the allocation of any other resource of the projects. In order to know how to allocate salaries across project activities, we had to know how individual staff members spent their time in relation to specific activities. Because we considered it too burdensome for the projects' staffs to monitor their time continuously, we asked them to monitor time only periodically -- one month out of every three or four during what we refer to as the intensive cost-accounting month.<sup>1</sup> The Time Allocation Form (N-C01C) was used for this purpose.

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<sup>1</sup>The data collected during three intensive cost-accounting months (October 1975, April 1976, and October 1976).

The form contains columns for each day of a month and rows representing 42 possible service components of a project. All individuals contributing directly to the project services record all hours worked during a given month in the appropriate spaces on the form.<sup>1</sup> The form has been designed to be self-contained, providing all of the information necessary in order to fill it out properly. Thus, instructions for filling out the form are provided directly on it. Often, the project director preferred to fill this form in for consultants and others who worked only a few hours per month and on only one or a few service components.

Staff time is accounted for in hours. These hourly allocations are converted into percentages and the percentages are then applied to the individual's pay for the month to produce dollar allocations. These are summed for all staff; the resultant figures are the allocations of payroll expenses across service components.<sup>2</sup>

#### B. Non-Payroll Expenses

The second set of information requested is a listing of all non-payroll expenses for the month, excluding purchased services. This includes items such as rent, telephone, printing and travel as well as all durable and non-durable equipment and supplies. An identifying title for each non-payroll expense item is listed on the form along with the payment made for said item during the month and the project's percentage estimate of how this item should be allocated across the different project service components. For

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<sup>1</sup>Vacation time, sick leave, time off, and lunch time were not to be recorded by project staff as time spent on one of the 42 service components. The pay that a given person receives in a month is used to determine that person's contribution to the cost of the service components on which he worked that month. This creates no problems for sick leave, time off and lunch time. Vacation time could pose problems if such time is concentrated in certain months, but was handled either through accrual or through post-facto reassignment of costs based on previous time expenditures on service components.

<sup>2</sup>The reimbursements for expenses to parent aides are treated arbitrarily as salary and are combined with consultant fees in the non-staff personnel category.

durable equipment costing \$200 or more purchased during the month, the estimated lifetime is also entered. This set of information then constitutes the basis on which non-payroll project expenses as a group are allocated across service components.

#### C. Purchased Services

The third set of information requested in the Monthly Cost Statement form was a listing of all services purchased during the month. The agency from which the service(s) is purchased, the amount of the payment and the percentage allocation of that component across service components are recorded. Not all of the demonstration projects purchased services from other agencies for their clients; for those that did, this information was particularly important in determining the extent and variety of purchased services utilized.

#### D. Units of Service

In order to carry out the unit cost analysis, it was essential that the quantity of service provided each month by the projects be specified and that the same units be used across projects for comparative purposes. There are many ways in which "units" for a given service can be defined. For example, for group therapy, one can be concerned with the number of sessions, the number of persons attending, or the number of person-sessions. Each results in a different cost: the cost per session, the cost per person, or the cost per person-session. We studied each of the five service components offered by projects and the alternative unit specifications. Table 3 shows the units that seemed appropriate for the cost analysis based on pre-test results.

Projects are asked to record the quantities of services provided during the month for the subset of the service components which reflect direct services to clients. These units are used in determining unit costs for different activities during the month.

Table C-3

Listing of Service Components With Units

Service	Units
11. Outreach	Cases
12. Intake & Initial Diagnosis	Intakes
13. Case Management & Regular Review	Average Caseload this Month
14. Court-Case Activities	Cases
15. Crisis Intervention During Intake	Contacts
16. Multidisciplinary Team Case Review	Reviews
17. Individual Counseling	Contacts
18. Parent Aide/Lay Therapist Counseling	Contacts
19. Couples Counseling	Contacts
20. Family Counseling	Contacts
21. Alcohol, Drug & Weight Counseling	Person Sessions
22. 24-Hour Hot Line Counseling	Calls
23. Individual Therapy	Contacts
24. Group Therapy	Person-Sessions
25. Parents Anonymous	Person-Sessions
26. Parent Education Classes	Person-Sessions
27. Crisis Intervention After Intake	Contacts
28. Day Care	Child Sessions
29. Residential Care	Child Days
30. Child Development Program	Child Sessions
31. Play Therapy	Child Sessions
32. Special Child Therapy	Contacts
33. Crisis Nursery	Child Days
34. Homemaking	Contacts
35. Medical Care	Visits
36. Babysitting/Child Care	Child Hours
37. Transportation/Waiting	Rides
38. Emergency Funds	Number of Payments
39. Psychological & Other Testing	Person-Tests
40. Family Planning Counseling	Person-Sessions
41. Follow-Up	Person Follow-Ups

#### IV. Data Processing

After the cost data had been collected and reviewed internally by the projects' administration, each cost accounting booklet and employee time sheet was reviewed by the BPA project site liaison and the cost analyst for reasonableness based on site visit observations and previous reporting periods. The data was subsequently coded, keypunched and processed on a multi-stage program which produced the following sets of printout.

Two series of 15 data output tables were produced for each of the project sites for each cost accounting period. The two series duplicate the same procedures although one is based on Type I data, that is, information that reflects the project's actual expenditures, and the other is based on Type II data, which includes values ascribed to donated resources. The information displayed on each Table is as follows:

Table 1: Total Hours for Each Employee. Based on the Personnel Roster of the Monthly Cost Booklet, the assigned employee number, the status of each (regular, substitute or temporary, consultant, reimbursed volunteer, or volunteer), the total hours each employee contributed, and the total pay, including fringe benefits, are presented on Table 1.

Table 2: Individual Personnel Hour Fractions. Based on the time allocation forms collected for each employee, Table 2 displays the proportion of the total hours expended on each service component. It is this figure which is applied to the individual's pay and distributes it across service components.

Table 3: Total Percentages for Non-Payroll Expenses. This table provides a listing of the non-payroll expenses entered in the Monthly Cost Booklet.

Table 4: Total Percentages for Purchased Services. This table provides a listing of the purchased services entered in the Monthly Cost Booklet.

Table 5: Total Hours for Each Service Component. The hours worked on each service component during a given month are presented both as hours and percents by: regular staff, consultants, substitute staff, reimbursed volunteers, volunteers, and total hours.

Table 6: Total Dollars for Each Service Component. The dollars spent on each service component during a given month are presented by: regular staff payroll, non-staff payroll, non-payroll project expense, purchased service, durable equipment, and for the total budget.

Table 7: Percent of Dollars for Each Service Component. The percent of dollars spent on each service component out of the project's budget are presented by: regular staff payroll, non-staff payroll, non-payroll project expense, purchased service, durable equipment, and for the total budget.

Table 8: Unit Costs of Direct Services to Clients. The number of units provided during the cost accounting month and the cost per unit are presented for the 31 direct service components. The cost per unit figure is derived through the computer division of the volume of units for each service into the total dollars for that service as shown on Table 6.

Table 9: Total Dollars and Hours of Service Component Groups: The dollars and percent of dollars spent and the hours and percent of hours worked are presented by the seven service component groups: community activities, project operations, research, casework activities, treatment services to parents, services to children, and support services to family.

Table 10: Summary of Service Hours and Costs After Overhead Distribution. The computer program distributes the hours and costs involved in Case Management and Regular Review across the direct service components in proportion to the hours expended for each and subsequently distributes the hours and costs associated with the four overhead functions in project operations (i.e., Staff Development & Training, Program Planning & Development, General Management, and R & R) across all the service components in the same manner. The resulting table presents the total hours of effort and percent of hours worked, the labor costs and percent, the non-labor costs and percent, and the total costs and percent of costs spent on each service component.

Table 11: Unit Costs of Direct Services to Clients After Overhead Distribution. Based on the new cost figures for the 31 direct service components, Table 11 presents the volume of units provided for each of those services and the cost per unit once loaded with overhead charges.

Table 12: Total Dollars and Hours of Service Component Groups After Overhead Distribution. The dollars and percent of dollars spent and the

hours and percent of hours worked are presented by the seven service component groups after Project Operations and the Case Management function of the Casework Activities Group have been distributed across the other components.

Table 13: Summary of Service Hours and Costs After Overhead Distribution and Wage/Price Adjustments. For each project a separate wage factor and price factor have been entered into the computer which, when applied to labor and non-labor costs, adjust the data for market conditions in the project's region to a national norm for comparability. Presented in Table 13 are the total hours and percent, labor costs and percent, non-labor costs and percent, and the total costs and percent expended on each service component after the overhead functions have been distributed and after the project's wage and price factors have been applied to the cost data.

Table 14: Unit Costs of Direct Services to Clients After Overhead Distribution and Wage/Price Adjustments. This table presents the volume of units delivered during the month for each direct service component and the cost per unit, based on the new cost figures in Table 13.

Table 15: Total Dollars and Hours of Service Component Groups After Overhead Distribution and Wage/Price Adjustments. The dollars and percent of dollars and the hours and percent of hours worked are presented by the seven service component groups after the overhead functions have been distributed and the wage and price factors have been applied to the costs.

## V. Two Types of Cost Analysis

The projects' activities, and thus resource utilizations, go well beyond those which the federal funding alone can support. The sources of projects' resources vary greatly from one project to another. Some projects have additional direct funding from state or local agencies. Most projects utilize volunteer time and other donated resources. Our efforts in the cost analysis are to deal with these differences across projects in a systematic way. To this end, the cost component of our evaluation consists of two levels of analysis; the major difference between the two levels of analysis is that in one, we are concerned with the costs covered by the project budget and in the other, we are concerned with the total cost to the community, as indicated by the value of donated resources utilized by the project.

### A. Type I Standardized Cost to the Project

Type I analysis includes the allocation of all time spent on the project, both paid and donated, to the service components. In terms of dollar expenditures, however, we are concerned solely in Type I analysis with the allocation of the dollar resources in the total project budget to the service components, not with the allocation of donated resources which are not part of the project budget. This budget may include funds from sources other than the national demonstration funds and should comprise all monies over which the project management has discretionary control in carrying out its program. This type of analysis is most relevant for analysis of individual project costs and for their use by projects as a management tool. Two adjustments were desirable for comparability of data across projects: (1) distributing the indirect costs incurred by the projects in an equitable fashion to direct service categories; and (2) adjusting the wages and prices to account for local market conditions.

(1) Distributing Indirect Costs. Over the cost accounting months, each of the projects' resources have been allocated across a wide range of discrete activities relating directly to serving clients and the general community, as well as to the functioning and development of the project. Within the direct service components, Case Management & Regular Review can be regarded as an indirect cost of providing those services. The four

components comprising Project Operations (i.e., Staff Development & Training, Program Planning, General Management, and R & R) can be seen as general overhead costs.

Since the true cost of any direct service to clients includes some portion of the operational overhead, we developed a methodology for distributing these indirect costs proportionately across the service components. In an effort to achieve close comparability with the efforts of E.H. White and CPI, who are evaluating other similar federal child abuse and neglect demonstration projects, our approach involved distributing the Case Management component (#13) across the direct service components (#11-#41), based on the proportion of the total hours devoted to those components. This distribution was followed by spreading the Project Operations components (#6, #7, #8, #42) proportionately across all components, also based on how hours are distributed.

More specifically, the overhead hours are distributed proportionately by the hours the project spends on other activities. Then the dollar amounts expended for overhead activities are collapsed into two new expense groupings: labor and non-labor costs. The labor costs included the previous categories of regular staff payroll, non-staff payroll, and purchased services. The non-labor costs included the previous categories of non-payroll project expenses and durable equipment items. Since we had high confidence in the projects' allocation of labor costs, the formula for distributing overhead hours was applied directly to the dollar amounts for labor. However, due to a wide variance in the projects' allocation of non-payroll expenses and durable equipment expenditures, we pooled these costs for each month into a single General Management entry and then distributed that component across all other components in proportion to the hours expended for the activities.

(2) Adjusting Cost Data for Local Conditions. The objective of comparing program expenditures and unit costs for service delivery across the demonstration projects requires that suitable adjustments be applied to raw cost data to account for differences in the market conditions each project faces.<sup>1</sup> These market conditions fall into two broad areas: differences in labor costs, and variations

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<sup>1</sup>Some might argue that adjusting for these differences is artificial or otherwise unnecessary; however, given the strong desire to ensure fair comparisons across projects, it was felt that such adjustments were essential.

in prices for non-labor goods and services. Normally, wage and price levels do not vary similarly in areas in a given time period. Therefore, different adjustment factors must be applied to these costs separately.

Our adjustment of wage and salary costs relies upon the most current survey of salaries for social service workers available (State Salary Survey 1974, U.S. Civil Service Commission, Bureau of Intergovernmental Personnel Program, 1976). This survey provides data on salary levels across states available to workers performing comparable functions in social service agencies. The classification used pertains to entry level workers which was found to reflect variations in the same direction as salary levels for classifications of graduate social workers and social service supervisors. Thus, the social service workers classification captures the differences in state salary levels for functions requiring different levels of education, experience and responsibility in social service agencies. To derive the wage adjustment factor from the salary information provided in the survey, state salaries were divided by the national mean salary to find percentage deviations from the norm. To provide comparability among project salary costs, areas that face lower salary costs for the same function must be adjusted upwards relative to those areas that face higher salary costs. Thus, the suitable adjustment factor for salary expenditures is the reciprocal of the percentage deviations found above for each project. The resulting adjustment factors are presented in Table C-4.

The adjustment of project raw expenditure data to account for variations in prices for non-labor goods and services relies upon the Current Price Index (CPI).<sup>1</sup> Price data for the CPI is collected for 56 metropolitan and non-metropolitan cities of the United States with separate indexes published for 23 SMSAs. Where separate indexes were not available for a project area, by reason of geographic proximity to project locations, CPI approximations were used. These CPIs were determined by using the CPI of the closest area with a similar budget index as the area without a published CPI. Budget indexes are available for more areas and were considered to be close indicators of the

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<sup>1</sup>"Consumer Price Indexes," U.S. Bureau of Labor Statistics, Monthly Labor Review, 1976.

of the appropriate CPI. Using the CPI as an adjustment factor for non-salary costs followed the same logic as that for salary costs, i.e., the reciprocal was employed. The resulting factors are applied to non-payroll expenditures and are shown in Table C-5.

Table C-4  
Adjustment Factors for Salary Costs

Project	Adjustment Factor	Salary Level*
Adams County, Colorado	1.11	\$7,176
Arlington, Virginia	1.19	6,700
Baton Rouge, Louisiana	0.94	8,482
Bayamon, Puerto Rico	1.29	6,177.
Jefferson County, Arkansas	1.08	7,423
Washington County, Arkansas	1.08	7,423
Los Angeles, California	0.82	9,720
Neah Bay, Washington	0.97	8,256
St. Louis, Missouri	1.22	6,540
St. Petersburg, Florida	0.94	8,498.
Tacoma, Washington	0.97	8,256
Union County, New Jersey	0.79	10,092

\* National mean minimum salary = \$7,984; indicates minimum salary levels in 1974 for the classification of social service worker.

Table C-5

Adjustment Factors for Non-Payroll Expenditures

Project	Adjustment Factor	CPI*
Adams County, Colorado	1.01	132.1**
Arlington, Virginia	0.99	135.0
Baton Rouge, Louisiana	1.01	132.3**
Bayamon, Puerto Rico	1.05	127.3**
Jefferson County, Arkansas	1.02	130.3**
Washington County, Arkansas	1.02	130.3**
Los Angeles, California	1.03	129.2
Neah Bay, Washington	1.04	127.5**
St. Louis, Missouri	1.03	129.3
St. Petersburg, Florida	1.00	133.7**
Tacoma, Washington	1.04	127.5
Union County, New Jersey	0.95	139.7

\* U.S. city average = 133.1

\*\* Derived from budget index comparisons.

## B. Type II Standardized Cost to the Community

In order to assess the actual, that is to say the social, costs of running the eleven demonstration projects, it is necessary to address all accountable resources that are consumed by the projects in providing services. For some projects, the proportion of the resources they utilize but do not pay for is substantial; such a situation has obvious implications for cost efficiency and effectiveness ratios. Hence, it is necessary to standardize the resource bases we are comparing, in order that the unit of service costs more accurately reflect the resources utilized to produce them. Type II analysis seeks to accomplish this objective by ascribing monetary value to resources donated to the projects. Donated resources include personnel (i.e., volunteers and professional consultants with full-time positions elsewhere who donate their time to the project) and non-personnel resources (e.g., rent-free space, equipment, computer time, etc.).

The procedure for estimating the monetary value of donated overhead items and the time of personnel with set salaries elsewhere or in professions with standardized consulting rates is relatively straightforward. With advance notice of our needs, the projects determined the value of donated overhead items and did extensive research in their communities to ascertain hourly rates which their consulting professionals would charge. Lengthy conference calls with project directors or their designated representatives enabled our staff to collect this information. The information supplied by the projects was directly added to their cost data, with only infrequent adjustments made for hourly rates of consultants which deviated substantially from the aggregated ranges provided by all the projects.

Arriving at reasonable hourly rates for volunteers is a somewhat more difficult task. However, since the issue at hand is replicability of the functions performed, rather than of the opportunity costs of the individuals performing the functions, the problem was simplified. While all but one of the projects utilize volunteers, they do so in an extraordinarily varied way. Their estimates for teacher aides, babysitters, child caretakers, drivers, etc., approximated our independent estimates of the value of these

functions. In asking the projects to estimate what they would pay per hour for a service, if they felt it to be critical but had no volunteers to carry it out, their attention was focused on the service rather than on the provider, with remarkably comparable results, particularly when the nature of the function and different market conditions are considered. Only the value attached to the lay therapist/parent aide function required reconciling among the projects which deliver this service.

The value estimates for lay therapists/parent aides by the seven projects providing the service clustered around \$4 per hour, although a range of \$2.50 per hour to \$15 per hour was offered. The wide range is explained in part by the relative importance of the service within the project's service strategy, in part by the variation in the level of responsibility expected of the volunteer in the role, and in part by equating the part-time nature of the service with consultants' contributions and thereby inflating the hourly rate. To resolve these differences, a variety of aspects of the lay therapy/parent aide function were compared, including the number of workers performing the service in each of the projects for the month under consideration, the volume of hours devoted to the service, the project's suggested hourly rate, our own estimation, and the effect of applying local wage factors to the estimates. Finally, we decided on two rates, based on the following criteria: (1) projects whose lay therapists/parent aides devoted more than an average of 20 hours per worker per month to the service were valued at \$4.25 per hour (these projects include Adams County, Arkansas, St. Petersburg, and Union County); and (2) those projects whose lay therapists/parent aides devoted less than 20 hours per worker per month were valued at \$4 per hour (these projects included Arlington, St. Louis, and Tacoma). The higher rate was used for lay therapists who spend more than 20 hours per month because we felt it likely that they assume a greater responsibility for their cases (our process analysis of lay therapy in the different projects confirmed this). These rates are incorporated into project data after adjusting the cost data for local conditions.

## VI. Data Analysis Techniques

### A. Unit Cost Comparisons

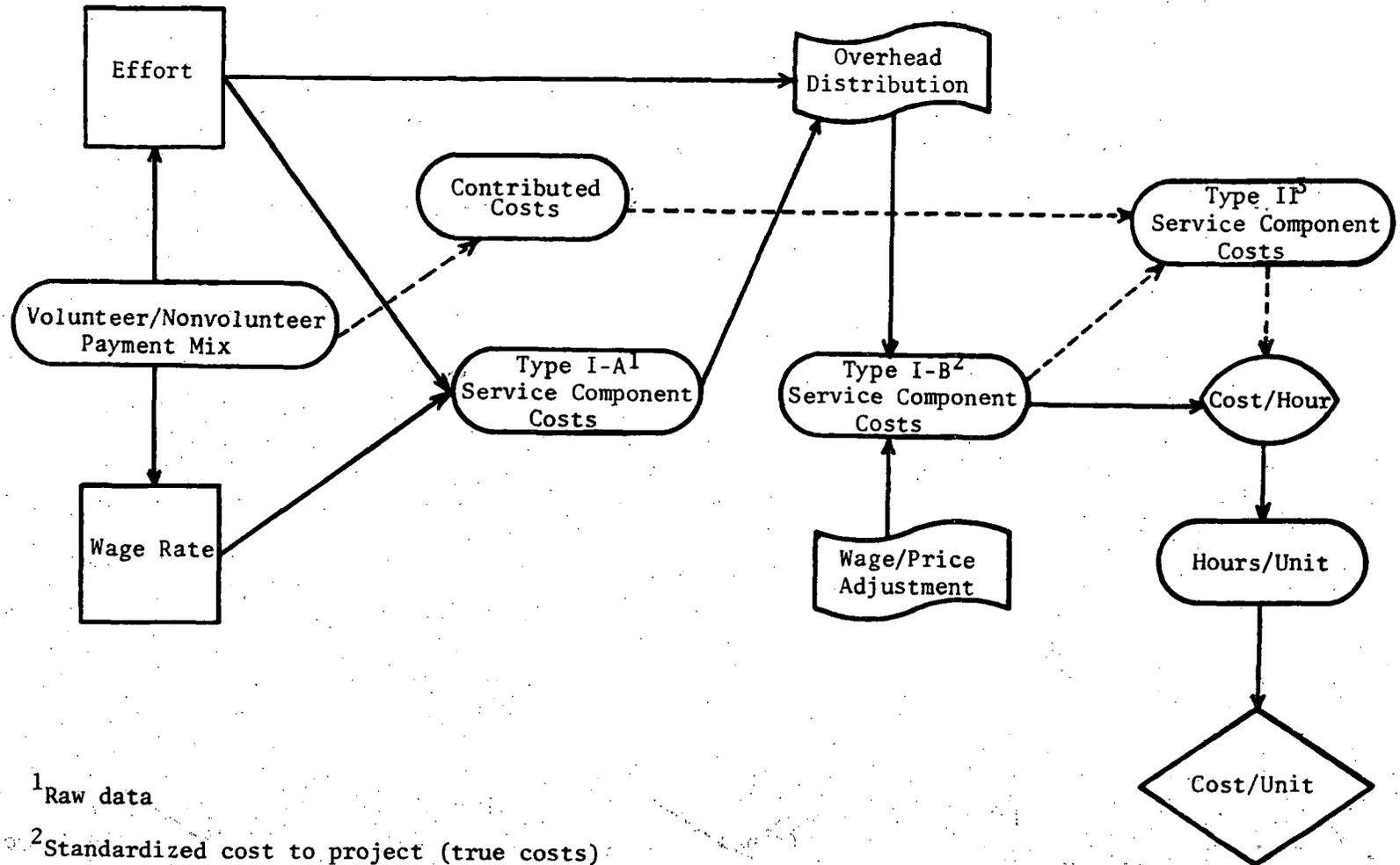
Before valid comparisons can be made, a word of explanation is needed in order to fully appreciate the meaning of unit cost figures. As with all composite measures of an activity, the components which form the unit costs may combine in different ways to produce the same result. As shown in Figure C-1, unit costs are a function of a wide number of factors. Clearly at one level, unit costs may vary according to the level of effort which goes into producing one unit of service and according to the wage rates which are applied to this effort. Certain efforts will not contribute to costs if they are unpaid (unpaid volunteer vs. paid staff mix). This range of factors enters into the Type I-A (Raw Data) costs of a service component. Type I-B (Cost to Project) costs are found by adjusting for overhead on the basis of hours and for regional wage/price differences. Type II (Cost to Community) are found by including the value of donated resources. Service component costs are then mediated by the number of hours per unit to identify various types of unit costs (Type I-A, I-B, II). Thus, a change in any one of the variables of hours expended, wage rate, hours/unit, unpaid volunteer mix, overhead, etc., will effect costs/unit. A change in any one variable may also be counterbalanced by an opposite change in another. The point here is that unit cost figures that are similar for different services may lead to the mistaken assumption that the underlying dynamics of the service are similar.

### B. Service Volume Economies

Of particular concern to policy makers is understanding how the costliness of a given service is related to the volume at which that service is provided. For example, to what extent does increasing the amount of units of individual counseling within a given project change the cost per unit of this service? This question involves an analysis of each specific service category to determine whether economies or diseconomies of scale may occur.

Two possibilities exist in determining the relationship between cost per unit and number of units provided. Each gives different information to policy makers. At one level, we may examine the question by observing different

Figure C-1: Components of Unit Costs



<sup>1</sup>Raw data

<sup>2</sup>Standardized cost to project (true costs)

<sup>3</sup>Standardized cost to community (social costs)

projects operating at different levels of output to note the differences in costs that may occur. This type of comparison refers to service volume economies across projects. Here, we obtain information about whether projects providing a high level of a given service can do so at substantially reduced costs. The second type of analysis involves making comparisons within individual projects where, for a given project operating at different levels of output over time, we observe the corresponding changes in costs.

To identify the across-project service provision economies, we constructed simple two-by-two contingency tables for cost per unit and service volume project data. Projects were classified into two groups for each of their cost and volume characteristics: those above the median value and those below. This was done for a representative subset of individual and group services, based on the average volume and cost to the project (Type I-B) of each service. A hypothetical table is shown in Figure C-2.

Figure C-2

HYPOTHETICAL COMPARISON TABLE FOR ACROSS-PROJECT ECONOMIES OF SCALE

		Units Provided	
		Below Median	Above Median
Average Cost/ Unit	Above Median	a	b
	Below Median	c	d

Note: a, b, c, d refer to the number of projects falling within each cell.

To identify within-project economies, we observed changes in Type I-B costs and service volume between October 1975 and April 1976 and between April 1976 and October 1976 for a given project. The two variables were again dichotomized but this time in terms of whether costs or volume (1) increased, or (2) stayed the same or decreased. A two-by-two contingency table was then constructed on the basis of these categories as shown in Figure C-3. Comparisons were made for

the same subset of individual and group services.

Figure C-3

HYPOTHETICAL TABLE FOR WITHIN-PROJECT ECONOMIES OF SCALE

Change in Service Volume (October to April)

		stayed the same or decreased	increased
Change in cost/unit (October to April; April to October; Type I-B)	increased	a	b
	stayed the same or decreased	c	d

Note: a, b, c, d refer to number of projects in each cell.

As a means of summarizing the comparisons made, two statistics were used. Yule's Q was employed as a simple measure of association and was found by the following formula:

$$A = \frac{ad - bc}{ad + bc} ; - 1 \leq Q \leq + 1$$

Given the relatively small sample sizes compared, this statistic fulfilled the need for a measure of association as well as involving a relatively simple hand calculation. Also, the sample size precluded the use of the Chi-Square, the more traditional statistic for contingency tables. To determine whether the relationship could be termed significant in a statistical sense, Fisher's exact test was employed. This statistic is suitable for small samples and allows one to determine the exact probability associated with the contingency table cell frequencies by the following formula:

$$P = \frac{(a+b)!(c+d)!(a+d)!(b+c)!}{N!a!b!c!d!} \quad 0 \leq P \leq 1 \quad (N = a+b+c+d)$$

Thus, for each of the comparisons we were able to determine both the strength and significance of the relationship referring to service volume economies.

### C. Cost Efficiency

Analyzing each individual type of service is important to understanding the relative investments necessary for various service volumes. However, such an analysis does not recognize the fact that each type of service is not offered in a vacuum, so to speak. Projects more appropriately may be characterized as delivering a package of interrelated services. Accordingly, one should also analyze the cost relationships associated with this total package.

For this purpose, we have constructed an index of relative cost efficiency. This index reveals the extent to which a project delivers a given package of services at a greater or lesser cost than would other projects who deliver these services. The exact formula for computing the index is as follows:

$$\text{When } E_j = \frac{\sum_i P_{ij} U_{ij}}{\sum_i \bar{P}_i U_{ij}}$$

Where  $E_j$  = relative cost efficiency of project j

$P_{ij}$  = price per unit service i at project j

$U_{ij}$  = units of service i delivered at project j

$\bar{P}_i$  = average price per unit service i across all projects

NOTE: If  $E_j > 1$ , then project more costly than average in delivering its package of services.

The formula can be seen to compute the ratio of a project's costs for its service package to the average costs for these services across all projects. Thus, if the index is above one, the project delivers services at a greater cost than the average; below one, the project is relatively more cost-efficient, i.e., delivers services at a lower cost.

The indexing of overall cost efficiency permits us to answer questions concerning those factors which may contribute to cost-efficiency. To determine across-project correlates, we again constructed contingency tables formed by cross-classifying projects as to whether they were above or below

the average on cost efficiency ( $E = 1$ ) and above or below the median value for the particular characteristic being tested. Characteristics tested were drawn from the Quality Component and the Management Component of this Evaluation. Somer's D and Kendall's Tau were the summary statistics employed to test the strength of association between the variables and its significance.

## VII. Implementation Issues

January 1975 was the pre-test month for the collection and analysis of cost data. The experiences of the projects in pulling together and submitting to us the requested cost data and our own experience in following up with the projects to complete the data sets and in processing the data led to the identification of areas in which the cost analysis design could be improved. The following intensive cost accounting month, May 1975, was experimental as well and did not result in usable data for the analysis. Below are discussions of these implementation issues and, where relevant, their resolution.

### A. Completeness of Data

A primary difficulty encountered during the January pretest was the incompleteness of the data collected by the projects and forwarded to BPA. For example, weekly time sheets were missing for some staff members and payroll expenses were missing for others. We perceived a primary source of this difficulty to be the large number of separate forms which had to be completed by the projects. Our solution was to revise the BPA forms: Monthly allocation forms, rather than weekly ones, were devised, reducing the number of forms per individual from four or five to one. All other cost forms were incorporated into a single booklet, the Monthly Cost Statement, to further simplify matters for the projects.

### B. Use of Service Component Definitions

The success of the cost analysis depends strongly on the proper use of the service component definitions. If the hours spent on a certain kind

of activity are not entered under the same service component by staff members in a given project or in different projects, then the validity of the cost analysis results could be seriously reduced.

Improper allocations to service components can arise from carelessness on the part of staff members, from misunderstanding of instructions or from ambiguities in the definitions themselves. Although instruction booklets had been prepared which included definitions of the service components and directions for completing each of the cost forms, and these instructions were reviewed by the BPA staff with the project staffs, January was still very much a month of learning for the projects. Definitions of some service components were misunderstood, as were instructions for completing some of the forms. In some instances, instruction booklets were not referred to or were even lost. Our solution was two-fold. First, we spent a fair amount of time on the telephone clarifying for individual projects how to avoid in the future the mistakes made in January. Second, we refined the instructions and definitions and incorporated them on the back of the cost forms themselves. This insures that all staff have access to and can better understand the instructions and definitions, and the forms themselves become self-contained instruments.

Ideally, BPA would additionally check each individual's time sheet to see whether allocations were made properly, but the inordinate amount of time required of BPA would make this infeasible. Thus, observations by the BPA staff during site visits and discussions with project directors are used to reveal misinterpretations of the definitions.

#### C. R & R

The R & R (rest and relaxation) service category was created with a very special purpose in mind. R & R is that time (and space) that a worker needs to recuperate after an intensive session with a client, prior to engaging in other work. It is akin to other internal services, such as staff development, which are needed as support for the delivery of services to clients and the community. R & R thus does not include lunch, time off, time when "there is nothing else to do," or any time when a staff person is not "on duty." During the pretest, some projects' staffs used this category either for activities such as lunch or perhaps simply to round out

the number of hours recorded for that day to eight. Other staff members did not use this category at all even though it was appropriate for them.

#### D. Limitations of the Service Component List

In developing the listing of service components we attempted to include all identifiable project activities. One purpose of the pretest was to determine whether there was a need to revise this listing. The pretest indicated the need for several adjustments.

Several projects, feeling that they could not include certain of their activities in one of the existing categories, added new categories to their cost forms. It was determined, upon discussion with these projects, that some of these new categories could be incorporated into existing categories. For example, one project wanted to distinguish routine Intake & Initial Diagnosis from Crisis Intervention During Intake. The project staff members made this distinction on their cost forms and used the data this way for their own purposes; for the across-project evaluation, however, the two categories were combined.

Three other changes suggested by the projects required revisions in the list. First, projects wanted to account for resources spent on Multidisciplinary Team Activities as a category separate from Intake & Initial Diagnosis and/or Case Management & Regular Review. BPA decided to establish this as a new category. Second, projects felt that time spent on court case work, including waiting time at the court house, did not easily fit into the existing categories and is an expenditure of time worthy of independent study. For the January pretest, court-related work was included in case management, but on the revised forms it was a separate service component. Third, because Ongoing Case Review is really an integral part of Case Management, those two categories were combined into one, Case Management & Regular Review.

#### E. Personnel List

Initially we planned to ask the projects to send us during each intensive cost accounting month a listing of all paid staff and consultants, with the amounts they were paid that month. Then, during each of the non-intensive cost accounting months, project directors would indicate to us

major changes in payroll expenses. We decided, however, for purposes of accuracy and completeness, to make the following changes:

- (1) data would be averaged from the cost accounting months conducted during the peak of the project, rather than simulated for intervening months;
- (2) the payment entered should include an individual's fringe benefits;
- (3) the listing should include all regular staff, consultants and volunteers who contribute directly to the project, regardless of whether an individual is paid from the project budget;<sup>1</sup> and
- (4) for those regular staff and consultants not paid by the project, but by some other agency, the listing should include salaries or approximate value of salaries.

#### F. Project's Perceptions of the Cost-Analysis

Some difficulties encountered with the January pretest were undoubtedly due to some projects' misconceptions of the purposes of the cost analysis. Our intention was that the cost analysis would be useful to projects for their own internal management as well as to the overall evaluation. However, in some projects the cost analysis was not seen as something that would be of use to the project and therefore was not handled with the high degree of concern for completeness and accuracy that BPA expected. Once the projects had an opportunity to see the cost printouts for January and May, they were more appreciative of their potential usefulness and more careful in collecting and recording cost data.

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<sup>1</sup>In the case of projects with large numbers of regular volunteers, the number rather than the total listing of names is requested.

#### G. Promptness of Data Retrieval

With many of the projects we did not receive the cost data within a reasonable period of time after the end of the January pretest, or in fact, after each of the four subsequent cost accounting months. Some projects took as long as four months supplying BPA with the full set of cost data. Our request was to receive cost data within two weeks after the end of a month in order to be able to process the data and return it to the projects quickly while information still was useful for their own management concerns. Some of the delays in returning data to us undoubtedly resulted because some projects in January were not fully operational. They were of necessity more concerned with getting their programs off the ground than with collecting and sending us the cost data. Other delays were due to the projects' inability, for many different reasons, to establish a system during January for collecting the necessary cost data. Confusion over who should be responsible for filling out which forms was one of the primary problems.

#### H. Optimal Precision

Precision (attention to details) and accuracy (completeness and correctness) are two different issues. The precision of entries in the cost forms varied considerably across projects and from one staff member to another. As far as could be determined, there were no forms in the January pretest that were filled in with too little precision. The tendency was to use more precision than necessary, especially in parts of the forms where it was not needed, while neglecting the overall accuracy requirements to include all major costs and to put them in the right place. An example of too much precision would be the entry of some non-payroll expense in the amount of only \$10.00, allocated to a great many service components with percentages as low as 1% each. An example of inaccuracy would be neglecting to indicate any pay for a certain worker who was added to the payroll in the middle of the month. Accuracy is always a necessity in a cost analysis, but the amount of precision can vary depending on the goals of the study. After further experience was gained with the May cost analysis, accuracy increased and some rules were developed to go with the cost forms which led to adequate precision with minimum effort by the projects.

## I. Durable Equipment

As several cost accounting months went by, we observed wide variations in the reporting of durable equipment expenditures. It emerged, in the course of conversations with the projects regarding donated resources, that some projects were reporting equipment purchased only during the cost accounting month and others were reporting all equipment purchases during the time elapsed since the previous cost accounting month. Since the latter, depreciated and amortized, would more accurately reflect a project's monthly expenditure for these items, we requested a complete list of durable equipment purchased since the beginning of the project. Once depreciated and amortized, the costs involved comprise a very small proportion of the resources consumer -- on average, less than 2% of monthly expenditures. Consequently, we did not re-run the data for October 1975 and April 1976; rather, the durable equipment expenditures appear only in the October 1976 data and only marginally effect the total cost picture.

## J. Allocation of Non-Payroll Expenses

Wide variance in the precision and accuracy of allocating non-payroll expenses, including durable equipment, persisted despite discussions with the projects and detailed instructions. Because of the ambiguous nature of such resources as rent, copying, utilities, etc., we resorted to the method of collapsing the non-payroll expenses into a single sum allocated to General Management which in turn was distributed in proportion to the hours expended across the other service components. This provided across-project comparability in handling these expenses and was executed in each of the three cost accounting months used in the final analysis.

Project \_\_\_\_\_

Month \_\_\_\_\_

MONTHLY COST STATEMENT  
for Child Abuse and  
Neglect Projects

General Instructions

1. Please fill in this booklet during each cost accounting month.
2. Time-Allocation form N-C01B is to be used together with this booklet, for complete monitoring.
3. Please be sure that all significant costs are included. For example, it is essential that the personnel list be complete and that, for the time-allocation months, a time sheet be returned for each individual on the personnel list.
4. Please be sure that no costs are double counted. For example, a consultant who is entered once on the personnel list should not be entered again as a purchased service.

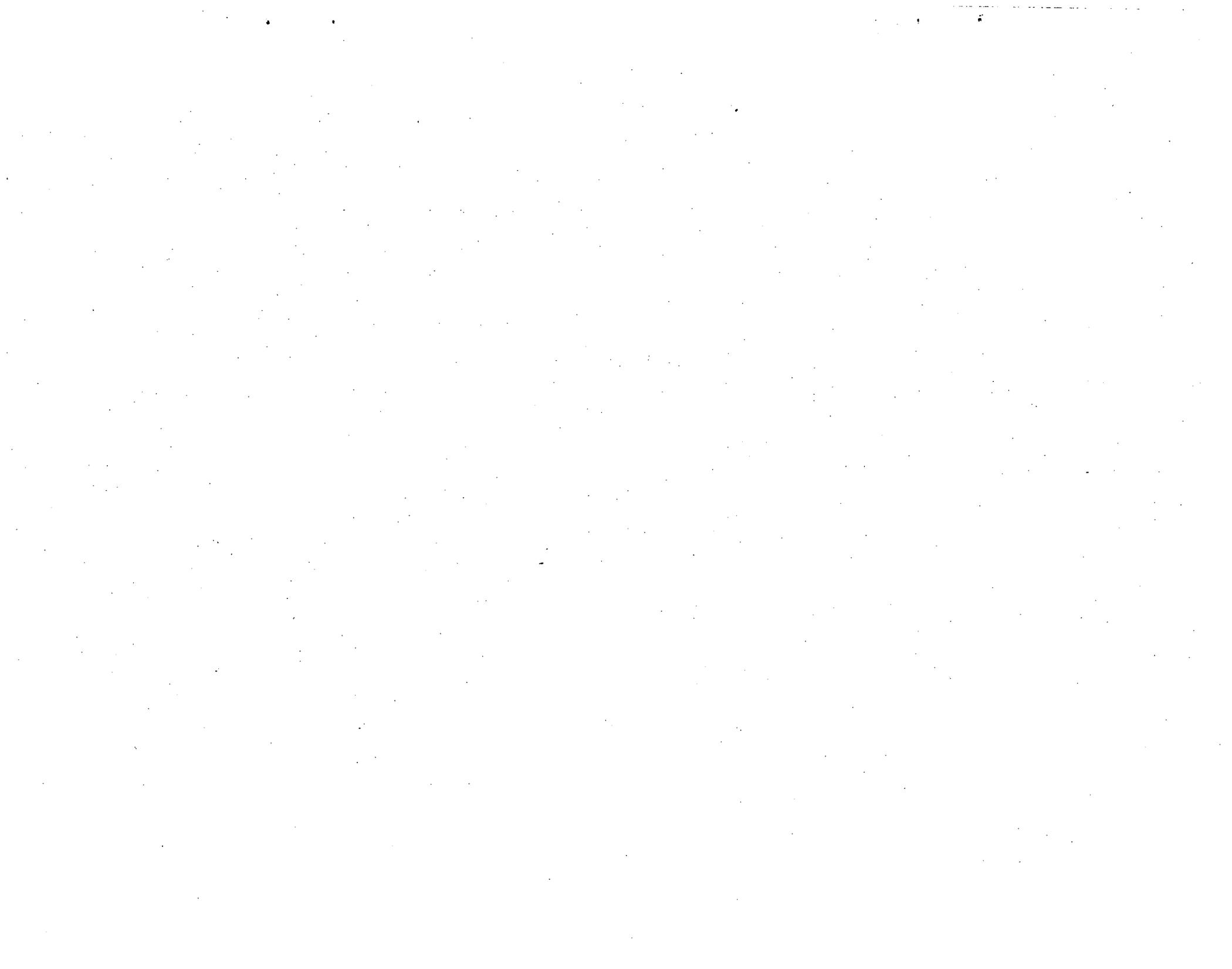
Contents

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Purchased Services	6
Quantities of Project Services	7









Instructions

1. Please enter all non-payroll expenses for the month, including durable equipment, and their allocations by item.
2. For durable equipment over \$200 please enter, in addition, the estimated lifetime in years.
3. If desired, any costs with the same allocation, e.g., perhaps rent & utilities, may be combined in a single column.
4. A durable-equipment entry may comprise a group of things, such as a suite of furniture, if all elements have approximately the same lifetime and allocation.

Item →									
Payment This Month →									
Est. Lifetime for Equip. Over \$200 →									
1. Prevention									
2. Community Education									
3. Professional Education									
4. Coordination									
5. Legislation & Policy									
6. Staff Development/Training									
7. Program Planning & Development									
8. General Management									
9. Project Research									
10. BPA Evaluation									
11. Outreach									
12. Intake & Initial Diagnosis									
13. Case Mngmt. & Regular Review									
14. Court Case Activities									
15. Crisis Intervention During Intake									
16. Multidis. Team Case Review									
17. Individual Counseling									
18. Parent Aide/Lay Ther. Counsel.									
19. Couples Counseling									
20. Family Counseling									
21. Alco., Drug & Weight Counseling									
22. 24-Hour Hot Line Counseling									
23. Individual Therapy									
24. Group Therapy									
25. Parents Anonymous									
26. Parent Education Classes									
27. Crisis Intervention After Intake									
28. Day Care									
29. Residential Care									
30. Child Development Program									
31. Play Therapy									
32. Special Child Therapy									
33. Crisis Nursery									
34. Homemaking									
35. Medical Care									
36. Babysitting/Child Care									
37. Transportation/Waiting									
38. Emergency Funds									
39. Psychological & Other Testing									
40. Family Planning Counseling									
41. Follow-Up									
42. R & R									



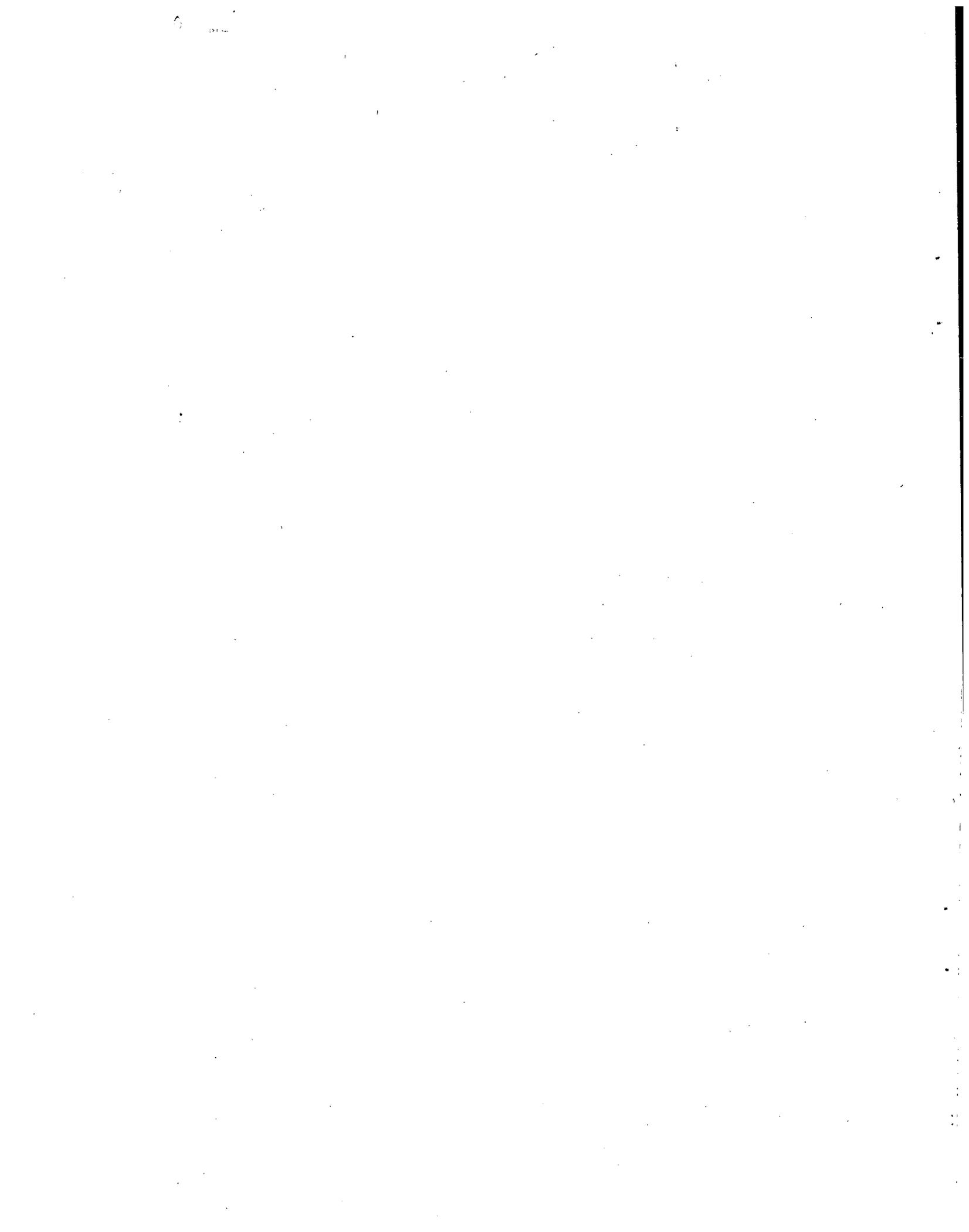
PURCHASED SERVICES

Instructions

1. If services are purchased by project from other agencies for delivery to clients in project's caseload, please enter the agencies, total amounts paid this month and allocations by percent.
2. Individual specialists who work for the project by the hour should be entered as consultants on page 2 or 3 and should not be entered here.

	Agency →								
	Payment This Month →								
1. Prevention									
2. Community Education									
3. Professional Education									
4. Coordination									
5. Legislation & Policy									
6. Staff Development/Training									
7. Program Planning & Development									
8. General Management									
9. Project Research									
10. BPA Evaluation									
11. Outreach									
12. Intake & Initial Diagnosis									
13. Case Management & Regular Review									
14. Court-Case Activities									
15. Crisis Intervention During Intake									
16. Multidis. Team Case Review									
17. Individual Counseling									
18. Parent Aid/Lay Ther. Counsel.									
19. Couples Counseling									
20. Family Counseling									
21. Alcohol, Drug & Weight Coun.									
22. 24-Hour Hot Line Counseling									
23. Individual Therapy									
24. Group Therapy									
25. Parents Anonymous									
26. Parent Education Classes									
27. Crisis Intervention After Intake									
28. Day Care									
29. Residential Care									
30. Child Development Program									
31. Play Therapy									
32. Special Child Therapy									
33. Crisis Nursery									
34. Homemaking									
35. Medical Care									
36. Babysitting/Child Care									
37. Transportation/Waiting									
38. Emergency Funds									
39. Psychological & Other Testing									
40. Family Planning Counseling									
41. Follow-Up									
42. R & R									

Direct Services to Clients



QUANTITIES OF PROJECT SERVICES

Instructions

For each selected service provided by project, please indicate total quantity provided this month.

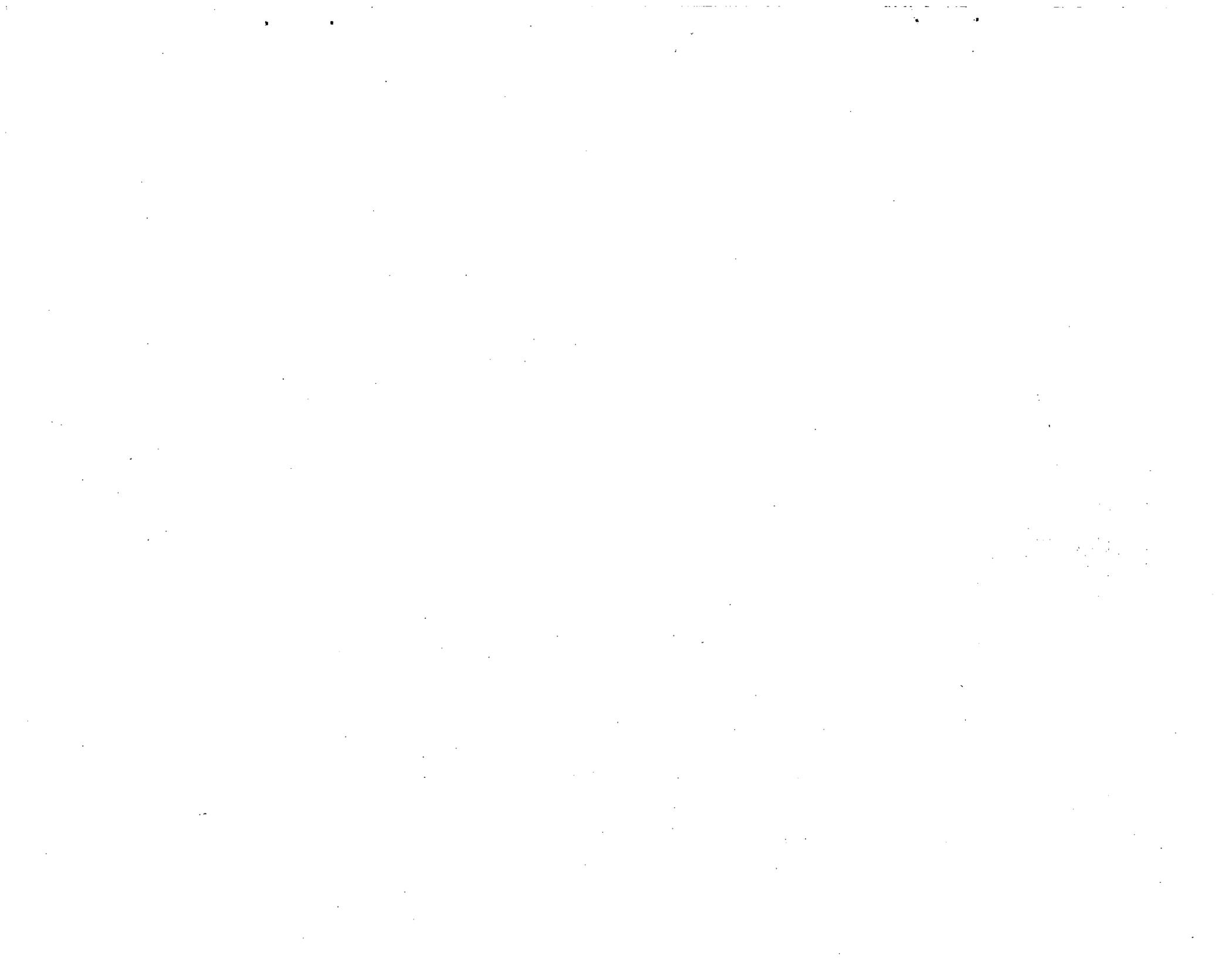
SERVICE	UNITS	QUANTITY
11. Outreach	Cases	
12. Intake & Initial Diagnosis	Intakes	
13. Case Management & Regular Review	Ave. Caseload This Mo.	
14. Court-Case Activities	Cases	
15. Crisis Intervention During Intake	Contacts	
16. Multidis. Team Case Review	Reviews	
17. Individual Counseling	Contacts	
18. Parent Aide/Lay Ther. Couns.	Contacts	
19. Couples Counseling	Contacts	
20. Family Counseling	Contacts	
21. Alcohol, Drug & Weight Counseling	Person Sessions	
22. 24-Hour Hot Line Counseling	Calls	
23. Individual Therapy	Contacts	
24. Group Therapy	Person Sessions	
25. Parents Anonymous	Person Sessions	
26. Parent Education Classes	Person Sessions	
27. Crisis Intervention After Intake	Contacts	
28. Day Care	Child Sessions	
29. Residential Care	Child Days	
30. Child Development Program	Child Sessions	
31. Play Therapy	Child Sessions	
32. Special Child Therapy	Contacts	
33. Crisis Nursery	Child Days	
34. Homemaking	Contacts	
35. Medical Care	Visits	
36. Babysitting/Child Care	Child Hours	
37. Transportation/Waiting	Rides	
38. Emergency Funds	No. of Payments	
39. Psychological & Other Testing	Person Tests	
40. Family Planning Counseling	Person Sessions	
41. Follow-Up	Person Follow-Ups	

NUMBER OF CASES ACCEPTED FOR SERVICES THIS MONTH \_\_\_\_\_

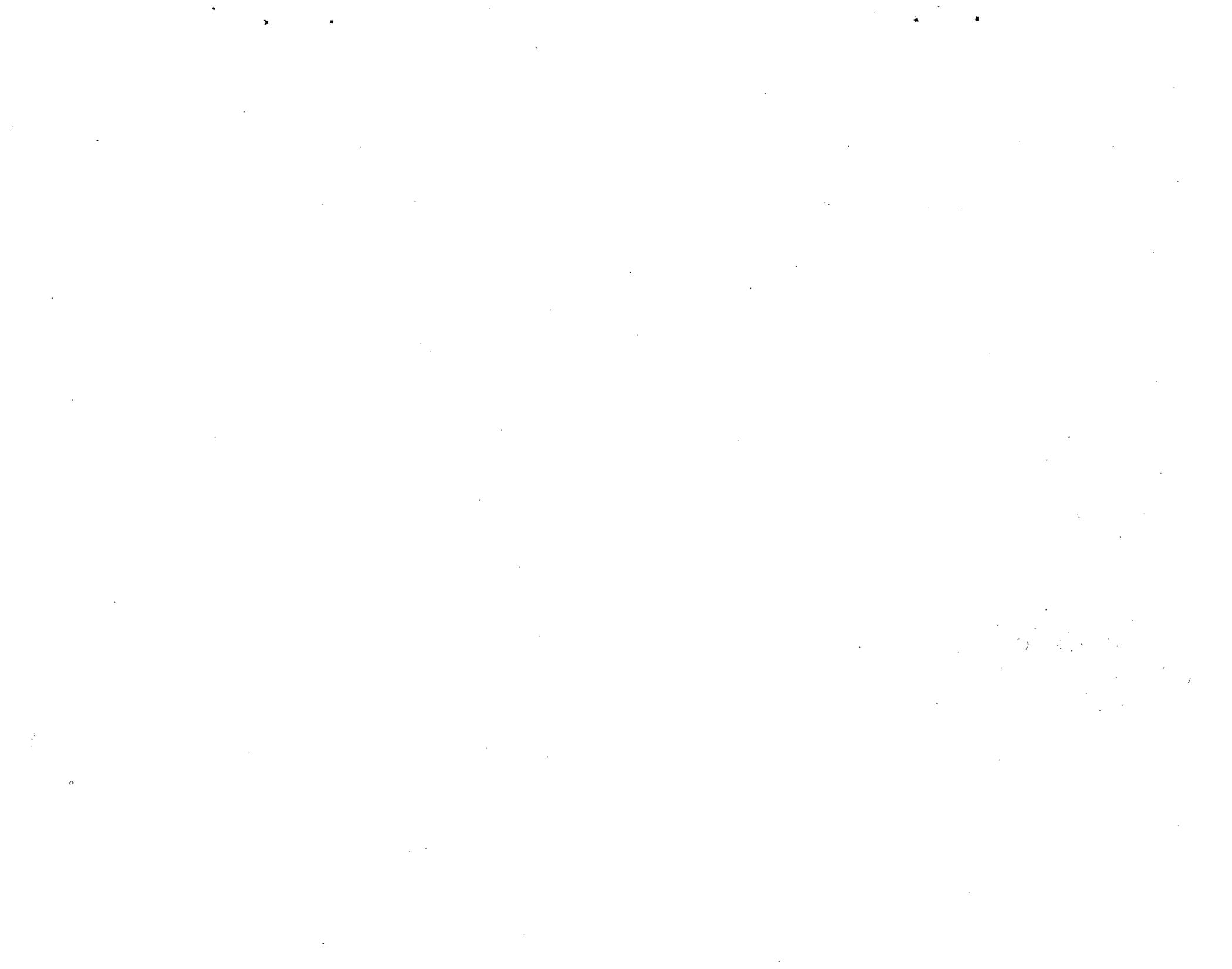
NUMBER OF CASES CLOSED OR STABILIZED THIS MONTH \_\_\_\_\_

16. Multidisciplinary Team Case Review. Review of case during intake and/or treatment by a team, typically composed of individuals representing many different disciplines, for diagnosis, case planning & case reassessment. Not included here are the more frequent, more informal case reviews by staff.
17. Individual Counseling. One-to-one counseling typically at worker's office or in client's home. Typically provided by a social workers or other staff (nurse, etc.) to discuss client's situation & problems (primarily social & economic), possible changes in them, & other issues. To be distinguished from Individual Therapy which is usually on a more formalized basis.
18. Parent Aide/Lay Therapist Counseling. One-to-one counseling typically at client's home in which a person designated as parent aide or lay therapist befriends client & discusses various issues of benefit to client.
19. Couples Counseling. Counseling provided by a professionally trained counselor, typically in counselor's office, for married couples or 2 adults living together to help them resolve difficulties they may be experiencing together.
20. Family Counseling. Counseling provided by a professionally trained counselor typically in the counselor's office for families (parents & children) to help them resolve difficulties they may be having together. At times counseling may be provided to individual family members & at times is provided to family as a group.
21. Alcohol, Drug & Weight Counseling. Counseling provided either on a one-to-one or group basis directed at helping individuals overcome personal problems of alcoholism, drug addiction & overweight. Includes services offered at a drug abuse clinic, AA, Weight Watchers, Mental Health Center & other specialized treat. centers.
22. 24-Hour Hot Line Counseling. A telephone number a parent can call anytime of day or night to reach out for help & receive therapeutic assistance or at least be assured of reaching a patient listener.
23. Individual Therapy. One-to-one therapy provided to client, which includes all of the following characteristics: provided by a trained psychologist, psychiatrist or social worker, in an office setting; structured by both time (50-60 min.) & appointment (usually once/week, sometimes more often); primarily, though not exclusively psychological in focus.
24. Group Therapy. A therapeutic group session, typically 2 hours in duration, run by one or two persons qualified as group therapists & skilled in a variety of group techniques.
25. Parents Anonymous. A therapeutic group session for abusive & neglectful parents typically organized and run by the parents with support from one or two resource persons who attend the group meetings.
26. Parent Education Classes. A number of sessions provided, typically in a classroom setting, by persons qualified in child development to discuss issues of child development, parenting, etc.
27. Crisis Intervention After Intake. Staff member intervenes in client's crisis situation, by means other than 24-hour hotline, e.g., emergency home visit, emergency meeting at project, etc. Excludes initial contact with client. *This is a crisis for the family, not an emergency for the project.*
28. Day Care. Child is left at a licensed or otherwise designated center for a certain number of hours during the day. Typically day care services are provided 5 days a week.
29. Residential Care for Children. Long-term (i.e., longer than emergency basis) overnight care of children, providing a warm & reinforcing living environment.
30. Child Development Program. A day care program in which activities are prescribed to deal with psychological, learning & other needs of the children in a therapeutic setting.
31. Play Therapy. The counterpart, for children, of individual therapy, utilizing play equipment to promote the child's self-expression.
32. Special Child Therapy. Speech therapy, physical therapy or other specialized therapy provided to child to fill a particular need or improve developmental ability.
33. Crisis Nursery. A nursery to which a child may be brought any time of day or night & left for short periods of time when parent is in time of crisis.
34. Homemaking. A qualified homemaker or equivalent visits client's home, provides instruction on such topics as nutrition & hygiene and/or assists in alleviating household stress by helping with cleaning, cooking, child care, etc.
35. Medical Care. Provision of medical services by a physician or other health professional. Includes dental & optometric care.
36. Babysitting/Child Care. Parent is provided with babysitting service either in home or at the project while he/she attends to his/her own affairs.
37. Transportation/Waiting. Client is provided with transportation to & from service appointments, shopping, etc. Excludes court-related transportation & waiting time.
38. Emergency Funds. Client is provided with small amount of emergency money from project, either as a loan or as a gift. Time spent arranging for funds goes under Case Management & Regular Review.
39. Psychological & Other Testing. Psychological & personality testing administered to client by a person trained in the administration of the test as diagnostic instrument, to be better able to specify client's problems.
40. Family Planning Counseling. Parent is provided with counseling by a qualified family planning counselor, typically at a family planning center, on contraception techniques & the like.
41. Follow-Up. All contacts, either by phone or in person, with clients after they have been terminated or stabilized, or contacts with other agencies/individuals about a terminated client. C-42
42. R & R. Recovery time, or "rest & relaxation." Time not spent directly on any component or service, but used to recoup one's energy after an exhausting client session, etc. Does not include lunch & prescribed breaks.





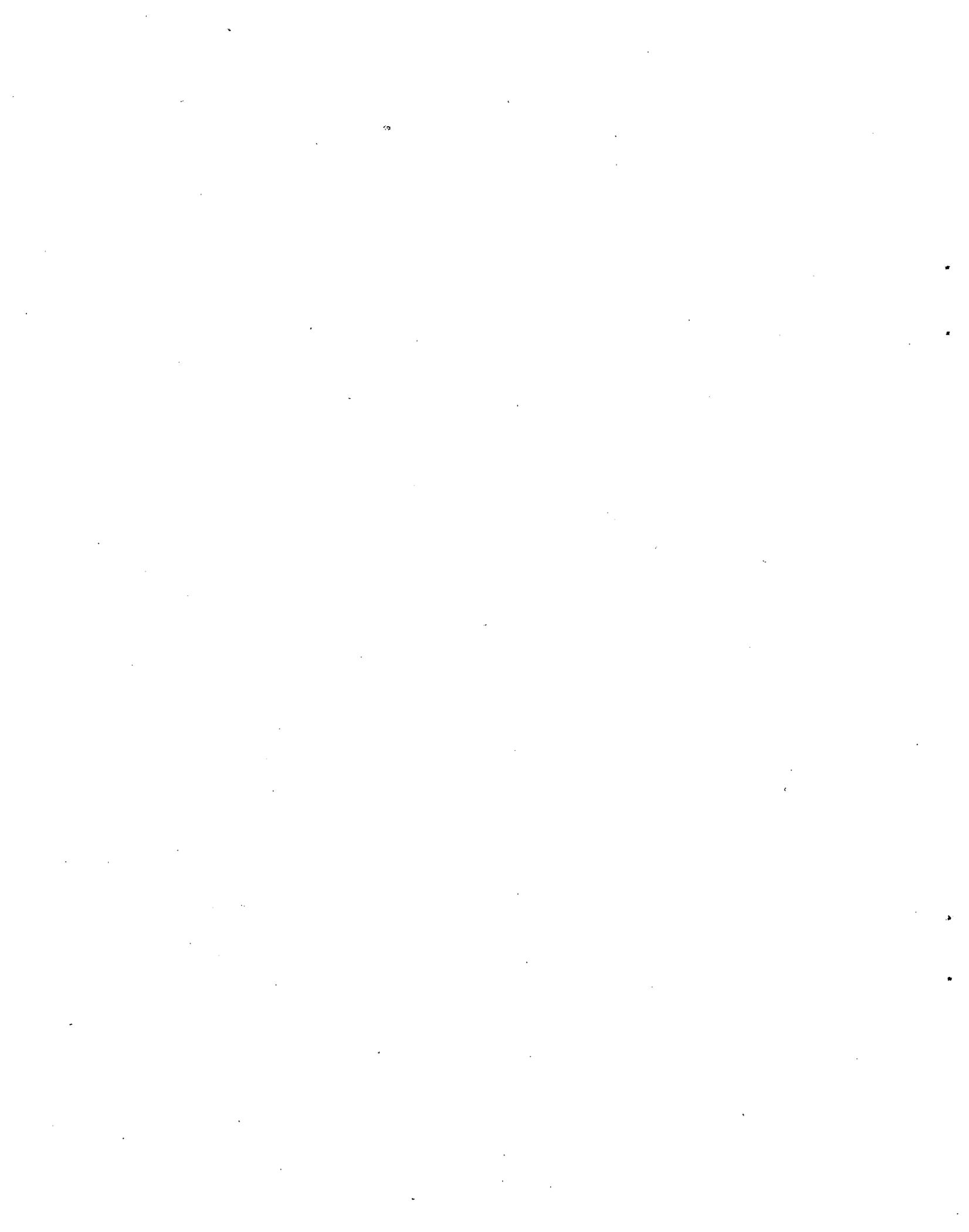




**DEFINITIONS OF SERVICE COMPONENTS**

NOTE: Additions &amp; changes in the definitions since May 1975 are shown in italics.

1. **Prevention.** Activities designed to reach persons "at risk," with general potential to abuse/neglect. For example, hospital visiting to new mothers and parents to develop their awareness of community resources & assess their potential for abuse/neglect; "family life"-type courses & presentations to high school students or adult education students; screening of medical clinic patients to identify "high risk" families. "Prevention" is closely related to "Community Education," but the essential distinction is that prevention deals specifically with groups in the population which are "at risk."
2. **Community Education.** Activities designed to promote, among the general public, an awareness of the phenomena of child abuse & neglect, an understanding of the dynamics & causes of abuse/neglect, as well as an awareness of community resources available for treating the problem. Includes speaking engagements, media appearances & interviews, workshops, poster & pamphlet preparation & distribution, etc.
3. **Professional Education.** Seminars, workshops & other training activities for professionals in fields related to children or in agencies dealing with abuse/neglect (doctors, police, court personnel, teachers, social workers, etc.). Designed to promote: awareness of & ability to identify abuse/neglect & of the project's role; understanding of reporting requirements & the dynamics of child abuse & appropriate treatment strategies; knowledge of community resources.
4. **Coordination.** Contacts with other community agencies in the child abuse & neglect system to increase coordination & develop a more effective network for receiving & treating child abuse & neglect cases. Includes one-to-one contacts with agency people, as well as meetings, etc. directed toward developing inter-agency procedures, new services, agreements & other general coordinative efforts. Many activities pursued by the project, such as a Multidisciplinary Review Team, will have spin-off effects on coordination. However, unless the main purpose of the activity is coordination, time should be allocated to another component. Thus, the time spent in Multidisciplinary Review Team meetings would be allocated to the category with that name and less formal review of cases would be allocated to Case Management & Regular Review.
5. **Legislation & Policy.** Activities directed toward effecting changes in local, State or Federal laws & other written policies for child abuse & neglect. For example, helping to draft model legislation or proposed bills or amendments, meeting with legislators to promote legislative changes, etc.
6. **Staff Development/Training.** Staff meetings & informal interactions to enhance staff knowledge of abuse/neglect, treatment strategies, methods of case handling & modes of working together. May involve outside speakers, consultants. Includes weekly "staff sensitivity" or similar sessions. Includes time spent in giving or receiving direct "on-the-job" training for staff (paid or volunteer) & in staff supervision directed toward improvement of staff functioning.
7. **Program Planning & Development.** Developing overall plans for new project components that will have long term effects. Includes changes in project operation, expansion, project goals & objectives, etc. Developing additional resources (e.g., fund-raising) for continuation of project after federal funding. (NOTE that time spent in planning for any specific project component, such as Day Care, should be allocated to it.)
8. **General Management.** Budgeting, personnel & other administrative activities not directly related to a specific project component. Includes communications & meetings to discuss administration matters & routine monitoring of staff. NOTE that time spent on any activity (typing, budgeting, etc.) which is associated with a particular component or components should be allocated to that component, not General Management (e.g., a meeting to discuss staff assignments to Group Therapy & Individual Therapy should be allocated to those two components).
9. **Project Research.** Project-generated research or research in which project plays a major role on aspects of child abuse/neglect & treatment of it, as well as evaluation research activities of monitoring & assessing your own project's activities, effectiveness, benefits & costs, etc. Includes developing project forms and client records.
10. **BPA Evaluation.** Activities performed as part of the National Evaluation being conducted by BPA. Includes meetings with BPA staff, reviewing BPA reports, filling out BPA cost, log, & client forms.
11. **Outreach.** (1) After receiving referral or self-referral, this component involves contacts with the potential client to encourage him or her to participate in or accept the project's services. May be in the form of telephone calls or home visits. (2) Activities designed to identify specific abusive and neglectful families who could benefit from the project's services.
12. **Intake & Initial Diagnosis.** Initial interview & case evaluation (following outreach efforts, if they have occurred), to determine whether abuse/neglect or potential for abuse/neglect is present, & to determine appropriate treatments or assistance. Includes consultation with other agencies, weighing medical reports, sorting out family history & present circumstances. May include medical evaluation. Includes developing a service plan if this is not done by a special Diagnostic Team. Does not include case reviews after the initial intake & diagnostic process is completed. Time spent on such reviews (e.g., developing a revised service plan) should go under Case Management & Regular Review or Multidisciplinary Team Case Review.
13. **Case Management & Regular Review.** Review of a case after intake, during treatment, for purposes of reviewing client progress & revising treatment plan. Monitoring client's receipt of services, arranging services for clients from other agencies (making appointments, etc.), discussing case with other involved agencies, follow-up. Advocacy services for the client are included here.
14. **Court Case Activities.** Time spent preparing for & presenting all necessary documents & testimony for court proceedings. Includes other case management functions specifically related to court & legal matters such as meetings with attorneys. Excludes arranging for court ordered placements. Includes transportation and waiting time related to court activities.
15. **Crisis Intervention During Intake.** Staff member intervenes in a client's crisis situation during intake. Includes emergency meetings at client's home or in the project offices. Does not include intakes which are not serious emergencies.



APPENDIX D

Detailed Data Comparison Tables

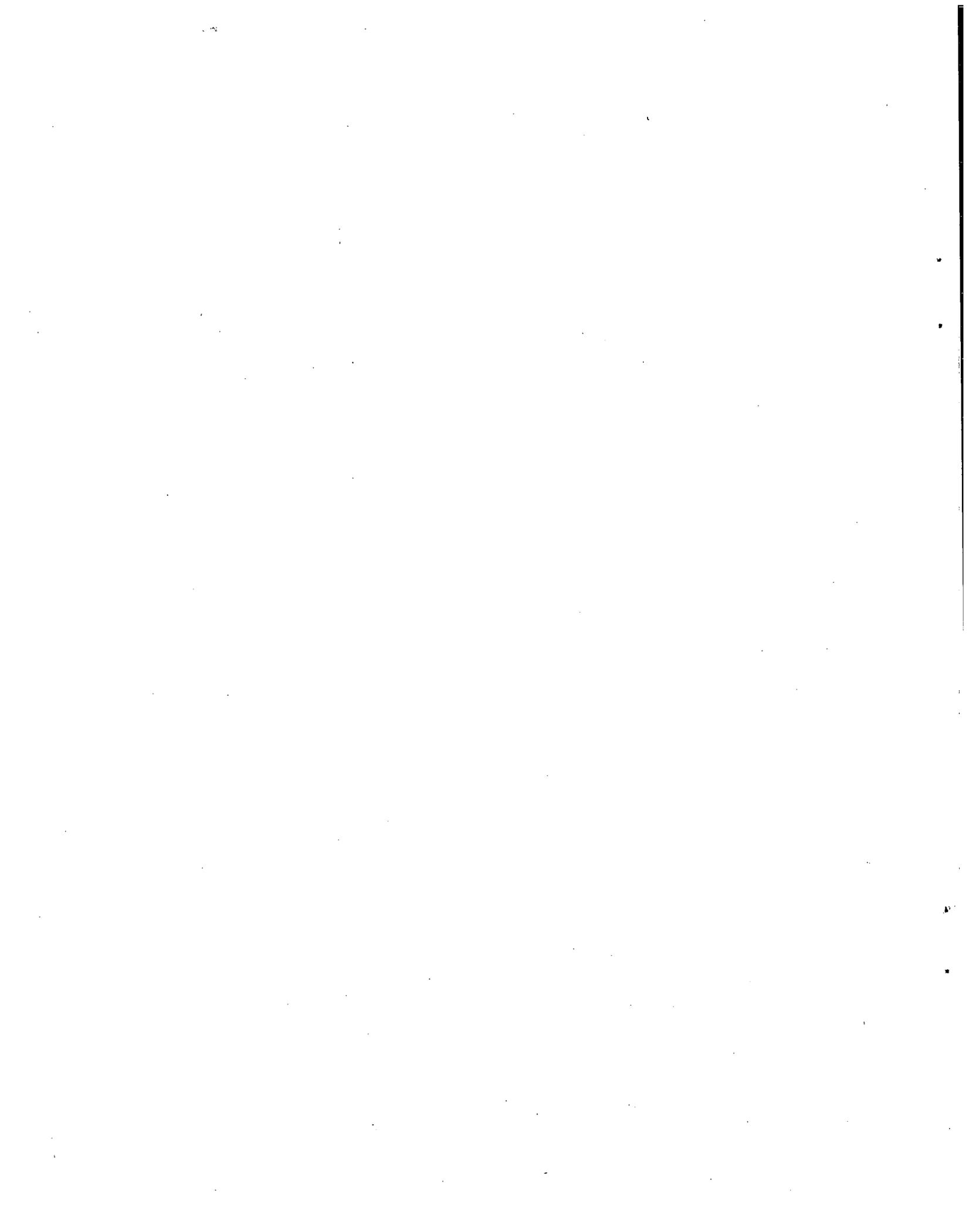


Table D-1  
SUMMARY OF COMPARISONS FOR SIGNIFICANT VARIABLES

	Average Project	Adams County	Arlington	Baton Rouge	Bayamon	Union County	St. Louis	Los Angeles	Tacoma	Jeff. Co. Arkansas	Wash. Co. Arkansas	Neah Bay	St. Petersburg
<b>Average Monthly Expenditures</b>													
Raw Data	\$15,720	15,558	18,832	14,627	12,576	55,812	13,339	19,690	12,985	5,142	5,213	4,657	10,206
Standardized Cost to Project	\$15,363	17,029	22,161	13,906	15,622	44,898	15,654	16,796	12,818	5,518	5,606	4,643	9,704
Standardized Cost to Community	\$17,710	23,048	23,203	14,369	16,070	45,615	19,565	17,132	16,027	12,297	7,626	5,253	12,311
Average Caseload Size	70	26	179	83	70	294	40	9	42	43	30	8	12
<b>Average Monthly Cost/Case</b>													
Raw Data	\$ 225	598	105	176	180	190	333	2,188	309	120	174	582	851
Standardized Cost to Project	\$ 220	655	124	168	223	153	391	1,866	305	128	187	580	809
Standardized Cost to Community	\$ 253	886	130	173	230	155	489	1,904	382	286	254	657	1,026
<b>Average Total Staff</b>													
Regular Staff	14	17	18	13	10	29	12	14	8	11	12	4	14
Non-Regular Staff	23	31	15	2	10	5	39	15	68	45	30	3	18
<b>Average Monthly Hours</b>													
Regular Staff Hours	1,729	2,634	2,274	1,681	1,370	3,872	1,506	2,498	1,332	1,012	1,048	552	971
Non-Regular Staff Hours	378	506	193	37	106	240	697	766	723	538	259	29	433
<b>Average Monthly Cost/Hour</b>													
Raw Data	\$ 7.46	4.95	7.63	8.51	8.52	13.57	6.05	6.03	6.32	3.32	3.99	8.02	7.27
Standardized Cost to Project	\$ 7.29	5.42	8.98	8.09	10.58	10.92	7.11	5.15	6.24	3.56	4.29	7.99	6.91
Standardized Cost to Community	\$ 8.41	7.34	9.41	8.26	10.88	11.09	8.88	5.25	7.80	7.93	5.83	9.04	8.77

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Table D-2: COMPARISON OF EXPENDITURES: OCTOBER 1975, APRIL 1976, AND OCTOBER 1976

	Total Program	Adams County	Arlington	Baton Rouge	Bayamon	Union County	St. Louis	Los Angeles	Tacoma	Jeff. Co. Arkansas	Wash. Co. Arkansas	Neah Bay	St. Petersburg
Type I-A													
October 1975	\$164,393	14,515	16,721	16,950	12,428	38,612	13,249	18,585	11,276	5,085	4,862	2,450	9,660
April 1976	\$203,552	13,741	18,349	11,042	11,015	67,785	14,762	21,649	16,900	4,935	5,375	7,055	10,944
October 1976	\$197,965	18,418	21,425	15,890	14,284	61,038	12,006	18,837	10,779	5,406	5,402	4,465	10,015
Type I-B													
October 1975	\$163,453	16,011	19,696	16,125	15,549	31,132	15,688	15,876	11,111	5,478	5,241	2,391	9,155
April 1976	\$196,610	14,975	21,494	10,495	13,985	54,477	17,217	18,449	16,794	5,302	5,789	7,180	10,453
October 1976	\$192,998	20,102	25,293	15,097	17,332	49,084	14,056	16,063	10,549	5,773	5,787	4,359	9,503
Type II													
October 1975	\$194,912	21,736	20,858	16,430	16,010	32,184	20,005	16,090	14,482	14,759	7,745	2,584	12,029
April 1976	\$228,200	21,712	22,499	11,579	14,659	54,712	20,771	18,727	20,265	13,877	8,077	8,002	13,320
October 1976	\$214,077	25,697	26,252	15,097	17,542	49,950	17,919	16,578	13,334	8,256	7,055	5,172	11,585
Average Caseload Size													
October 1975	807	20	207	96	58	288	30	3	39	38	27	1	0
April 1976	901	28	196	92	67	315	36	14	47	44	34	10	18
October 1976	798	30	134	60	84	278	53	10	41	48	28	14	18
Average Cost/Case -- October 1975													
Type I-A	\$ 204	726	81	177	214	134	442	6,195	289	134	180	2,450	--
Type I-B	\$ 203	801	95	168	268	108	523	5,292	285	144	194	2,391	--
Type II	\$ 242	1,087	101	171	276	112	667	5,363	371	388	287	2,584	--
Average Cost/Case -- April 1976													
Type I-A	\$ 226	491	94	120	164	215	410	1,546	360	112	158	706	608
Type I-B	\$ 218	535	110	114	209	173	478	1,318	357	121	170	718	581
Type II	\$ 253	775	115	126	219	174	577	1,338	431	315	238	800	740
Average Cost/Case -- October 1976													
Type I-A	\$ 248	614	160	265	170	220	227	1,884	263	113	193	319	556
Type I-B	\$ 242	670	189	252	206	177	265	1,606	257	120	207	311	528
Type II	\$ 268	857	196	252	209	178	338	1,658	325	172	252	369	644

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Table D-3: COMPARISON OF HOURS AND STAFF: OCTOBER 1975, APRIL 1976 AND OCTOBER 1976

	Total Program	Adams County	Arlington	Baton Rouge	Bayamon	Union County	St. Louis	Los Angeles	Tacoma	Jeff. Co. Arkansas	Wash. Co. Arkansas	Neah Bay	St. Petersburg
<b>Total Staff</b>													
October 1975	437	38	26	17	24	30	56	28	76	64	45	4	29
April 1976	483	60	36	12	23	36	47	32	92	64	47	4	31
October 1976	407	45	37	17	13	36	50	27	61	39	34	12	36
<b>Total Hours</b>													
October 1975	25,198	2,983	2,377	2,099	1,694	3,893	2,394	2,654	1,974	1,799	1,325	480	1,526
April 1976	25,806	3,356	2,584	1,304	1,413	4,262	2,117	3,956	2,090	1,483	1,344	496	1,401
October 1976	24,829	3,082	2,440	1,751	1,321	4,182	2,097	3,183	2,102	1,367	1,251	767	1,286
<b>Total Regular Staff<sup>1</sup></b>													
October 1975	158	13	18	15	10	26	12	12	8	11	12	3	18
April 1976	161	20	18	10	10	31	12	14	9	11	12	3	11
October 1976	172	18	18	15	9	30	12	17	8	12	13	7	13
<b>Total Regular Hours</b>													
October 1975	21,083	2,505	2,208	2,091	1,586	3,770	1,683	2,210	1,354	1,122	1,036	472	1,046
April 1976	20,664	2,796	2,389	1,228	1,258	4,008	1,431	2,779	1,261	944	1,107	488	975
October 1976	20,499	2,602	2,224	1,723	1,265	3,838	1,405	2,504	1,381	969	1,001	695	892
<b>Total Non-Regular Staff<sup>2</sup></b>													
October 1975	280	25	8	2	14	4	44	16	69	53	33	1	11
April 1976	322	40	18	2	13	5	35	18	83	53	35	1	20
October 1976	235	27	19	2	4	6	38	10	53	27	21	5	23
<b>Total Non-Regular Hours</b>													
October 1975	4,115	478	169	8	108	123	711	444	620	677	289	8	480
April 1976	5,142	560	195	76	155	254	686	1,177	829	539	237	8	426
October 1976	4,330	480	216	28	56	344	692	679	721	398	250	72	394

<sup>1</sup>Regular = full-time, part-time, and substitute staff.

<sup>2</sup>Non-Regular = consultants, volunteers, reimbursed volunteers.

D.E.

Table D-1: SUMMARY OF OCTOBER 1975

	Total Program	Adams County	Arlington	Baton Rouge	Bayamon	Union County	St. Louis	Los Angeles	Tacoma	Jeff. Co. Arkansas	Wash. Co. Arkansas	Neah Bay	St. Petersburg
Total Expenditures													
Type I-A	\$164,393	14,515	16,721	16,950	12,428	38,612	13,249	18,585	11,276	5,085	4,862	2,450	9,660
Type I-B	\$163,453	16,011	19,696	16,125	15,549	31,132	15,688	15,876	11,111	5,478	5,241	2,391	9,155
Type II	\$194,912	21,756	20,858	16,430	16,010	32,184	20,005	16,090	14,482	14,759	7,745	2,584	12,029
Total Hours Expended	25,198	2,983	2,377	2,099	1,694	3,893	2,394	2,654	1,974	1,799	1,325	480	1,526
Cost/hour Type I-A	\$ 6.52	4.87	7.03	8.08	7.34	9.92	5.53	7.00	5.71	2.83	3.67	5.10	6.33
Cost/hour Type I-B	\$ 6.49	5.57	8.29	7.68	9.18	8.00	6.55	5.98	5.63	3.05	3.96	4.98	6.00
Cost/hour Type II	\$ 7.74	7.29	8.77	7.83	9.45	8.27	8.36	6.06	7.34	8.20	5.85	5.38	7.88
Average Number of Cases Served	807	20	207	96	58	288	30	3	39	38	27	1	0
Cost/case Type I-A	\$ 204	726	81	177	214	134	442	6,195	289	134	180	2,450	--
Cost/case Type I-B	\$ 203	801	95	168	268	108	523	5,292	285	144	194	2,391	--
Cost/case Type II	\$ 242	1,087	101	171	276	112	667	5,363	371	388	287	2,584	--
Perc. Spent on Project Operations	36	27	24	35	30	32	35	55	44	32	42	70	37
Perc. Spent on Community Activities													
Type I-B	22	17	11	14	30	12	13	21	52	17	21	68	54
Type II	20	14	12	14	31	11	12	21	51	8	17	58	48
Perc. Spent on Research													
Type I-B	9	14	4	4	23	7	7	3	10	12	14	0	12
Type II	9	12	4	4	22	11	7	3	13	5	11	0	11
Perc. Spent on Casework Activities													
Type I-B	20	27	25	33	5	32	16	8	8	20	21	5	6
Type II	24	39	26	32	5	30	14	8	9	55	31	5	5
Perc. Spent on Parents' Services													
Type I-B	26	16	24	19	33	37	24	2	30	51	44	20	27
Type II	25	14	23	19	33	37	25	2	27	31	41	20	33
Perc. Spent on Children's Services													
Type I-B	11	18	20	2	0	0	28	61	0	0	0	0	0
Type II	11	17	21	2	0	0	29	61	0	0	0	0	0
Perc. Spent on Family Services													
Type I-B	8	6	15	29	10	11	12	5	1	1	0	8	2
Type II	8	5	14	29	9	11	13	5	1	1	0	8	4
Total Regular Staff	158	13	18	15	10	26	12	12	8	11	12	3	18
Total Non-Regular Staff	280	25	8	2	14	4	44	16	69	53	33	1	11

D-1

Table D-5: SUMMARY OF APRIL 1976

	Total Program	Adams County	Arlington	Baton Rouge	Bayamon	Union County	St. Louis	Los Angeles	Tacoma	Jeff. Co. Arkansas	Wash. Co. Arkansas	Neah Bay	St. Petersburg
Total Expenditures													
Type I-A	\$203,552	13,741	18,349	11,042	11,015	67,785	14,762	21,649	16,900	4,935	5,375	7,055	10,944
Type I-B	\$196,610	14,975	21,494	10,495	13,985	54,477	17,217	18,449	16,794	5,302	5,789	7,180	10,453
Type II	\$228,200	21,712	22,499	11,579	14,659	54,712	20,771	18,727	20,265	13,877	8,077	8,002	13,320
Total Hours Expended	25,806	3,356	2,584	1,304	1,413	4,262	2,117	3,956	2,090	1,483	1,344	496	1,401
Cost/hour Type I-A	\$ 7.89	4.09	7.10	8.47	7.80	15.90	6.97	5.47	8.09	3.33	4.00	14.22	7.81
Cost/hour Type I-B	\$ 7.62	4.46	8.32	8.05	9.90	12.78	8.13	4.66	8.04	3.58	4.31	14.48	7.46
Cost/hour Type II	\$ 8.84	6.47	8.71	8.88	10.37	12.84	9.81	4.73	9.70	9.36	6.01	16.13	9.51
Average Number of Cases Served	901	28	196	92	67	315	36	14	47	44	34	10	18
Cost/case Type I-A	\$ 226	491	94	120	164	215	410	1,546	360	112	158	706	608
Cost/case Type I-B	\$ 218	535	110	114	209	173	478	1,318	357	121	170	718	581
Cost/case Type II	\$ 253	775	115	126	219	174	577	1,338	431	315	238	800	740
Perc. Spent on Project Operations	41	41	21	36	31	38	46	43	54	44	41	79	55
Perc. Spent on Community Activities													
Type I-B	17	9	3	11	24	9	11	7	54	20	21	53	41
Type II	16	8	4	10	26	9	10	7	51	9	18	53	35
Perc. Spent on Research													
Type I-B	11	14	7	6	22	10	10	3	12	10	18	33	14
Type II	11	14	7	5	22	10	10	4	14	4	14	33	12
Perc. Spent on Casework Activities													
Type I-B	17	16	29	31	13	24	14	4	4	18	22	4	2
Type II	20	24	28	33	13	24	14	4	4	58	32	4	8
Perc. Spent on Parents' Services													
Type I-B	28	20	26	16	29	38	26	10	28	44	40	10	41
Type II	27	17	26	16	28	39	27	10	29	25	36	10	43
Perc. Spent on Children's Services													
Type I-B	14	37	18	0	8	5	29	68	0	1	0	0	1
Type II	14	34	18	0	8	5	30	68	0	0	0	0	1
Perc. Spent on Family Services													
Type I-B	9	4	18	37	4	14	10	9	2	7	0	0	2
Type II	9	4	18	36	4	14	10	9	2	3	0	0	2
Total Regular Staff	161	20	18	10	10	31	12	14	9	11	12	3	11
Total Non-Regular Staff	322	40	18	2	13	5	35	18	85	53	35	1	20

Table D-6: SUMMARY OF OCTOBER 1976

	Total Program	Adams County	Arlington	Baton Rouge	Bayamon	Union County	St. Louis	Los Angeles	Tacoma	Jeff. Co. Arkansas	Wash. Co. Arkansas	Neah Bay	St. Petersburg
Total Expenditures													
Type I-A	\$205,000	18,418	21,425	15,890	14,284	68,073	12,006	18,837	10,779	5,406	5,402	4,465	10,015
Type I-B	\$198,626	20,102	25,293	15,097	17,332	54,712	14,056	16,063	10,549	5,773	5,787	4,359	9,503
Type II	\$214,077	25,697	25,252	15,097	17,542	49,590	17,919	16,578	13,334	8,256	7,055	5,172	11,585
Total Hours Expended	24,829	3,082	2,440	1,751	1,321	4,182	2,097	3,183	2,102	1,367	1,251	767	1,286
Cost/hour Type I-A	\$ 8.26	5.98	8.78	9.07	10.81	16.28	5.73	5.92	5.13	3.95	4.32	5.82	7.79
Cost/hour Type I-B	\$ 8.00	6.52	10.37	8.62	13.12	13.08	6.70	5.05	5.02	4.22	4.63	5.68	7.39
Cost/hour Type II	\$ 8.62	8.34	10.76	8.62	13.28	11.86	8.55	5.21	6.34	6.04	5.64	6.74	9.01
Average Number of Cases Served	798	30	134	60	84	278	53	10	41	48	28	14	18
Cost/case Type I-A	\$ 257	614	160	265	170	245	227	1,884	263	113	193	319	556
Cost/case Type I-B	\$ 249	670	189	252	206	197	265	1,606	257	120	207	311	528
Cost/case Type II	\$ 268	857	196	252	209	178	338	1,658	325	172	252	369	644
Perc. Spent on Project Operations	39	40	19	35	46	29	46	43	44	43	37	44	42
Perc. Spent on Community Activities													
Type I-B	24	13	7	23	37	8	9	7	48	21	27	34	59
Type II	23	11	7	23	37	8	9	7	49	16	25	30	49
Perc. Spent on Research													
Type I-B	8	11	2	1	9	7	11	1	22	10	11	2	7
Type II	7	11	2	1	9	8	9	1	21	8	9	2	5
Perc. Spent on Casework Activities													
Type I-B	17	14	28	31	12	27	4	2	6	14	23	31	8
Type II	18	20	28	31	12	26	3	2	6	19	23	39	10
Perc. Spent on Parents' Services													
Type I-B	25	20	26	7	28	38	23	7	18	50	37	24	26
Type II	26	17	26	7	28	38	25	6	17	53	40	21	34
Perc. Spent on Children's Services													
Type I-B	15	38	15	0	10	7	37	76	0	0	0	0	0
Type II	15	34	16	0	10	7	37	76	0	0	0	0	0
Perc. Spent on Family Services													
Type I-B	11	4	22	39	4	14	16	7	7	5	2	9	1
Type II	11	7	21	39	4	14	17	7	7	4	2	8	1
Total Regular Staff	172	18	18	15	9	30	12	17	8	12	13	7	15
Total Non-Regular Staff	235	27	19	2	4	6	38	10	53	27	21	5	23

D.C.

Table D-7: (page 1 of 15): COMPARISON OF UNIT COSTS FOR DIRECT SERVICES

SERVICE: Outreach / UNITS: Cases

Month/Units	Total Program	Adams County	Arlington	Baton Rouge	Bayamon	Union County	St. Louis	Los Angeles	Tacoma	Jeff. County	Wash. County	Neah Bay	St. Petersburg
October 1975	47	28	4	0	4	0	3	0	8			0	
Type I-B	\$ 18.50	2.25	81.75	--	29.25	--	76.75	--	17.25			--	
Type II	\$ 19.25	2.50	82.25	--	29.75	--	95.50	--	12.50			--	
April 1976	92	1	26	1	14	40	4	6	0			0	
Type I-B	\$ 24.75	19.50	2.25	18.50	31.75	24.75	152.25	21.00	--			--	
Type II	\$ 25.00	22.50	2.25	19.50	32.25	24.75	157.50	21.00	--			--	
October 1976	46	2	5	4	15	0	2	4	5			9	
Type I-B	\$ 29.50	19.00	74.50	95.00	4.00	--	54.00	19.50	21.00			24.25	
Type II	\$ 31.25	25.75	76.25	95.00	4.00	--	57.50	19.75	26.50			26.00	
Average	51	10	12	3	11		3	5	7				
Type I-B	\$ 25.25	3.75	21.75	79.75	18.75		105.25	20.50	18.75				
Type II	\$ 26.00	4.75	22.00	80.00	19.00		114.50	20.50	17.75				

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COMPARISON OF UNIT COSTS FOR DIRECT SERVICES

SERVICE: Intake & Initial Diagnosis / UNITS: Intakes

Month/Units	Total Program	Adams County	Arlington	Baton Rouge	Bayamon	Union County	St. Louis	Los Angeles	Tacoma	Jeff. County	Wash. County	Neah Bay	St. Petersburg
October 1975	198	24	35	20	2	35	29	0	10	22	20	1	
Type I-B	\$ 80.50	119.50	79.75	169.00	66.25	109.00	62.50	--	22.75	13.00	26.25	117.25	
Type II	\$ 83.50	131.50	80.25	170.75	67.50	101.25	71.75	--	28.00	15.75	32.00	121.25	
April 1976	196	16	34	31	9	34	5	18	2	29	16	2	
Type I-B	\$ 72.50	83.50	112.50	69.25	50.50	115.75	312.00	4.25	60.00	7.75	33.00	12.00	
Type II	\$ 80.25	119.50	113.00	85.00	51.75	116.00	362.00	4.25	65.25	9.75	38.00	13.50	
October 1976	171	27	27	30	13	21	6	0	11	26	18	2	
Type I-B	\$ 81.50	46.00	111.75	68.50	31.50	245.25	47.00	--	23.50	21.75	51.50	17.50	
Type II	\$ 84.25	52.25	112.50	68.50	31.75	245.50	53.00	--	28.75	25.75	56.00	18.75	
Average	186	22	32	27	8	30	13		8	26	18	2	
Type I-B	\$ 78.75	81.25	100.25	93.50	41.50	143.25	91.25		29.25	14.00	36.75	35.25	
Type II	\$ 83.25	96.75	101.00	100.00	42.25	140.50	105.25		31.50	16.75	41.75	37.25	

## COMPARISON OF UNIT COSTS FOR DIRECT SERVICES

SERVICE: Court Case Activities / UNIT: Cases

Month/Units	Total Program	Adams County	Arlington	Baton Rouge	Bayamon	Union County	St. Louis	Los Angeles	Tacoma	Jeff. County	Wash. County	Neah Bay	St. Petersburg
October 1975	42	6	15	1	2	3	5	2	2	5	1	0	
Type I-B	\$ 96.75	61.75	62.25	1357.25	86.25	109.00	54.00	52.25	50.25	49.25	182.00	--	
Type II	\$103.25	67.25	70.75	1362.50	88.25	101.25	58.25	52.50	59.25	58.75	218.00	--	
April 1976	65	8	26	3	0	6	5	7	3	6	1	0	
Type I-B	\$117.25	40.50	59.25	133.50	--	809.75	44.25	11.00	24.50	15.00	34.50	--	
Type II	\$121.25	50.00	64.00	142.50	--	811.25	45.75	11.00	26.50	17.75	36.00	--	
October 1976	57	4	16	3	5	8	3	2	5	6	1	2	
Type I-B	\$149.00	106.25	155.75	213.50	105.75	446.00	7.00	58.25	40.00	32.00	263.00	26.00	
Type II	\$157.50	122.75	163.00	213.50	107.00	446.50	7.50	59.00	50.00	66.75	284.75	27.50	
Average	55	6	19	2	4	6	4	4	3	6	1		
Type I-B	\$126.00	62.25	87.00	342.50	100.25	515.00	39.50	27.00	37.50	31.00	159.75		
Type II	\$132.25	72.00	93.50	347.25	101.75	514.25	41.75	27.25	44.75	47.00	179.50		

## COMPARISON OF UNIT COSTS FOR DIRECT SERVICES

SERVICE: Crisis Intervention at Intake / UNITS: Contacts

Month/Units	Total Program	Adams County	Arlington	Baton Rouge	Bayamon	Union County	St. Louis	Los Angeles	Tacoma	Jeff. County	Wash. County	Neah Bay	St. Petersburg
October 1975	166	8	48	26	0	60	22	0		2	0	0	
Type I-B	\$15.00	19.25	7.50	42.00	--	11.00	8.25	--		26.00	--	--	
Type II	\$ 15.25	21.25	7.75	42.25	--	10.25	9.00	--		31.50	--	--	
April 1976	94	0	22	9	2	58	2	0		1	0	0	
Type I-B	\$ 12.50	--	7.25	13.75	19.00	9.75	135.25	--		43.25	--	--	
Type II	\$ 12.75	--	7.25	14.50	19.50	10.00	139.50	--		46.50	--	--	
October 1976	124	6	7	9	0	86	0	4		5	3	4	
Type I-B	\$13.00	5.75	39.75	7.00	--	9.00	--	10.25		26.00	41.00	42.25	
Type II	\$ 13.50	5.25	40.00	7.00	--	9.00	--	10.50		30.50	44.25	45.00	
Average	132	7	26	15		68	12			3			
Type I-B	\$ 13.50	13.50	10.25	29.00		9.75	18.75			28.25			
Type II	\$ 14.00	14.75	10.50	30.00		9.75	20.75			32.75			

Table D-7: (page 3 of 15):

COMPARISON OF UNIT COSTS FOR DIRECT SERVICESSERVICE: Multidisciplinary Team / UNIT: Reviews

Month/Units	Total Program	Adams County	Arlington	Baton Rouge	Bayamon	Union County	St. Louis	Los Angeles	Tacoma	Jeff. County	Wash. County	Neah Bay	St. Petersburg
October 1975	156	70	8	8	3	49	1	3	2	11	1	0	0
Type I-B	\$ 38.00	15.25	102.75	38.50	96.25	39.25	87.25	43.75	217.00	46.25	346.00	--	--
Type II	\$118.75	68.00	130.50	38.50	98.50	42.00	151.50	45.25	388.00	680.25	1529.75	--	--
April 1976	103	19	7	5	3	50	0	6	5	4	2	0	0
Type I-B	\$ 65.50	34.50	85.25	134.00	81.75	61.00	--	24.50	82.50	159.00	170.75	--	--
Type II	\$169.00	152.75	97.50	151.00	83.25	61.25	--	24.75	93.75	1909.50	751.75	--	--
October 1976	109	24	4	5	1	48	0	2	2	7	7	5	4
Type I-B	\$ 80.75	45.75	296.00	256.50	789.00	53.00	--	35.50	17.25	8.25	11.50	212.50	148.50
Type II	\$116.25	133.00	314.75	256.50	798.25	53.00	--	36.00	22.00	64.75	38.25	336.25	267.00
Average	118	38	6	6	2	49		4	3	7	3		
Type I-B	\$ 54.75	25.00	137.00	125.50	189.00	51.25		31.75	98.00	54.75	76.75		
Type II	\$125.50	96.00	157.25	130.25	192.00	52.25		32.50	143.25	708.00	330.00		

COMPARISON OF UNIT COSTS FOR DIRECT SERVICESSERVICE: Individual Counseling / UNITS: Contacts

Month/Units	Total Program	Adams County	Arlington	Baton Rouge	Bayamon	Union County	St. Louis	Los Angeles	Tacoma	Jeff. County	Wash. County	Neah Bay	St. Petersburg
October 1975	793	82	136	60	53	209	110	6	107	15	0	0	
Type I-B	\$ 15.50	5.50	18.25	15.50	41.25	21.50	3.25	14.25	10.25	14.50	--	--	
Type II	\$ 15.75	6.00	18.25	16.00	42.00	20.00	4.50	14.25	12.25	17.75	--	--	
April 1976	1046	27	305	52	46	439	14	20	107	12	6	18	
Type I-B	\$ 15.75	13.00	9.50	18.00	38.75	18.50	24.00	14.75	7.50	15.25	47.50	24.00	
Type II	\$ 16.25	15.50	9.50	21.00	39.50	18.50	25.50	15.00	9.00	14.50	48.25	27.00	
October 1976	1228	10	378	43	103	414	78	37	129	9	7	20	
Type I-B	\$ 12.75	18.00	9.75	8.75	18.00	16.75	9.50	6.25	6.00	15.00	25.00	25.25	
Type II	\$ 13.25	19.25	10.00	8.75	18.25	16.75	12.75	6.50	7.25	25.75	27.50	26.75	
Average	1026	40	273	52	67	354	67	21	114	12	7	19	
Type I-B	\$ 14.75	8.25	11.00	14.50	28.75	18.50	7.00	9.75	7.75	14.75	35.50	24.75	
Type II	\$ 15.00	9.25	11.25	15.75	29.25	18.00	9.25	10.00	9.25	18.75	37.00	26.75	

Table D-7: (page 4 of 15): COMPARISON OF UNIT COSTS FOR DIRECT SERVICES

SERVICE: Parent Aide/Lay Therapist Counseling / UNITS: Contacts\*

Month/Units	Total Program	Adams County	Arlington	Baton Rouge	Bayamon	Union County	St. Louis	Los Angeles	Tacoma	Jeff. County	Wash. County	Neah Bay	St. Petersburg
October 1975	549	54	0			103	31	0	11	242	108		0
Type I-B	\$ 15.25	18.75	--			20.50	15.00	--	61.50	9.25	16.75		--
Type II	\$ 18.00	21.50	--			20.00	21.50	--	74.50	15.75	23.00		--
April 1976	698	96	21			96	30	4	13	170	150		118
Type I-B	\$ 14.50	11.00	13.50			21.75	34.50	43.00	54.50	11.25	11.00		23.50
Type II	\$ 22.50	13.00	23.25			22.75	44.25	43.25	67.75	18.00	14.75		35.25
October 1976	900	86	18			157	24	0	29	264	170		152
Type I-B	\$ 12.25	18.75	17.25			20.50	11.50	--	14.00	7.50	8.50		11.50
Type II	\$ 16.00	20.50	22.25			20.50	18.50	--	19.50	11.00	12.25		20.50
Average	767	79	20			119	28		18	225	143		135
Type I-B	\$ 14.50	15.50	15.25			20.75	21.00		33.75	9.00	11.50		16.75
Type II	\$ 19.75	17.75	22.75			21.00	28.75		42.75	14.50	15.75		27.00

\*To calculate "contact hours" multiply the service volumes by two; to calculate the cost per contact hour, divide the per unit cost by two.

COMPARISON OF UNIT COSTS FOR DIRECT SERVICES

SERVICE: Couples Counseling / UNITS: Contacts

Month/Units	Total Program	Adams County	Arlington	Baton Rouge	Bayamon	Union County	St. Louis	Los Angeles	Tacoma	Jeff. County	Wash. County	Neah Bay	St. Petersburg
October 1975	101	14	9	25	14	14	25	0	0				
Type I-B	\$ 15.75	14.25	17.50	7.25	28.25	31.50	8.50	--	--				
Type II	\$ 16.75	15.50	17.75	7.25	28.75	35.00	9.75	--	--				
April 1976	173	32	8	2	4	19	20	3	85				
Type I-B	\$ 20.25	16.75	19.75	9.25	23.75	84.75	15.00	14.00	9.00				
Type II	\$ 22.25	20.75	19.75	9.75	24.25	85.00	18.00	14.00	10.75				
October 1976	95	11	10	0	9	32	8	4	31				
Type I-B	\$ 19.25	18.75	24.50	--	32.50	16.75	10.50	21.00	12.50				
Type II	\$ 20.25	20.25	24.75	--	33.00	17.00	11.25	21.25	14.50				
Average	153	19	9	14	9	22	18	4	58				
Type I-B	\$ 17.00	16.50	20.75	7.50	29.00	39.75	11.25	18.00	10.00				
Type II	\$ 18.25	19.25	21.00	7.50	29.50	40.75	13.00	18.25	11.75				

Table D-7: (page 5 of 15): COMPARISON OF UNIT COSTS FOR DIRECT SERVICES

SERVICE: Family Counseling / UNITS: Contacts

Month/Units	Total Program	Adams County	Arlington	Baton Rouge	Bayamon	Union County	St. Louis	Los Angeles	Tacoma	Jeff. County	Wash. County	Neay Bay	St. Petersburg
October 1975	96	0	28	25	21	14	8	0					
Type I-B	\$ 19.50	--	19.50	5.25	28.00	37.50	9.50	--					
Type II	\$ 21.25	--	19.75	5.25	28.50	40.50	25.25	--					
April 1976	101	6	31	3	17	30	12	2					
Type I-B	\$ 40.00	32.50	17.50	46.75	35.50	74.50	23.00	18.50					
Type II	\$ 42.00	38.50	17.75	49.50	36.25	74.75	34.25	18.50					
October 1976	114	7	9	3	38	50	7	0					
Type I-B	\$ 29.50	36.25	27.75	25.00	35.75	22.75	42.50	--					
Type II	\$ 30.00	39.25	27.75	25.00	36.00	22.75	45.25	--					
Average	105	7	23	10	25	31	9						
Type I-B	\$ 30.00	34.50	19.75	11.25	33.50	41.50	24.00						
Type II	\$ 31.50	39.00	20.00	11.50	34.00	42.00	34.50						

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COMPARISON OF UNIT COSTS FOR DIRECT SERVICES

SERVICE: Alcohol, Drug, Weight Counseling / UNITS: Person Sessions

Month/Units	Total Program	Adams County	Arlington	Baton Rouge	Bayamon	Union County	St. Louis*	Los Angeles	Tacoma	Jeff. County	Wash. County	Neah Bay	St. Petersburg
October 1975	6				6		0	0	0			0	
Type I-B	\$ 35.75				35.75		--	--	--			--	
Type II	\$ 36.50				36.50		--	--	--			--	
April 1976	23				6		14	3	0			0	
Type I-B	\$ 19.75				47.50		8.00	18.75	--			--	
Type II	\$ 26.00				48.75		17.75	18.75	--			--	
October 1976	109				90		13	0	1			5	
Type I-B	\$ 2.75				1.75		14.75	--	28.50			12.75	
Type II	\$ 6.25				2.00		30.75	--	33.00			13.75	
Average	43				34		9						
Type I-B	\$ 7.50				6.50		11.25						
Type II	\$ 10.25				6.75		24.00						

\*Used for Recreational Therapy.

Table D-7: (page 6 of 15): COMPARISON OF UNIT COSTS FOR DIRECT SERVICES

SERVICE: 24-hour Hotline / UNITS: Calls

Month/Units	Total Program	Adams County	Arlington	Baton Rouge	Bayamon	Union County	St. Louis	Los Angeles	Tacoma	Jeff. County	Wash. County	Neah Bay	St. Petersburg
October 1975	16		0			0	16						
Type I-B	\$ 5.50		--			--	5.50						
Type II	\$ 5.75		--			--	5.75						
April 1976	23		9			0	14						
Type I-B	\$ 6.75		9.75			--	4.75						
Type II	\$ 6.75		9.75			--	4.75						
October 1976	52		14			31	7						
Type I-B	\$ 5.75		9.50			4.00	7.00						
Type II	\$ 6.00		9.50			4.00	7.50						
Average	24		12				12						
Type I-B	\$ 7.50		9.50				5.50						
Type II	\$ 7.50		9.50				5.75						

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COMPARISON OF UNIT COSTS FOR DIRECT SERVICES

SERVICE: Individual Therapy / UNIT: Contacts

Month/Units	Total Program	Adams County	Arlington	Baton Rouge	Bayamon	Union County	St. Louis	Los Angeles	Tacoma	Jeff. County	Wash. County	Neah Bay	St. Petersburg
October 1975	133	0	5	29	14	39	34	12				0	
Type I-B	\$ 19.75	--	28.50	6.50	34.00	36.25	7.50	14.00				--	
Type II	\$ 23.50	--	28.75	6.50	34.75	43.25	13.25	14.25				--	
April 1976	195	40	7	2	16	51	14	63				2	
Type I-B	\$ 23.00	12.25	20.75	33.00	32.00	41.25	5.50	15.25				60.00	
Type II	\$ 23.75	14.00	20.75	35.00	32.75	41.25	10.25	15.50				62.75	
October 1976	228	42	21	0	46	55	33	31				0	
Type I-B	\$ 26.00	21.25	22.50	--	13.25	38.00	12.75	21.00				--	
Type II	\$ 27.75	22.75	22.50	--	13.25	38.00	20.75	21.50				--	
Average	203	41	11	16	25	48	27	35					
Type I-B	\$ 21.25	16.75	23.00	8.25	21.00	38.75	9.25	16.75					
Type II	\$ 22.75	18.50	23.00	8.25	21.25	40.50	15.75	17.00					

Table D-7: (page 7 of 15): COMPARISON OF UNIT COSTS FOR DIRECT SERVICES  
SERVICE: Group Therapy / UNITS: Person Sessions

Month/Units	Total Program	Adams County	Arlington	Baton Rouge	Bayamon	Union County	St. Louis	Los Angeles	Tacoma	Jeff. County	Wash. County	Neah Bay	St. Petersburg
October 1975	283	84	58	20	4	0	95		26				
Type I-B	\$ 10.50	2.00	9.00	9.50	62.50	--	11.75		28.25				
Type II	\$ 12.25	2.75	9.00	9.50	63.75	--	15.00		32.00				
April 1976	274	20	77	0	0	36	128		13				
Type I-B	\$ 8.75	4.75	9.25	--	--	10.50	6.75		25.50				
Type II	\$ 10.00	8.00	9.50	--	--	10.50	8.75		27.75				
October 1976	312	22	80	0	3	19	94		0				
Type I-B	\$ 7.50	10.25	9.00	--	78.50	6.00	11.00		--				
Type II	\$ 8.75	11.75	9.00	--	79.50	6.00	14.75		--				
Average	272	42	72		4	28	106		20				
Type I-B	\$ 10.50	3.75	9.00		69.25	9.00	9.50		27.25				
Type II	\$ 12.25	5.25	9.25		70.50	9.00	12.50		30.50				

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COMPARISON OF UNIT COSTS FOR DIRECT SERVICES  
SERVICE: Parents Anonymous / UNITS: Person Sessions

Month/Units	Total Program	Adams County	Arlington	Baton Rouge	Bayamon	Union County	St. Louis	Los Angeles	Tacoma	Jeff. County	Wash. County	Neah Bay	St. Petersburg
October 1975	344	48						0		31	20		245
Type I-B	\$ 3.50	4.00						--		5.50	14.50		2.25
Type II	\$ 4.25	4.25						--		8.75	20.25		2.50
April 1976	109	34						19		30	0		26
Type I-B	\$ 8.25	4.25						2.50		4.75	--		22.00
Type II	\$ 9.75	5.75						6.00		5.00	--		22.75
October 1976	142	80						0		32	7		23
Type I-B	\$ 8.25	2.75						--		7.25	19.50		25.00
Type II	\$ 10.25	3.00						--		15.00	21.50		25.25
Average	197	54								31	14		98
Type I-B	\$ 5.75	3.50								5.75	15.75		5.75
Type II	\$ 7.00	4.00								9.75	20.50		6.00

Table D-7: (page 8 of 15): COMPARISON OF UNIT COSTS FOR DIRECT SERVICES

SERVICE: Parent Education Classes / UNITS: Person Sessions

Month/Units	Total Program	Adams County	Arlington	Baton Rouge	Bayamon	Union County	St. Louis*	Los Angeles	Tacoma	Jeff. County	Wash. County	Neah Bay	St. Petersburg
October 1975	194	60			7	56	24		28		0	4	15
Type I-B	\$ 17.00	3.00			40.50	18.75	27.00		27.75		--	51.50	10.50
Type II	\$ 20.00	3.25			41.50	17.50	35.25		34.00		--	54.50	26.50
April 1976	408	20			235	19	16		53		60	5	0
Type I-B	\$ 8.50	6.00			1.00	16.00	48.25		33.25		2.00	33.50	--
Type II	\$ 10.50	7.00			1.00	16.00	60.50		43.25		2.50	35.75	--
October 1976	248	20			100	33	12		5		78	0	0
Type I-B	\$ 7.00	13.25			1.00	22.00	23.75		31.75		2.25	--	--
Type II	\$ 7.75	16.25			1.00	22.00	30.25		39.75		2.50	--	--
Average	303	33			114	36	17		29		69	4	
Type I-B	\$ 9.50	5.75			1.75	19.25	32.75		31.25		2.25	41.50	
Type II	\$ 11.00	6.50			1.75	18.50	41.75		40.00		2.50	44.00	

\* Behavior Management Training

COMPARISON OF UNIT COSTS FOR DIRECT SERVICES

SERVICE: Crisis Intervention After Intake / UNITS: Contacts

Month/Units	Total Program	Adams County	Arlington	Baton Rouge	Bayamon	Union County	St. Louis	Los Angeles	Tacoma	Jeff. County	Wash. County	Neah Bay	St. Petersburg
October 1975	150	3	25	29	7	27	28	0	11	3	17	0	
Type I-B	\$ 17.75	3.50	17.75	9.75	108.00	29.25	9.75	--	0.75	33.25	0.50	--	
Type II	\$ 18.25	3.75	17.75	10.00	110.50	27.25	10.50	--	1.00	53.50	0.50	--	
April 1976	385	19	46	21	10	233	30	11	4	6	5	0	
Type I-B	\$ 14.00	0.50	10.25	16.50	50.75	15.00	8.50	7.25	35.50	13.00	7.25	--	
Type II	\$ 14.50	0.75	10.25	17.50	52.00	15.00	9.25	7.25	39.00	15.75	13.00	--	
October 1976	379	9	15	14	3	282	8	1	22	15	1	9	
Type I-B	\$ 12.75	17.50	35.75	11.75	99.25	10.25	7.50	19.50	3.00	29.75	62.50	12.00	
Type II	\$ 13.25	18.75	36.00	11.75	100.50	10.25	8.00	19.75	3.50	42.25	86.50	12.75	
Average	304	10	29	21	7	181	22	6	12	8	8		
Type I-B	\$ 14.25	5.75	16.75	12.75	78.00	13.25	9.00	8.25	5.75	26.00	4.75		
Type II	\$ 14.75	6.25	17.00	12.75	79.75	13.25	9.75	8.25	6.50	37.00	7.00		

Table D-7: (page 9 of 15):

COMPARISON OF UNIT COSTS FOR DIRECT SERVICES

SERVICE: Day Care / UNITS: Child Sessions

Month/Units	Total Program	Adams County	Arlington	Baton Rouge	Bayamon	Union County	St. Louis	Los Angeles	Tacoma	Jeff. County	Wash. County	Neah Bay	St. Petersburg
October 1975	162		162			0							
Type I-B	\$ 23.25		23.25			--							
Type II	\$ 25.75		25.75			--							
April 1976	653		153			500							
Type I-B	\$ 7.50		21.00			3.50							
Type II	\$ 7.75		21.50			3.50							
October 1976	632		144			488							
Type I-B	\$ 7.75		24.00			3.00							
Type II	\$ 8.25		26.50			3.00							
Average	647		153			494							
Type I-B	\$ 7.75		22.75			3.25							
Type II	\$ 8.25		24.50			3.25							

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COMPARISON OF UNIT COSTS FOR DIRECT SERVICES

SERVICE: Residential Care / UNITS: Child Days

Month/Units	Total Program	Adams County	Arlington	Baton Rouge	Bayamon	Union County	St. Louis	Los Angeles	Tacoma	Jeff. County	Wash. County	Neah Bay	St. Petersburg
October 1975	35		0		1			34					
Type I-B	\$217.50		--		37.75			222.75					
Type II	\$220.00		--		38.75			225.25					
April 1976	293		16		0			277					
Type I-B	\$ 26.75		8.75		--			28.25					
Type II	\$ 27.50		8.75		--			28.50					
October 1976	310		0		0			310					
Type I-B	\$ 26.00		--		--			26.00					
Type II	\$ 27.00		--		--			27.00					
Average	207							207					
Type I-B	\$ 37.75							37.75					
Type II	\$ 38.50							38.50					

Table D-7: (page 10 of 15): COMPARISON OF UNIT COSTS FOR DIRECT SERVICES

SERVICE: Child Development Program / UNITS: Child Sessions

Month/Units	Total Program	Adams County	Arlington	Baton Rouge	Bayamon	Union County	St. Louis	Los Angeles	Tacoma	Jeff. County	Wash. County	Neah Bay	St. Petersburg
October 1975	184	0			0	0	184	0					
Type I-B	\$ 22.75	--			--	--	22.75	--					
Type II	\$ 30.00	--			--	--	30.00	--					
April 1976	437	12			0	5	240	180					
Type I-B	\$ 23.75	13.25			--	155.75	20.00	25.50					
Type II	\$ 26.25	15.50			--	155.75	24.25	26.00					
October 1976	4623	53			4000	8	432	130					
Type I-B	\$ 2.75	9.75			0.50	156.25	10.50	31.50					
Type II	\$ 3.00	10.50			0.50	156.25	12.75	32.75					
Average	480	33				7	285	155					
Type I-B	\$ 21.50	10.50				156.00	15.75	28.00					
Type II	\$ 24.00	11.50				156.00	19.75	28.75					

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COMPARISON OF UNIT COSTS FOR DIRECT SERVICES

SERVICE: Play Therapy / UNITS: Child Sessions

Month/Units	Total Program	Adams County	Arlington	Baton Rouge	Bayamon	Union County	St. Louis	Los Angeles	Tacoma	Jeff. County	Wash. County	Neah Bay	St. Petersburg
October 1975	41	4	7			0	21	9					
Type I-B	\$ 12.25	22.50	12.00			--	12.50	7.25					
Type II	\$ 15.50	25.50	12.00			--	17.00	10.25					
April 1976	99	13	58			0	20	8					
Type I-B	\$ 9.75	15.75	9.00			--	9.25	6.00					
Type II	\$ 12.75	18.00	11.25			--	15.50	9.50					
October 1976	59	14	24			1	8	12					
Type I-B	\$ 18.00	23.50	14.25			182.50	19.25	4.25					
Type II	\$ 19.00	27.25	14.25			182.75	20.75	4.50					
Average	66	10	30				16	10					
Type I-B	\$ 11.75	20.00	10.75				12.25	5.75					
Type II	\$ 14.25	23.25	12.00				17.00	8.00					



Table D-7: (page 12 of 15): COMPARISON OF UNIT COSTS FOR DIRECT SERVICES

SERVICE: Homemaking / UNITS: Contacts

Month/Units	Total Program	Adams County	Arlington	Baton Rouge	Bayamon	Union County	St. Louis	Los Angeles	Tacoma	Jeff. County	Wash. County	Neah Bay	St. Petersburg
October 1975	39		12	26	1	0						0	
Type I-B	\$ 33.75		15.25	43.00	18.50	--						--	
Type II	\$ 34.00		15.25	43.25	19.00	--						--	
April 1976	192		2	14	0	176						0	
Type I-B	\$ 15.50		11.25	74.50	--	10.75						--	
Type II	\$ 15.75		11.25	80.75	--	10.75						--	
October 1976	247		10	21	0	206						10	
Type I-B	\$ 22.50		27.00	144.25	--	10.00						19.25	
Type II	\$ 22.50		27.25	144.25	--	10.00						20.50	
Average	219		8	20		191							
Type I-B	\$ 22.75		19.75	85.00		16.25							
Type II	\$ 22.75		20.00	86.50		16.25							

COMPARISON OF UNIT COSTS FOR DIRECT SERVICES

SERVICE: Medical Care / UNITS: Visits

Month/Units	Total Program	Adams County	Arlington	Baton Rouge	Bayamon	Union County	St. Louis	Los Angeles	Tacoma	Jeff. County	Wash. County	Neah Bay	St. Petersburg
October 1975	93	35	6	0	7	34	8	3					
Type I-B	\$ 15.75	16.00	21.50	--	49.75	7.50	13.00	25.50					
Type II	\$ 20.00	17.50	21.50	--	50.25	14.50	25.75	26.25					
April 1976	195	38	31	12	2	80	3	29					
Type I-B	\$ 19.50	6.75	9.75	134.50	89.25	13.75	5.75	12.00					
Type II	\$ 20.75	8.25	10.75	136.75	89.50	13.75	49.00	12.00					
October 1976	161	22	16	12	8	79	0	24					
Type I-B	\$ 24.50	3.50	46.75	146.50	38.50	12.75	--	2.25					
Type II	\$ 24.50	3.75	47.00	146.50	38.75	12.75	--	2.25					
Average	157	32	18	12	6	64	6	19					
Type I-B	\$ 23.50	9.50	22.25	140.50	49.00	12.25	11.00	8.50					
Type II	\$ 25.25	10.50	23.00	141.50	49.50	13.50	32.00	8.50					

Table D-7: (page 13 of 15): COMPARISON OF UNIT COSTS FOR DIRECT SERVICES

SERVICE: Babysitting/Child Care / UNITS: Child Hours

Month/Units	Total Program	Adams County	Arlington	Baton Rouge	Bayamon	Union County	St. Louis	Los Angeles	Tacoma	Jeff. County	Wash. County	Neah Bay	St. Petersburg
October 1975	445	20	269	0		11	145						0
Type I-B	\$ 2.25	1.50	0.75	--		23.25	3.50						--
Type II	\$ 3.00	2.25	0.75	--		21.50	5.75						--
April 1976	484	0	225	176		10	60						13
Type I-B	\$ 3.50	--	1.00	3.50		20.00	10.25						6.25
Type II	\$ 4.25	--	1.25	3.75		20.00	13.50						10.75
October 1976	251	0	170	0		11	55						15
Type I-B	\$ 5.25	--	0.75	--		17.00	17.00						4.50
Type II	\$ 8.25	--	0.75	--		17.00	30.00						9.00
Average	319		221			11	87						14
Type I-B	\$ 3.50		0.75			20.00	8.00						5.25
Type II	\$ 4.75		1.00			19.50	12.75						9.75

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COMPARISON OF UNIT COSTS FOR DIRECT SERVICES

SERVICE: Transportation/Waiting / UNITS: Rides

Month/Units	Total Program	Adams County	Arlington	Baton Rouge	Bayamon	Union County	St. Louis	Los Angeles	Tacoma	Jeff. County	Wash. County	Neah Bay	St. Petersburg
October 1975	1054	25	255	40		116	470	21	15	112	0	0	0
Type I-B	\$ 7.75	15.25	8.50	19.00		23.75	2.50	33.00	4.75	0.50	--	--	--
Type II	\$ 7.75	16.25	8.50	20.25		22.00	2.75	33.25	5.50	0.75	--	--	--
April 1976	862	3	338	13		182	180	51	19	70	0	0	6
Type I-B	\$ 11.00	103.00	8.25	47.00		19.75	4.25	18.25	2.75	5.50	--	--	12.75
Type II	\$ 11.75	140.75	8.50	54.50		20.00	4.50	18.50	3.00	6.25	--	--	22.25
October 1976	1246	15	285	3		145	618	53	3	99	20	5	0
Type I-B	\$ 8.25	40.00	14.75	115.25		22.75	1.50	2.75	8.75	2.50	6.25	42.50	--
Type II	\$ 8.50	52.25	15.25	115.25		22.75	1.50	2.75	10.25	2.75	7.00	45.50	--
Average	1045	14	293	19		148	423	42	12	94			
Type I-B	\$ 8.75	30.00	10.50	30.75		21.75	2.25	14.25	4.00	2.50			
Type II	\$ 9.00	37.50	10.75	33.25		21.50	2.50	14.25	4.25	2.75			

Table D-7: (page 14 of 15):

COMPARISON OF UNIT COSTS FOR DIRECT SERVICESSERVICE: Emergency Funds / UNITS: Payments

Month/Units	Total Program	Adams County	Arlington	Baton Rouge	Bayamon	Union County	St. Louis	Los Angeles	Tacoma	Jeff. County	Wash. County	Neah Bay	St. Petersburg
October 1975	24		6		4	10				4			
Type I-B	\$ --		--		--	--				--			
Type II	\$ --		--		--	--				--			
April 1976	23		9		0	13				1			
Type I-B	\$ --		--		--	--				--			
Type II	\$ --		--		--	--				--			
October 1976	13		2		0	10				1			
Type I-B	\$ --		--		--	--				--			
Type II	\$ --		--		--	--				--			
Average	19		6			11				2			
Type I-B	\$ --		--			--				--			
Type II	\$ --		--			--				--			

COMPARISON OF UNIT COSTS FOR DIRECT SERVICESSERVICE: Psychological and Other Testing / UNITS: Person Tests

Month/Units	Total Program	Adams County	Arlington	Baton Rouge	Bayamon	Union County	St. Louis	Los Angeles	Tacoma	Jeff. County	Wash. County	Neah Bay	St. Petersburg
October 1975	35	0	4	2	12	2	15	0	0				
Type I-B	\$ 47.50	--	60.25	20.25	87.75	79.75	11.00	--	--				
Type II	\$ 47.50	--	60.25	20.25	88.00	74.50	12.00	--	--				
April 1976	49	5	9	0	8	4	13	4	1				
Type I-B	\$ 34.00	8.25	48.75	--	41.00	102.25	22.50	9.50	123.00				
Type II	\$ 39.25	17.75	49.00	--	41.25	102.50	23.25	9.50	315.75				
October 1976	93	10	14	10	10	2	25	4	18				
Type I-B	\$ 31.25	12.25	6.00	50.00	45.00	74.75	18.75	110.25	38.00				
Type II	\$ 41.00	82.00	6.00	50.00	45.25	74.75	20.75	112.00	47.25				
Average	68	8	9	6	10	3	18	4	10				
Type I-B	\$ 36.25	11.00	28.25	45.00	61.00	89.75	17.50	59.75	42.50				
Type II	\$ 45.25	60.50	28.25	45.00	61.25	88.50	19.00	60.75	61.50				

Table D-7: (page 15 of 15): COMPARISON OF UNIT COSTS FOR DIRECT SERVICES

SERVICE: Family Planning Counseling / UNITS: Person Sessions

Month/Units	Total Program	Adams County	Arlington	Baton Rouge	Bayamon	Union County	St. Louis	Los Angeles	Tacoma	Jeff. County	Wash. County	Neah Bay	St. Petersburg
October 1975 Type I-B Type II	0 \$ -- \$ --		0 -- --					0 -- --					
April 1976 Type I-B Type II	5 \$ 5.00 \$ 5.00		3 7.00 7.00					2 2.25 2.25					
October 1976 Type I-B Type II	0 \$ -- \$ --		0 -- --					0 -- --					
Average Type I-B Type II	0 \$ -- \$ --												

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COMPARISON OF UNIT COSTS FOR DIRECT SERVICES

SERVICE: Follow-Up / UNITS: Follow-Ups

Month/Units	Total Program	Adams County	Arlington	Baton Rouge	Bayamon	Union County	St. Louis	Los Angeles	Tacoma	Jeff. County	Wash. County	Neah Bay	St. Petersburg
October 1975 Type I-B Type II	17 \$ 11.50 \$ 12.25	0	11 8.25 8.25	0 -- --	0 -- --	0 -- --	4 13.75 15.00	0 -- --		2 24.50 28.50	0 -- --		
April 1976 Type I-B Type II	43 \$ 18.00 \$ 20.75	3 17.00 20.50	17 7.75 7.75	1 18.75 20.00	0 -- --	4 65.00 65.25	7 12.50 27.25	9 25.50 25.75		2 -- --	0 -- --		
October 1976 Type I-B Type II	36 \$ 34.00 \$ 34.50	7 7.25 8.25	6 10.25 10.25	6 48.25 48.25	8 33.75 34.00	1 322.75 323.25	3 32.75 34.75	3 23.75 24.00		0 -- --	2 28.50 31.25		
Average Type I-B Type II	34 \$ 26.50 \$ 28.00	5 10.25 12.00	11 8.25 8.25	4 44.00 44.25		3 116.50 116.75	5 17.25 25.25	6 25.00 25.25					



