

**Final Report:
Unit Cost System for Services
Provided by Contracted Community Corrections
Private Providers**

Paul Guerin, Ph.D.
Rebecca Frerichs, MA
Mike McKee, Ph.D.

Prepared by
The Center for Applied Research and Analysis
The Institute for Social Research
University of New Mexico

Prepared for
Community Corrections Program, Probation & Parole Division
New Mexico Corrections Department
Robert Perry, Cabinet Secretary, NMCD
Mark Radosevich, Director, Probation & Parole Division
Sherry Helwig, Community Corrections Program Administrator

August 2000

EXECUTIVE SUMMARY

The Institute for Social Research (ISR) at the University of New Mexico (UNM) was contracted by the state of New Mexico, Probation and Parole Division (PPD) to create a standard unit pricing system for privately provided program services in the Community Corrections Program (CCP). A unit cost system will enable the private agency providers contracted to CCP to accurately estimate the total cost of services per client when bidding for contracts. As per our contract, the unit cost study occurred in stages:

1. A search for existing unit cost systems and guidelines in New Mexico, other states, and the federal government.
2. A search for existing literature pertaining to unit cost systems.
3. Acquisition of a menu of services provided by the private agencies.
4. Acquisition of any current pricing information from the private agencies.
5. A search of other public and private agencies for unit pricing information and guidelines.
6. The development of comprehensive data collection instruments.
7. A comprehensive training for private agencies.
8. Data collection and entry.
9. Data analyses.
10. The creation of a final report.

This is the final deliverable for the unit cost study. After the completion of the first two steps noted above and consulting with our unit cost system expert, it was decided, and CCP agreed, that the correct approach was the use of a capitation fee. A capitation fee is a per-enrollee payment method for a specific, defined set of services. This approach is different from other methods of payment in that there are different incentives for performance involved. Capitation can also change the way in which services are delivered. Mental health and substance abuse programs are increasingly using capitation fees in lieu of more traditional fee-for-service, grant funding, or performance-based contract payments. Goals of a capitation fee program include reducing service fragmentation, increasing access, improving accountability, containing costs, expanding or developing community services, and creating opportunities for innovation and

changing patterns of service delivery.

Thus, a capitation fee approach was selected to accomplish certain objectives and to provide the state with a costing analysis and a mechanism that accomplishes management objectives. The objectives include compensating providers, adjusting compensation as needed, detecting inefficient providers and/or malfeasance, and providing necessary incentives to improve service and to take on “high maintenance” clients. In practice, the compensation package for a provider would be constructed as follows. The individual client would be classified as High, Medium, or Low maintenance depending upon the profile constructed from the client information. Based on the classification, the client capitation fee to cover case management would be computed. This fee would be paid to the provider in installments. The case management fee would also cover the share of fixed costs such as utilities and rent on treatment facilities.

The private providers began collecting data on April 1, 1999 and continued through June 30, 1999. Although it was hoped that each agency would complete the data records for each client, in fact data coverage was not complete. Consequently, the analyses were limited to the data provided and this limited the usefulness of this initial construction of a capitation fee. Overall, expenditures per client can be related to client characteristics, but at this stage it is not possible to compute a truly reliable capitation fee.

Clients who had only one service recorded were eliminated from the data set prior to the analysis being conducted. This left a total client pool of 683. Descriptive findings include:

- 15% of the sample was married, while 48% have never been married and 25% are divorced.
- The average number of years of education was 11.4.
- 38% of the sample were employed full time and earnings from their job accounted for the primary source of income for 55% of the clients.
- The average client age was 33.
- 88% of the sample was male.
- The average level of expenditure on services by the private provider agencies was

\$265.00.

A cluster analysis was performed in order to construct a cost-per-client processed measure that would be used to classify the clients by their costs levels (service requirements) and identify the client characteristics which contribute to cost differences. It was expected that these characteristics would be used to profile the new clients that enter the system in the future and that it would be possible to identify three or more categories of clients and to develop an associated cost for each category. Unfortunately, the sample contained few clients (only 55) who make a transition from one phase to another. With so few output measures to work with, the results of the cluster analysis were disappointing. In particular, few of the characteristics were found to vary systematically as the cost of service varied.

Three clusters of client characteristics were developed: Cluster One represents the high expenditure group, Cluster Two represents the medium expenditure and Cluster Three represents the low expenditure group. Results of the cluster analyses were as follows:

- The first cluster model included 651 cases. The analysis found that if the client has a psychiatric condition, is male, and white, expenditures will be higher.
- The second model included the risk assessment and the current offense; however, the sample size fell to under 250.
- The third model excluded risk assessment but still included the current offense. This analysis showed that the highest expenditure group also had the least violent offenses. Being male, having a psychological condition, and having a higher education were also characteristics of the highest expenditure group.
- A new cluster analysis which included only clients who experienced a phase transition dropped the sample size to only 51 cases. The high expenditure pool is younger, more likely to be female, more educated, more likely to have a psychiatric condition, and more likely to have never been married and to have few dependents. The small sample size makes it difficult to generalize these results to the population as a whole.

To further explore the findings of the cluster analyses, a multiple regression analysis was performed. Models were estimated for the three-month expenditures, per month expenditures, and for expenditure categories. The sample for these analyses eliminated any client who was seen only once during the three-month period. This reduced the sample size to 507.

Results for a representative client with characteristics (Age – 29; Sex – Male; Full Time Work – Yes; Part time regular hours – No; Employment Income – \$1,700 per month; Beginning Phase – Phase 1; Psychiatric Condition – Yes; Education completed – 11 years; Major Offense – Yes; Offense Rank is 3; Risk Assessment is 2; Lives in Own House or Apartment – Yes) were as follows:

- A model which included sex, employment status, beginning phase, income, offense rank, and whether client owned a house or apartment produced an expenditure of \$954.77 for a three month period.
- A second model which included sex, beginning phase, offense rank, and whether client owned a house or apartment produced an expenditure of \$329.73 per month.
- A third model which included sex, employment status, beginning phase, offense rank, and whether client owned a house or apartment produced an expenditure of \$211.64 per month.

There were substantial differences in predicted expenditure between models where the risk assessment was known, and where it was unknown. Further problems (and, consequently, reliability of results) are directly due to missing data. Of the initial 743 different clients, only 507 were present for more than one session or service and had no missing variables that were used in the initial analysis. When the risk assessment and current offense data were included in the analysis, the number of useable observations fell to 175. As these variables are potentially very useful in explaining differences in the costs of serving the client, we were disappointed. Additionally, the data do not allow us to analyze a cost of an output. An output in this case would be the transition of a client from one phase to another. Of the entire sample, only 55

clients made the transition from one phase to a higher one. Finally, the data relate to expenditures rather than costs.

Although there are substantial data problems, the regression models fit reasonably well and can be used to predict expenditures on the basis of client characteristics. Thus, a capitation fee can be constructed. However, the data are not as robust as hoped. Consequently, there are several recommendations:

- CCP should make records available to ISR that contain client phase information so that more phase transitions can be recorded.
- CCP should make records available to ISR that contain client graduation, termination, and other performance data such that final outcome data are available.
- CCP should consider whether they are planning to institute a capitation fee. This may include implementing either a partial or full capitation fee based on required services.

Although the results at this stage are somewhat disappointing, it is clear that they provide useful information. By supplementing the missing information that the private providers did not forward, a more comprehensive data analysis can be performed. These data would result in more reliable estimates of the actual cost of monitoring CCP clients.

TABLE OF CONTENTS

EXECUTIVE SUMMARY	i
Table of Contents.....	vi
INTRODUCTION	1
LITERATURE REVIEW	2
Introduction	2
Cost-Benefit Analysis.....	2
Criminal Justice System Costs.....	3
Opportunity Costs.....	4
Activity Based Costing.....	5
Standard Unit Costing	6
Direct and Indirect Costs	7
SEARCH FOR UNIT COST INFORMATION	10
RETHINKING THE UNIT COST SYSTEM	12
CAPITATION FEE.....	14
Introduction	14
Capitation Fee for CCP.....	17
INITIAL TRAINING OF PROVIDERS	20
AGENCY PROBLEMS.....	22
Introduction	22
Alliance (Alamogordo, Las Cruces, Roswell, Silver City, and Deming).....	22
Ayudantes, Inc.	23
BI/Peregrine (Los Lunas, Rio Rancho, Grants, and Gallup).....	24
Bridges for Women	24
Diersen Charities -Albuquerque	24
Diersen Charities - Las Cruces.....	25
Family Crisis Center	25
Human Resources Development Associates (Española, Taos, Raton, Las Vegas).....	25
Paso Nuevo Counseling Service - Albuquerque.....	26
PB&J.....	26
Socorro Mental Health Foundation	26
TVI.....	26
UNM-CASAA	27
ANALYSES	28
The Results	35
A CAPITATION FEE?.....	44
The Data Issues.....	46
IMPLEMENTING THE UNIT COST FINDINGS.....	48
REFERENCE.....	50
APPENDIX A: TRAINING MANUAL	52

Tables and Figures

Table 1 – Selected Descriptive Statistics Of Entire Sample (Y = 1 for all binary variables).....	31
Figure 1 – Expenditure Categories.	32
Figure 2 – Expenditure by Establishment.....	34
Table 2 – Cluster Analysis (Entire Pool).....	36
Table 3a – Clusters with Level of Offense Included	37
Table 3b – Clusters with Level of Offense Included	38
Table 4 – Pool with One or More Phase Gain	39
Table 5 – Regression Models (Dependent Variable is Total Expenditure per Client)	41
Table 6 – Dependent Variable is Monthly Expenditure per Client	42
Table 7 – Dependent Variable is Cost Category (1 through 7).....	43

INTRODUCTION

The Institute for Social Research (ISR) at the University of New Mexico (UNM) was contracted by the state of New Mexico, Probation and Parole Division (PPD) to create a standard unit pricing system for privately provided program services in the Community Corrections Program (CCP). Unit costing is a method for allocating and controlling costs that has become increasingly popular over the years. Having accurate unit cost information allows one to see where resources are being used and can be used in determining the fiscal responsibility of various program elements. The CCP does not currently have an accurate unit cost system in place. A unit cost system will enable the private agency providers contracted to CCP to accurately estimate the total cost of services per client when bidding for contracts. Without accurate unit cost information it is not possible to adequately audit a program to ensure fiscal responsibility or determine if a provider is inadvertently over or undercharging the State for services provided. As per our contract, the unit cost study occurred in the following stages:

1. A search for existing unit cost systems and guidelines in New Mexico, other states, and the federal government.
2. A search for existing literature pertaining to unit cost systems.
3. Acquisition of a menu of services provided by the private agencies.
4. Acquisition of any current pricing information from the private agencies.
5. A search of other public and private agencies for unit pricing information and guidelines.
6. The development of comprehensive data collection instruments.
7. A comprehensive training for private agencies.
8. Data collection and entry.
9. Data analyses.

This report details our activities during the study period. Included is a comprehensive literature review of existing systems as well as information on how to construct a unit cost system, a detailed description on capitation fees, our detailed training of providers, providers' efforts at data collection, an overall assessment of agency performance, the results from data analyses, and suggestions for unit cost implementation.

LITERATURE REVIEW

Introduction

Over the past several years, there has been a concerted effort among managers, business owners, and legislative bodies to account for every dollar spent on any given activity. Computing a standardized unit cost system permits for stricter budgeting and also allows managers to pinpoint areas that are not meeting their fiscal responsibilities. There are several different methods for devising a unit cost system and vast amounts of literature that discuss each method. The three most common methods are cost-benefit analysis, activity based costing, and standard unit costing (O'Guin, 1991) . Historically, unit cost information in probation and parole services has been determined by dividing the total budget of an agency by the total number of service units the agency provides. This does not yield accurate unit cost information as there is no differentiation between different types of services. Through actual unit cost analysis, accurate information on the cost of services is obtained. In attempting to devise a unit cost system for CCP, we explored these three methods to determine which method would be most appropriate, and to explain the rationale behind selecting one method at the expense of the others.

Cost-Benefit Analysis

“Cost-benefit analysis assigns an estimated dollar value to a people changing accomplishment and relates this benefit’s value to the cost of achieving it, per person changed” (Glaser,1988:80). It involves a comparison of the value of the benefits obtained from a program with its costs in terms of a common denominator, usually money. Swint (1977) defines cost-benefit analysis as “a practical way of assessing the desirability of projects, where it is important to take a long view (in the sense of looking at repercussions in the further, as well as the nearer, future) and a wide view (in the sense of allowing for side effects of many kinds of persons, industries, regions, etc.) i.e. it implies the enumeration and evaluation of all the relevant costs and benefits” (pg. 80). The results of such analyses are customarily expressed in either of two ways: as benefits minus costs per case (called profit), or as the ratio of benefits to costs, (called efficiency).

Cost-benefit analysis's advantage is that it is able to delineate and measure the difference between benefits (when quantitatively possible) and costs of alternative projects so policy makers are able to make an informed decision as to whether or not a program should be sustained or abolished in favor of a more effective program. All projects whose benefits outweigh their associated costs should be undertaken, or given the size of the relevant budget, the responsible decision making body should undertake the set of projects which maximize the difference between total benefits and costs. Most government sponsored agencies that provide a service to people would benefit from using this method because it allows the opportunity to judge a program's effectiveness in terms of dollars spent. One of the problems with this methodology is that it implies that it is possible to assign a dollar value to some of the benefits of a given program. Probation and parole services have opportunity costs and other criminal justice system costs that are very difficult to quantify.

Quade (1982) warns to avoid using program costs to measure effectiveness, as some effects can not be quantified and this approach can confuse inputs with outputs. This approach would be unable to measure factors such as the benefits that an offender received from counseling, their ability to hold a job after training, and other benefits of the service that would be difficult to quantify. Additionally, it is easier to measure costs than benefits, as costs are fairly easily identified by looking at a program's budget, while benefits are sometimes much more difficult to measure. There is an ongoing argument among criminologists as to whether or not probation and parole programs actually are cost effective versus incarceration. This argument is based on the concepts of criminal justice system costs and opportunity (Gray, 1991).

Criminal Justice System Costs

Criminal justice system costs include direct outlays for goods and services provided by law enforcement agencies, courts, legal services agencies, other agencies whose stated mission would not exist were there no crime, and activities of the organizational units financed by any one of the aforementioned. Criminal justice system costs include transportation to the station house,

booking, justification for non-release of an accused, holding the offender in custody until arraignment, and tracking down persons failing to appear in court (Weisberg, 1975). Other criminal justice system costs are related to the costs of incarcerating persons found guilty in a court of law, and the costs associated with bringing the accused to trial. Additionally, criminal justice system costs include the budgets for programs that would not exist if there were no criminal justice system, such as halfway houses, rehabilitation programs, and any other offender resources. Criminal justice system costs can be difficult to quantify but because most of these costs involve some sort of monetary output they are much easier to measure than opportunity costs.

Opportunity Costs

Opportunity costs are those costs incurred by society or the offender in undertaking one activity at the expense of another. Opportunity costs answer the following questions:

1. What is given up (by individuals and or society) in implementing the desirable alternative?
2. What costs other than public expenditures did individuals and society bear under the less desirable alternative?
3. And what cost implications does each of the activities have for non-criminal justice system agencies?

It has been said, by criminologists arguing against incarceration, that society may be risking more crime through detaining some people than through releasing them. For instance, a parent of teenagers whose absence of supervision (due to their incarceration) could allow for criminal behaviors in his or her children. The potential for increased welfare costs, a societal burden, is also raised frequently with respect to offenders with dependent children. Arguments for early release of accused persons normally focus on the opportunity costs to the individual that are associated with traditional arrest and detention.

These opportunity costs to the individual include:

1. Foregone earnings for employed persons as a result of detention.
2. Possible job loss and costs associated with finding new jobs for detainees who were employed.
3. Family disruptions due to arrest and detention of a family member- made worse if loss of income is involved.
4. Stigma or labeling of accused persons affecting self-image and the image that others have of the accused.
5. Increased probability of future incarceration due to inability to contact witnesses or secure adequate legal help while detained, as well as a possible difference in the court's perception of an accused who walks into court from the street and one who is brought in from a detention facility (Weisburg,1975).

Opportunity costs to society include the risks of an offender committing additional crimes if not incarcerated. Another opportunity cost to society is the lost sense of security that can arise when people feel that there is a risk of additional crimes being committed. Other opportunity costs to society are:

“the tax revenues that might be lost if the defendant lost income or a job as a result of detention, burdens society would bear including welfare payments to the defendant's family if detention resulted in income loss and family disruption, and an increase in crime that could occur if a defendant were detained. The detention facility may be a place for learning criminal techniques and making criminal contacts. Further a detainee, once released, without a job and stigmatized, might see no choice but crime”(Weisburg,1978:114).

It is the existence and preponderance of additional costs that make it difficult, if not impossible, to use a cost-benefit analysis to design a unit cost system for probation and parole services. The criminal justice system costs of incarceration, legal services, and court related services would not be too laborious to quantify, but the opportunity costs would prove much more difficult.

Assigning a dollar amount to the loss that a murder represents, or the lost sense of security that being victimized by violent crime is all but impossible.

Activity Based Costing

Activity based costing has become one of the most popular methods for allocation of costs.

Activity based costing is extremely popular with business and factory owners as well as

managers because of its ability to separate out those particular areas that are not meeting their fiscal responsibility. O'Guin (1991) argues that only an activity based cost system provides the right information for making the right decisions, because it provides unique insights into costs and cost behavior. Activity based costing allows managers to discontinue certain goods or services that are not deemed cost worthy. It also directly links resource consumption to the activities performed by a company, or service agency, and then links those activities to products or customers (O'Guin,1991). Turney (1992) gives a definition of activity based costing that is even more descriptive:

“Activity based costing- a methodology that measures the cost and performance of activities, resources, and cost objects. Resources are assigned to activities, then activities are assigned to cost objects based on their use. Activity based costing recognizes the causal relationship of cost drivers to activities” (Turney,1992:54).

“Because a single service delivery system may be used to deliver a wide range of services, determining the profitability of individual services becomes an exercise in the arbitrary allocation of costs” (Cooper, 1996:93). In attempting to construct a system that accurately depicts cost information, it is imperative to avoid using any arbitrary allocation of funds as that would skew the results. Reasons for not using an activity based system are much the same as the reasons for not using a cost-benefit analysis. These reasons include the difficulty in obtaining a list of all service costs as this information is not always kept in a structured way. Additionally, when a service is provided to a client it can be difficult to attach a cost to the service as individual needs vary and this results in differential demands on program services. Finally, many service components require the use of common resources including building space (and other associated costs) and secretarial or staff support.

Standard Unit Costing

Standard unit costing is the most basic cost system. It assigns a unit cost to activities by using some of the most quantifiable factors, such as direct and indirect costs. In this method, factors

that are difficult to quantify are excluded from analysis. The steps in unit cost measurement are to:

1. Define the units of service.
2. Determine the number of service units provided.
3. Determine the direct and indirect costs.
4. Determine the full cost of services.
5. Calculate the average unit cost.

Units of service are classified by the amount of time spent on a given episode or activity, and by the outcome of the services rendered. Full costs are equal to the direct costs plus the indirect costs which equals the total operating costs. The depreciation of materials plus the value of all donated goods and services are added to this total. Unit cost, then, is the full cost divided by the total number of services (Moreau,1994).

Volunteer time and donated goods are included in this formula as these types of services would need to be provided by the agency at cost if they were not donated. A comprehensive unit cost analysis would also include depreciation on any equipment that it used in performing the activities or services rendered. For example, if an company or agencies has to purchase vehicles or computer equipment in order to deliver their product or service, this equipment loses value relative to the amount of its use and its age (while depreciation is seen most obviously with automobiles, computer equipment becomes outdated and incompatible very quickly). It is also helpful to measure unit costs twice, once without depreciation or volunteer costs, this will give an idea of the actual amount of cash that is spent on any given activity. It is important to keep in mind that the unit cost information is actually tied to the scale that it was designed on, as one increases the amount of services the average unit cost will go down (Moreau,1994).

Direct and Indirect Costs

“Direct costs are those expenses which you can easily relate to the provision of a specific product”(Moreau,1994:13). Typical direct costs include: the wages and benefits of employees

who directly provide the services, the cost of materials, equipment and supplies to produce the service, and other items of expense incurred specifically to carry out the service objective (Moreau,1994; Weisburg,1975; and Swint,1977). It is important that benefits of employees be computed accurately as this is one of the largest financial outputs for most service providing agencies. ***Direct costs must be carefully documented so that the appropriate percentage of costs are assigned to any given area of the agency.***

Initial direct costs will invariably be higher due to start up costs. Indirect costs include those: “(a) Incurred for a common or joint purpose benefitting more than one cost objective, and (b) Not readily assignable to the cost objectives specifically benefitted, without effort disproportionate to the results achieved” (Weisburg,1975:7). These are the expenses that are shared by more than one program area including administrative costs, rent, and utilities. Square footage of work space dedicated to each program as a percentage of total work space is an example of the indirect costs that will be measured in determining a unit cost system. Indirect costs are assigned to the different program areas as a percentage of the total indirect costs proportionate to the percentage of the total output of a given agency. For example, if CCP clients account for 55% of the total number of clients in any given agency, then indirect cost for the entire agency should be equally proportioned at 55% of the total indirect costs.

The literature in the area of unit cost analysis was unanimous in one thing - all authors stressed the importance of having accurate unit cost information. Each of the three methods is most appropriate for only a limited number of applications. Cost-benefit analysis is the preferable method when studying most service agencies and other companies whose benefits are possible to quantify. Some benefits of work with people can be approximately quantified so this method is successful with most subjects. Activity based cost analysis is most appropriate for enterprises that have many different programs existing simultaneously, such as factories or large multi-faceted companies, it can determine which are the most profitable and efficient efforts. Standard unit cost analysis is the most basic of the three methods, both cost-benefit analysis and activity based costing build upon the basic unit cost information.

Being the most basic of the methods for determining unit cost the standard unit cost analysis is not as rich in its description of the agency as the other methods, yet with opportunity and criminal justice system costs it is the most appropriate for our analysis. Consequently, the ISR decided upon designing and implementing a standard unit cost system that is as accurate as possible.

SEARCH FOR UNIT COST INFORMATION

The second stage of ISR's contract was to search for existing unit pricing systems and guidelines within the state of New Mexico and in other state and federal government agencies. In the process of conducting this search, ISR found that there was a lack of unit cost information in service areas. ISR contacted thirty-nine different state probation and parole offices and found that none of them have a unit cost system in place, all though several expressed interest in the idea.

Upon learning that ISR would not be able to locate any unit cost information from any probation offices, ISR attempted to acquire some basic unit cost information from the various offices in order to establish baseline data from which to compare future findings. Several agencies (both private and public) were contacted to inquire as to whether or not they currently had a unit cost system in place. None of the contacted public agencies had a unit cost system that could be used for ISR's purposes. Additionally, none of the private agencies that were contacted were willing or able to furnish us with any relevant unit cost information..

Following ISR's unsuccessful search for existing unit pricing systems, ISR began an exhaustive search of all available literature pertaining to unit costing or unit cost systems. This was accomplished by searching Zimmerman Library at the University of New Mexico. Staff searched several relevant databases for unit cost information, but again found that there was little relevant or useable information on unit cost systems which directly pertains to service delivery. The majority of the information that found was designed for use in manufacturing or production areas. An additional search of the Internet met with little success. Available information found on the Internet again focused on production and manufacturing but not on service providers. ISR then contacted several federal agencies that were, directly or indirectly, in the business of

providing services. Several departments contacted were under the supervisory umbrella of the Department of Health and Human Services and again found, that none of these agencies had the type of unit cost information that would have proved relevant to service providers.

Additionally, databases pertaining to economic journals were searched producing similarly unsuccessful results on developing a unit cost system which is specifically designed for service delivery agencies; however, basic information about constructing a unit cost system was located. Using this baseline information, ISR was able to begin the groundwork for constructing a viable unit cost system.

Using information gathered from economic databases, ISR was able to begin building a unit cost system. This included identifying and capturing direct and indirect costs, proper allocation of costs to specific service areas, and areas of particular concern which are not always accounted for in unit cost systems (e.g. proper allocation of indirect costs in multi-service providing agencies).

Once the basic information needed was identified, ISR began contacting the 24 private provider agencies to request information that would help identify costs. Initial information received from these agencies lacked the level of detail needed and could not be used for the development of a unit cost system. In particular, budget information collected from the agencies showed that all services cost the same amount. This result was produced by the agencies dividing the total number of services provided into their total annual budget; consequently, all services ranging from drug testing, to case management, to sex offender therapy were reported as costing the exact same amount per unit. The result of this type of cost calculation was the obscuring of any detail required for an accurate unit cost system.

RETHINKING THE UNIT COST SYSTEM

When it became evident that it would be impossible to furnish the State with a unit cost system due to a lack of detailed baseline information, we immediately contacted Erma Sedillo, Community Corrections Administrator, to inform her directly of the problems encountered. It was decided in a meeting with Ms. Sedillo, Roy Safford, and Sherry Helwig that we would change the scope of services and first begin by devising a system for collecting detailed unit cost information. As we had no experience or expertise in this type of data collection, an outside consultant was hired to help devise a methodology and data collection instruments. Dr. Mike McKee, an Economics Professor at UNM, was contracted to act as our consultant. Additionally, we met with the Community Corrections Advisory Panel (CCAP) in February (1998) to discuss the various problems with the original scope of services in our contract. In the course of this meeting, we discovered that some of the reporting difficulties the service providers had with the level of detail required for an accurate unit cost system, were due to the fact that all of the services units contained elements that could be described as case management. The providers expressed concern as they were not certain how to separate the case management functions from the other service elements. This situation also resulted in a system that was inefficient due to the overlap between service and case management components. In addition, we learned during this meeting that all services were measured in fifteen-minute blocks. This billing practice allowed for service providers to bill for a unit of service when that service actually took only a few minutes. Consequently, the State may be paying for service time that was far in excess of the actual time spent providing services.

Dr. McKee offered several suggestions as to how to proceed with the development of a unit cost system. One of his suggestions was to remove the elements of case management from all of the

services so that all case management functions would be under the heading of case management instead of spread throughout all services. One of the innovations discussed was to change how units of service were being measured. The current system measures all service units in fifteen-minute blocks. We decided that by changing some of the services (to be measured in five-minute blocks only) it would be more accurate and easier to audit. The majority of the service elements can easily be measured in five-minute blocks, only those elements which include some elements of counseling or training were measured in fifteen-minute blocks. All of the other service elements were changed to be measured in five-minute blocks. Another of Dr. McKee's suggestions was to collect demographic data on clients in CCP so that clients could be categorized by the amount of services they require. This would allow the State to classify clients upon their entry into CCP so that the State would have more accurate estimates of what any given inmate would cost to in CCP. For example, CCP clients could be classified as High Maintenance, Medium Maintenance, or Low Maintenance based on the number and type of services they would be predicted to need. The State would then have a certain dollar figure that would represent the particular client's maintenance fees. These fees would primarily cover the service of Case Management (being the largest and most inclusive service) and the State would then pay a bulk fee to the service provider dependent upon the classification of the client. This system would be more efficient than the current system and be less prone to abuses. Service providers then would be given an incentive to work with high maintenance clients and would have the ability to request further funds if any particular client exceeds the original estimation of services. This type of procedure to calculate costs is called a capitation fee.

CAPITATION FEE

Introduction

A capitation fee is a per-enrollee payment method for a specific, defined set of services. The three elements to capitation are:

1. Prepayment of a fixed price (usually on a monthly basis),
2. Financial risk for organizations receiving capitated payments,
3. Linkage of payment to a specific number of enrollees, regardless of whether they use services. (SAMHSA, 2000)

This approach is different from other methods of payment in that there are different incentives for performance involved. Capitation can also change the way in which services are delivered. Mental health and substance abuse programs are increasingly using capitation fees in lieu of more traditional fee-for service, grant funding, or performance-based contract payments. (SAMHSA, 2000).

Previous capitation fees have pursued several goals under the larger umbrella goal of saving money while improving existing systems of care. These goals include:

1. Reducing service fragmentation, increasing access, and improving accountability,
2. Containing costs,
3. Expanding or developing community services,
4. Creating opportunities for innovation and changing patterns of service delivery (SAMHSA, 2000).

These goals have been directed almost exclusively towards substance abuse and mental health providers. Goal one specifically addresses the division of funding and service responsibility among local, state, and federal providers. Multiple providers create a level of fragmentation that make it more difficult to provide a full spectrum of care. Additionally, this fragmentation has made for poor access for clients. Finally, accountability is not fixed; consequently, clients who have multiple problems may be assigned to multiple agencies with no single agency responsible for the continuum of care. Capitation increases access and continuity of care for clients by encouraging providers to more closely monitor their clients, intervene quickly (if needed) and

find clients who drop out of treatment. Capitation also encourages providers to design an array of services that are appropriate to ensure continuity of care. Increasing provider responsibility can also reduce client neglect as responsibility for outcomes can be assigned solely to the provider (SAMHSA, 2000).

Drawbacks to meeting this first goal through capitation can include providers fail through either going out of business, or withdrawing from making their services available through the state. The bureaucratic structure of the state (including cost limitations) may still be too difficult for some clients to negotiate. Clients will still be responsible for lodging complaints against the provider if they are neglected or under served. The freedom to choose providers will be limited to only those who choose to participate. And, finally, the overall structure of the state and the provider's relationship must change in order to implement a capitation system (SAMHSA, 2000).

For CCP the concerns are encouraging innovation while maintaining a list of several providers who are willing to contract through the state. In many respects, the structural and bureaucratic impediments can not be addressed based on the role of CCP. In addition, it is not at all clear that clients will willingly file a complaint regarding a possible "neglect" in services (SAMHSA, 2000).

The second goal of containing costs is more applicable to CCP. Overall costs throughout the US (regardless of whether or not the costs are located in corrections or in mental health) have increased. Capitation can discourage unnecessary utilization of services. Capitated contractors receive the same payment regardless of the number of services provided. It can also encourage the delivery of less costly services by allowing contractors to keep at least part of the savings (either as profit or for reinvestment in services). Finally, capitation can lessen administrative processes by assigning one client to one provider (avoiding duplication of services) (SAMHSA, 2000).

While the benefits to capitation in containing costs is attractive, there are several problems which may arise. Benefits from capitation are based on predictions regarding responses to long-term

incentives. These predictions may be faulty. Additionally, providers may only be interested in maximizing short-term profits and not in providing quality long-term services. Providers may also be inclined to deny services. This is because they will get paid regardless of the number of services they provide. Consequently, clients may have their care jeopardized. Finally, the complexity of governmental administration may increase. Capitation requires complex monitoring and management (SAMHSA, 2000).

The third goal of expanding or developing community services is directly applicable to substance abuse and mental health care and is aimed at specifically reducing hospitalization by providing alternative arrangements. This goal is outside the scope of CCP.

Finally, capitation provides opportunities for innovation and changing patterns of service delivery. Under this method, revenue is tied to clients and thus enhances treatment flexibility. This allows providers to tailor plans to meet the need of individuals rather than focusing solely on the treatment setting. Providers are also encouraged to reevaluate past procedures. Providers can reassess their traditional ways of providing services and evaluate ways in which to improve their effectiveness. Finally, capitation results in more predictable costs for both providers and the state. This allows providers to be more creative and innovative in their care of clients (SAMHSA, 2000).

Even though capitation can greatly improve provider service, it can also have several problems. Provider's freedom to innovate makes CCP monitoring much more complex. This lack of standardization among providers means that CCP staff will have to evaluate the performance of each contractor differently. Those providers that are less creative may be more susceptible to failure. In particular, those providers who provide client with more "safety net" types of care are not likely to be creative, as the care they provide is absolutely necessary. The failure to show appropriate utilization (while still maintaining a needed service) may result in a business failure that is unwarranted (SAMHSA, 2000).

All of these "pros" and "cons" must be taken into account when CCP evaluates whether or not to switch to a capitation fee. In some respects, the fact that CCP is a state agency which is required

to monitor parolees may limit the level of implementation they can undertake. In addition, the number of qualified providers may be sufficiently low to warrant any drastic changes by CCP (in order to preserve the providers they already have).

One solution for CCP may be to decide whether to implement a full or partial capitation fee. A full capitation fee holds the provider responsible for all services regardless of their source. Partial capitation fee leaves some services outside of the capitation arrangement (this could include necessary services that are outside innovation, such as monitoring drug use, et. al.). Full capitation is difficult for most agencies to accomplish. Therefore, a partial capitation may be the most appropriate decision. Partial capitation is most useful when goals are specific and limited. Given the mission of CCP, it is clear that goals have always been, and will remain specific and limited. The financial risk to providers is also smaller under a partial implementation. This may encourage new providers to compete for CCP clients. CCP can also retain control over certain critical services. The only disadvantage to a partial implementation is that providers may under serve clients in those services areas that are not part of the capitation implementation (SAMHSA, 2000).

Capitation Fee for CCP

We discussed with, and CCP agree to undertake a capitation fee approach in order to accomplish certain objectives and to provide the state with a costing analysis and a mechanism that accomplishes management objectives:

1. Compensate providers,
2. Adjust compensation as needed,
3. Detect inefficient providers and/or malfeasance,
4. Provide necessary incentives to improve service and to take on “high maintenance” clients.

The first criteria addresses the issue of whether or not the service providers are being sufficiently compensated. If they are not, they will either go out of business or move into other lines of

business. Consequently, the state will find costs increase as the supply of the providers decreases. The second criteria takes into account changing cost conditions. As cost conditions change, the compensation paid providers must adjust to reflect this change. Such adjustments must accommodate both cost increases as well as cost decreases. The third criteria addresses the adequacy of a compensation plan. A good compensation plan will serve as a management information system (MIS) for the state by providing constant monitoring of performance of the service providers. Finally, the fourth criteria involves the idea that any compensation plan must recognize that some clients involve higher costs and provide incentives to take on these high cost clients.

To contain costs, we propose that the state adopt a capitation fee approach by which the service providers receive a fee for each client. The level of the fee depends on the classification of the client according to the projected services needs. The database constructed by ISR contains the individual, staff, and agency-level data needed to provide this information.

The “unit of account” by which the provider’s service is measured is the client. There are several reasons for this. First, the level of service and cost (due to the composition) will vary by the type of client. Second, the state needs a convenient means of auditing and compensating providers. That is, the state pays the provider according to the type of client assigned. Third, the provider requires an incentive to retain the “high maintenance” clients and a compensation mechanism that captures the differential costs arising from serving different classes of clients will provide the necessary input into such a mechanism. Fourth, complex reviews of service costs will impose losses on providers should their client mix change. That is, it may take some time to work through a costing process that is based on service component and the provider will be under (or over) compensated during this time. Fifth, using time as the unit provides an incentive to lengthen the service rather than to move the client into mainstream population. This is particularly true if the provider has some excess capacity. Such “demand generation” has been observed in some fee-for-service medical service providers. These arguments are especially applicable to the category of service known as “case management.” This is such a broad

category of service that it becomes excessively complex to monitor all aspects of the service in this category to ensure that cost claims are justified.

To utilize the client as the unit of account we must be able to classify clients by the inputs necessary to serve them. Clients are not homogenous, and this is recognized in this discussion of the “service components” (included in Appendix A) in which minimums are specified. That is, it is explicitly recognized that some clients may require additional services. We will match our classification with that assigned by the providers in the initial screening assessment.

In practice, the compensation package for a provider would be constructed as follows. The individual client would be classified as High, Medium, or Low maintenance depending upon the profile constructed from the client information. Based on the classification, the client capitation fee to cover Case Management would be computed. This fee would be paid to the provider in installments. The case management fee would also cover the share of fixed costs such as utilities and rent on treatment facilities.

INITIAL TRAINING OF PROVIDERS

After meeting again with Erma Sedillo, Roy Safford, and Sherry Helwig it was determined that the system would be piloted for a period of three months so that all necessary information would be collected in order to perform a cluster analysis. Before data collection began, we met with two of the 24 provider agencies in order to gain feedback regarding the number and types of services performed by each agency. The two providers were Walter Vigil from Human Resources and Development Associates (HRDA) and Alex Dominguez from BI/Peregrine. The two agency providers consulted manage multi-site agencies and were able to give unique feedback. Based on this meeting, we devised the data collection instruments (Appendix A) to gather relevant data on clients, staff, and individual agencies.

Training for all twenty-four private provider agencies was held at ISR on March 15, 1999. The training began at 9:00am and continued until 3:30pm. At that time, providers were presented a training manual, copies of all data collection forms, and instructions on the methodology behind the data collection. Providers were given the opportunity to ask questions as well as raise concerns regarding the use of data and the amount of time this study would take. During the training, each data collection form was explained in detail, including the purpose for asking each individual question. The entire project was also explained in detail so that the providers would understand the importance of collecting accurate information. Finally, the providers were told that they would need to be committed to collecting detailed and accurate information for a total of three months (from April 1999 through June 1999). A three month period was chosen so that seasonal and other random fluctuations in client enrollment could be accounted for.

Subsequent training were held in Taos on March 23, 1999 for all staff from HRDA and in Las Cruces on April 13, 1999 for all staff from Diersen Charities. Based on feedback from the

providers during the initial training, additional changes were made to the data collection forms. During the last week of March, 1999, a revised training manual and data collection forms were mailed to all twenty-four provider agencies to begin collecting data on April 1, 1999¹. During the first month of data collection, we began designing the database for all subsequent data. The database was created so that all three levels of information (client, staff, and agency) could be readily separated and combined for subsequent analyses. Additionally, a mid-month contact was made with all providers to give the providers an additional opportunity to ask any questions and/or report any problems with completing the study.

¹Due to Diersen Charities' (Las Cruces) residential organization, they received additional training and a later start date of April 24, 1999

AGENCY PROBLEMS

Introduction

While we were committed to collecting the best possible data during the three months as was possible, several problems arose during the time period. We addressed the problems (detailed below) as they arose, and (when necessary) contacted agencies directly in order to avoid further problems. Individual agency problems are listed below; however, there were some non-agency specific data problems which compromised the analyses.

Each agency sent representatives to the ISR-sponsored training. At that time, they were told the importance of collecting complete and accurate data. They were also trained on how to properly complete each data collection form. We felt that the agency representatives fully-understood the importance of accurate data, and that they fully understood that an evaluation as complicated as this unit cost study would only be successful if the agencies themselves fully cooperated.

Unfortunately, cooperation by agencies was sporadic. We received numerous incomplete and/or blank forms, missing information, and (in some cases) no information at all. Whenever a single form had missing information, that entire case was dropped from the analyses. This in turn reduces the level of confidence in the final results. Some agencies provided excellent information; however, as this study was designed to gage the entire private-provider system, we required complete agency compliance.

Alliance (Alamogordo, Las Cruces, Roswell, Silver City, and Deming)

The Alliance agencies consistently mailed-in all data collection forms within a two week period following the end of each month in the study period. When problems arose (such as missing or incomplete data), all agencies immediately responded and provided us with the missing or incomplete data. The most notable problem with the Alliance agencies was the staff overlap

between agencies. This problem was addressed by Stephanie Parman who provided us with a list of staff members who serve clients at multi-sites. Each multi-site staff member's time was split to accurately represent what percentage of time is spent at which agency. Additionally, Ms. Parman provided us with their full monthly salary so that we could split their salary to correspond to the percentage of time spent at each agency. Overall, Alliance agencies provided us with complete data.

Ayudantes, Inc.

Ayudantes experienced initial problems during the April reporting period. These problems included multiple copies of client information forms being sent to us, an unexpected high amount of missing information, and incomplete salary information on staff. The first two problems were initially addressed by Ayudantes and us; however, following the completion of data collection for April, Ayudantes again provided inaccurate and missing information for both May and June. Additionally, their salary information remained incomplete throughout the study period. Ayudantes also consistently filled-out service information forms incorrectly. Although they were notified of the problems, no corrections were made. In particular, multiple staff personnel appeared on service forms (only one staff per form was requested), numerous blank forms, and missing client names on service forms. This resulted in the overwhelming majority of service forms becoming unusable. Therefore, we have little confidence in the remaining information being accurate. Because the study looks at all agencies, the problems with Ayudantes has impacted the reliability of the entire study.

BI/Peregrine (Los Lunas, Rio Rancho, Grants, and Gallup)

The BI/Peregrine agencies consistently mailed-in all data collection forms within a two week period following the end of each month in the study period. All agencies were responsive to requests for further information. The most notable problem was with the Los Lunas and Rio Rancho offices. We received information on services and case management provided to clients, but in some cases we did not receive a corresponding client information form. Additionally, some staff split time between multiple sites. Like the Alliance agencies, BI/Peregrine provided breakdowns between staff personnel salaries and their respective splits between different agencies.

Bridges for Women

Bridges for Women fully cooperated with us during the first two months of the study period; however, we did not receive information for the third month (June). There have been only minor problems with missing information. These problems were easily corrected over the phone.

Diersen Charities -Albuquerque

While Diersen Charities provided us with salary information, indirect costs, and service and case management components, their client information forms came in sporadically, and generally well-after the end of each month included in the study. As these forms were consistently late, we can not ascertain whether or not they were completed during the study month, or well after; however, because the client information forms contain (generally) non-changing information (such as ethnicity, marital status, etc...), the lateness of these forms should have negligible impact.

Diersen Charities - Las Cruces

Diersen Charities in Las Cruces was allowed to participate in this study on a different time-schedule than the other 23 agencies. This was primarily due to their contact person going on maternity leave before she could train other staff members. Additionally, Diersen Charities was a residential agency and several changes to the methodology were needed in order to accurately capture all client- and staff-level information. Consequently, Diersen and ISR, with the approval of CCP staff, entered into a separate agreement regarding the provision of data. Although ISR made special arrangements with this agency in order to accommodate their different needs, Diersen elected to withdraw from the study entirely. Consequently, no data on Diersen was entered or analyzed.

Family Crisis Center

This agency consistently mailed in their data an average of four weeks past the agreed upon due date. This raises serious concerns regarding the accuracy of the data. As this study was designed and predicated on receiving complete and accurate data, the time lag between the end of each month and our receipt of the data is concerning. This study is designed to capture client information as close to the time of receiving services as possible. The lateness in receiving data suggests that staff filled-out forms well-after the time they actually saw the client. Additionally, there were numerous incidents of missing data. We contacted the agency with a list of all missing information; however, we did not receive any addendums to their data. As with Ayudantes, the Family Crisis Center's data may seriously impact the reliability of the results generated from data analyses.

Human Resources Development Associates (Española, Taos, Raton, Las Vegas)

All HRDA sites sent their data in a timely manner. Any missing information was quickly gathered and sent to us. HRDA did, however, fail to provide indirect costs and salary information. After speaking with Walter Vigil directly, we were told that the missing information would be provided, and, in fact, we received all information.

Paso Nuevo Counseling Service - Albuquerque

Paso Nuevo has fully cooperated with this study. Forms have been received in a timely manner, and missing information has been provided.

PB&J

Like Family Crisis Center, ISR received data well-past the end of each monthly reporting. Additionally, we received only client information and services provided forms. We received no salary or indirect costs. Consequently, all PB&J clients were dropped from the final analyses.

Socorro Mental Health Foundation

Socorro fully cooperated with the study. They turned-in information in a timely manner, and supplied ISR with missing data as quickly as possible.

TVI

While TVI turned in all forms in a timely manner, they failed to provided ISR with missing information. As with other agencies, clients with missing information were dropped from analyses.

UNM-CASAA

While CASAA turned-in all required forms, all of the client information forms were missing monthly income of the client, the current charges of the client, and the current phase of probation/parole. ISR sent a request to CASAA for the missing information. CASAA responded by coding all missing information “unknown.” While we still can provide a general description of cost for CASAA, we will be unable to break-down costs between type of criminal offense and phase in probation/parole. Additionally, CASAA sees many clients who are clients in other agencies currently involved in the unit cost study. Upon reviewing client information forms on specific clients who appear in more than one agency, ISR consistently found different information. For example, CASAA may record the client as currently unemployed, while TVI may record the client as a student. Additionally, incomes, years of education, phase of probation/parole, and number of dependents rarely matched. In extreme cases, ethnicity did not match. ISR is unable to determine which (if any) information is accurate. Consequently, the information was entered as the agency recorded it. This raises serious concerns about the overall accuracy of the data ISR is receiving from this agency.

Conclusion

The uneven data collection by the agencies, coupled with missing data has seriously impacted the level of data analyses we were able to perform. This issue is discussed in greater detail in the analyses section.

ANALYSES

We are somewhat disappointed in how the analyses turned out. Expenditures per client can be related to client characteristics but we were unable to compute a reliable capitation fee because we cannot classify the clients with the data available. There are problems with the data that need to be addressed if this study is to be replicated.

To compute the expenditure (the total cost of each client) per client we made the following calculations:

1. the data set reports the staff ID and monthly salary for each service (subject to missing data problems) and this is used to compute the cost per minute – variable X (based on 22 work days per month and 8 hours per day)
2. the data set reports the service counts (time blocks in 15 minute blocks) for each service and client – variable Y
3. X times Y times 15 minutes gives the expenditures for each service for each client.
4. the expenditures are summed (over all the services) for each client
5. monthly expenditures per client are computed by tracking the number of months (one to three) that a report was filed for a client and dividing this into the total service expenditures per client
6. the client is the unit of analysis
7. the fixed costs are not included in the analysis at this time
8. a subset of the data was extracted with one record for each of the 743 clients.

Many of the variables in the original set are scored as ordinals (increasing values) but there is no reason to expect a behavioral link between the scoring and some output measure. For example, under Marital Status there are 6 categories (scored as 1 – 6 in the database) but there is no argument that one can make for a linearly increasing or decreasing relation with the variable and the cost of service. Thus, we scored each classification as a dummy variable. For example, under Marital Status, “Married” was scored as a “1” if married and a zero otherwise and “Divorced” was scored as a “1” if divorced and a zero otherwise. This was done for the remaining variables having multiple options (“Main Source of Income”, “Current Employment”

“Status”, and so on). Age was computed for each person since only date of birth was in the data set and this format cannot be used by the statistics package.

One variable that we did not construct is the service measure. This would be an index based on the number and types of services. To do this we would need to have a mapping of the service codes and would have to physically count the number of services for each client. There are some difficulties with doing this at this point and will be discussed in the section on data issues.

The data on Risk Assessment and Current Offense was included in the analysis. There are additional tables of results with these variables incorporated into the analysis. Again, a significant problem arose in terms of missing values. With these variables included, the sample of useable cases fell to less than 300 – chiefly due to missing data on the Risk Assessment variable. Only 251 clients had this score reported.

The descriptive statistics of the clients proved interesting. In Table 1, the means and standard deviations are reported. For the variables that are recorded as dummy variables, the mean represents the proportion of the sample with the respective characteristic. Thus, approximately 15% of the pool is currently married while 48% have never been married and 25% are divorced. The average number of years of education is 11.4 and the small standard deviation indicates that the bulk of the population have more than 9 years of formal education. Approximately 38% of the pool is employed full time and earnings from the job account for the primary source of income for 55% of the clients. Small fractions of the pool are listed as having either a psychiatric or a physical condition. The average age is 33 years and the 88% are male. The average level of expenditure on services is \$265 per client. However, the range is very large as indicated by the size of the standard deviation. This is also true for the monthly expenditures.

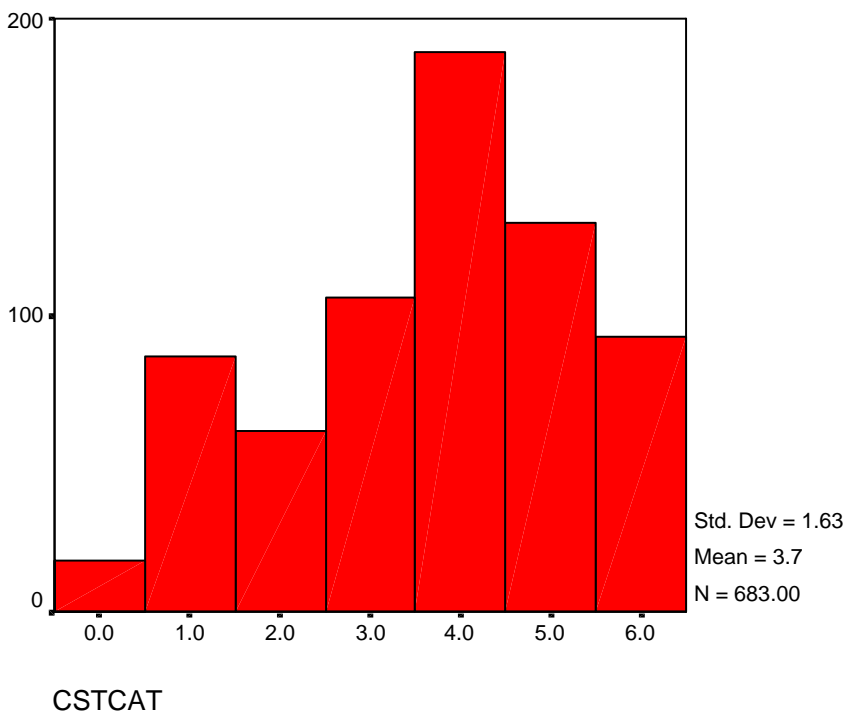
These are computed by taking the total expenditure on client and dividing by the number of months for which there was a report on that client.

Table 1 – Selected Descriptive Statistics of the Entire Sample

	N	Minimum	Maximum	Mean	Std. Deviation
Married	683	.00	1.00	.1464	.3538
Re-married	683	.00	1.00	.008785	.09338
Widowed	683	.00	1.00	.01611	.1260
Separated	683	.00	1.00	.04246	.2018
Divorced	683	.00	1.00	.2460	.4310
Never married	683	.00	1.00	.4817	.5000
Dependents	636	.00	12.00	1.0755	1.4594
Education	640	.00	18.00	11.4625	1.7519
Full time	683	.00	1.00	.3777	.4852
Part time regular hours	683	.00	1.00	.08053	.2723
Part time – irregular hours	683	.00	1.00	.04832	.2146
Student	683	.00	1.00	.1113	.3147
Retired	683	.00	1.00	.05417	.2265
Unemployed	683	.00	1.00	.2343	.4238
Employment Income	683	.00	1.00	.5476	.4981
Unemployment Compensation	683	.00	1.00	.06589	.2483
Welfare	683	.00	1.00	.04246	.2018
Pension	683	.00	1.00	.07467	.2631
Family support	683	.00	1.00	.1640	.3705
Illegal income	683	.00	1.00	.002928	.05407
Begin phase	518	1.00	9.00	1.5444	1.1984
End phase	518	1.00	9.00	1.7355	1.5417
Psychological condition	683	.00	1.00	.09663	.2957
Physical condition	683	.00	1.00	.06589	.2483
Own house	683	.00	1.00	.4714	.4996
Friend house	683	.00	1.00	.2694	.4440
Room	683	.00	1.00	.001464	.03826
Institutionalized	683	.00	1.00	.04978	.2177
White	683	.00	1.00	.2064	.4050
Black	683	.00	1.00	.06589	.2483
Native American	683	.00	1.00	.09078	.2875
Asian	683	.00	.00	.0000	.0000
Hispanic	683	.00	1.00	.5900	.4922
Sex (M = 1)	683	.00	1.00	.2182	.4133
Total Cost	683	.00	2411.82	266.3498	315.7213
Months	683	1	4	2.36	.81
Month Cost	683	.00	1205.91	106.5578	122.4775
Cost Category	683	.00	6.00	3.6530	1.6321
Age	661	19.00	67.00	33.5340	8.9913
Risk Class	231	1.00	4.00	1.5411	.7784
Offense Rank	679	.00	9.00	1.6804	2.6728

There is considerable variability in the level of expenditures per client. Figure 1 reports a histogram. The expenditure categories are arranged from highest to lowest and the counts are reported in the histogram. The considerable variation suggests that there is a phenomenon to be explained and the objective is to utilize the data collected on each client to explain this variation in expenditure levels.

Figure 1 – Expenditure Categories.



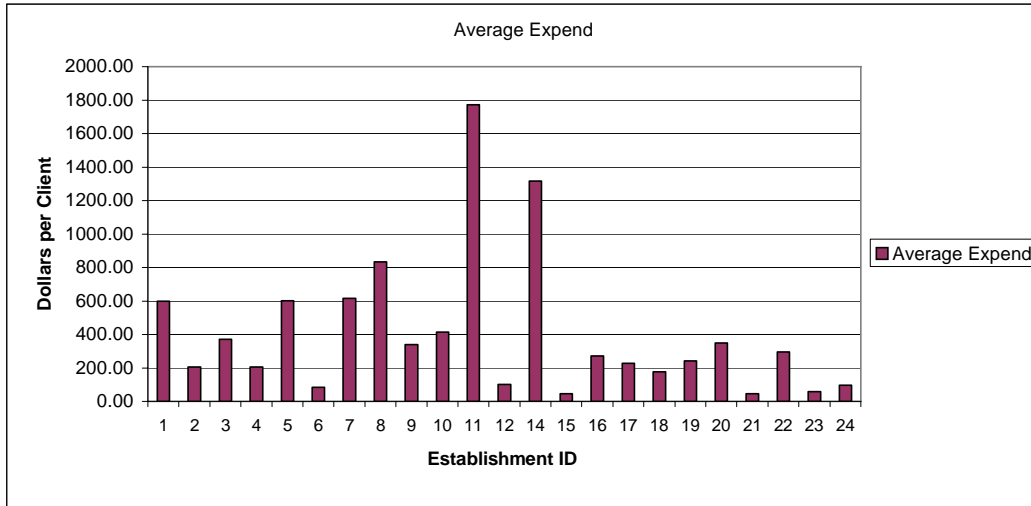
- Category 0 – more than \$400
- Category 1 – between 201 and 400
- Category 2 – between 151 and 200
- Category 3 – between 101 and 150
- Category 4 – between 51 and 100
- Category 5 – between 25 and 50
- Category 6 – less than \$25

A second class of variability is observed when the expenditure data are organized by private provider agency. Figure 2 reports a histogram of these data. Clearly there is substantial variation and this suggests that it may be useful to investigate the source of such variation. Bridges for Women and Dismis House have substantially higher expenditures per client than the remaining

establishments. This is more than likely due to the unique counseling programs which include residential housing. There may be other possible causes for this difference such as these agencies may contain a unique client mix.

Ayudantes, Inc. shows a very low expenditure per client; however, as reported above we were unable to use a substantial portion of their client services forms. Additionally, we did not receive full salary information. Diersen Charities, Albuquerque also shows a low expenditure per client. Like Ayudantes, Inc. this is more than likely due to incomplete and missing data.

Figure 2 – Expenditure by Establishment



Agency Codes

- 1 - Alliance (Alamogordo)
- 2 - Alliance (Las Cruces)
- 3 - Alliance (Roswell)
- 4 - Alliance (Silver City)
- 5 - Alliance (Deming)
- 6 - Ayudantes, Inc.
- 7 - B/I Peregrine (Los Lunas)
- 8 - B/I Peregrine (Rio Rancho)
- 9 - B/I Peregrine (Grants)
- 10 - B/I Peregrine (Gallup)
- 11 - Bridges for Women
- 12 - Diersen Charities (Albuquerque)
- 13 - Diersen Charities (Las Cruces)
- 14 - Dismis House
- 15 - Family Crisis Center
- 16 - HRDA (Española)
- 17 - HRDA (Taos)
- 18 - HRDA (Raton)
- 19 - HRDA (Las Vegas)
- 20 - Paso Nuevo Counseling Services
- 21 - PB&J
- 22 - Socorro Mental Health Foundation
- 23 - TVI
- 24 - UNM/CASAA

The Results

The cluster analyses were performed first. As noted above, this was not as successful as we had hoped. We had intended to use the data collected to construct a cost-per-client-processed measure and that this would be used to classify the clients by their cost levels (service requirements). We also hoped to identify the client characteristics that contribute to cost differences. These characteristics would then be used to profile the new clients that enter the system in the future. We expected to identify three or more categories of clients and to develop an associated cost for each category. The problem was, however, that we had almost no clients who made a phase transition during the study period (only 55 move to a higher phase). This is about the only output measure (services are inputs) that we have. In addition, a large number of clients had no beginning or end phase reported. With so few output measures to work with the results of the cluster analysis are somewhat disappointing.

Table 2 – Cluster Analysis (Entire Pool)

Final Cluster Centers

	Cluster		
	1	2	3
SEP	.03	.06	.02
DIVORC	.15	.25	.29
EDCOMP	12.00	11.38	11.58
PTIRREG	.03	.06	.04
WELFARE	.00	.05	.04
PSYCH	.15	.10	.08
WHITE	.27	.21	.18
INDIAN	.03	.08	.14
HISPANIC	.61	.61	.59
SEX	.27	.21	.19
FAM	.12	.17	.20
WTDCST	1264.62	117.26	532.41

Number of Cases in each Cluster

Cluster	1	33.000
	2	471.000
	3	147.000
Valid		651.000
Missing		44.000

Table 2 shows that there were very few variables that showed much difference by cluster.

Clearly the expenditure (cost per client) does vary. Cluster 1 is the high expenditure group (with Cluster 2 being the medium expenditure group and Cluster 3 being the low expenditure group).

The number of clients in each group is also presented. The assessment that the client had a psychiatric condition does appear to be associated with higher expenditures (as does whether the client is white and male). These characteristics, however, are also monotonically² related to expenditure. In fact, the analysis at this point is not very comforting for the capitation fee argument.

Adding the risk assessment and the current offense data to the analyses produced results that were somewhat better, but still disappointing in that there were no strong effects (Table 3a-3b).

However, these variables were very often omitted in the reports from the service providers and the result dropped the sample to under 250. As presented in Table 1, the risk assessment is the

² A variable which is monotonic has the property either of never increasing or of never decreasing as the values of the independent variable(s) increase.

most often unreported variable.

Table 3a – Clusters with Level of Offense Included

Final Cluster Centers

	Cluster		
	1	2	3
VIOLENT	2.56	1.41	2.39
SEP	.03	.05	.02
DIVORC	.13	.25	.30
EDCOMP	12.00	11.41	11.56
PTIRREG	.03	.06	.04
WELFARE	.00	.05	.04
PSYCH	.13	.10	.09
SEX	.28	.20	.19
WTDCST	1275.22	117.94	536.96

Number of Cases in each Cluster

Cluster	1	32.000
	2	459.000
	3	145.000
Valid		636.000
Missing		47.000

In Table 3a, the highest expenditure group was cluster 1. The offenses were ranked such that the higher the number the more serious (violent) the offense. Thus the highest expenditure group had the highest score implying the *least* violent offenses. The highest expenditure group was more likely to be male (.28 vs .20 and .19), to have had psychological conditions, and to have had more education. However, as in the previous cases, very few of the variables relating to the individuals are monotonically related to the level of expenditure per client. Thus, it is difficult to construct a capitation fee from the cluster analysis approach.

Table 3b – Clusters with Level of Offense Included

Final Cluster Centers

	Cluster		
	1	2	3
VIOLENT	5.67	.24	.26
SEP	.04	.04	.06
DIVORC	.25	.28	.19
EDCOMP	11.66	12.17	8.90
PTIRREG	.06	.04	.06
WELFARE	.03	.05	.06
PSYCH	.11	.11	.06
SEX	.15	.22	.23
CSTCAT	3.19	3.78	3.67

Number of Cases in each Cluster

Cluster	1	170.000
	2	358.000
	3	108.000
Valid		636.000
Missing		47.000

In Table 3b Cluster 1 was the high expenditure group of clients. The current offenses were ranked such that the higher the number the more serious (violent) the offense. Thus, the highest expenditure group had the highest score implying the *least* violent offenses. Again, there were very few measures that were monotonically related to the level of expenditure per client. This means that the cluster analysis was not able to provide a measure to construct a reliable capitation fee.

When attention is restricted to the clients experiencing a phase gain, the results (Table 4) were a bit more promising. We must exercise some caution here since the sample is very small.

Table 4 – Pool with One or More Phase Gain

Final Cluster Centers

	Cluster		
	1	2	3
AGE	32.29	33.19	26.83
WTDCST	116.78	496.40	1049.30
SEX	.08	.19	.17
OWNHM	.54	.62	.33
PSYCH	.00	.10	.17
PHYS	.13	.00	.00
EMPINC	.67	1.00	.67
FT	.33	.90	.50
EDCOMP	11.33	11.24	13.33
DPDNTS	1.13	1.48	1.00
MARRIED	.25	.29	.00
NEVER	.58	.48	.83
DIVORCED	.13	.19	.17

Number of Cases in each Cluster

Cluster	1	24.000
	2	21.000
	3	6.000
Valid		51.000
Missing		4.000

Again, the expenditure levels varied considerably across the clusters. In general, the high expenditure pool was younger, more likely to be female, to be more educated, and to have been identified as having a psychiatric condition (but not a physical one). Further, the high expenditure pool was more likely to have never been married and to have few dependents if married. These latter two characteristics are likely correlated with age and may simply be picking up that factor. Such a profile may be useful for classifying clients as high, medium or low expenditure.

There were regularities in the data that could be detected using multiple regression analysis.

This technique may prove better able to allow the construction of a capitation fee. Tables 5, 6 and 7 report the results of some models that were investigated.

In Table 5, Models 1, 4 and 5 had the best goodness of fit statistics and will be discuss in detail.

The dependent variable was the expenditure per client during the study period. The sample excludes those clients who were seen only once by the server. After eliminating observations

with missing data, the sample size was 507. The coefficient on the constant term was very close to the mean expenditure (it is not statistically different) as to be expected. The signs on the variables were consistent with what we observed in the cluster analysis. Thus, expenditures were negatively correlated with Age and the Beginning Phase. All of the coefficients in Model 1 were significant at the 0.05 level or better although the overall goodness of fit was not strong. Generally, cross sectional data do not lead to strong overall fit. Consequently, these results are acceptable.

In Models 4 and 5, variables related to the severity of the current offense were included. A simple binary variable was constructed for Model 4. The nine highest ranked offenses were given a score of 1 and all other offenses were scored 0. A positive coefficient means that the clients who committed severe offenses were more costly (higher expenditures). This coefficient was positive but the significance level was low. In Model 5, the nine highest ranked offenses were scored with a 1 through 9 (9 being the most violent or serious) and all others were given a 0 value.

The equations of Models 1, 4, or 5 could be used to predict the service expenditures for a client as all of the variables in the equation were measured prior to beginning service. This would imply that a a capitation fee for each client could be constructed. This point will be revisited in detail.

Table 5 – Regression Models (Dependent Variable is Total Expenditure per Client)

Variable	Model 1	Model 2	Model 3	Model 4	Model 5
Constant	255.317 (2.441)	264.752 (2.535)	310.747 (2.764)	245.743 (2.323)	259.429 (2.422)
Education	14.685 (1.673) [0.074]	14.371 (1.641) [0.073]	16.141 (1.785) [0.082]	13.202 (1.472) [0.037]	14.061 (1.554) [0.071]
Psychiatric Condition	117.359 (2.171) [0.096]	117.255 (2.175) [0.096]	78.362 (1.453) [0.064]	116.464 (2.142) [0.096]	131.195 (2.335) [0.106]
Sex	93.093 (2.577) [0.112]	92.381 (2.564) [0.111]	85.779 (2.262) [0.103]	104.164 (2.823) [0.124]	104.212 (2.776) [0.124]
Age	-3.531 (2.167) [-0.097]	-3.392 (2.086) [-0.093]	-3.859 (2.324) [-0.016]	-3.288 (1.949) [-0.089]	-3.709 (2.172) [-0.100]
FT Employ	119.988 (3.867) [0.178]	111.006 (3.544) [0.165]		120.406 (3.840) [0.178]	121.166 (3.806) [0.178]
PT Regular Hours	105.767 (1.976) [0.090]	97.221 (1.814) [0.083]	44.478 (0.855) [0.038]	117.484 (2.150) [0.100]	111.441 (2.003) [0.093]
Beginning Phase	-53.513 (4.410) [-0.193]	-54.298 (4.484) [-0.196]	-50.334 (4.084) [-0.182]	-53.574 (4.380) [-0.194]	-54.140 (3.650) [-0.163]
Welfare			-88.057 (1.084) [-0.050]		
Family Support			-34.883 (0.882) [-0.039]		
Hispanic			4.098 (0.135) [0.006]		
Offense Rank (=1 for violent)				37.893 (1.255) [0.056]	
Offense with Violent Ranked					4.769 (1.813) [0.059]
F-stat	6.113	5.817	2.879	5.557	5.521
R ² (adj)	0.066	0.059	0.036	0.068	0.067

Notes: t-stat in parentheses and beta (standardized) coefficient in brackets

Table 6 – Dependent Variable is Monthly Expenditure per Client

Variable	Model 1	Model 2	Model 3
Constant	143.713 (5.784)	217.579 (4.943)	132.955 (10.278)
Psychiatric Condition			24.588 (1.145) [0.050]
Sex	55.918 (3.899) [0.171]	58.946 (2.252) [0.163]	53.011 (3.773) [0.163]
Age	-0.645 (1.014) [-0.045]	-2.788 (2.703) [-0.194]	
FT Employ	24.928 (2.167) [0.094]	48.326 (2.504) [0.182]	23.805 (2.031) [0.090]
Own House or Apartment			-13.868 (1.238) [-0.053]
Beginning Phase	-18.318 (3.866) [-0.169]	-20.787 (2.670) [0.191]	-17.853 (3.824) [0.164]
Risk Assessment		12.551 (1.047) [0.076]	
Offense Rank (=1 for violent)		27.158 (1.453) [0.104]	11.907
Offense with Violent Ranked	2.827 (1.366) [0.060]		3.068 (1.527) [0.066]
F-stat	5.811	4.930	6.087
R ² (adj)	0.054	0.119	0.056

Notes: t-stat in parentheses and beta (standardized) coefficient in brackets

Table 7 – Dependent Variable is Cost Category (1 through 7)

Variable	Model 1	Model 2	Model 3	Model 4
Constant	4.918 (8.839)	3.861 (25.590)	3.689 (23.469)	3.781 (22.931)
Sex	0.797 (2.410) [0.171]	0.397 (2.300) [0.099]	0.458 (2.666) [0.114]	0.430 (2.502) [0.107]
Age	-0.0032 (2.395) [-0.168]			
FT Employ	0.835 (3.422) [0.244]		0.487 (3.505) [0.149]	0.698 (3.857) [0.214]
Beginning Phase	-0.347 (3.531) [0.248]	-0.316 (5.502) [0.235]	-0.322 (5.669) [0.240]	-0.307 (5.367) [-0.229]
Employment Income				-0.336 (1.812) [-0.102]
Risk Assessment	0.0087 (0.576) [0.041]			
Offense Rank (=1 for violent)		0.220 (1.573) [0.067]	0.200 (1.458) [0.061]	0.200 (1.441) [0.061]
Own House or Apartment		0.176 (1.299) [0.055]	0.125 (0.912) [0.039]	0.142 (1.035) [0.044]
Offense with Violent Ranked	0.278 (1.176) [0.083]			
F-stat	6.228	9.638	10.337	9.200
R ² (adj)	0.152	0.063	0.083	0.087

Notes: t-stat in parentheses and beta (standardized) coefficient in brackets

Cost Categories are

- 1 – less than \$25
- 2 – between 25 and 50
- 3 – between 51 and 100
- 4 – between 101 and 150
- 5 – between 151 and 200
- 6 – between 201 and 400
- 7 – greater than 400

A CAPITATION FEE?

The objective was the development of a capitation fee that would have the property of providing incentives to deliver services and to ensure adequate compensation to the service providers. A uniform capitation fee will not compensate the providers for clients who are above average requirements and would punish providers who draw a high need pool. Thus, there are reasons for the service provider and the State to wish to develop a capitation fee.

By entering the client's values for the variables in the equations, the projected cost of service for the client can be estimated. An example follows for three possible cost metrics in which the best equation for each metric was used:

Client Characteristics:

Age – 29

Sex – Male (enter 1)

Full Time – Yes (enter 1)

Part time regular hours – No (enter 0)

Employment Income – 1,700 per month

Beginning Phase – Phase 1 (enter 1)

Psychiatric Condition – Yes (enter 1)

Education completed – 11 years

Major Offense – Yes (enter 1)

Offense Rank is 3

Risk Assessment is 2

Lives in Own House or Apartment – Yes (enter 1)

Total Service Expenditures (Model 4)

$$245.743 + 13.202*11 + 116.464*1 + 104.164*1 - 3.288*1 + 120.406*1 - 53.574*1 + 37.893*1 = 954.77$$

Thus, this client is expected to require \$954.77 in expenditures if he remains in the program for the three month period.

Monthly Service Expenditures (Model 2)

$$217.579 + 58.946*1 - 2.788*29 - 20.787*1 + 48.326*1 + 12.551*2 + 27.158 * 3 = 329.73$$

Thus this client is expected to require \$329.73 in expenditures for each month he is in Phase 1 of the program. Some care must be used with this figure since Model 2 is based on only the sample having the risk assessment reported. However, this equation is a pretty good fit (better R2 value) and it points out the need for reliable risk assessment and reporting.

Monthly Service Expenditure (Model 3)

$$132.955 + 23.805*1 - 17.853*1 + 24.558*1 - 13.868*1 + 3.068*3 + 53.011*1 = 211.64$$

Model 3 has a fair overall fit and this yields a projected expenditure of \$211.64 per month. This is much lower than the value from Model 2 which suggests that there is a substantial difference across clients between those for which a risk assessment is recorded and those for which there is no risk assessment recorded.

Cost Category (1 through 7)

$$3.689 + 0.458*1 + 0.487*1 - 0.322*1 + 0.200*1 + 0.125*1 = 4.63$$

Thus this client falls into cost category 4.6 (at the higher end of the range up to \$150 per month). There were some differences between the monthly cost estimates and the cost category estimates. With the data at hand, there were no clear means of determining which measure was better. Categorical dependent variables in regression analysis are typically less reliable. But the administrative advantage of having categories rather than point estimates may outweigh the small inaccuracies that would result.

The Data Issues

There are several problems with the data that made it difficult to classify the clients into groups and to associate those groups with costs of service. First, of course, there are the missing observations on some variables. Of the initial 743 different clients, only about 507 were present for more than one session or service and had no missing variables that were used in the initial analysis. When the risk assessment and current offense data were included in the analysis, the number of useable observations fell to 175. This is unfortunate since these variables are potentially very useful in explaining differences in the costs of serving the clients.

A second issue is the fact that the data do not allow us to analyze a cost of an output. An output in this case would be the transition of a client from one phase to another. There are very few gains and even a few losses (we currently have no information or guidelines as to why a client would move back a step during probation). Of the entire sample only 55 individuals made the transition from one phase to a higher one. This suggests that we need to collect data over a longer period.

Third, the data relate to expenditures rather than costs. That is, the data record the level of expenditures on various services. This raises the question of who specifies the service level? If the client seeks out the service, then the models in Table 4 suggest that younger and more highly educated persons with full time jobs are more likely to seek services. This may be because these persons are required to check in for their jobs and they also would obtain higher benefits from an early exit from the program.

The regression models fit reasonably well and can be used to predict expenditures on the basis of client characteristics. Thus, a capitation fee can be constructed as described above. An issue that remains is that the data are not as robust as we would like. In particular, we would like to

have data on more clients who complete a phase and also on clients who “graduate” from the program. This would allow us to construct a true output measure.

IMPLEMENTING THE UNIT COST FINDINGS

As of the completion of this project, it is unclear whether or not we have enough information to recommend implementing any of the findings. We had made it very clear during training with the agencies that in order for this project to produce the results desired by CCP, the agencies *must provide complete and accurate information*. We did not receive this level of information from the agencies. Consequently, any results from the data analyses can only be looked upon as general guidelines of costs – not as the final product. Therefore, if CCP wishes to pursue a unit cost system, we strongly recommend that they re-collect data from the participating agencies in order to get complete and accurate information. If CCP does decide to re-collect data, several other questions must be addressed before an implementation process can begin.

In order to implement a capitation fee, CCP must answer several questions. Implementing the capitation arrangement without a clear direction on the part of CCP will in all likelihood result in a failed payment program. These questions which must be answered include:

1. Does CCP want to foster competition among potential and/or current providers?
2. Does CCP want to set specific rates for specific services?
3. Does CCP want to implement single or multiple capitation rates?
4. Are there services that each provider must offer?
5. Is CCP willing to allow providers to innovate?
6. Is CCP willing to perform a six month reevaluation in order to reassess capitation fees until competent data is provided by each agency?
7. Is CCP willing to perform three year reevaluations for the duration of the capitation arrangement so that cost changes can be included?
8. Is CCP willing to increase monitoring of providers in order to determine whether they are staying within the capitation arrangement?

If the answers are yes to the above questions, CCP must first re-collect data from the participating agencies. We recommend that (if CCP pursues the unit cost method) they make compliance with data collection subject to sanctions by their office. Although CCP originally informed all participating agencies that their participation in this study was mandatory, it was

clear that the agencies only partially participated. This greatly impacted our ability to provide any useful results.

REFERENCE

- Bonasack, Robert A. Winter 1991. "Does Activity-Based Costing Replace Standard Costing?" *Cost Management Practice*. Pp. 46- 47.
- Cokins, Gary. Stratton, Alan C.M.A., & Helbling, Jack. *An ABC Manager's Primer: Straight Talk on Activity-Based Costing*. Irwin Professional Publishing. 1992.
- Cooper, Robin, et all. "From ABC to ABM: Does Activity-Based Management Automatically Follow from an Activity-Based Costing Project?" *Management Accounting*. November 1992. Pages 54- 57.
- Cooper, Robin and Kaplan, Robert S. "Measure Costs Right: Make the Right Decisions." *Harvard Business Review*. September- October 1988. Pages 96- 103.
- Cooper, Robin and Chew, W. Bruce. "Control Tomorrow's Costs Through Today's Designs." *Harvard Business Review*. January- February 1996. Pages 90- 97.
- Doherty, Neville and Crakes, Gary. "Social Program Costs: Adjusting for Research and Evaluation Activities." *Evaluation Review*, Vol. 4 No. 4, August 1980. Pages 537- 548.
- Elkin, Robert and Cornick, Delroy L. *Analyzing Costs in a Residential Group Care Facility for Children: A Step by Step Manual*. Child Welfare League of America, Inc. 1969.
- Gray, Tara, et all. "Using Cost Benefit Analysis to Evaluate Correctional Sentences." *Evaluation Review*, Vol. 15 No. 4, August 1991. Pages 471- 481.
- Hardy, John W. and Hubbard, E. Dee. "ABC Revisiting the Basics." *CMA Magazine*. November 1992. Pages 24-28.
- Hertzman, Marc and Montague, Barry. "Cost Benefit Analysis and Alcoholism." *Journal of Studies on Alcohol*. 1977. Pages 1371-1385.
- Jorgensen, C.C. and Hoffer, P.L. "Early Formation of Training Programs for Cost Effectiveness Analysis." *U.S. Army Research Institute for the Behavioral and Social Sciences*. July 1978.
- Kaplan, Robert S. "One Cost System Isn't Enough." *Harvard Business Review*. January- February 1988. Pages 61- 66.
- Latessa, Edward J. "The Cost Effectiveness of Intensive Supervision." *Federal Probation*.

- Lipsey, Mark W. "Is Delinquency Prevention a Cost Effective Strategy? A California Perspective." *Journal of Research in Crime and Delinquency*. Vol. 21 No. 4, November 1984. Pages 279- 302.
- Macy, Barry A. And Mirvis, Philip H. "Organizational Change Efforts: Methodologies for Assessing Organizational Effectiveness and Program Costs Versus Benefits." *Evaluation Review*, Vol. 6 No. 3, June 1982. Pages 301- 372.
- Weisburg, Barbara. National Institute of Law Enforcement and Criminal Justice Law Enforcement Assistance Administration. *Cost Analysis of Correctional Standards: Alternatives to Arrest*. Volume II. U.S. Department of Justice. October 1975.
- Moreau, Robert. National Institute of Law Enforcement and Criminal Justice Law Enforcement Assistance Administration. *Alternatives to Arrest*. Volume I. U.S. Department of Justice. 1975.
- Weisburg, Barbara. National Institute of Law Enforcement and Criminal Justice Law Enforcement Assistance Administration. *Cost Analysis of Correctional Standards: Community Supervision, Probation, restitution, Community Service*. Volume I. U.S. Department of Justice. May 1978.
- National Institute of Law Enforcement and Criminal Justice Law Enforcement assistance Administration. *Cost Analysis of Correctional Standards: Pretrial Programs*. U.S. Department of Justice. 1976.
- O'Guin, Michael C. *The Complete Guide to Activity Based Costing*. Prentice Hall Publishing. 1991.
- Over, Mead. "The Effect of Scale On Cost Projections for a Primary Health Care Program in a Developing Country." *Social Science Medicine*. Pages 351- 360.
- SAMHSA. MCRPT Volume 3. <http://www.samhsa.gov/mc/>. Spring, 2000.
- Swint, J. Michael and Nelson, William B. "Prospective evaluation of Alcoholism Rehabilitation Efforts." *Journal of Studies on Alcohol*. 1977. Pages 1386- 1404.
- Turney, Peter B.B. "What an Activity- Based Model Looks Like." *Cost Management Concepts and Principles*. Winter 1992. Pages 54- 60.
- U.S. Department of Health and Human Services. *Determining the Unit Cost of Services: A Guide For Estimating the Cost of Services Funded by the Ryan White Care Act of 1990*. Health Resources and Services Administration.

**APPENDIX A:
TRAINING MANUAL**

The Institute for Social Research (ISR) has been contracted to perform a unit-cost study of the private providers in the Community Corrections Program (Division of Probation and Parole). As part of that study we are contracted to collect information on each provider's operating budget (including salaries), service delivery units, overhead costs, and the actual amount time spent on each client. We anticipate that this phase of the study should take approximately three months.

This manual contains five forms which will need to be completed throughout the three month study period. The *Client Information* form is to be filled-out at the end of each of the three month period. Although there may be information that will not change (such as social security number and sex) it will still need to be filled-out completely. By the end of the study period, the ISR should have three *Client Information* forms on file for each client.

The *Individual Service Components/Case Management* form will be filled-out by each staff member for each client. Individual Service Components are (generally) classified into 15 minute units (based on research, an industry standard). Case Management is classified into 5 minute components. The rationale for reducing case management into smaller units is based upon meetings with providers. During these meetings, ISR discovered that any type of case management that could not be readily moved into 15 minute units (such as phone calls) was not being recorded. ISR is contracted to capture all case management. This also includes documenting any activity that is done outside of normal work hours and not charged (i.e., taking files home at night). Each staff member should submit to the ISR one form per client per month.

The *Volunteer Services* form is for those providers that bring in volunteers to work with clients. This form is intended to capture the amount of time that individual staff spend arranging, preparing, and conducting volunteer services. In addition to the amount of time spent, ISR also wishes to collect the names of those clients who participated in the service. This form should be filled-out *each time* a volunteer service is arranged and provided

The *Indirect Costs-Monthly Reporting Form* is used to collect all information on costs incurred by the provider agency that are only indirectly related to the provision of services and should be filled-out at the end of each month during the study period. This form should reflect the prorated indirect costs based on the percent of the agency budget that is earmarked for the Community Corrections Program.

The *Salary Information* form is to be filled out at the end of each month. This form should list *all* employees at the provider agency. By the end of the reporting period, ISR should have three forms for each agency.

Client Information	
Month Ending:	Agency:
First Name:	Last Name:
Social Security Number:	Age:
Marital Status: 1-Married 4-Separated 2-Remarried 5-Divorced 3-Widowed 6-Never Married	Date of Birth:
Race: 1-White (non-Hispanic) 4-Asian/Pacific Islander 2-Black (non-Hispanic) 5-Hispanic 3-American Indian 6-Other (specify):	
Number of Dependents: (None=0)	Sex: 1-Male 2-Female
Years of Education (Completed): (GED=12)	Current Employment Status: 1-Full-time (40 hrs/week) 4-Student 2-Part-time (regular hours) 5- Retired/Disability 3-Part-time (irregular hours) 6-Unemployed 7-In a controlled environment
Risk/Needs Score at time of referral:	In-House Risk/Needs Score (if calculated) at time of program intake:
Main Source of Income: 1-Employment 4-Pension/Social Security 2-Unemployment 5-Mate/Family/Friends 3-Welfare 6-Illegal	Monthly Income:
Phase (at beginning of month):	Phase (at end of month):
Current Offense(s):	
Psychiatric Condition: 1-Yes 2-No 3-Don't Know	Physically Disabled: 1-Yes 2-No 3-Don't Know
Current Living Arrangements: 1-House/Apartment rented/owned by client 4-Room/Hotel/Motel 7-Other (specify) 2-House/Apartment rented/owned by friend 5-Institution (jail/hospital) 3-Halfway House/Residence/Therapeutic Community 6-Homeless	
Usual Living Arrangements: 1-With sexual partner and children 4-With parents 7-Alone 2-With sexual partner alone 5-With family 8-In a controlled environment 3-With children alone 6-With friends 9-No stable arrangements	

FINAL REPORT CCP.wpd (updated February 24, 1999)

CLIENT INFORMATION FORM

This form is to be filled-out at the *end* of each of the three months under study. There should be one formed filled-out per client. The program staff are responsible for completion of their client's form being filled-out accurately and completely. Each form should be filled-out legibly and clearly. Each form needs to be completed at the end of each month of the study period. If no information has changed on a client, the form still needs to be filled-out and returned to ISR.

Month Ending:

This should be the name of the month for which this information was valid. For example, if you are filling-out this form on March 30th, month ending would be "March."

Agency:

This should be filled-out as the name of the agency where the client is receiving services.

First Name:

This should be the client's first name.

Last Name:

This should be the client's last name.

Social Security Number:

This should be the client's social security number.

Marital Status:

This should be filled-out as the client's *current* marital status. Note: the category "separated" means legal separation, not physical separation. If a client is divorced and remarried, their status should be marked as "Remarried."

Race:

This should be filled-out as the race/ethnicity identified by the Division of Probation and Parole.

Number of Dependents:

This includes *all* individuals who rely for some part of their support on the client including children, parents, spouse, etc...

Sex:

Self-explanatory.

Years of Education:

This should be the client's total years of education *completed*. All clients who have completed a GED should be scored as "12." If a client is currently working on a GED, use the last year of education completed while in school. A portion of a grade attended does not count as a grade completed. Clients who have received a High School Diploma should be coded as "12." Clients who have received a B.S./B.A. should be coded as "16." Clients who have received a M.A./M.S. should be coded as "18" (unless you have information which shows the client was in the program for a longer amount of time). Clients who report a Ph.D./Ed.D. should have total years coded.

Current Employment Status:

Self-explanatory. Mark the category that *best* describes the client.

Risk/Needs Score at Time of Referral:

This should be the client's risk/needs score as assigned by the Division of Probation and Parole.

Risk/Needs Score (if calculated) of Provider Agency:

This should be the client's risk/needs score if recalculated (using different criteria) by the Provider Agency. If your agency uses their own risk/needs instrument, the ISR requests a copy of the instrument (blank) plus instructions on the method used to calculate the score.

Main Source of Income:

Mark the category that is *most applicable* to the client.

Monthly Income:

Report the client's total monthly income (this may include a variety of sources).

Phase (at beginning of month):

Report the Phase (1, 2, or 3) the client is in at the beginning of the reporting month.

Phase (at end of month):

Report the Phase (1, 2, or 3) the client is in at the end of the reporting month.

Current Offense(s):

Identify any offense the client is currently awaiting either trial or sentencing for. In addition, report any offense committed by the client since the beginning of the reporting period.

Psychiatric Condition:

Identify whether the client has been diagnosed with a psychiatric disorder.

Physically Disabled:

Identify whether the client has been diagnosed with a physical disability.

Current Living Arrangements:

Identify the category which *best* describes the client's current living arrangements.

Usual Living Arrangements:

Identify the category which *best* describes the client's usual living arrangements - that is, the living arrangements where the client spends the *majority* of his/her time.

Provider of Service (Staff Name and Classification): _____ Active Client

Agency: _____ Client ID (Soc. Security #): _____ Pre-Panel Client

Client First Name: _____ Client Last Name: _____

Individual Service Components/Case Management	Time per Contact	Number of Contacts	Total Number of Units
1. Victim Restitution	15 Minute Blocks		
Budget Management Training			
Develop a Restitution Plan	5 Minute Blocks		
CASE MANAGEMENT	5 Minute Blocks		
Monitor Restitution Progress			
Document Assistance and Payments	5 Minute Blocks		
2. Community Service	5 Minute Blocks		
Client Placement			
Maintain Placement List	5 Minute Blocks		
CASE MANAGEMENT	5 Minute Blocks		
Monitor Service			
Documentation of Community Service	5 Minute Blocks		
3. Job Development	5 Minute Blocks		
Instruction in Job Search			
Training	15 Minute Blocks		
Instruction in Social Skills			
Provide Job Placement	15 Minute Blocks		
Training in Development/ Maintenance of Employment	15 Minute Blocks		
Contacts			
CASE MANAGEMENT	5 Minute Blocks		
Assistance in Obtaining Jobs			
Referral to Vocational Training	5 Minute Blocks		

Referral to Job Readiness Workshops	5 Minute Blocks		
Compensation of On-Site Job Training Monetary Output \$	5 Minute Blocks		
Document Job Development Activity	5 Minute Blocks		
4. Family Involvement	15 Minute Blocks		
Family Counseling	15 Minute Blocks		
Social Network	15 Minute Blocks		
Aid Family Members in Understanding Their Role	15 Minute Blocks		
CASE MANAGEMENT	5 Minute Blocks		
5. Substance Abuse	15 Minute Blocks		
Individual Counseling	15 Minute Blocks		
Group Counseling	15 Minute Blocks		
Self-Help Groups	15 Minute Blocks		
Drug Surveillance	5 Minute Blocks		
Drug Testing	5 Minute Blocks		
CASE MANAGEMENT	5 Minute Blocks		
6. Housing Assistance	5 Minute Blocks		
Assistance in Locating Housing	5 Minute Blocks		
Securing Donated Furnishings	5 Minute Blocks		
Assistance w/ Rent Monetary Output \$ _____	5 Minute Blocks		
Assistance W/Bills, or Other Monetary Output \$	5 Minute Blocks		
CASE MANAGEMENT	5 Minute Blocks		

7. Sex Offender Provide Individual Counseling	15 Minute Blocks		
Group Counseling	15 Minute Blocks		
CASE MANAGEMENT	5 Minute Blocks		
8. Parenting Services Provide Family Counseling	15 Minute Blocks		
Provide Child Rearing Training	15 Minute Blocks		
Integrate Children of Offenders into Program	15 Minute Blocks		
CASE MANAGEMENT	5 Minute Blocks		
9. Educational Services Monetary Assistance w/ Education Monetary Output \$	5 Minute Blocks		
CASE MANAGEMENT Documentation of Educational Services	5 Minute Blocks		
10. Medical Services Monetary Assistance w/ Medical Situations Monetary Output \$	5 Minute Blocks		
CASE MANAGEMENT Documentation of Medical Services	5 Minute Blocks		
11. Social Skills/Anger Management Individual Counseling	15 Minute Blocks		
Group Counseling	15 Minute Blocks		
CASE MANAGEMENT	5 Minute Blocks		
12. Residential Services Provide Schedule of Activities	5 Minute Blocks		
Provide for Individual/Group Counseling	15 Minute Blocks		

Assistance to Planning to Ensure Client Able to Afford Housing on Release	15 Minute Blocks		
Three Meals Daily Offered	15 Minute Blocks		
CASE MANAGEMENT	5 Minute Blocks		
13. Case Management and Monitoring	5 Minute Blocks		
Make Required Contacts	5 Minute Blocks		
Risk/Need Assessment(s)	5 Minute Blocks		
Develop Individual Program Plan	5 Minute Blocks		
Make Program Contacts	5 Minute Blocks		
Monitor Client's Behavior and Compliance w/ Program Rules	5 Minute Blocks		
Three, Six, and Twelve Month Follow-ups	5 Minute Blocks		
Maintain Case File	5 Minute Blocks		
14. Amount of Time Spent Traveling to Meet/Service Client Needs (this includes field calls)	5 Minute Blocks		
15. Other (please specify type of service/case management provided that is not listed above)	5 Minute Blocks		
16. Amount of time needed to fill out this form			

FINAL REPORT CCP.wpd (Updated February 24, 1999)

All categories are divided into two sub-categories: 1) service components, and 2) case management. If you are unsure which sub-category your activity involved, follow a simple rule-of-thumb: did the activity involve actual contact with the client (individual service component)? Or, did your activity only involve paperwork (case management). Individual Service Components are (generally) classified into 15 minute units (based on research, an industry standard). Case Management is classified into 5 minute components. The rationale for reducing case management into smaller units is based upon previous meetings with providers. During these meetings, ISR discovered that any type of case management that could not be readily moved into 15 minute units (such as phone calls) was not being recorded. ISR is contracted to capture *all* case management. This also includes documenting any activity that is done outside of normal work hours and not charged (i.e., taking files home at night). To fill out forms, simply use a "tic" mark to represent one unit. In this way, you are able to record information easily and quickly throughout the month. Each staff member should submit to the ISR one form per client per month.

Categories on this form have been derived from individual provider's contractual obligations to the Division of Probation and Parole. Because ISR felt it necessary to create one form for all providers, all categories are included. However, your individual agency may not be contracted to provide each category. For example, if you do not provide counseling for sex offenders, you will not have recorded units under that category. There may also be situations where your agency does not provide a specific service, but refer clients to a provider agency that does. In that event, you would not record individual service components, but would record any case management under that component. Continuing with the counseling for sex offenders example, your agency may not provide counseling, but do refer to outside providers. In that case, the individual service component would not be marked, but any time spent referring or monitoring progress would be recorded under case management.

While individual service components are standardized at 15 minutes, case management is more difficult to track. ISR asks you to round-up or down (e.g., 3.5 minutes should be rounded to 5, 6 minutes should be rounded to 5, etc...). In those instances where it can be easily done, you may also keep track of all case management per client to better estimate actual unit time (e.g., 2 minute phone call plus 1 minute phone call plus 5 minutes of documentation equals 7 minutes. This can round to 5 minutes - 1 unit).

Victim Restitution

Budget Management Training is to be recorded in 15 minute blocks. Developing a Restitution Plan is to be recorded in 5 minute blocks.

Case Management Components include monitoring the restitution progress (documentation, et. al.) as well as documenting any assistance or reminders which were given/made regarding victim restitution.

Community Service

If client is performing community service the placement of the client and the maintenance of community service outlets for each client must be maintained. Please record all of these types of activities in 5 minute blocks.

Case Management Components include the monitoring of the client during community service as well as the documentation of the client's community service.

Job Development

Any type of training or job development should be recorded in 15 minute blocks. Instructions on how to look for a job should be recorded in 5 minute blocks.

Case Management Components include any type of referral, contacts with employers, or documentation of job search and development. In addition, if there is any type of monetary output by either yourself directly or from funds set-up by the provider agency record the amount of time needed as well as the actual cash outlay.

Family Involvement

within the family.

Case Management for this category includes any type of documentation related to the individual service component described above.

Substance Abuse

All types of counseling (individual or group) as well as placement of client into a self-help group (including NA, AA, et. al.) should be recorded in 15 minute blocks. Drug surveillance and drug testing should be recorded in 5 minute blocks.

Case Management components includes all documentation related to the individual service components described above.

Housing Assistance

All types of assistance with housing, including housing location, the securing of furnishings, assistance with rent or bills should be recorded in 5 minute blocks. In addition, any type of direct cash outlay (either from yourself directly or from funds available through the agency) should be recorded.

Case Management components include all documentation related to the above description including the tracking of any cash outlays.

Sex Offender

Any type of individual or group counseling directly provided by you should be recorded in 15 minute blocks.

Case Management components includes any documentation of counseling including the monitoring of counseling offered through other providers.

Parenting Services

All counseling/training of clients which is directly related to parenting should be recorded here. In addition, any type of direct contact with the children of clients should be recorded here. All units are in 15 minute blocks.

Case Management components include all documentation related to the above.

Educational Services

Any type of cash outlay for client's educational needs should be recorded in 5 minute blocks.

Case Management components includes any documentation of any type of educational service or attainment received by client.

Medical Services

Any type of cash outlay for client's medical needs should be recorded in 5 minute blocks.

Case Management components includes any documentation of any type of medical service received by client.

Social Skills/Anger Management

Any individual or group counseling provided by your agency should be reported in 15 minute blocks.

Case Management components include any documentation of any type of social skills/anger management, case notes, appointment scheduling/monitoring client in social skills/anger management counseling in another agency.

Residential Services

blocks (depending on section).
Case Management components include any documentation of client activities within the residential service.

Case Management and Monitoring

Any type of Case Management that is not identifiable in the above topics should be recorded here in 5 minute units. This includes contacts, risk/need assessment(s), monitoring, follow-ups and regular maintenance of case files.

Amount of Time Spent Traveling to Meet/Service Client Needs

Any time spent traveling to meet/service client needs should be recorded in 5 minute units. This includes field calls; however, it should only represent travel time. If you travel to monitor a client's compliance with program rules, travel time should be recorded here, and all activities related to monitoring the client should be recorded in Case Management and Monitoring.

Other

This category is reserved for any activity that does not fit into the above categories. If you feel that a particular contact/service is not represented, note the amount of time in 5 minute blocks. In addition, please specify the type of contact/service you are performing.

Amount of Time Needed to Fill Out This Form

Record the actual number of minutes spent filling out this form.

Agency:

Month Ending:

Amount of time spent soliciting volunteer services for clients in your agency (in minutes):

Describe the type of service solicited:

Amount of monetary expense (if any) in dollars:

List the names of clients who participated in any service provided voluntarily:

List the name of all staff members who participated in soliciting volunteer service or who's regular staff duties included any activities related to the volunteer service (i.e., making phone calls, transportation, setting-up rooms, etc...). Note the total amount of time spent by each staff member.

Amount of Time Needed to Fill Out this Form:

Name of Person Filling Out Form:

This form should be filled-out by the individual who arranged for a volunteer service. This form should be filled-out at the end of each month in the study period. If one staff member arranges five different volunteer services, five different forms should be filled-out.

The type of service solicited should be recorded (i.e., job training, self-esteem workshops, etc...) in addition to the total amount of time spent arranging for the volunteer service. This time calculation includes travel, phone calls, meetings, et. al.

If any out of pocket expenses were used to facilitate the volunteer service (i.e., paid for volunteer's lunch, bought materials such as notebooks, pens, etc...), please record the total amount.

List the names of all clients who participated directly with the volunteer service. In addition, list the names of all staff members who participated (either directly or indirectly) with the volunteer service. This includes any activity that was performed specifically for the volunteer service (i.e., setting up chairs, buying lunch, answering phone calls, making phone calls, etc...).

Record the total amount of time needed to complete this form.

(This form will be used to compute and allocate indirect costs, or those costs that are shared by more than one service area)

Agency:

Month Ending _____

Rent or Lease on Property \$ _____

Electricity Costs \$ _____

Natural Gas Costs \$ _____

Phone Costs \$ _____

Transportation Costs (gasoline, insurance, car payments) \$ _____

Consumable Supplies (office supplies, etc.) \$ _____

Additional Costs Incurred (Describe the nature and purpose for these additional costs)

Total Additional Costs \$ _____

These next costs only apply to those providers who provide residential services to clients.

Food Costs \$ _____

Additional Costs Incurred (Describe the nature and purpose for these additional costs)

Total Additional Costs \$ _____

Amount of Time Needed to Fill Out This Form:

Name of Person Filling-Out Form:

This form should be filled-out by the person responsible for maintaining the finances of the agency. This form should include all budget expenses that indirectly relate to the provision of services to the clients. This includes rental or lease expenses, electricity and/or gas bills, phone and transportation costs, office supplies and all incidentals.

If your agency provides residential services (24 hour in-house) all expenses incurred should be recorded.

Additionally, any other types of expenses that indirectly effect client services should be described with a monetary amount.

Finally, the amount of time needed to fill-out this form should be recorded.

This form should be filled-out by the chief administrator of your agency. This form should list all employees (whether they have direct contact with clients or not). Each employee should be listed with their full salary (including benefits), the highest degree or certification received, and the field in which it was earned. In addition, the employee's FTE (full-time equivalency) should be recorded. This number should reflect the amount of hours spend on CCP. For example, if an employee works full-time, but only spends 10 hours per week on CCP clients, their FTE would be .25. If an employee works full-time on only CCP clients, their FTE should be 1.00 (all FTE computations are based-on a 40 hour work week). *All* employees should be listed, regardless of the contact with CCP clients. If an employee works 40 hours per week but has no interaction with CCP clients, their FTE should be .0.