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## THESIS

AN EVALUATION PROGRAM FOR  
NONPROFIT RECREATION ORGANIZATIONS

by

Stephen B. Brooks

September 1983

Thesis Advisor:

J.M. Fremgen

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An Evaluation Program  
for  
Nonprofit Recreation Organizations

by

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Lieutenant Commander, United States Navy  
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Submitted in partial fulfillment of the  
requirements for the degree of

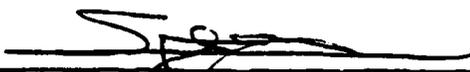
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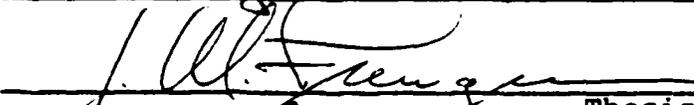
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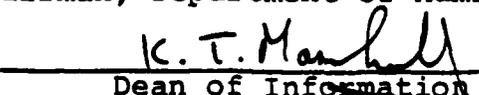
  
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## ABSTRACT

Increasing costs and declining resources have resulted in emphasis placed on evaluation and measurement of effectiveness and efficiency of Morale, Welfare, and Recreation organizations. This thesis addresses the requirement for evaluation, the construction of measures of output, effectiveness, and efficiency and the development of an evaluation program for nonprofit government organizations which support morale, welfare, and recreation. The research involves a review of the literature on management control, development of criteria and measures, and an on-site study of a recreation activity. The author concludes that an evaluation program is essential and makes recommendations for the use of output measures of effectiveness as well as measures of efficiency and financial viability that can be used by management.

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## I. INTRODUCTION

### A. BACKGROUND

In 1980, the Department of Defense (DOD) issued an instruction concerning Morale, Welfare, and Recreation (MWR) activities that required the military services to "prescribe appropriate analysis and evaluation procedures and indicators to ensure that programs are meeting objectives for which established" [Ref. 1: p. 1]. In 1981, responding to reports by the House Armed Services Committee and the General Accounting Office (GAO), the Office of the Assistance Secretary of Defense for Manpower, Reserve Affairs, and Logistics (Military Personnel and Force Management) issued a list of "standard, measurable indicators for thirteen types of MWR activities" [Ref. 2: p. 1] and required reports to be made to DOD by the services. These reports are of quantitative indicators of program performance, such as the percentages of nonappropriated and appropriated funds of total annual operating costs, inventory turnover rates, and the ratio of sales to manyears. DOD recommended the use of additional specified indicators of programs performance "to measure Availability, Financial Viability, and Operational Effectiveness" and required the assessment of "Patron Satisfaction through use

of surveys, advisory committees, and suggestion/complaint procedures in accordance with existing regulations." No new guidelines were given for measuring patron satisfaction.

[Ref. 2: p. 1]

In January 1982, the Chief of Naval Education and Training (CNET) required its commands to institute annual evaluation programs based on the DOD service-oriented indicators, stating that "CNET strongly agrees with the basic underlying philosophy of examining the effectiveness of MWR programs by comparing their cost with the number of patrons using the facility." CNET stipulated that efforts to maintain evaluation programs should not "result in significant administrative burden" and that "cost per patronage" should not "be used as the sole basis for evaluating a program." The expressed intent of CNET's requirement is that "scarce MWR resources... be employed in the most cost effective manner...and hopefully will justify the expenditure of additional appropriated fund support."

[Ref. 3: pp. 1-2]

During a management audit of the Naval Postgraduate School (NPS) Recreation Department conducted between January and March 1983, it became evident that available regulations and guidelines did not provide procedures for examining effectiveness. Instead, regulations required collection of data that could be used to judge efficiency or effectiveness

but lacked the criteria and definitions with which to do so. The audit concluded that the Recreation Department did not have the required evaluation program in place, nor were data being accumulated properly. [Ref. 4: p. 3]

This research project focuses on the application of two elements of management theory, (1) the evaluation of performance in a nonprofit environment and (2) the measures of performance. That is, by what criteria should performance be evaluated and what indicators should be used to describe performance?

#### B. RESEARCH SPECIFICATION

The purpose of this research is to develop an evaluation program for Morale, Welfare, and Recreation organizations that can be used to improve management within recreation departments. Using the Naval Postgraduate School's Recreation Department as a test case, the models are intended to apply to similar nonprofit activities in which social benefits are difficult to measure.

#### C. RESEARCH METHODS

This project evolved from two prior academic assignments, (1) the management audit discussed earlier and (2) a cost-benefit study done in May 1983, which addressed limited aspects of the Recreation Department.

The preliminary phase of the research was a brief view of the operations of the Recreation Department, its accounting and budgeting structures, and its financial status in 1982 and 1983. Having highlighted the evaluation problem, the second phase was research of current literature on management theory concentrating on evaluation and the definitions of effectiveness and efficiency.

The third phase included a detailed compilation of data from the files of the Recreation Department on budget submissions, accounting reports, procedures and regulations, previous audits, and attendance records.

Combining the theory with the data that were available or which could be constructed, the fourth phase was the development of criteria and measures of effectiveness or efficiency. This led to the fifth phase, construction of a questionnaire to survey patron satisfaction with the Recreation Department. No previous surveys had been made and files were not kept of suggestions or complaints or other means by which patron satisfaction could be judged.

The sixth phase was an analysis of the data collected from management information and the survey to calculate the measurements themselves. The last phase is the interpretation of the results and recommendations for further applications of evaluations.

#### D. ORGANIZATION

Chapter II deals with the literature concerning the theory of evaluations, effectiveness and efficiency, objectives and goals, criteria and measures, accounting and budgeting structures, and pricing. Conclusions and/or definitions are interpreted as they apply to the research project.

Chapter III provides the background of the Naval Postgraduate School's Recreation Department, its current organization and operations, its goal and objectives, and the accounting and budgeting processes in use.

Chapter IV presents the development of the models used for the evaluation program. Chapter V is a description of how and what data were collected, and Chapter VI is the analysis of the data and the results of the evaluation.

Chapter VII summarizes the research, contains conclusions and recommendations, and suggests areas for further research.

## II. EVALUATION: MANAGEMENT THEORY

### A. MANAGEMENT CONTROL CYCLE

Management control has been defined by Anthony and Herzlinger as "the process by which management assures that the organization carries out its strategies effectively and efficienctly." [Ref. 5: p. 3] Anthony defined it in an earlier work as "the process by which managers assure that resources are obtained and used effectively and efficiently in the accomplishment of the organization's objectives." [Ref. 6: p. 17] A survey of the literature indicates that academicians vary only slightly in their opinion of what the cycle of management control consists of. Most include the elements in the following list: [Ref. 7: p. 131]

1. Determination of goals and objectives.
2. Identification of organizational structures and constraints.
3. Development of key success variables for each responsibility center.
4. Application of evaluation criteria.
5. Testing and recommending change.

The cycle is covered in a four-phase process: [Ref. 5: pp. 15-17]

1. Programming: ...decisions are made with respect to the major programs the organization plans to undertake.

2. Budgeting: ...a plan expressed in quantitative, usually monetary, terms covering a specified period of time...a statement of the outputs that are expected during the budget year and the resources that are to be used in achieving these outputs.
3. Operating and Measurement: ...records are kept of resources actually consumed and outputs actually achieved.
4. Reporting and Analysis: Accounting information, along with a variety of other information, is summarized, analyzed, and reported to those who are responsible for...improving performance. First, the reports are a basis for coordinating and controlling the current activities of the organization. Second, the reports are used as a basis for evaluating operating performance. Third, the reports are used as a basis for program evaluation.

Evaluation is prominent in both the management cycle and the management process described above. The definitions and context of evaluation will be explored further as they relate to this research.

#### B. THE EVALUATION PROBLEM

If one accepts the dictionary definition, evaluation occurs anytime the value or worth of something is ascertained. Mathematically, it is the value of that something expressed numerically. [Ref. 8] Suchman describes evaluation as a "highly complex and subjective...continuous social process" which:

...involves a combination of basic assumptions underlying the activity being evaluated and of personal values on the part of both those whose activities are being evaluated and those who are doing the evaluation. ...The task for the development of evaluation research as a 'scientific' process is to 'control' this intrinsic subjectivity, since it cannot be eliminated. [Ref. 9: p. 11]

In order to provide models for evaluation of the Recreation Department, it is necessary to look at some interpretations of evaluation and to provide a working definition. The problem is to determine what an evaluation is and what its purpose is, and to describe the framework to be used for this research.

### 1. Definitions

Evaluation has been described as "the social process of making judgements of worth" and "the general process of assessment or appraisal of value." [Ref. 9: p. 7] It has also been defined as an attempt to determine whether programs are achieving the results for which they were intended. [Ref. 10: p. 6] In discussing management control, Branch described the role of evaluation:

...general sequence of operations... First, there is a sensing mechanism... There follows a comparison of the measured performance with a standard... [Ref. 11: p. 132].

A more conceptual definition is that of the evaluation process, described by Suchman following his review of the work of thirteen other authors:

...the determination (whether based on opinion, records, subjective or objective data) of the results (whether desirable or undesirable); transient or permanent; immediate or delayed) attained by some activity (whether a program, or part of a program, a drug or a therapy, an ongoing or one-shot approach) designed to accomplish some valued goal or objective (whether ultimate, intermediate, or immediate, effort of performance, long or short range). ...the problems consist of identifying the criteria with which to assess program or organization effectiveness, measuring these criteria, and

weighing the various outcomes in order to judge the adequacy of the organizational arrangement to obtain the outcome. [Ref. 9: p. 32]

Suchman's derivation is interpreted to mean the determination of the relationship of the results of operations of the activity to its objectives in terms of measurable criteria.

Anthony and Herzlinger differentiate between types of evaluations. The operations evaluation examines the efficiency of the process of achieving objectives, or trying to achieve them. The program evaluation is concerned with the validity of the objectives themselves and "whether the organization is attaining these objectives in the most effective way." [Ref. 5: pp. 511-512]

## 2. Purposes

In the above definitions, operations evaluations were distinguished from program evaluations. The purpose of operations evaluations is primarily the early recognition of financial problems and identification of remedial actions such as increasing revenues and/or cutting expenses. [Ref. 12: pp. 381-387] Another author observes:

The primary function of most evaluation studies is to aid in the planning, development, and operation of services programs... ..increase the probability of a more efficient and effective organization... [Ref. 9: pp. 4, 21, 31]

Peter Drucker describes the purpose of evaluations in his article on managers and nonprofit organizations:

Finally, they need an organized audit of objectives and results, so as to identify those objectives that no longer serve a useful purpose or have proven unattainable. They need to identify unsatisfactory performance, and activities which are obsolete, unproductive, or both. [Ref. 13: p. 30]

In discussing program evaluations, Anderson and Ball list six purposes:

1. To contribute to decisions about program installation.
2. To contribute to decisions about program continuation, expansions, or 'certification'.
3. To contribute to decisions about program modification.
4. To obtain evidence to rally support for a program.
5. To obtain evidence to rally opposition to a program.
6. To contribute to the understanding of basic psychological, social, and other processes.

The authors point out that the second purpose above deals with the content of a program and the third purpose deals more with the method or means of carrying out the program. Modification deals with the operations structure, personnel policies, and practices. [Ref. 14: pp. 15-42]

The purpose of MWR evaluation was stated by DOD and CNET in the introduction to this thesis (Chapter I):

...to ensure that programs are meeting objectives for which established.

...examining the effectiveness of MWR programs by comparing their cost with the number of patrons...

...to justify the expenditure of additional appropriated fund support.

### 3. Framework

The evaluation program proposed for the Recreation Department will assess the effectiveness of programs and the efficiency of operations. Its purpose is to provide a framework for allocating resources and identifying areas of weakness. The program results may then be used as the basis for changes in procedures, application of resources, or as the basis for further analysis.

#### C. GOALS AND OBJECTIVES

##### 1. Definitions

The use of the terms "goals" and "objectives" are distinguished here as used in this research, since the two terms are often used interchangeably or reversed by different authors. Goals are the aims derived from the higher levels of an organization and are generally vague in nature. Goals deal with the long run statement of purpose of the organization and are not usually attainable during a specified period of time. Objectives are more narrowly defined as they relate to a specific time frame (usually the budget year) and normally are measurable in some form. They refer to and support the ongoing goals of the organization. In the context of the Recreation Department, a goal might be to support the physical fitness standards of the Navy. An objective supporting that goal might be encourage patronage of the gymnasium through financial subsidies.

## 2. The Problem of No Profit

In a business organization, appraisal of performance is generally related to the income statement and balance sheet. "The fundamental impelling force which leads managers to plan is the eventual appraisal of their performance." [Ref. 15: p. 5] The profit line on the income statement plays a key role in evaluation.

The problem is that, in a nonprofit organization, profit is not a primary indicator of performance. Thus, the appraisal of performance is somewhat different from that in profit-motivated businesses in regards to objectives and evaluations. [Ref. 16: p. 101] Other criteria must be considered in the design of planning and control systems for programs, operations, and budgeting. In a nonprofit organization, the objective normally is to break even, except when revenues are designed to exceed expenses for planned expansion, investment, or improvement. The balance sheet lacks an item for owner's equity, and the profit or loss line of an income statement is less significant. This does not mean that profits or losses are not measures of effectiveness or efficiency (terms discussed later) but that other methods must be developed for measuring and evaluating the nonprofit entity. Examples of these other measures might be patron satisfaction, level of service, volume of patronage, and the use of resources. [Ref. 17: p. 31]

Drucker emphasizes the necessity to derive "clear objectives and goals from" the service organization's "definition of function and mission." The focus on results and performance objectives is driven by the need for "efficiency--that is, control of costs. But, above all, they need effectiveness--that is, focus on the right results." [Ref. 12: p. 30]

The problem of no profit and its consequences are summarized by Anthony and Herzlinger:

...objectives usually cannot be expressed in quantitative terms. The management team of a nonprofit organization often will not agree on the relative importance of various objectives...

For most important decisions in a nonprofit organization, there is no accurate way of estimating the relationship between inputs and outputs; that is, there is no way of judging what effect the expenditure of X dollars will have on achieving the goals of the organization.

The principal goal should be to render service...as much service as is possible with a given amount of resources, or to use as few resources as possible to render a given amount of service. [Ref. 5: pp. 39-41]

Hall, drawing on the work of Perrow and others, describes a structure of goals and objectives, as related to the nonprofit organization, that includes five types of goals and objectives: (1) Societal goals involve the maintenance of cultural values, (2) System goals are those designed for organizational functions, stability, and growth, (3) Output objectives are the quantitative or qualitative targets for end products, (4) Product or

operating objectives are quality, modification to support societal goals, and new ideas, (5) Drives objectives are those that stem from other goals and objectives but are generally not related directly, such as employee development. [Ref. 18: pp. 9-57]

### 3. Application to This Research

Based upon a review of the literature, one might conclude that without objectives there cannot be an evaluation. However, the evaluation may lead to the conclusion that objectives have not been determined by management. This is the first step in the evaluation. As applied in this research, evaluation leads to evidence, conclusions, and recommendations. If objectives are not sufficiently clear to draw conclusions about effectiveness or efficiency, the evidence will still be available for later use.

The goals and objectives of the Recreation Department that are being sought are categorized as follows. The social goals include the general value of morale, welfare, and recreation to the community and the Navy. The system goals might be those for improving the overall quality of operations, particularly the achievement of satisfactory audit results and growth in services. Program, or output, objectives might include qualitative and quantitative targets for end products, namely increases in

patronage, better service, and the use of budget dollars to support the greater numbers of patrons. Process, or operating, objectives might be those relating to operations such as the accuracy of planning and budgeting, the ratio of fees to expenses, and the degree of support provided through appropriated funds. The research is directed primarily at the program and process objectives.

#### D. EFFECTIVENESS AND EFFICIENCY

##### 1. Difference and definitions

Earlier, operations evaluation and efficiency and program evaluations and effectiveness were discussed. As paraphrased from Wright [Ref. 19] by Suchman:

Effectiveness focuses on the ability to carry out a program successfully. Effects refer to the ultimate influence of a program on a target population. Efficiency refers to how well and at what cost was the program conducted relative to other ways of producing a similar effect. [Ref. 9: p. 61]

Hannan and Freeman are more specific:

Within the tradition that emphasizes goal attainment, effectiveness is distinguished from efficiency. There is widespread agreement that the former refers to goal attainment and the latter refers to the costs incurred in goal attainment (usually unit cost per output). That is, effectiveness considerations are not made conditional on resources committed and used, whereas efficiency introduces cost comparisons. [Ref. 20: p. 110]

Goodman and Pennings define efficiency as:

...the ratio of the units produced or obtained to resources or costs required to obtain or produce those units. Efficiency measures the amount of resources used relative to output in the process of acquiring inputs, transforming inputs, and disposing of completed outputs or services. [Ref. 21: p. 162]

The same authors cautioned that the terms effectiveness and efficiency are often used in place of each other, particularly the substitution of effectiveness for efficiency "since the term efficiency carries negative connotations." [Ref. 21: p. 163]

## 2. The Context of Effectiveness

"Effectiveness is the relationship between a responsibility center's output and its objectives." [Ref. 5: p. 5] "Organizations are effective if relevant constraints can be satisfied and if organizational results approximate or exceed a set of referents for multiple goals." [Ref. 21: p. 160] These quotations point out two of three perspectives on effectiveness presented by Lawler:

One point of view is the societal perspective. Here the concern is how the organization performs its functions and impacts on the larger system of which it is a part. The various primary and secondary effects of organizational actions are of concern here.

A second view is the managerial perspective. ...how well the organizations identify and solve relevant problems, to provide services and products, and make best use of available resources.

A third view is the individual perspective. In this context, effectiveness is the degree in which the organization has a positive impact on the well being of individuals both inside and outside of its boundaries. [Ref. 22: pp. 2-3]

From the literature there appear to be four approaches to effectiveness. The first relates results or outputs to goals and objectives. The second relates effectiveness to maximizing resources, since that should

increase the service provided. The third relates effectiveness to the performance of individuals and the internal functioning of the entity. The fourth is the extent to which all constituencies of the organization are satisfied. Here, constituents are meant to be identifiable groups of individuals who have some stake in the organization, whether they be managers, staff, or recipients of service. [Ref. 23: p. 240]

Finally, the context of effectiveness is determined from six issues paraphrased here from essays by Goodman and Pennings: [Ref. 21: pp. 4-6; Ref. 24: pp. 187-188]

1. Who is the decision-maker? That is, whose point of view is most germane to the evaluation and the interpretation of effectiveness?
2. What is the domain? That is, are we concerned with the effectiveness of the organization as it relates to operations, to programs, to employees, to recipients of service, or management, or are we to be concerned with some higher plane of values such as the impact on the crime rate or the general welfare or the standard of living?
3. What level of analysis should be used? Is there a need for detailed accuracy and objective data, or will estimates and subjective interpretation serve?
4. What time frame should be used? Is a snapshot of one week's operations suitable, or is analysis of a year's data called for? Is it reasonable to assume that a sample of opinion taken during a week can be reconciled with operations performance over a year?
5. What type of data are required? To support the decision-maker, does he require that the analysis include accounting data, subjective interpretation, perceptions, or some combination of opinions?

6. What referents should be used? Are there standards available? Can comparisons be drawn from previous evaluations or other organizations? Are objectives stated and available, and which are to be included?

3. The Context of Efficiency

Efficiency is used in more of an exact context in the literature to describe process objectives or operations which are usually more quantifiable than program objectives. Actual costs can be related to budgeted costs, or resources for one activity can be related to its expenses, or resources for two activities can be related to outputs for those activities to see which is more efficient (if the outputs of those activities are approximately the same or can be equated in some numerical fashion). [Ref. 5: p. 5] The context is generally limited to financial measures of inputs and processes and their relationship to quantifiable standards or outputs.

4. Relationship to Research

The DOD and CNET purposes of the evaluation listed earlier described effectiveness of MWR programs in terms of costs of activities and numbers of patrons. The theory implies that this relationship is more one of efficiency than effectiveness, but numbers of patrons are results and the task is to assist in determining the more effective use of resources. That is, the more effective allocation of additional resources is the one that results in the largest increase in people served.

Effectiveness is related to the quality or quantity of the results as compared to objectives, one objective being perhaps to maximize the total number of patrons at a given budget and another perhaps to support only those programs with at least a minimum number of attendees. Efficiency is related to the process of achieving the output, such as achieving the same result (a given number of patrons) at a lower budget, or perhaps by consolidating two activities still serving the same number of patrons but at a lower cost.

#### E. CRITERIA AND MEASURES

##### 1. Criteria

Cornell uses criteria as decision rules for relating costs and effectiveness in a cost-benefit analysis from which managers may choose from alternatives. Models are designed which use appropriate measures based upon the criteria. Following are three examples of the criteria listed by Cornell that involve effectiveness:

1. Maximize effectiveness at a given cost.
2. Minimize cost at a given level of effectiveness.
3. Maximize the ratio of effectiveness to cost.

It is impossible to maximize effectiveness at minimum cost, or to achieve a given level of effectiveness at a given cost, thus avoiding the specification of both cost and effectiveness. [Ref. 25: p. 32].

A former professor at the Naval Postgraduate School, Lieutenant Commander R. G. Nickerson, used Cornell's text

and added the following principles as the keystones to a course in policy analysis:

Analysis is an aid to decision-making.  
Analysis is insight, not numbers.  
A model is an abstraction from reality.  
Models are to be used, not believed.

Decisions must be made subject to constraints or imperfect, incomplete, and sometimes conflicting evidence.

Campbell presents criteria in a different sense. Objectives are distinguished as being means-oriented or ends-oriented, and criteria are arrays of objectives related to either ends or means. The objectives should be ranked by management in order of importance, but this is not required. Campbell points out that the evaluator can specify the relative importance given to objectives or to the criteria in an analysis. [Ref. 26: pp. 46-53] Presumably, the evaluator would base his ranking, or weights given to objectives, on inferences drawn from observing management behavior or on awareness of the hierarchy of goals.

Both interpretations of criteria relate objectives to measures but Cornell appears to restrict the use of criteria to a cost relationship while Campbell gives orders and value to measures by grouping them by type of criteria and without using cost as a part of the measures.

## 2. Measures

Input measures are the costs and expenses of operation, such as labor, equipment, or other resources used

to obtain results. The common denominator in efficiency and effectiveness is outputs. Output measures take one or three forms, (1) results measures or output expressed in terms relatable to objectives, (2) process measures or quantifiable levels of activity performed by operations, and (3) social measures which are broader indicators of output that are at least partly caused by the organization. [Ref. 5: pp. 227-235]

What is available, what is required, what is desired, and what is realistically obtainable to measure effectiveness is subject to constraints such as the cost of collecting data, the cost of maintaining records, the cost of analysis, the cost of evaluation, bias, personalities, politics, and schedules. The selection of the measures of effectiveness and costs will often dictate the scope and detail of the data required. For example, costs can be measured as unit costs or as total costs or as variable and fixed costs or even as non-monetary costs, provided that the data are available to support the calculations. Results can be measured in numbers of patrons or qualitatively as the degree of consumer satisfaction with program services.

In Cornell's system analysis models, effectiveness itself must be measurable in order to compare it to costs. Cornell summarizes measures of effectiveness as "measurements of the degree to which each of the alternatives

satisfies the objective." [Ref. 25: p. 31] This suggests again that effectiveness is expressed in terms of outputs which must be quantifiable in some form.

On the precision of measurements, this comment is offered: "For strategic planning, rough estimates of outputs are satisfactory. For management control, the measures must be more precise to be credible." [Ref. 5: p. 247] Unfortunately, there is no absolute rule on how precise a measure must be nor on the sometimes subtle difference between strategic planning and management control. Ultimately, the issue becomes judgemental.

### 3. Relationship to this Research

Criteria similar to those described by Campbell will be constructed as arrays of measures of patron satisfaction, availability of facilities, operational efficiency, and financial viability. The measures used for each criterion will follow Anthony's pattern of results and process measures. Specific measures and models are discussed in Chapter IV. While accuracy of data and calculations is desirable, it must be assumed that reasonable, subjective estimates will provide an adequate basis for decisions and that the decision-maker is aware of this, or he may choose to defer a decision until more accurate measurements can be made.

## F. ACCOUNT STRUCTURE

The management control structure provides the framework within which data collection systems function, as distinguished from the management control process involving programming, budgeting, operating, measuring, analyzing, and reporting. Structure, as it is used here, includes the management information system that provides financial data, and patronage information. An account is defined as a repository for accumulating information peculiar to a title and purpose assigned to that account. For example, accounts may be used for inputs or outflows of dollars, for historical or forecasted data on the number of patrons, or for the number of maintenance personnel assigned to a particular activity. [Ref. 27: p. 2-3]

### 1. Program Accounts

Program accounts provide information compiled about resources devoted to one program or the outputs measured that are unique to it. The information is useful for decisions about program content and budgeting and as the basis for setting fees for services. Program accounts also allow for the collection of information to be compared to program objectives and for the measure of effectiveness. [Ref. 5: p. 84]

### 2. Responsibility Center Accounts

Responsibility centers are units of organizations at which managerial responsibility for budgets and spending are

established. Centers may contribute to part of a program or may contribute to several programs, or the responsibility center may be identified as the program alone. For example, the gymnasium may contribute to youth programs, sports programs, and physical fitness programs. The gymnasium and the teen club, both responsibility centers, may contribute to the youth program. The child care center may be both the responsibility center and the program for child care. Generally, responsibility centers are of four types, (1) expense, (2) profit, (3) revenue, and (4) investment. Expense centers are those that are managed by controlling expenses, usually without consideration of revenues. Profit centers are charged with controlling both revenues and expenses. With nonprofit structures, profit centers' revenues are normally fees for services. Revenue centers are responsible for a target level of revenue. Investment centers combine the profit center concept with capital used to generate revenue. As will be seen, the Recreation Department's activities are either expense centers or profit centers. [Ref. 28: p. 579; Ref. 29: pp. 470-471].

### 3. Line Items and Reports

Line items are used to aggregate revenues or expenses associated with a specific element of operations, e.g., wages, supplies, income, retail income, cost of goods sold, etc. Line items may be used to aggregate these types

of elements both by responsibility center and by program, in addition to compiling the total amount of one element for use in the operating statement or income statement.

4. Account Structure and this Research

The only purpose for this limited explanation of account structure is to set the stage for the way in which accounts are maintained by the Nonappropriated Fund Accounting System, located in Maryland, which performs centralized accounting for the Recreation Department, and to stress the need for nonfinancial information to be collected in the same structure for ease of comparison or analysis.

G. BUDGETS

1. Significance

The budget is the financial plan that establishes revenue and expense objectives for the organization and for its programs and responsibility centers. It serves as a control mechanism for coordination, communication, performance evaluation, and motivation. Budget objectives are usually expressions of management's intentions of what is expected of responsibility centers. Moreover, accomplishments and problems often receive the attention of management more quickly through the review of the budget for deviations from the plan. It has been noted that budget decisions by higher management can have a strong influence

on operations and motivation of lower level managers. [Ref. 30: pp. 707-721]

The significance of the budget as the basis of performance evaluation is of some concern. While commercial enterprises use profits as a guide, nonprofit organizations attempt to replace the profit measure with other output measures, as previously discussed. Often, however, the budget may be used as the only performance indicator. It can provide insight into efficiency (how the job is being done) rather than effectiveness (what is being accomplished). [Ref. 31: pp. 59-73] Further, if annual revenues are not expected to vary by much, adherence to expense planning can become critical as managers are judged on spending what is budgeted and are induced to spend up to the budget level, even if they don't need something, or are restricted by the budget level from buying something they do need. When revenues do vary, managers are inclined to spend according to those revenues instead of planned expenses.

## 2. Preparation

The budget for the operating period (usually annual) should be derived from goals and objectives established by strategic planning and programming. Careful estimates should be made of each expense and revenue line item for a responsibility center and for a program. The budget objective is to match total revenues with total expenses.

If expenses turn out to be lower than revenues, the budget plan is providing fewer services than are being paid for. [Ref. 32: p. 7] Conversely, if expenses exceed anticipated revenues, either expenses must be reduced or additional revenues must be found by raising fees or soliciting added subsidies from external sources.

Amounts for programs and responsibility centers are usually determined by starting with the current year's actual data. Adjustments are made for inflation, wage and price changes, legal constraints, and other financial factors, for changes in programs, and for discretionary items that may be provided in guidance from higher management (such as a one-time expense to be charged to a program or to a responsibility center, like resurfacing a tennis court). [Ref. 5: pp. 334-336] Other methods, such as zero base budgeting, are discussed in the literature and may be recommended as the result of an evaluation.

### 3. Review, Submission, and Approval

Typically, in a nonprofit organization that receives funding from external sources, the program budget estimates should be reviewed by the principal participants, including the manager responsible for the budget and the managers of the responsibility centers and other staff managers responsible for financial affairs. The purpose is to present the entire budget to all concerned and to negotiate

any changes or tradeoffs that might be desired. The resulting version should then be sent up for the proper signature authority in the organization. The budget is now in the form to request resources from an external command and will result in approved funding, reduced funding, or sometimes increased funding commitments from the external source. The budget should now be revised to reflect the level of approved funding and respective managers should be consulted about changes to programs caused by revisions in funding.

Budget submissions are in two general formats, a program budget and a line-item budget. The program budget focuses on activities which will create revenues and/or expenses, and the line-item budget concentrates on the "objects of spending", such as wages and supply expenses. Either or both formats may be required, but both are recommended. Ideally, the budget submission will also include anticipated output measures or objectives as justification for funds requested. [Ref. 5: pp. 326-333]

#### 4. Variable Budgets

For those costs of services that vary with the use of an activity, a variable budget can be implemented by relating the costs to the number of users. With such a variable budget, planned expense levels may be changed from month to month in response to changes in actual use or

revised estimates of use of the facility. Construction of a variable budget requires an analysis of costs and volume changes over time and requires additional data and analysis. To illustrate, if a fixed minimum number of maintenance hours is required for an activity regardless of the number of patrons but additional maintenance is needed when the patronage exceeds a certain level, it is possible to relate those additional hours to the patronage above that level. The budget is then constructed with the minimum fixed dollar amount, to which is added a variable unit cost multiplied by the forecasted number of patrons above the level accounted for in the fixed portion of expense. Similarly, food preparation might be contracted at a fixed cost for a minimum number of meals, above which a unit cost per additional meal is paid. The budget is based on the fixed contract amount plus the number of additional meals estimated to be needed times the unit cost. [Ref. 5: p. 337; Ref. 13: p. 371; Ref. 33: pp. 171-177] The variable budget avoids the misallocation of resources that may occur when budgets are reviewed by comparing volume with total cost. That is, if the patronage increases by a given percent, the tendency is to increase the budget allocations by the same percent. For example, the number of users of a facility increases from 100 to 110. The planned expenses for 100 users was \$10,000, which is raised to \$11,000 for

the next year. If it were known that only \$6,000 of the expenses were variable costs, the variable budget would have provided a new budget level of \$10,600. [Ref. 5: p. 338]

#### 5. Budget Variances

Two of the criteria proposed by DOD for use in the evaluations are the variances from budgeted revenues and expenses. The expressed purpose of using these measurements is to determine the accuracy of planning and budgeting. Since the data available in this research do not support further analysis, management may want to expand the annual evaluation to include the causes of variances.

##### a. Volume Variances

Revenue volumes may vary from planned levels by an amount which can be calculated from the difference between the planned and actual number of users times the unit revenue. In a variable budget, the expense volume variance is determined from only those expenses known to fluctuate with the number of users; the unit variable expense is determined, and calculated for both planned and actual patronage levels to determine the variance.

##### b. Price Variance

A selling price variance may be caused by a change in fees charged for services, in which case the variance is the difference between the old and new fee times the actual number of patrons. An expense price variance may

effect the budget when prices paid for supplies, for example, are different from those used in the budget, and the variance is the change in price times the actual quantity.

c. Quantity and Efficiency Variances

Those variances not explained by changes in volume or price are quantity or efficiency variances. A quantity variance may be caused when, for example, more supplies are purchased than were planned for because of an increase in supplies required per patron, and the variance is the change in quantity times the budgeted price. Efficiency variances are, in effect, quantity variances associated with labor and overhead costs. An efficiency variance might be the result of inexperienced personnel performing a task. Another might be an unusual requirement for maintenance caused by exceptionally adverse weather. [Ref. 5: pp. 477-478; Ref. 33: pp. 173-177]

6. Relationship to this Research

The NPS Recreation Department budgeting process will be briefly compared to the theory in Chapter III. The evaluation program is directed at providing support for budget changes based on program effectiveness and making recommendations for improvements in management control procedures (such as the variable budget and use of budget variances). That is, the concentration on budgeting will be to determine if there is a significant revenue or expense

and to recommending further variance data collection and analysis procedures.

#### H. PRICING

Anthony and Herzlinger propose five principles of nonprofit pricing:

"Services should be sold, rather than be given away." The advantages of charging for services include the ability to evaluate the revenue generated as a measure of output and to assess the value of services provided. There are, however, cases where fees would not be prudent politically.

"The price should affect the consumer's actions." If fees are charged that are well below market value then the consumer is influenced to use the less expensive facility. He may also use the facility more often. Price, in this context, might be used as a tool for controlling demand and the level of service that is provided.

"The price should ordinarily be equal to full cost." By definition, a nonprofit organization should not set prices above costs to make a profit. On the other hand, if prices are set below full cost, then the theory is that economic resources are not being allocated properly. Some other economic resource must be used to subsidize the cost. When prices are deliberately set below full cost, there may be valid arguments for doing so. The market might not justify full cost pricing, or prices might be set to encourage

increased use, or to provide services to consumers unable to pay a higher price. In the case of MWR activities, as will be seen in the next chapter, subsidies for operations have already been paid by consumers in the form of profits derived from Navy Exchanges and other sources and fee structures may take this into account.

"The unit of service that is priced should be narrowly defined." The more specific the description of the service is and the more costs can be directly attributed to that service, the better the measure of output will be. In other words, prices should be based on a specific activity whenever possible, rather than on a program, or a group of activities.

"Prospective pricing is preferable to cost reimbursement." Prices that are established ahead of time provide stability for consumers and incentive for managers to control costs. Obviously, common sense tells us that consumers would rather know the price up front rather than be billed an unknown amount after the fact. Cost reimbursement might, however, be preferable in certain situations, provided rates of charges are known. For example, patrons might complain about a fixed fee charged for use of picnic grounds based on historical clean-up costs. Typically, patrons might claim they don't leave anything to be cleaned up. It might be preferable to establish an hourly rate for

clean-up services, require a deposit, and compute the cost reimbursement after the fact. [Ref. 5: pp. 380-402].

This research will look at fees from the perspective of actual expenses per patron compared to actual revenues generated by programs and also at the expense per member of the community eligible to use the same activity. Fees charged for activities will also be compared to fees charged for similar services available elsewhere in the community.

#### I. SUMMARY

This chapter has presented only some of the principles of management theory and planning considered to be relevant to the project. The scope of this research is to identify the criteria, construct the measures of those criteria, present other variables that might impact on decisions, and present recommendations for uses of the evaluation program. The purpose is not to provide the final evaluation itself, but to provide a program of evaluation.

Evaluation is the correlation of results, objectives, and operations with the purpose of contributing to decision-making. Criteria and measures comprise the rules by which the data are correlated. Measurements are expressed in terms of results or process measures that are used to assess effectiveness or efficiency. The structure of the evaluation is the framework within which measurements are made and data are collected and should include both the program and the responsibility center accounts.

### III. NAVAL POSTGRADUATE SCHOOL RECREATION DEPARTMENT

#### A. BACKGROUND

The Department of the Navy's Nonappropriated Fund instrumentalities are comprised of approximately 145 retail stores, 110 consolidated packaged liquor stores, 300 open messes (clubs and dining facilities), 164 major recreation centers, 175 auto service centers, 83 commissary stores, 326 barber or beauty shops, 37 Navy Lodges (motels), and other miscellaneous service activities collectively referred to as Morale, Welfare, and Recreation (MWR) activities. [Ref. 34: p. 24]

While the MWR programs are financed primarily by non-appropriated funds, Congress does provide approximately 25 percent of the total cost through appropriated funds but this percentage is decreasing. Appropriated funds are usually specified for provision of military manpower, rents, utilities, construction of new facilities, and maintenance of government property. The importance of the management of the nonappropriated fund instrumentalities has not changed from the 1977 recommendations of the General Accounting Office to Congress that either MWR functions be reduced or that appropriated funds support be reduced. [Ref. 35] The 1977 review and other criticisms from

Congress led to the memorandum requiring evaluation programs (Chapter I).

#### B. DEVELOPMENT OF RESEARCH OBJECTIVES

A management audit of the Recreation Department at the Naval Postgraduate School was completed in March 1983, and was largely the result of a financial audit completed in October 1982 [Ref. 36], which highlighted the need for improvements in management areas of economy and efficiency and recommended a management-type audit. A management audit is an evaluation of efficiency and economy. [Ref. 37: p. 7] The Assistant Comptroller of the Naval Postgraduate School had established the pattern of using students to perform internal review functions who were at the same time satisfying project requirements for a course in operational auditing.

During the planning phase of the management audit, the Assistant Director of Military Operations requested that the audit concentrate on organizational effectiveness and provide for a budget relationship between patronage of programs and resources to be used. The audit concluded that appropriate techniques for accumulating data to support an evaluation were not in place--nor was an evaluation program established as required by the major claimant, CNET. [Ref. 4: pp. 3-8] Both the time constraint under which the audit was performed and the lack of data accumulation precluded the type of results desired, that is, an effectiveness study.

It was discovered during the management audit that the DOD guidelines and CNET requirement for evaluation contained only general procedures and indicators. The establishment of detailed procedures and specific indicators was left to the discretion of the Naval Postgraduate School. Moreover, there were no methods given at all for interpreting the results of measurements or applying the results of the evaluation to budgeting or management operations. From the context of the letter from CNET, it appeared that the evaluation program should consist of the gathering of measurements to be placed on file for CNET or DOD to use later in comparing one activity to another or as evidence with which to justify MWR functions to Congress. [Ref. 3: p. 1]

Following the management audit, discussions with the Assistant Director of Military Operations on 27 April 1983 led to an agreement that this research project would seek to develop measures of output to be used in evaluating effectiveness, which could, in turn, be used to support budget decisions. A further provision was that an evaluation program should not result in a significant administrative burden, in consonance with the CNET letter.

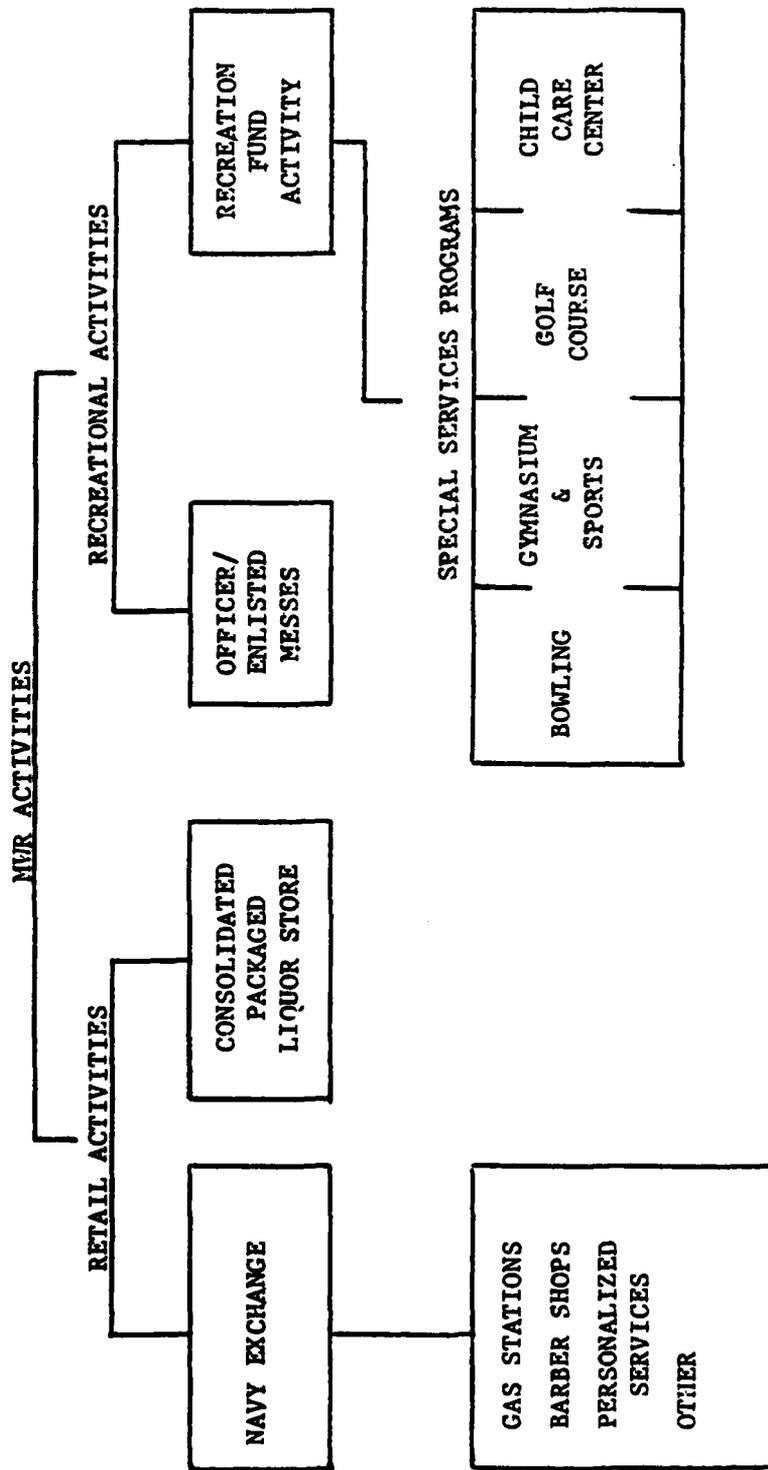
## C. ORGANIZATION

### 1. Functional Lines of Authority

The Recreation Department operates under the chain of command concept. Functional control at the Naval

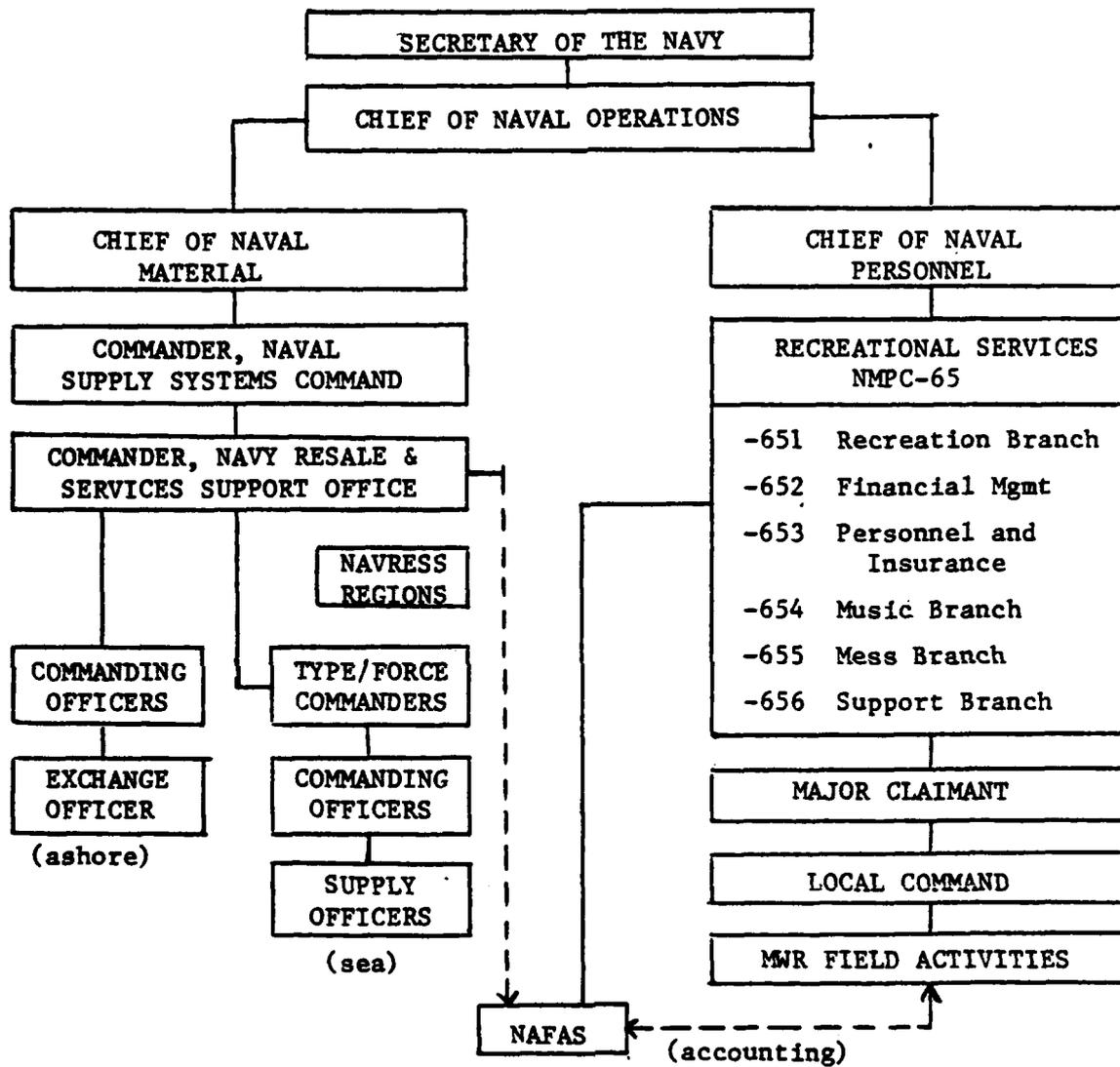
Postgraduate School flows from the Superintendent through the Director of Military Operations and the Director of Clubs and Messes to the Manager of the Recreation Department. The Naval Postgraduate School receives funding and budget guidance from its major claimant, the Chief of Naval Education and Training (CNET N-74). Nonappropriated fund accounting services (NAFAS) and management guidelines are the responsibility of the Naval Military Personnel Command (NMPC-65). Figures 1 through 3 provide the designs of typical shore installation operations, functional lines of authority and funding, and the NPS Recreation Department organization. Unlike most shore installations, the NPS Recreation Department has been placed under the Director of Clubs and Messes because of a reduction in civilian manpower billets and a reorganization under NAFAS that consolidated the accounting functions. The Recreation Department retained its own manager for operations, who is also responsible for budget preparation and execution for nonappropriated funds. Appropriated funds budgeting and execution control remains with the NPS Comptroller.

On 1 October 1983, the Naval Postgraduate School will be under the major claimancy and direction of the Chief of Naval Operations instead of the Chief of Education and Training. Whether this change will have any impact on



SOURCE: Ref. 38: p. 28

FIGURE 1. MWR OPERATIONS AT A TYPICAL NAVY SHORE INSTALLATION



SOURCE: Ref. 38: p. 35

FIGURE 2. FUNCTIONAL LINES OF AUTHORITY WITHIN NAVY PROGRAMS

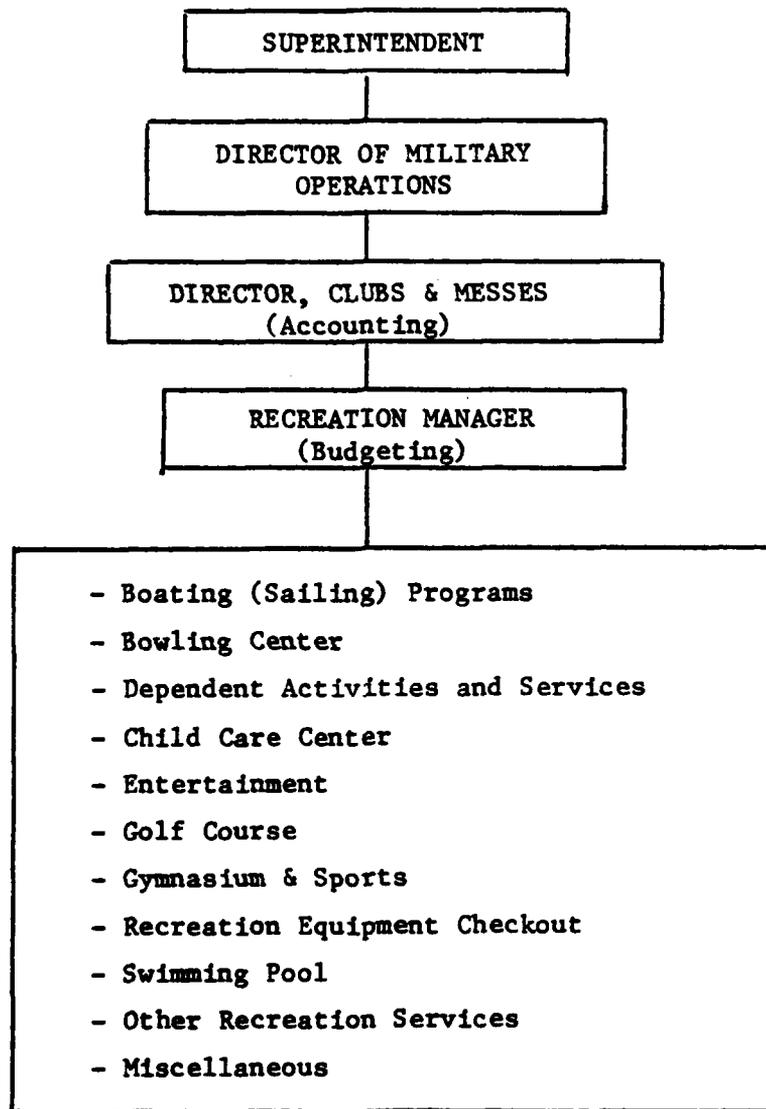


FIGURE 3. NAVAL POSTGRADUATE SCHOOL RECREATION DEPARTMENT

budgeting and evaluation reporting for the Recreation Department is as yet unknown.

## 2. Structure

The Recreation Department is made up of facilities and activities each of which has an assigned supervisor or manager (although the same supervisor may be in charge of more than one activity or facility). Facilities include a gymnasium, swimming pool, golf course, bowling alley, two child care centers (as of 1 October 1983), picnic grounds, tennis courts, various athletic fields, space at a marina for sailboats and a fishing boat, and a recreation office. Activities include sailing, bowling, a teen club, youth soccer and baseball, child care, entertainment, dramatics, golf, physical fitness, sports, some professional clubs, retail services, equipment rental, discount tickets for special events, swimming, and others. The relationship of facilities and activities will be discussed further under account structure.

### D. GOALS AND OBJECTIVES

A general goal statement is made in each annual budget submission. Other than this general statement, nothing was found in writing that expressed specific goals and objectives--a shortcoming pointed out in the management audit. However, specific improvements to be made to facilities and changes in activity funding are discussed in

the budget narratives and could be interpreted as objectives. The following statements of goals and objectives are based on discussions with the Recreation Manager and other NPS staff.

1. Goals

As expressed in the FY 83 budget submission, the goal of the Recreation Department is to:

...develop and conduct programs and services designed to improve the morale and welfare of students, staff, and faculty, and their dependents...and eligible retired personnel of the Monterey Peninsula area.

That statement was amplified slightly in interviews with the Assistant Comptroller and the Assistant Director of Military Operations on 31 January and 8 February 1983. The expressed goal was to modify the budget procedure so that due attention will be given to those activities supporting the greater numbers of patrons.

2. Objectives

a. Achieve an overall level of program self-sufficiency of 70 percent. Program self-sufficiency is the ratio of direct program revenues to direct expenses.

b. Achieve an overall level of operating self-sufficiency of 78 percent. Operating self-sufficiency is the ratio of direct program revenues plus Navy Exchange and Consolidated Packaged Liquor Store profits contributed as revenue to the Central Fund to total operating expenses. Total operating expenses include direct program expenses

plus the general and administrative expenses which are not charged against a program.

c. Achieve parity between total revenues (including external resource subsidies received from CNET) and total expenses.

d. Increase the use of appropriated funds for FY 83 to permit alternate investments of nonappropriated funds. (No specific target was given.)

e. Establish objectives for FY 84 based on measures of effectiveness and efficiency determined by this research and using the Recreation Committee as a review board.

f. Establish new recordkeeping procedures and formats to accumulate data for measurements in accordance with regulations.

g. Apart from findings and recommendations of audits and this research, the Recreation Manager stated that it would be command policy to hold fees constant in FY 84.

### 3. The Recreation Committee and Manager Participation

One of the derived objectives from the management audit is to increase the role of the Recreation Committee to be a sounding board and an approving body for objectives of the Recreation Department.

A second objective has been derived during the course of this research, that each activity manager parti-

cipate in the setting of objectives and that formal reviews of program and activity objectives be held quarterly.

#### E. ACCOUNT STRUCTURE

##### 1. Programs and Responsibility Centers

The NAFAS structure is a centralized accounting system which was designed to follow the theory of programs and responsibility accounts discussed earlier. Nineteen department titles are provided that correspond to Recreation Department programs throughout the Navy. NAFAS also provides titles of activities which are responsibility centers. Revenue and expense line items are reported to NAFAS by the local accounting office. NAFAS aggregates these line items into accounting reports by responsibility center, by program, and by line item to provide a monthly balance sheet, a fund status report (checkbook statement), and operating statement for each responsibility center, a self-sufficiency summary by program, and a summary operations statement for the Recreation Department (income statement).

The NAFAS accounting process leads to some errors. The Recreation Department does not specify the programs into which an accounting transaction should be recorded; the NAFAS structure matches activity accounts with programs. [Ref. 38: pp. 106-124, 172-173] For example, revenues listed under activity P7, Car Washing, are added into

program 11, Other Recreation Services, instead of program 5, Dependent Activities and Services by NAFAS. The accounting clerk for the Recreation Department had the choice of account P7, Car Washing, or account F3, Teen Club, with which to record the income. The wrong account was selected. As a result of this type of error, local ledgers are still maintained and financial audits depend upon local knowledge of adjustments made after accounting reports are received.

A list of departments and activities (program and responsibility centers) by the NPS Recreation Department is provided in Figure 4. Programs are indexed numerically; responsibility centers are designated alphanumerically. The author has taken the liberty of realigning activities from the NAFAS structure into the correct category of programs. For example, activity P7 has been added under program 05 instead of program 11.

## 2. Other Accounts

As a result of the management audit, a recommendation was made and was implemented in June 1983 to establish formal procedures and forms for collecting patronage information. Prior to the audit, information had been accumulated at only a few activities, such as the golf course and the child care center. The Recreation Department devised forms to be used in almost every facility to record attendance and will be using reasonable estimates for some

Department/Activity

- 02A Boating
  - D2 Sailing
  - T4 Sailing Club
- 03 Bowling
  - A4 Bowling Pro Shop
  - D5 Bowling - Recreation
- 05 Dependent Activities
  - F1 General Programs
  - F3 Teen Club
  - F4 Youth Activities
  - P7 Car Washing
- 05A Child Care Center
  - E7 Child Care Center
- 06 Entertainment
  - F6 Dramatics
  - F7 Entertainment/Shows
- 07 Golf
  - B5 Golf Pro Shop
  - B6 Other Golf Retail
  - H4 Golf Course
- 09 Gymnasium & Sports
  - H7 Athletics
  - H9 Groundas & Fields
  - J4 Basketball
  - K4 Gymnasium
  - K6 Racketball/Handball
  - K9 Karate
  - M8 Softball
  - M9 Soccer/Lacrosse
  - N3 Tennis
  - N5 Volleyball
  - N9 Wrestling
  - P1 Other Sports
  - R2 Aerobic Dancing

Department/Activity

- 11 Other Recreation Services
  - C1 Retail Services
  - P2 Amateur Radio
  - R9 Party & Picnic
  - T9 Ticket Sales
  - V3 Other Rec. Services
- 13 Equipment Checkout
  - W3 Camping Equipment
  - W5 Fishing (Deep Sea Boat)
  - W8 Winter Recreation Gear
- 14 Swimming
  - X1 Swimming
- 00 Miscellaneous
  - X4 Amusement Machines

FIGURE 4. RECREATION DEPARTMENTS AND ACTIVITIES AT NPS

activities. A reasonable estimate is one based on a sample of attendance taken at regular intervals or calculated on the basis of knowledge of membership and hours of operation of an activity. The Navy requirement is that attendance (actual or estimated) data be kept for each activity in categories of active duty personnel, dependents, retirees, and civilians. It was recommended that categories include ages of dependent children as well.

#### F. THE BUDGET PROCESS

##### 1. Annual Budget Call

Under the current CNET claimancy, the budget call is received from CNET in May and requires submission of the budget request for funds by mid-August for the coming fiscal year. The FY 84 budget call reduced the amount of supporting detail required in previous years but still requested a considerable amount of information and data. Included are a budget narrative for supplying amplifying information, specifically, a statement of objectives; changes in the scope of services to be offered; participating units sponsored; the number of active duty personnel, retirees, and dependents supported; fees charged; operating hours; anticipated profits of the Navy Exchange and Consolidated Packaged Liquor Store; capital equipment and facility improvements planned; and a quarterly breakdown of extraordinary expenses and revenues.

The budget submission also includes a summary of revenue and expense estimates by line item (income statement format), estimates of quarterly revenues and expenses by activity, a summary of the preceding report by program, and a schedule of operating expenses and capital expenses reflecting authorized appropriated funds use, budgeted nonappropriated funds being requested, and budgeted non-appropriated funds estimated to be provided from fees and other sources.

Guidance is also provided on factors to be used in calculating salary increases and adjusting FICA tax rates and on the availability of funds. For the last three years, CNET has anticipated that funds available for distribution would approximate those of the previous year. In addition, for FY 83 and FY 84, increases in local fees and charges were recommended to offset inflation; and program scope increases were to be either entirely self-supporting or come from expanded use of appropriated funds or from reductions in less popular programs. [Ref. 39]

## 2. Preparation

The starting point for the annual budget for the Recreation Department manager is the participation of activity managers. Each facility or activity manager is requested to submit planned resources and expenses for the next fiscal year. Guidance from CNET is passed on and

changes in programs and activity scope are discussed with each manager. The tentative program budget is put together from the responsibility center inputs. The Recreation Department manager then adds to the program budget discretionary items that have been proposed by the Recreation Committee or higher management (such as the addition of electric golf carts or the creation of a new club). General and administrative expenses and overhead items such as depreciation are added on to the program budget and a preliminary budget package meeting the requirements of CNET is submitted to the Recreation Committee, the Director of Clubs and Messes, and the Director of Military Operations for review and comment. The Superintendent is briefed on the budget. If he approves of both the nonappropriated fund budget and the projected use of appropriated funds, the final budget submission is drafted for the signature of the Director of Military Operations.

As far as can be determined by interviews and discussions, it is typical for an activity manager to start with the current year's budget, figure out the desired improvements, add an across-the-board percentage to the current budgeted revenues and expenses, and put the activity budget together. Cuts in budget items are generally proposed at the level of the Recreation Department manager

and discussed with activity managers. Anticipated revenues are based on the previous year's revenues or current revenue levels rather than on historical patronage data, since only a few activities kept data. For the same reason, variable budgets are not used.

### 3. Size of the Budgets

For FY 83, budgeted nonappropriated fund expenses total \$719,068. Budgeted revenues from programs are \$522,523 and from the Navy Exchange and Package Store, \$104,600, for a total of \$627,123. The approved subsidy to be received from CNET MWR funds is then \$91,145, with \$800 expected to come from other sources (vending machine contract profits). Appropriated funds scheduled for FY 83 totaled \$340,116, or slightly more than 32 percent of total nonappropriated and appropriated fund expenses.

For FY 84, total nonappropriated fund expenses are estimated at \$855,869, and total local revenue at \$726,665, leaving a shortfall requested from CNET of \$129,204. In addition to the increase in budgeted nonappropriated fund expenses of \$136,801 over FY 83 with a corresponding increase in local revenues of only \$99,542, appropriated funds requested for FY 84 total \$558,017, or 39.5 percent of total expenses. In terms of total expenses, then, the FY 83 program is valued at \$1,059,184 and the FY 84 program at \$1,413,886.

Reasons given for the projected increases in expenses include enlargement of physical fitness and other recreation facilities, the directed (by CNET) acquisition of an off-campus child care facility (formerly the Navy Annex pre-school, operated independently), and unexpected burdens on the FY 83 budget expected to result in a deficit to be carried over to FY 84 (acquisition and overhaul of a fishing boat).

The FY 83 budget is the basis used for this research. It is noted that some of the preliminary results of the research and the management audit conducted earlier contributed to the formulation of the FY 84 budget.

#### IV. EVALUATION MODELS

##### A. OBJECTIVES OF THE EVALUATION PROGRAM

###### 1. Problem Statement

DOD and CNET policy is to allocate resources to programs more or less in proportion to the numbers of patrons who participate in them. Since FY 83 and FY 84 nonappropriated fund subsidies from CNET are expected to be fixed at FY 82 levels, self-sufficiency is expected to be increased to accommodate inflation and program expansion. Expanded use of appropriated funds is also recommended.

[Ref. 39: p. 1]

The problem is to construct an evaluation program in which measures of effectiveness and efficiency are designed to support the above policy and which can be combined with local policy and judgement to make budget and program decisions.

###### 2. Context

The evaluation program is designed for the use of the Director of Military Operations, who has signature authority for the nonappropriated fund budget request; for the Comptroller, who budgets appropriated funds and is responsible for internal reviews; and for the Manager of the Recreation Department, who develops and manages the budget.

The domain of the evaluation is the effectiveness and efficiency of the Recreation Department, as it relates to social goals of the Naval Postgraduate School community and to system goals for the Department's operations.

### 3. Assumptions

a. Costs are fixed for one iteration of the budget when an activity has expenses but no direct revenues, in which case the objective is to maximize effectiveness.

b. When there are no constraints on effectiveness or costs, then the objective is to maximize the ratio of outputs to costs. However, a maximum ratio of outputs to costs may not be consistent with the policy of allocating resources in relation to numbers of participants in activities.

c. Facilities are constrained to a fixed capacity for the budget year.

## B. MODEL STRUCTURE

To support DOD and CNET policy, evaluation models should include measures of patron satisfaction, measures of the costs of an activity in relation to its number of participants, measures of planning efficiency, and measures of self-sufficiency. These leading indicators have been used to create four criteria, or arrays of measures. The first two criteria are used in the evaluation of effectiveness, both of programs and of the distribution of resources. The

second pair of criteria is used in the evaluation of efficiency and to present other measures useful to analysis. A fifth array of measures is used in this research to demonstrate the way in which an evaluation program can be tailored to assess an activity in more depth.

### C. THE MODELS

The models are arranged in order of the criteria headings used below. The models include the measures, the significance of each measure, and the source of calculating the measure. Explanations of how the measurements are made for activities are in the next chapter. Model applications to programs and the department are in Chapter VI.

#### 1. Availability

Measures of this criterion address the availability of activities or facilities in relation to potential demand. When used in conjunction with measures of patronage below, support may be provided for recommendations to expand the availability of services or to reduce their availability, and thus, increase or decrease their cost. (Figure 5)

#### 2. Patronage

Patron satisfaction with programs is used as the principle measure of effectiveness. This criterion also includes measures of costs and participation to determine the allocation of resources (measured as expenses) in relation to numbers of participants for each activity. (Figure 6)

<u>Measures</u>	<u>Significance</u>	<u>Source</u>
a. Population density (A, P, D)*	Number of potential patrons of an activity.	Demographic data; include only most likely patrons of an activity.
b. Hours of operation index (A)	Availability in terms of percent of year that service is provided.	Number of annual hours operated divided by 8,760.
c. Service capacity index (a)	Ability to support potential demand.	Maximum capacity of facility or maximum number of participants at one time divided by population density.
d. Quality of service capacity (A, P, D)	Effectiveness of capacity in terms of meeting the needs/desires of patrons.	Survey. Participants rate capacity as adequate, marginal, or inadequate. Measure is adequate divided by total total respondents.

\* Level of operation to which measure in applied: A = Activity  
P = Program  
D = Department

FIGURE 5. MEASURES OF AVAILABILITY

<u>Measure</u>	<u>Significance</u>	<u>Source</u>
a. Patron satisfaction (P, D)*	How well patrons think their needs/desires are being met.	Survey. Rating of responses to how well programs meet goals.
b. User instances (A, P, D)	Data used in other measures.	Numbers of patrons counted or estimated.
c. Participation rate (A, P, D)	Actual demand for a particular service.	User instances as a percentage of population density.
d. Cost per user instance	Proportion of resources allocated to participants.	Expenses of activity, or program, or department divided by user instances.

\* Level of operation to which measure is applied: A = Activity  
P = Program  
D = Department

FIGURE 6. MEASURES OF PATRONAGE

### 3. Operational Efficiency

The measures in this criterion are intended to determine the quality of planning and the efficiency with which the budget is executed. Line item elements, such as salaries or supplies, are related to total costs of an activity to show the concentration of costs--that is, the proportions of particular costs to total costs. While not directly related to assessing efficiency, these proportions may be used to support further analysis and to indicate that types of costs may be affected by changes in programs.

(Figure 7)

### 4. Financial Viability

Measures of financial viability are intended to be a profile of the sources and uses of revenues. Self-sufficiency is defined by DOD as the ratio of an activity's direct revenue from fees to its direct expenses. The evaluation includes self-sufficiency by program as well as the ratio of total local revenues to total nonappropriated fund expenses to determine organizational self-sufficiency. The ratio of appropriated funds to total nonappropriated funds plus appropriated fund expenses is used to determine the degree of appropriated fund support. No other measures include appropriated funds. (Figure 8)

### 5. Selected Measures

This array allows for the addition of tailored criteria and measures for particular areas of interest that

<u>Measure</u>	<u>Significance</u>	<u>Source</u>
a. Revenue variance (A, P, D)*	Accuracy in estimating volume of patrons. Quality of actual performance.	Percent of dollar variance to budgeted revenue.
b. Expense variance (A, P, D)	Accuracy in estimating operating levels and costs; actual performance.	Percent of dollar variance to budgeted expenses.
c. Salaries ratio (A, P)	Proportion of cost element to sum of direct expenses of activity, program. For planning, not evaluation.	Percent of cost element to direct expense total.
d. Maintenance ratio (A, P)	Same as c.	Same as c.
e. Supplies ratio (A, P)	Same as c.	Same as c.
f. Renewal and replacement ratio (A, P)	Same as c.	Same as c.
g. Miscellaneous ratio (A, P)	Same as c.	Same as c.
h. Other costs ratio (A, P)	Same as c.	Same as c.

\*Level of operation to which measure is applied: A = Activity, P = Program, D = Department

FIGURE 7. MEASURES OF OPERATIONAL EFFICIENCY

<u>Measure</u>	<u>Significance</u>	<u>Source</u>
a. Self-sufficiency (A, P)*	Degree to which revenues from fees contribute to direct support of activities or programs.	Directo revenues divided by direct expenses.
b. Organizational self-sufficiency (D)	Degree to which locally derived revenues contribute to total expenses.	Total revenues less subsidy from external source divided by total expenses.
c. Revenue per user instance (A, P, D)	For comparison to cost per user instance to support change in fee.	Revenue divided by user instances.
d. Indirect cost percentage (D)	Proportion of indirect to total costs, shows percentage of overhead.	Sum of all indirect costs divided by total costs, percentage.
e. Indirect revenue percentage (D)	Proportion of indirect to total revenues, shows percentage of non-fee revenue.	Sum of all revenues other than program direct, divided by total revenue, percentage.
f. Breakdown factor (D)	Measure of actual performance, nonappropriated fund budget.	Total revenues divided by total expenses, percentage.
g. Appropriated fund contribution (D)	Proportion of additional expense paid for with appropriated funds.	Appropriated funds divided by sum of appropriated and nonappropriated fund expenses.

\*Level of operation to which measure is applied: A = Activity, P = Program, D = Department

FIGURE 8. MEASURES OF FINANCIAL VIABILITY

may change with each evaluation period. For the period of this first evaluation, there was an interest in assessing the demand pattern for child care facilities and the turndown rate, that is, the frequency with which requests for reservations have not been accommodated. (Figure 9)

<u>Measure</u>	<u>Significance</u>	<u>Source</u>
a. Age distribution of dependent children	Measure of number of children at each age level to determine patronage and to supplement demographic data.	Survey. Respondents asked for number and ages of children. Compared to demographics on adults.
b. Demand distribution, child care frequency	How often child care would be used if requests for reservations were normally accommodated.	Survey. Respondents asked to indicate frequency of desired use.
c. Demand distribution, child care purpose and time	What services would be used, when, and for how long? To establish pattern of demand.	Survey. Respondents asked to indicate full time, morning or afternoon, evenings only, and/or preschool.
d. Demand accommodation (turndown rate)	Indicates degree of unsatisfied demand.	Survey. Respondents asked to indicate frequency with which requests for reservations are turned down.

FIGURE 9. SELECTED MEASURES

## V. MEASUREMENTS AND DATA

This chapter describes the methods used to collect data and is presented in the sequence of the criteria. Those measurements obtained directly from accounting reports are omitted. The results of a survey used to gather some of the information are presented in Appendix A. Activity measurements are contained in Appendix B.

### A. AVAILABILITY

#### 1. Population Density

Population data were collected with the assistance of the Defense Manpower Data Center, the Naval Postgraduate School Personnel Support Detachment, and the NPS administrative offices. DOD guidelines for estimating the population eligible to use facilities were to use census demographics based on a fifteen-mile radius of the facility. However, that would include all military personnel assigned to both Fort Ord and the Presidio, U.S. Army posts with recreation departments of their own. The consensus at a meeting in February with the NPS Recreation Department management was that the population data should be based on those personnel employed by or assigned to the school and retired personnel within the 93940 zip code of Monterey, and their dependents. It was recognized that limiting the area

in this way might result in understating the population. Because of the proximity of Army posts, it was also decided to include only Navy and Marine Corps retirees and dependents in the 93940 zip code area.

Numbers of military personnel assigned to the school were obtained from the Personnel Support Detachment and verified by the Defense Manpower Data Center (DMDC). DMDC also provided the numbers of retirees and dependents in the 93940 area from data on registration for health and/or retirement benefits. NPS provided information on the civilians employed at the school who are eligible to use limited military facilities. Data were gathered in March 1983 and verified in July 1983.

The results of a survey conducted in July 1983 and presented in Appendix A were used to determine the number of military and civilian spouses and children by age groups. Based on the survey, approximately 72 percent of the active duty personnel were married and 58 percent had children. The same percentages were used for retired personnel because of the lack of better data. (Only two retirees responded to the survey). Approximately 84 percent of the civilian respondents were married, and 64 percent had children. The average number of children eighteen years old or under for military families was 1.96 and for civilians, 1.63. From these data, it was estimated that there are 3,287 dependents

eighteen years old or younger. To verify the estimates, LaMesa School had an enrollment of 556 children from Navy housing areas between ages 5 and 10 in May 1983. From the survey, approximately 48.57 percent of military personnel live in LaMesa (Navy housing) and that represents 572 of the 1,178 children calculated from the survey to be between five and ten years old. Population data are profiled in Table 1.

Assumptions were made about the mostly likely users of an activity based upon discussions with Recreation Department managers, in order to develop the population densities from the population data. For example, use of the child care center is predominantly made up of active duty dependents between ages six months and four, but five-to-ten year olds are also placed in the center on Friday and Saturday evenings. Retirees were noted to be golf course users and to attend entertainment functions but rarely use other facilities. Population densities and assumptions are provided in Table 2.

## 2. Service Capacity

For facilities where applicable, fire marshall codes were used to indicate maximum capacity and a capacity index was calculated by dividing capacity by the population density (in 1,000's). For some facilities and activities, simple limits were used. For example, the normal use of a bowling alley is five people per lane (times six lanes at

TABLE 1

POPULATION DATA

Active duty personnel assigned:	2,395
USN and USMC retired personnel:	1,178
Eligible faculty and staff:	562
Military spouses:	2,566
Civilian spouses:	473
Active duty dependents, 0-18 years:	2,711
Civilian dependents, 0-18 years:	<u>576</u>
Total:	<u><u>10,461</u></u>

Children, 0-18 years old, by age group, total 3,287 (100%):

<u>Number / Age</u>	<u>Number / Age</u>	<u>Number / Age</u>	<u>Number / Age</u>
562      0-1	264      4	334      9-10	176      15-16
246      2	457      5-6	316      11-12	53      17-18
281      3	387      7-8	211      13-14	

Ages 0-4:	1,353	Ages 11-12:	312
5-10:	1,178	13-18:	440

Per active duty military family: 1.96 children under 18  
 Per civilian family: 1.63 children under 18

Sources:

Defense Manpower Data Center  
 Personnel Support Detachment, Naval Postgraduate School  
 Naval Postgraduate School Administrative Office  
 LaMesa Elementary School  
 Survey, July 1983

TABLE 2  
POPULATION DENSITY

	<u>Activity</u>	<u>Assumption</u>	<u>Density</u>
D2	Sailing	All personnel, ages 13 and above.	7,614
D5	Bowling	All, ages 8 and above.	8,898
F1	Youth Prgms.	Ages 5-18.	1,934
F3	Teen Club	LaMesa only, ages 13-18.	218
F4	Youth Sports	Ages 5-18.	1,934
E7	Child Care	Ages 0-4 100% of hours, ages 5-10 26.2% of hours, (Friday and Saturday).	1,353
F6	Dramatics	Ages 11 and up.	7,926
F7	Entertainment	Ages 11 and up.	7,926
H4	Gold	Primarily all adults.	7,174
K4	Gymnasium	Active duty, civilian staff, military spouses.	5,523
--	All sports*	Active duty and civilian staff.	2,957
X1	Swimming	All.	10,461
--	All other*	Adults.	7,174

\* For certain of these activities, there are special more limited populations.

NPS). A racketball court is normally used by two people at a time. For activities not in structured facilities, such as youth soccer, capacity is limited only by the number of children, the number of parents willing to coach, and the number of fields. NPS makes use of several fields at local schools, depending on the volume of teams. Unless, in the opinion of the Recreation Department, the capacity is constrained for a particular activity, the measure has little meaning and is not used.

### 3. Quality of Service Capacity

The physical capacity of fourteen facilities to meet the needs of patrons was measured by survey and the results are in Appendix A. Users of facilities were asked to rate the physical capacity as adequate, marginal, or inadequate. The measure is designed to provide consumer feedback to the Recreation Department to assess the need for improvements.

## B. PATRONAGE

### 1. Patron Satisfaction

The programs used in the NAFAS accounting structure are difficult to relate directly to goals of the Recreation Department. The establishment of four programs to support four goals is discussed in the next chapter in more detail. For purposes here, it was desired to measure patron satisfaction in terms of how well the department supported physical fitness, recreation, youth activity, and child

care. Consumer opinion was collected by the survey reported in Appendix A and provides answers to the question of how effective programs are in supporting goals.

## 2. User Instances

Very few activity managers kept records of attendance. The management audit cited this lack of records as a problem. For some of the activities, such as the golf course, the child care center, and the gymnasium, actual counts were provided by the Recreation Department. For other activities, estimates were provided on the basis of attendance records for a week or two out of a six-month period. Estimates were also made by the author from revenues recorded and capacity of a facility, activity or event. The remainder are annotated "N/A" when data or reasonable estimates were not available.

## C. OPERATIONAL EFFICIENCY

The revenue and expense variance percentages are used as the primary indicators of operational efficiency. Other measures are included in the array of measures which indicate the percentage of a cost element to the total expenses of an activity or program, included for planning purposes. For example, the salaries ratio indicates the percentage of salary expenses (including social security taxes, sick leave and annual leave expenses) to the total expenses. If next year's salaries are to be increased 10

percent, the impact on an activity or program can readily be seen. The structure of the accounts at NAFAS includes a "Miscellaneous" account as well as other accounts than those listed. In the measures, miscellaneous costs are those actually listed by the Recreation Department in that account. The "Other costs ratio" measure includes a summation of line item expenses made by the author. For activities, programs, and the department, this measure may include cost of goods sold, entertainment expenses, laundry expenses, tournament costs, award costs, subscription costs to magazines, and vehicle expenses. For Department and general and administrative data, this account summary may also include depreciation and other types of expenses. Where a particular "other cost" is significant to the analysis, it will be mentioned.

#### D. FINANCIAL VIABILITY

Measures in this criterion were calculated directly from accounting information. Of particular note for interpreting results is one measure, that of appropriated fund contribution. The rest of the measures for all criteria deal only with nonappropriated funds. This measure adds the amount of appropriated funds budgeted to nonappropriated expenses as the base and measures the percentage of expenses that would otherwise have to be paid for with nonappropriated money, to the total. Apart from this exception, the evaluation

program is only applicable to the use of nonappropriated funds.

**E. SELECTED MEASURES**

For this evaluation, selected measures were based on survey data contained in Appendix A relating to the distribution of children by age groups and to the child care center.

## VI. EVALUATION RESULTS

### A. GOALS AND OBJECTIVES

As indicated earlier, the Recreation Department does not have explicitly stated goals and objectives, although some process objectives have been implied from the budget. This chapter presents the results of the evaluation in terms of the conditions that existed for the first six months of operations in FY 83. Measures are structured according to assumptions of what the goals should be.

#### 1. Social Goals

Four social goals were assumed for this research, (1) physical fitness, (2) recreation, (3) youth activities, and (4) child care. Physical fitness is a goal derived from Navy policy and the recent introduction of new standards for testing physical fitness beginning in FY 84. The Navy has been stressing various physical fitness programs for many years. Recreation is inherent in the title of the organization and its charter as a social goal. Youth activities are derived as a social goal from the structure of the department and the annual budget narrative that includes sponsorship of all dependents. Child care contributes to the welfare of parents who must attend classes or work and, through its pre-school activities, prepares children for formal education.

## 2. Programs

Programs to support the four social goals are identified with the same titles; physical fitness, recreation, youth activities, and child care. Objectives have not been constructed by the author.

## 3. System Goals

System goals are presumed to be (1) efficient operation of the Recreation Department and (2) achievement of financial objectives.

## 4. Process Objectives

Process objectives to support system goals were presented in Chapter III. They include minimizing the budget variances (spending according to plan), meeting self-sufficiency targets, and breaking even. For purposes of this evaluation, self-sufficiency objectives are those reflected in the budget. This is, the Navy-wide objective is desired to be 70 percent for programs. The budgeted self-sufficiency target for programs was slightly less, 68.87 percent.

## B. RECREATION DEPARTMENT EVALUATION

A summary of measurements for Department operations during the first six months of FY 83 is presented in Table 3.

TABLE 3

RECREATION DEPARTMENT RESULTS

AVAILABILITY

- a. Population density: 10,461
- b. Quality of service capacity: 57.71%

PATRONAGE

- a. Patron satisfaction (effective or better): 57.93%
- b. User instances: 67,716
- c. Participation rate: 647.32%
- d. Cost per user instance: \$5.48

OPERATIONAL EFFICIENCY

- |          |              |           |           |
|----------|--------------|-----------|-----------|
| Revenue: | \$361,990.79 | Budgeted: | \$323,633 |
| Expense: | \$371,212.95 | Budgeted: | \$354,469 |
- a. Revenue variance: \$38,357.79 (F) 11.85%
  - b. Expense variance: \$16,743.95 (U) 4.70%

FINANCIAL VIABILITY

- a. Program revenue: \$258,533.24 Budgeted: \$225,188
- Local revenue: 61,257.55 Budgeted: 52,300
- CNET subsidy: 42,200.00 Budgeted: 46,150
- Indirect expenses: 63,649.08 Budgeted: 27,359
- Loss: 9,222.16 Budgeted: 30,836 (low)
- b. Organizational self-sufficiency: Actual: 86.15%
- Budgeted: 78.28%
- c. Revenue per user instance: \$4.72
- d. Indirect cost percentage: 17.14%
- e. Indirect revenue percentage: 28.52%
- f. Breakeven factor: 97.52%
- g. Appropriated fund contribution: (\$170,058) 31.42%

1. Effectiveness

In order to assess the effectiveness of the Recreation Department, a survey was conducted, the results of which are contained in Appendix A. Out of 800 surveys, 400 were distributed through the NPS student mail center, 75 were placed in faculty mail boxes, and 325 were given to the Recreation Department manager for dissemination through activities. Of the 800 surveys, 161 were returned for a response rate of 20.125 percent. Appendix A contains the questions in the survey followed by information compiled from the response.

None of the measures from the survey or the other data sources will provide the answer to how effective the Recreation Department is without objectives for comparison. Therefore, the results of the measures and their use are presented in the sequence of the two criteria, availability and patronage.

a. Population Density

This measure serves chiefly as a denominator for other measures, although it also indicates the potential market for the services of the Recreation Department.

b. Quality of Service Capacity

Almost 58 percent of the patrons thought that the quality of physical capacity of services was adequate to meet their needs. This response was calculated from the

survey by dividing the patrons who thought services were adequate by the total number of patrons who responded.

c. Patron Satisfaction

Almost 58 percent of the patrons thought that programs of the Department were effective or very effective. This response was calculated from the survey by totaling responses from four questions on how effectively programs supported the needs or desires of patrons.

d. User Instances

In terms of effectiveness, user instances are the results measure used in other calculations. In the first six months of FY 83, 67,716 user instances are the key output measure of the department and could be used as the basis for assessing effectiveness if compared to outputs for different six-month periods or to planned output.

e. Participation rate

Similar to user instances, the participation rate is a measure of output that could be used for comparison with participation rates of other organizations or of other six-month periods to judge the output of the department. The 647.32 percent indicates that each member of the population density is served an average of 6.4732 times by the Recreation Department.

f. Cost per User Instance

Recall from Chapter II that the author implied from Kahn's essay that one approach to effectiveness is to

relate resources to service; increasing resources should increase service. The cost per user instance, \$5.48, measures resources applied per patron's use of an activity. The implication is that, if the cost is increased, then the quality or quantity of service per patron use will increase.

One of Cornell's criteria for cost-benefit analysis is to maximize the ratio of output to cost. In this case, cost per user instance is the reciprocal and should be minimized. The unit cost of \$5.48 is the result of using a measure of output, user instances, as part of a measure of efficiency.

Kahn equated service to dollars spent per patron. Therefore, if dollars per patron are increased, each patron should receive either better or more service. The corollary is that, if total expenses are increased, more dollars are available to serve more patrons at the same level of service. Thus, cost per patron is said to indicate effectiveness. Cornell's ratio equates efficiency to dollars spent per patron. If expenses are increased and patronage remains constant, efficiency suffers. If expenses are held constant and users decrease, efficiency suffers.

The cost per patron may be useful in certain analyses. If one believes that costs are a measure of service, then increasing the cost per user instance should increase effectiveness. If Cornell's criterion is used,

then increasing costs will decrease efficiency, unless there is a proportionate increase in the number of user instances. If Cornell's ratio remains constant or decreases with an increase in user instances, then it responds to an increase in effectiveness measured in terms of output.

The cost-per-user-instance measure does not take into account the tenets of variable budgeting in which the numerator (cost) would be the variable cost. Variable budgeting was introduced in Chapter II, and more will be said about it in the next chapter.

## 2. Efficiency

As indicated above, cost per user instance is one of the measures of efficiency. No process objective for this measure has been determined.

The revenue variance of almost 12 percent and the expense variance of almost 5 percent indicate the degree of deviation from the budget plan. As indicated throughout the tables, variances are either favorable (F) or unfavorable (U). A portion of the revenue variance might be attributed to the gymnasium, for which fees were introduced for the first time in October 1982, after the budget was approved. For the expense variance, it is known that depreciation was an unplanned expense added to the accounting structure by NAFAS after the budget was approved. Budgeted nonappropriated fund expenses were also predicated on the conversion

of some employees to appropriated fund salaries, which conversion did not occur.

Variances were presented in more detail in Chapter II at the level of analysis that should be applied during an evaluation. Data currently available from the Recreation Department do not support that level of analysis as a part of this research.

### 3. Financial Viability

#### a. Organizational Self-Sufficiency

This measure indicates that 86.15 percent of the Recreation Department's expenses were paid for from revenues from fees and local sources. The subsidy from the major claimant is excluded. The budget plan for this measure was only 78.28 percent.

#### b. Revenue per User Instance

This measure is for comparison to cost per user instance and indicates in dollars how much of that cost was covered by local revenue. The subsidy from the major claimant is excluded in the calculation.

#### c. Indirect Cost Percentage

Slightly over 17 percent of the department's expenses were for general and administrative functions and overhead. No objective has been determined for this measure and indirect costs are not distributed to responsibility centers in the accounting structure.

d. Indirect Revenue Percentage

Over 28 percent of the department's revenues were not from programs. Of the total local revenue and the CNET subsidy of \$103,457.55, \$8,957.54 (8.66%) was listed on the income statement as "Other Income" from the sale of fixed assets, profits from vending machines, cash discounts earned, and other miscellaneous income. The balance, \$94,500 is the dollar amount from profits of the Navy Exchange, Package Store, and the CNET Central Fund, representing money already spent by patrons and reinvested in the Recreation Department.

e. Breakeven Factor

The budget plan for the first six months of FY 83 did not call for expenses to equal revenues, a breakeven factor of 100 percent. Instead, revenues were targeted at 91.30 percent of expenses. The actual breakeven factor of 97.52 percent shows an improvement of actual over budgeted performance.

f. Appropriated Fund Contribution

So far, all measures have been in the context of the nonappropriated fund budget. The appropriated fund contribution measures additional revenues and expenses not included in any other data. The appropriated fund budget is to pay for utilities, rents, communications, some civilian personnel (civil service) and military personnel. The

appropriated fund budget is treated as a statement of support only and is not the responsibility of the Recreation Department. Budgeted support for the first half of FY 83 is estimated in the NAFAS accounting report to be \$170,058, or 31.42 percent of the total appropriated fund and nonappropriated fund expenses. The actual percentage for the first half of FY 82 was 30.75.

### C. PROGRAM EVALUATION

To support the social goals, activities were grouped into four programs. Figure 10 lists the programs and activities in a structure that is assumed to approximate the relationship. For each activity, consideration was given to its constituents and the type of service provided to determine which goal it supported more than another. For example, golf is considered here as a physical fitness activity rather than as recreation even though it could be either or both. Bowling is considered to be recreation rather than physical fitness. Most of the decisions for placement of activities in programs were made by asking for the opinion of the Recreation Department managers and fellow students. Once the program structure was developed, data were accumulated from activity profile sheets contained in Appendix B and presented here in Tables 4 through 8.

#### 1. Program Summary

Table 4 is a summary compiled from Tables 5 through 8 of the four programs' results. Data in the first two

RECREATION

D2 Boating (Sailing)  
T4 Sailing Club  
A4 Bowling (retail)  
D5 Bowling recreation  
F6 Dramatics  
F7 Entertainment (shows)  
P2 Amateur Radio  
R9 Party and Picnic  
T9 Ticket Sales  
V3 Cable TV  
C1 Other service, retail  
W3 Camping Equipment  
W5 Fishing Boat  
W8 Winter Sports Equipment  
X1 Swimming Pool  
X4 Computer Club

PHYSICAL FITNESS

H7 Athletics  
H9 Grounds and Fields  
J4 Basketball  
K4 Gymnasium  
B5 Golf (retail)  
B6 Golf (other retail)  
H4 Golf Course  
K6 Racketball  
K9 Karate  
M8 Softball  
M9 Soccer  
N3 Tennis  
R2 Aerobic Dance  
P1 Other Sports

CHILD CARE

E7 Child Care Center

YOUTH ACTIVITIES

F1 Youth Programs  
\*F3 Teen Club  
F4 Youth Activities  
\*P7 Car Washing

\*P7 account treated as revenue to F3.

NOTE: Activity accounts may be consolidated within other accounts. That is, T4 Sailing Club is treated as a subsidiary account of D2 Boating. Retail sales of pro shops are treated as subsidiary accounts of bowling and golf.

FIGURE 10. ACTIVITIES BY REVISED PROGRAMS

TABLE 4  
PROGRAM SUMMARY

**AVAILABILITY**

a. Population density:	10,461
b. Quality of service capacity:	57.71%

**PATRONAGE**

a. Patron satisfaction (effective or better):	57.93%
b. User instances:	67,716
c. Participation rate:	647.32%
d. Cost per user instance:	\$4.54

**OPERATIONAL EFFICIENCY**

Revenue:	\$258,533.24	Budgeted:	\$225,268
Expense:	\$307,543.87	Budgeted:	\$327,110
a. Revenue variance:	\$33,265.24 (F)		14.77%
b. Expense variance:	\$19,566.13 (F)		5.98%
c. Salaries:	\$125,008.08	Ratio:	40.65%
d. Maintenance:	\$60,589.08	Ratio:	19.70%
e. Supplies:	\$ 7,818.56	Ratio:	2.54%
f. Renewals and replacements:	\$24,098.13	Ratio:	7.84%
g. Miscellaneous:	\$33,254.40	Ratio:	10.81%
h. Other costs:	\$56,775.62	Ratio:	18.46%

**FINANCIAL VIABILITY**

a. Self-sufficiency:	Budgeted:	68,87%	Actual:	84.06%
b. Revenue per user instance:				\$3.82

TABLE 5

PHYSICAL FITNESS PROGRAM

AVAILABILITY

a. Population density:	7,174
b. Quality of service capacity:	58.59%

PATRONAGE

a. Patron satisfaction (effective or better):	57.46%
b. User instances:	46.945
c. Participation rate:	654.38%
d. Cost per user instance:	\$3.58

OPERATIONAL EFFICIENCY

Revenue:	\$136,629.78	Budgeted:	\$130,199
Expense:	\$167,994.41	Budgeted:	\$189,268
a. Revenue variance:	\$ 6,430.78 (F)		4.94%
b. Expense variance:	\$18,273.59 (F)		9.81%
c. Salaries:	\$57,022.33	Ratio:	33.94%
d. Maintenance:	\$47,780.74	Ratio:	28.44%
e. Supplies:	\$ 1,887.87	Ratio:	1.12%
f. Renewals and replacements:	\$11,320.17	Ratio:	6.74%
g. Miscellaneous:	\$17,337.88	Ratio:	6.74%
h. Other costs:	\$32,645.32	Ratio:	10.32%

FINANCIAL VIABILITY

a. Self-sufficiency:	Budgeted: 69.90%	Actual: 81.33%
b. Revenue per user instance:		\$2.91

TABLE 6  
RECREATION PROGRAM

**AVAILABILITY**

a. Population density:	9.104
b. Quality of service capacity:	58.93%

**PATRONAGE**

a. Patron satisfaction (effective or better):	60.86%
b. User instances:	4,969
c. Participation rate:	54.58%
d. Cost per user instance:	\$12.21

**OPERATIONAL EFFICIENCY**

Revenue:	\$52,843.24	Budgeted:	\$45,040
Expense:	\$61,172.96	Budgeted:	\$69,951
a. Revenue variance:	\$ 7,803.24 (F)		17.33%
b. Expense variance:	\$ 8,778.04 (F)		12.55%
c. Salaries:	\$ 1,248.26	Ratio:	2.04%
d. Maintenance:	\$12,685.87	Ratio:	20.74%
e. Supplies:	\$ 746.91	Ratio:	1.22%
f. Renewals and replacements:	\$ 7,773.55	Ratio:	12.71%
g. Miscellaneous:	\$15,612.63	Ratio:	25.52%
h. Other costs:	\$23,105.74	Ratio:	37.77%

**FINANCIAL VIABILITY**

a. Self-sufficiency:	Budgeted:	64.39%	Actual:	86.38%
b. Revenue per user instance:				\$10.63

TABLE 7  
YOUTH PROGRAMS

**AVAILABILITY**

a. Population density:	1,934
b. Quality of service capacity:	40.00%

**PATRONAGE**

a. Patron satisfaction (effective or better):	63.40%
b. User instances:	7,380
c. Participation rate:	381.59%
d. Cost per user instance:	\$0.81

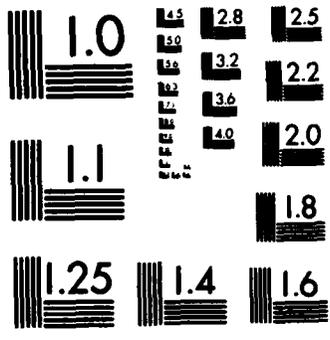
**OPERATIONAL EFFICIENCY**

Revenue:	\$4,780.94	Budgeted:	\$3,689
Expense:	\$5,952.91	Budgeted:	\$7,023
a. Revenue variance:	\$1,091.94 (F)		29.60%
b. Expense variance:	\$1,070.09 (F)		15.24%
c. Salaries:	\$1,726.32	Ratio:	29.00%
d. Maintenance:	\$ 0.00	Ratio:	0.00%
e. Supplies:	\$ 0.00	Ratio:	0.00%
f. Renewals and replacements:	\$4,024.39	Ratio:	67.60%
g. Miscellaneous:	\$ 225.70	Ratio:	3.79%
h. Other costs:	(\$ 23.50)	Ratio:	(0.39%)

**FINANCIAL VIABILITY**

a. Self-sufficiency:	Budgeted:	52.53%	Actual:	80.13%
b. Revenue per user instance:				\$0.65





MICROCOPY RESOLUTION TEST CHART  
NATIONAL BUREAU OF STANDARDS-1963-A

TABLE 8  
CHILD CARE PROGRAM

AVAILABILITY

a. Population density:	1,353
b. Quality of service capacity:	42.86%

PATRONAGE

a. Patron satisfaction (effective or better):	50.00%
b. User instances:	8,422
c. Participation rate:	622.47%
d. Cost per user instance:	\$8.60

OPERATIONAL EFFICIENCY

Revenue:	\$64,279.28	Budgeted:	\$46,340
Expense:	\$72,423.59	Budgeted:	\$63,868
a. Revenue variance:	\$17,939.28 (F)		38.71%
b. Expense variance:	\$ 8,555.59 (U)		13.40%
c. Salaries:	\$65,011.17	Ratio:	89.77%
d. Maintenance:	\$ 122.47	Ratio:	0.17%
e. Supplies:	\$ 5,183.68	Ratio:	7.16%
f. Renewals and replacements:	\$ 980.02	Ratio:	1.35%
g. Miscellaneous:	\$ 78.19	Ratio:	0.11%
h. Other costs:	\$ 1,048.06	Ratio:	1.45%

FINANCIAL VIABILITY

a. Self-sufficiency:	Budgeted:	72.56%	Actual:	88.75%
b. Revenue per user instance:				\$7.63

criteria sections are identical to those presented in the discussion of the Recreation Department earlier in this chapter, except for cost per user instance, which is now based only on program expenses.

a. Operational efficiency

The program operations resulted in a revenue variance of almost 15 percent and an expense variance of almost 6 percent, both favorable. Revenues and expenses in this context refer only to those generated or consumed in programs. From Tables 4 and 5 it can be seen that the introduction of fees in the gymnasium (included in physical fitness) did not contribute greatly to the total revenue variance. Over half of that variance came from the Child Care Center, which also had the only unfavorable expense variance. All programs reflect what the author consider to be significant variances that deserve further attention.

The ratios of salaries, maintenance, and the other costs are presented so that management can determine where costs are concentrated. That is, salaries comprise 40.65 percent of program costs. For budgeting purposes, the effect of a 10 percent salary increase can be readily seen. The data also provide management with insight into particular cost areas. The comparative paucity of supplies might be questioned if, in fact, managers indicate they have unfilled requirements. Maintenance, at nearly 20 percent of

the program costs, might be only 10 percent at some other organization. Miscellaneous costs indicated in Tables 4 through 8 are taken directly from the accounting line item listed under activities. It is known that fees paid to sports instructors are recorded this year as miscellaneous expenses and that next year there will be a separate line item for such fees. "Other costs" were discussed briefly in Chapter V and include tournament fees, awards, and other line items listed individually on accounting documents.

b. Financial Viability

As can be seen, programs in total were budgeted at nearly 70 percent and were actually 84 percent self-supporting. This reflects the favorable revenue and expense variances. Each individual program was actually more self-sufficient than had been planned.

2. Comparison of Program Effectiveness Results

The programs were ranked on the basis of patron satisfaction ratings of "effective" and "very effective" as a percentage of the total patrons who rated the programs in the survey (Appendix A). Youth programs ranked first with 63.40 percent, recreation second with 60.86 percent, physical fitness third with 57.59 percent, and the child care center last with 50.0 percent. Again, no interpretation can be given to these percentages without some objective for comparison.

Quality of service capacity reflects the numbers of patrons who thought facilities they used were adequate as a percentage of the total number of users who rated facilities as adequate, marginal, or inadequate. Recreation and physical fitness activities averaged about the same; 59 percent of their patrons thought them to be adequate. Only 42.86 percent of the people who rated the child care center thought them to be adequate for their needs. Youth activities as a group were not assessed. The only such activity listed in the survey was the Teen Club, rated as adequate by 40 percent of the ten people who rated the activity. That result would seem to be inconsistent with the ranking of youth programs as first among patron satisfaction.

Participation rates indicate the relative turnover or use of facilities, but should be viewed from the perspective of the author's choices in aligning activities with programs. The golf course has a high participation rate that bolsters physical fitness' rating and, perhaps, slights recreation's. The results do provide insight into the physical capacity of programs and should generate some questions by management as to the adequacy and utilization of facilities.

The cost per patron of programs is of little use in budgeting but indicates the relative application of

resources per user instance. These costs were \$12.21 for recreation, \$8.60 for child care, \$3.58 for physical fitness, and \$0.81 for youth activities. If the corresponding revenues per user instance are considered, then the net costs are \$1.68 for recreation, \$0.97 for child care, \$0.67 for physical fitness, and \$0.21 for youth activities. On the basis of the current fee structure, recreation is the most expensive activity per patron, and youth activities are the least expensive. It should be noted that these data do not bear any relationship to the levels of patron satisfaction or adequacy of facilities.

### 3. Comparison of Operational Efficiency

Data in Tables 5 through 8 substantiate the earlier discussion in the program summary of variances and expense concentrations. In FY 82 and again in the first six months of FY 83, the child care program had a favorable revenue variance but an unfavorable expense variance. Other programs had both favorable revenue and favorable expense variations. The lack of planned and actual attendance data makes analysis of variances due to volume fluctuations impossible. It is suspected that the child care center variances are primarily volume variances, since attendance records for FY 83 show an increase from FY 82. Any further analysis would be conjecture.

#### 4. Financial Viability of Programs

Each program exceeded budgeted self-sufficiency targets by wide margins. The margins by which budgeted targets were exceeded are 27.78 for youth programs, 21.99 for recreation, 16.19 for child care, and 11.43 percent for physical fitness. The conclusion that might be drawn by management is that each program has been extremely successful in supporting itself and actually been more efficient through reduced expenses, but their favorable efficiency indicators may have been at the expense of adequately meeting consumer demand.

#### D. OTHER OPERATIONS

Table 9 presents a summary of general, administrative, and other revenue and expense items using the same criteria as programs. Availability and patronage data are the same as those for the department and the program summary, since the administrative offices do provide services to patrons.

Revenue in this table refers only to nonappropriated fund contributions or subsidies from the Navy Exchange, the Consolidated Packaged Liquor Store, and CNET, plus miscellaneous other revenue from the sale of assets, vending machines, and cash discounts earned. Miscellaneous revenues exceeded those budgeted by \$8,557.54, since the only miscellaneous revenue budgeted was \$400 from vending machine profits. As indicated, there is a total revenue variance of

TABLE 9

GENERAL, ADMINISTRATIVE, AND OTHER  
REVENUE AND EXPENSE

AVAILABILITY

Same as Program Summary

PATRONAGE

a., b., c., same as Program Summary

d. Cost per user instance: \$0.94

OPERATIONAL EFFICIENCY

Revenue:	\$103,457.54	Budgeted:	\$98,445
Expense:	\$ 63,659.08	Budgeted:	\$27,359

a. Revenue variance:	\$ 5,012.54 (F)		5.09%
b. Expense variance:	\$36,300.08 U)		132.68%
c. Salaries:	\$34,212.65	Ratio:	53.74%
d. Maintenance:	\$ 551.10	Ratio:	0.87%
e. Supplies:	\$ 743.88	Ratio:	1.17%
f. Renewals and replacements:	\$ 32.25	Ratio:	0.05%
g. Miscellaneous:	\$ 425.42	Ratio:	0.67%
h. Other costs:	\$27,693.78	Ratio:	43.50%

FINANCIAL VIABILITY

a. Self-sufficiency:	Budgeted:	359.83%	Actual:	162.52%
b. Revenue per user instance:				\$1.53

about 5 percent but an expense variance (unfavorable) that amounts to 132.68 percent of that planned. According to the Recreation Department manager, this expense variance was largely due to the addition of depreciation expense to the operating statement after budget approval (\$9,722.10) and the change in plans to transfer some employees from nonappropriated fund wages to civil service (appropriated fund) status (\$20,000). This variance is considered to be a major cause of the \$9,222.16 loss for the six-month period. Depreciation alone was \$9,722.10 and the Recreation Department was charged with a loss on the disposition of fixed assets of \$8,748.55.

The Recreation Department manager indicated that these unplanned expenses were considered in his monthly review of budget execution and that expense budgets for programs were decreased as the result. The net unfavorable variance for revenue and expense together represent amounts that might otherwise have been applied to programs or to offsetting the budgeted loss.

Significant dollar amounts comprising "Other costs" in Table 9 include the depreciation and disposition of fixed assets, \$5,662.77 for entertainment, \$2,716.45 for vehicle maintenance and operation, \$1,904 for travel and per diem, a \$2,415.67 credit adjustment carried forward from a prior accounting period, and other minor expenses. Of these, the

classification of entertainment as a general expense is a questionable item in terms of its location in the accounts. Entertainment refers to the expenses incurred by the Recreation Department in promoting "Hail and Farewell" activities for arriving and departing students each quarter. The Recreation Department manager indicated that a decision had been made prior to his becoming the manager to charge that expense to overhead rather than to the "Party and Picnic" activity under recreation programs. Nevertheless, the author views this type of expense as a program element.

The impact of indirect expense on this year's budget performance can readily be seen from the financial viability data. As a "program", actual self-sufficiency was less than half of that budgeted. Revenues exceeded expenses only because of the \$42,200 subsidy from CNET, and fewer resources were available for programs as a result of indirect expenses.

#### E. ACTIVITIES

Each activity is profiled in Appendix B. Table 10 is a summary of what the author considers to be key statistics for thirteen of the activities that were included in the survey in Appendix A and were rated and ranked by patrons. These key statistics include the quality of service capacity, the ranking in order of value to patrons, the revenue and expense variances expressed in percentages, and

TABLE 10

COMPARISON OF ACTIVITY MEASURES

<u>Activity</u>	<u>Rank</u>	<u>OSC</u> §	<u>REV. VAR.</u> §	<u>EXP. VAR.</u> §	<u>BUD. SS</u> §	<u>ACT. SS</u> §
Gymnasium (exer.)	1	44	286.34 (F)	67.49 (U)	35.53	81.96
Swimming	2	62	100.00 (F)	68.33 (U)	0.00	6.48
Gymnasium (sports)*	3	39	182.39 (F)	6.23 (F)	13.64	36.26
Athletic Fields	4	66	None	48.31 (F)	0.00	0.00
Golf Course	5	84	7.10 (U)	3.79 (U)	113.79	101.84
Tennis Courts	6	58	34.59 (U)	50.56 (F)	113.19	149.74
Rowing (tied)	7	57	18.19 (F)	23.67 (F)	61.12	94.63
Picnic Grounds	7	68	**	**	**	**
Limping Equipment	9	40	39.77 (U)	51.89 (F)	26.25	32.87
Sailing	10	73	10.12 (F)	50.51 (F)	56.39	125.47
Gear Issue (sports)	11	57	***	***	***	***
Child Care Center	12	43	38.71 (F)	13.40 (U)	72.56	88.75
Teen Club	13	40	100.00 (F)	52.14 (F)	0.00	21.83

\*Includes Basketball, Racketball, Karate, Aerobic Dance, and Other Sports.

\*\*Costs included in Athletic Fields.

\*\*\*Costs included in Gymnasium (exercise).

QSC = Quality of service capacity  
 BUD. SS = Budgeted Self-sufficiency  
 ACT. SS = Actual Self-sufficiency

REV. VAR = Revenue Variance  
 EXP VAR = Expense Variance

the budgeted and actual self-sufficiency figures.

Activities are listed in order of value to patrons.

The significance of measures included in Appendix B was provided in Chapter IV. As an example of the use of the data, activity W3, Camping Equipment, is selected here (Table 11). The population density for camping equipment includes all adults likely to check out items, even though children would also be users of the equipment. The hours of operation index is the same as that for the gymnasium and indicates that services are available about 20 percent of the hours in a year. This measure may imply that service should be expanded if complaints are received that equipment cannot be checked out when desired. Service capacity is an estimate; on the average the amount of gear available would outfit fifteen campers. The quality of service capacity is only 40 percent, meaning that only forty percent of the respondents to the survey thought that the physical capacity of camping equipment was adequate. The conclusion might be that service hours are inadequate or there is not enough equipment or the equipment is not the right kind to meet demand. This conclusion may be reflected in the participation rate which is low in comparison to other activities. The cost per user instance in this case is very high, but not as high as the budget plan projected. The low actual revenue relative to that budgeted again substantiates the

TABLE 11

W3 - CAMPING EQUIPMENT

## AVAILABILITY

a. Population density:		7,174
b. Hours of operation:	1,800	Index: 20.55
c. Service capacity:	15	Index: 2.09
d. Quality of service capacity:	22/33	Adequate: 40.00%

## PATRONAGE

a. User instances:		75
b. Participation rate:		1.05
c. Cost per user instance:		\$21.50

## OPERATIONAL EFFICIENCY

Revenues:	\$530.05	Expense:	\$1,162.58	%
a. Budgeted revenue:	\$ 880.00	Variance:	39.77	(U)
b. Budgeted expenses:	\$3,352.00	Variance:	51.89	(F)
c. Salaries:	\$ 0.00	Ratio:	0.00	
d. Maintenance costs:	\$ 66.89	Ratio:	4.15	
e. Supplies:	\$ 0.00	Ratio:	0.00	
f. Renewal & replacement:	\$1471.44	Ratio:	91.25	
g. Miscellaneous:	\$ 0.00	Ratio:	0.00	
h. Other costs:	\$ 74.25	Ratio:	4.60	

## FINANCIAL VIABILITY

a. Self-sufficiency:		Budget:	26.25
		Actual:	32.87
b. Revenue per user instance:			\$7.07

implication that there is a lack of capacity to meet demand. Another possibility is that the unusually adverse weather during the first half of the year caused a slump in rentals. The breakdown of expenses indicates that the bulk of expense was for renewals and replacements, and records show that most of this expense was for cleaning and repairing equipment--something which is done on a periodic basis rather than on an "as used" basis. Budgeted and actual self-sufficiency support the policy stated in the FY 83 budget narrative to subsidize this activity and hold fees down. While it is intuitively obvious to the author that this recreation activity should be more popular and is underutilized, the variances and other measures indicating poor performance can only be explained without further data by the unusual weather conditions for the season and the closure of many campgrounds.

The theory presented in Chapter II on variances cannot be applied to the activity results in Appendix B because of the lack of data on planned volume, cost behavior, price differences, and efficiency factors. Management may wish to use the activity profiles to select particular activities for further analysis when the net variances are considered to be inordinate or may wish to establish procedures for collecting data with which to measure variances for all activities.

#### F. SELECTED MEASURES

Selected measures for an analysis of the child care center were part of the survey in Appendix A and results are provided there. Those results are considered to be inconclusive because of the poor response to that portion of the survey but may provide some insight for the Recreation Department manager. The use of these selected measures was not intended to be a part of the evaluation program, except as a demonstration of the way in which a survey can be expanded to provide more depth.

#### G. PRICING AND FEE STRUCTURE

Table 12 provides examples of fees charged by the Naval Postgraduate School and average fee ranges obtained from local newspaper advertisements for commercial activities. Each activity profile sheet indicates the extent to which direct (not full) costs are being paid for from fees. In most cases, revenues per user instance are below costs per user instance. Table 12 indicates that many fees are below market value as well. Unsolicited responses written in the margins of the survey by a few patrons indicated that at least some are willing to pay market prices to obtain better service while others use military recreation centers at nearby Fort Ord because of free facilities. The conclusion is that fees could be increased in order to provide better service, but it should be noted that fees charged by the

TABLE 12  
EXAMPLE OF FEES

<u>Activity</u>	<u>Recreation Department</u>	<u>Commercial</u>
Sailing	\$5/person/ $\frac{1}{2}$ day	\$10-15/person/ $\frac{1}{2}$ day
Bowling	\$0.60/line	\$0.75-1.50/line
Youth Activity	\$3.00 membership	\$15-50/week/event
Child Care	\$1.15/hr. (one child)	\$1.50-2.00/hr.
Golf	\$6.00-7.00 green fee	\$9.00-25.00 green fee
Gymnasium	\$24-36/year	\$20-60/month
Tennis	\$1.00/use or free*	\$1.50-5.00/hr. (some free)
Swimming	\$0.75-1.00/day \$45.00/family season	\$0.55-3.50/day \$60-75/season
Racketball	\$1.00/use of membership in gymnasium	\$5.00-8.00/hr.
Tickets	10-25% discount or more per event	Max 10% discount, w/exceptions

\*Tennis courts free with gymnasium membership, at NPS. All courts at LaMesa military housing free.

Sources: NPS Recreation Department  
 Monterey Peninsula Herald, April 1983 supplement

Recreation Department are set by policy of the Naval Postgraduate School and take into consideration funds from revenue centers which provide profits to the Recreation Fund. Table 12 also provides some insight into how much fees might be raised should Congress decide to do away with appropriated fund subsidies or should the major claimancies no longer be able to provide nonappropriated funds.

#### H. SUMMARY

This chapter has presented the results of the evaluation of effectiveness, efficiency, and financial viability from the points of view of the Recreation Department, its programs, and its activities. Any conclusion about effectiveness must be made by management since there are no expressed objectives. The department appears to be operating efficiently by exceeding financial objectives but the budget variances should be of some concern to management. The evaluation provides insight into some problem areas in allocating costs and resolving issues in setting fees. Specific conclusions and recommendations are the subject of the next chapter.

## VII. CONCLUSION

### A. SUMMARY OF THE RESEARCH

The objective of the research was to develop a program for evaluating performance in a nonprofit environment and to determine appropriate measures of that performance. The literature was reviewed to provide some basic concepts of effectiveness, efficiency, criteria, measures, budgets, and their relationship to goals and objectives. The Naval Postgraduate School's Recreation Department was selected as the site of the research and an assessment was made of the data and operational conditions that existed. Criteria and measures were developed to structure the framework for the evaluation of activities, programs, and the department as a whole. Data were collected from surveys and records or estimates in order to construct profiles of the activities. From these profiles information on programs and the department was compiled. Because of the lack of explicit objectives of effectiveness, the author developed output measures that appeared to be consistent with objectives inferred from Navy and Naval Postgraduate School policy. Efficiency objectives were developed from information from the Recreation Department or were constructed from the budget plan. The results of measuring effectiveness and

efficiency were presented. General conclusions and recommendations will follow below.

One of the objectives of the evaluation program was to improve the methods used for budgeting. During the course of the research, it became evident that insufficient data were available from which to develop variable budgets.

## B. CONCLUSIONS

### 1. Effectiveness

While reviewing the literature, the author discovered that concepts of effectiveness vary widely among authors, and that measures of output in nonprofit organizations also vary with those concepts. For purposes of evaluating a nonprofit organization such as the Recreation Department, it is the author's conclusion that any and all measures of effectiveness may contribute to determining the impact which the organization has on the community.

At present, the judgement of the management and resource sponsors of the Recreation Department is required to determine the effectiveness of the programs and activities. Measures in this research might support the conclusion that benefits are not what they should be if less than 60 percent of the patrons consider the program to be effective. However, there is no stated objective to which that 60 percent can be compared. It also appeared to the

author that programs and facilities were lacking in physical capacity to satisfy the needs and desires of many people.

It was demonstrated that output can be measured by collecting consumer opinion and by analysis of patronage information and that these measures determine levels of effectiveness. The usefulness of the measures to budgeting could not be demonstrated but the measures can be valuable tools in cost-benefit analysis.

## 2. Efficiency

Recall that analysis is insight, not numbers. The numbers would lead to a conclusion that planning and budgeting practices of the Recreation Department require improvement. However, the department as a whole suffered only a \$9,222.16 loss for the first six months of FY 83, compared to a loss of \$81,689.47 for the same period in FY 82. The budget plan for FY 83 had also projected a much larger loss for FY 83. From observations by the author, the Recreation Department has made significant efforts to implement recommendations from previous audits and to use some of the theory contained in this research to avoid the type of loss sustained in FY 82. That effort has included monthly reviews and adjustments of the budget and increased involvement of the Recreation Committee in the planning stages of the budget. However, those monthly adjustments have been made to correct short term problems and unplanned

expenses without the benefit of detailed analysis of variances. Moreover, the results of the evaluation indicated the possibility that the drive for efficiency and economy has been at the expense of program operations and the consumers.

### 3. Financial Viability

There is no question that the Recreation Department exceeded objectives established in the budget for self-support through its fee structure. Had budget plans been adhered to and expenses not been reduced to counter increased overhead costs, those self-sufficiency measures might be significantly lower than they are. It is also noted that budgeted self-sufficiency for programs approached the 70 percent objective.

If budget plans had been followed for the department as a whole, the loss incurred would have been much greater than it was. It is evident from discussions with the Recreation Department manager then there was concern over the loss for the six-month period, but it is not clear whether there was equivalent concern that an even greater loss had been budgeted.

### 4. Conclusion

The Recreation Department appears to have placed much more emphasis on day-to-day operations and financial indicators than on longer range improvements for the benefit

of patrons. An evaluation program such as the one in this research is necessary to provide measures of effectiveness, efficiency, and financial viability together so that operations and their impact can be assessed.

## C. RECOMMENDATIONS

### 1. Goals and Objectives

The first task of the Recreation Department should be to establish social goals and objectives and to publish them for review by the Recreation Committee. The goals should address the long range purposes of the organization and the objectives should be tied to specific measures of results that can be achieved within a budget cycle.

The second task should be to establish system goals and objectives and to provide them to cognizant financial personnel and management for review. The goals should address general long range desires for financial stability and expansion of services or facilities. The objectives should deal with specific budgetary and operating targets.

Suggestions have been made during this research for the structure of goals and objectives and for applicable measures of results and processes. It is recommended that inputs from activity managers be solicited for operating and financial objectives in a structure similar to that used to construct the criteria and that the Recreation Committee be used as a sounding board for these objectives.

## 2. Data Collection

The importance of data was mentioned several times during this report. The data most susceptible to error are the measures of attendance, the user instances. The management audit recommended that prescribed regulations be complied with in maintaining records of attendance. While this can be a costly burden, accurate data or at the least reasonable estimates are essential not only for evaluation but for planning and budgeting. Actual attendance records or estimates should be forwarded by managers to the Recreation Department office at least on a monthly basis.

It is also recommended that once the budget is approved, budget data be entered in the monthly accounting reports either locally or by NAFAS and that any adjustments necessary also be made directly on the master copy of the accounting report so that one central file of budgeting and accounting information is accessible.

Data should also be maintained to permit calculation and explanation of budget variances, such as forecasts of patronage, changes in prices or volume of supplies, or unplanned expenses.

## 3. Use of Surveys

Surveys of patron opinion are recommended on no less than an annual basis. The author considers it an error, on the basis of the results of the survey conducted for this

research, to include an in-depth portion geared to one activity with a survey soliciting general responses. If it is desired to assess particular attributes of an activity such as the Child Care Center, a separate survey is recommended. It should be addressed to that segment of the population with children between six months and ten years old.

The survey in this research concentrated on patron satisfaction with programs and with capacity. While demand may be inferred from the results of the survey and the ranking of activities in terms of value, that was not the purpose of the survey and the results actually have little to do with demand.

If it is desired to measure patron response, then surveys may be distributed at activities or through the school's mail system. However, if demand is to be measured or if it is desired to have responses from members of the population at random, then other distribution means must be used.

#### 4. Use of Appropriated Funds

CNET has encouraged increased use of appropriated funds and the Navy Comptroller Manual (Volume 7) provides a list of authorized uses for morale, welfare, and recreation. Each activity data sheet in Appendix B includes the type and amount of each expense element and its percentage of total

activity expenses. For those activities which can be directly linked to Navy policy, such as physical fitness support, appropriated funding should be considered.

#### 5. Fee Structure

The data indicate that, on the average, revenues for an activity patron are below the expenses for that patron. Table 11 indicates that many fees are below market value. The author pointed out that patrons also contribute indirectly to resources through use of the Navy Exchange and other retail facilities which contribute to nonappropriated funds for recreation. It was not ascertained during the research just how fees were constructed by the Recreation Department, but some are intentionally set to encourage or support certain activities consistent with NPS and Navy policy and others are deliberately set to generate additional operating funds. The Recreation Department manager has indicated that NPS policy is to keep fees at current levels through FY 84.

It is recommended that the basis for setting fees be included as part of the statement of objectives of the organization and that all fees be reviewed during the planning and budgeting phases for FY 85 for consistency with policy and objectives.

#### 6. Annual Evaluation

CNET's requirement is for an annual evaluation. It remains to be determined what that requirement will be under

the major claimancy of the Chief of Naval Operations. Nevertheless, it is recommended that an annual evaluation program be continued. To minimize the disruption to the Recreation Department staff, the evaluation might be combined with other internal review and audit functions, such as the annual financial audit. The timing of the evaluation should be such that results can be used for planning for the next annual budget and the submission of the budget request.

#### D. FURTHER RESEARCH

Further research is suggested to develop variable budgets for the Recreation Department and others under nonappropriated fund management. To support such research, it would be necessary to collect various different attendance volumes and costs over one or more budget periods and to use statistical analysis to determine whether reliable budget formulas could be identified.

APPENDIX A

RECREATION DEPARTMENT SURVEY

PART 1

Survey

1. Sponsor's status: Military: Yes \_\_\_\_\_ No \_\_\_\_\_  
Married: Yes \_\_\_\_\_ No \_\_\_\_\_  
Sex: Male \_\_\_\_\_ Female \_\_\_\_\_  
If military: Active duty \_\_\_\_\_ Retired \_\_\_\_\_  
Branch of Service: \_\_\_\_\_
2. Do you live in LaMesa/NPS Housing? Yes \_\_\_\_\_ No \_\_\_\_\_
3. Number and ages of children: None \_\_\_\_\_
- | <u>Number / Age</u> | <u>Number / Age</u> | <u>Number / Age</u> | <u>Number / Age</u> |
|---------------------|---------------------|---------------------|---------------------|
| _____ 0-1           | _____ 4             | _____ 9-10          | _____ 15-16         |
| _____ 2             | _____ 5-6           | _____ 11-12         | _____ 17-18         |
| _____ 3             | _____ 7-8           | _____ 13-14         | _____ Over 18       |
4. How effectively do facilities and programs support your desires/needs for physical fitness?
- |                      |                        |
|----------------------|------------------------|
| ( ) Very effectively | ( ) Ineffectively      |
| ( ) Effectively      | ( ) Very ineffectively |
| ( ) Borderline       | ( ) Not used           |
5. How effectively do facilities and programs support your desires for recreation?
- |                      |                        |
|----------------------|------------------------|
| ( ) Very effectively | ( ) Ineffectively      |
| ( ) Effectively      | ( ) Very ineffectively |
| ( ) Borderline       | ( ) Not used           |
6. How effectively do facilities and programs support your desires for Youth Activities (Teen Club, Youth Soccer, etc.)?
- |                      |                        |
|----------------------|------------------------|
| ( ) Very effectively | ( ) Ineffectively      |
| ( ) Effectively      | ( ) Very ineffectively |
| ( ) Borderline       | ( ) Not used           |

7. How effectively do facilities and programs support your desires for use of the Child Care Center (daytime use)?

- |   |   |
|---|---|
| <input type="checkbox"/> Very effectively | <input type="checkbox"/> Ineffectively      |
| <input type="checkbox"/> Effectively      | <input type="checkbox"/> Very ineffectively |
| <input type="checkbox"/> Borderline       | <input type="checkbox"/> Not used           |

8. Please rate the activities listed below when used in terms of physical capacity to meet your needs (e.g.: Is there enough camping gear available? Can you usually play tennis when you want to?).

A - Adequate    M - Marginal    I - Inadequate    N - Not Used

Then, please rank those five activities used the most in terms of value to you and your family, from "1" to "5" (highest to lowest value).

	<u>A</u>	<u>M</u>	<u>I</u>	<u>N</u>	<u>Rank</u>
Athletic Fields	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Bowling Center	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Camping Equipment Checkout	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Child Care Center (daytime use)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Golf Course	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Gymnasium - exercise facilities	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
- sports facilities	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Gear Issue (sports equipment)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Picnic Grounds	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Sailing	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Swimming Pool	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Teen Club	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Tennis Courts	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____

The remaining questions apply to the respondents with children under 10 years old:

9. How often would you like to use the Child Care Center if your requests for reservations were normally accommodated?

- |  |  |
|--|--|
| <input type="checkbox"/> Daily             | <input type="checkbox"/> Once a week           |
| <input type="checkbox"/> Two days a week   | <input type="checkbox"/> Less than once a week |
| <input type="checkbox"/> Three days a week | <input type="checkbox"/> Would not use at all  |

10. How often has your request been turned down for a daytime reservation? (in percent of times requested)

- Usually (75-100%)       Rarely (0-24%)  
 Frequently (5-74%)     Not requested  
 Sometimes

11. What child care services would you normally use? Check all that apply:

- Full timee day care     Friday/Saturday evenings  
 Primarily mornings     Primarily evenings  
 An hour or two only     Preschool ( ) a.m. ( ) p.m.

APPENDIX A

RECREATION DEPARTMENT SURVEY

PART 2

Responses

A. DEMOGRAPHIC DATA

1. 161 total responses.

2. 140 active duty military; 2 retirees; 102 married (71.83%; 82 with children (57.75%).

3. 19 civilians; 16 married (84.21%); 12 with children eighteen or under (63.16%).

4. 68 military living in LaMesa (48.57%).

5. 23 out of 142 military, non-Navy (16.17%).

6. Number of children of military parents: 167.

<u>Ages 0-1:</u> 30	<u>Age 4:</u> 13	<u>Ages 9-10:</u> 17
<u>2:</u> 14	<u>5-6:</u> 24	<u>11-12:</u> 16
<u>3:</u> 13	<u>7-8:</u> 20	<u>13-18:</u> 14

Average number of children per married military: 2.04

Average number eighteen or under: 1.96

7. Number of children of civilian parents: 34

<u>Ages 0-1:</u> 2	<u>Age 4:</u> 2	<u>Ages 9-10:</u> 2
<u>2:</u> 0	<u>5-6:</u> 2	<u>11-12:</u> 2
<u>3:</u> 3	<u>7-8:</u> 2	<u>13-18:</u> 11

Average number of children per married civilian: 2.125

Average number under eighteen: 1.625

B. PATRON SATISFACTION

The same question was asked in relation to facilities and programs for four goals: physical fitness, recreation, youth activities, and child care. The choices were constructed using reference 40. The position of the mean within the ranges is indicative of the effectiveness of the programs.

Ranges:	4.21-5.00	Very effective	Scale: 1-5
	3.41-4.19	Effective	
	2.61-3.40	Borderline	
	1.81-2.60	Ineffective	
	1.00-1.80	Very ineffective	

1. How effectively do facilities and programs support your desires/needs for physical fitness?

134 users responded with a mean of 3.47. 57.46% rated support of physical fitness as effective or better.

Very effectively:	<u>13 (9.7%)</u>	Ineffectively:	<u>13 (9.7%)</u>
Effectively:	64 (47.8%)	Very ineffectively:	<u>6 (4.5%)</u>
Borderline:	<u>37 (27.6%)</u>	Not used:	<u>27</u>

2. How effectively do facilities and program support your desires/needs for recreation?

138 users responded with a mean of 3.52. 60.9% rated support of recreation as effective or better.

Very effectively:	<u>13 (9.7%)</u>	Ineffectively:	<u>13 (9.7%)</u>
Effectively:	<u>71 (51.4%)</u>	Very ineffectively:	<u>6 (4.5%)</u>
Borderline:	<u>35 (25.4%)</u>	Not used:	<u>23</u>

3. How effectively do facilities and program support your desires/needs for youth activities?

Only 41 users responded, with a mean of 3.63. 63.4% thought that youth activities were effective or better.

Very effectively:	<u>9 (22.0%)</u>	Ineffectively:	<u>7 (17.1%)</u>
Effectively:	<u>17 (41.5%)</u>	Very ineffectively:	<u>1 (2.4%)</u>
Borderline:	<u>7 (17.1%)</u>	Not used:	<u>120</u>

4. How effectively do facilities and programs support your desires for use of the Child Care Center (daytime use)?

Only 36 users responded, with a mean of 3.31. 50% rated support as effective or better.

Very effectively:	<u>13 (9.7%)</u>	Ineffectively:	<u>9 (25%)</u>
Effectively:	<u>14 (38.9%)</u>	Very ineffectively:	<u>1 (2.8%)</u>
Borderline:	<u>8 (22.2%)</u>	Not used:	<u>125</u>

C. QUALITY OF PHYSICAL CAPACITY

Patrons were asked to rate fourteen activities or facilities as adequate, marginal, inadequate, or not used. The examples given demonstrated the intent of the question; e.g., is there enough camping gear available, can you usually play tennis when you want to? Then, patrons were asked to rank activities they used from 1 to 5. The number of patrons who ranked an activity is shown, and its relative position.

	<u>A</u>	<u>M</u>	<u>I</u>	<u>N</u>	<u>Rkd</u>	<u>Pos</u>
Athletic Fields	61	26	6	68	44	4th
Bowling Center	35	17	9	99	30	7(T)
Camping Equipment	22	23	10	106	26	8th
Child Care (daytime)	15	11	9	126	17	11th
Golf Course	38	3	4	107	39	5th
Gymnasium - exercise	52	32	35	42	66	1st
Gymnasium - sports	40	44	18	59	59	3rd
Gear Issue (sports eq.)	40	24	6	91	23	10th
Picnic Grounds	51	19	5	86	30	7(T)
Sailing	27	11	5	117	25	9th
Swimming Pool	63	24	15	59	65	2nd
Teen Club	4	3	3	150	2	12th
Tennis Courts	40	23	6	101	35	6th

Availability and adequacy are rated on the individual activity data sheets in Appendix B. Ratings show the number who thought the facility to be adequate and the number who thought it less than adequate; e.g., for athletic fields, the rating would be 61/32 (65.6%). Ranking positions show the relative importance of each activity to the patrons, and are for the use of the Recreation Department. Caution should be taken, however, since the survey was done in July. The rankings might not be the same if taken in the winter when the swimming pool is closed, and the child care center is not competing with community summer programs.

#### D. SELECTED MEASURES

The survey questions for selected measures deal with the pattern of use of the child care center and an additional measure of patron satisfaction, a turndown rate.

1. How often would you like to use the Child Care Center if your requests for reservations were normally accommodated?

Forty-four people responded to this question, which is eight more than indicated in a previous question that they used the child care center. So there are some who would use the center if they could normally be accommodated. Twenty-eight people said that they would not use it at all, even though they had children under ten years old. (One indicated older siblings who did the babysitting.)

6 - Daily	15 - Once a week
9 - Two days per week	11 - Less than once a week
3 - Three days a week	

2. What child care services would you normally use?

People answering this question were encouraged to indicate more than one choice, so there is no correlation to the number of users. The data represents a distribution of demand.

6 - Full time daily	29 - Friday/Saturday evenings
5 - Primarily mornings	9 - Primarily afternoons
25 - An hour or two only	16 - Preschool

Of the sixteen who checked preschool, 7 checked morning sessions and 4 checked afternoon sessions. It can be assumed that these do not duplicate checks for morning or afternoon daycare.

3. How often has your request been turned down for a daytime reservation? (in percent of times requested)

Forty-two people said that they had not requested reservations. Thirty-one said that they had. That is seventy-three potential users, or thirty-seven more than the thirty-six who indicated in a previous question that they used the child care center.

2 - Usually (75-100%)	5 - Sometimes (25-49%)
12 - Frequently (50-74%)	12 - Rarely (0-24%)

APPENDIX A

RECREATION DEPARTMENT SURVEY

PART 3

Survey: Unsolicited Comments

This section of Appendix A presents comments that were unsolicited, written in the margins of surveys.

A. GENERAL

Three people commented on the quality of management. Two simply wrote "Management!". The third wrote "Could use better management!". Other general comments included:

Inadequate because of user fees. I can swim, play tennis, and use the gym for free on Ft. Ord. Why use NPS which costs and is inferior in quality to Fort Ord?

Let's keep the facilities for active duty! This is the only place I've been where you have to stumble over the retirees to use anything. 'Priority' is hogwash - most feel uncomfortable 'bumping' grandpa. The charge though nominal, is largely do to max use of facilities caused by retirees, and subsequent admin load. Hence, I don't use my rec facilities very often!

Publicity is non-existent. Where is the bowling alley? Why aren't hours of operation included in welcome aboard packages?

B. CHILD CARE CENTER

I do not care to use it - not satisfied. I use full time daycare elsewhere.

Children are not supervised well enough - need more care, e.g., diapers changed, hands and faces washed after playing outside, rashes and injuries reported to mothers.

Quality of care?

Prefer babysitting at home.

Closes too soon.

Do not use child care center anymore because my boy (3 yr. old) just sat in corner and cried. Not enough attention. Maybe I ask for too much but my kid is worth it.

Why doesn't the child care center have drop-in service like other places? Can't get space when needed and have to take children to Ft. Ord hospital with me - not allowed.

#### C. GOLF

Course suffers from not being kept up - fairways, etc. Could be a money constraint, but a lot of it seems to be inattention to detail.

Golf league? Could be formed for intramural competition.

#### D. GYMNASIUM

Would like to see the gym open on Sunday, the only free day some have other than Saturday. Perhaps could be closed on Monday like the exchange.

Having only one basketball court and no outdoor courts or other facility is a major shortcoming.

Cross-country intramural competition - easily set up with little overhead requirement.

PAR course should be kept up better and picture illustrations at each station to explain its use.

Ventilation in upstairs men's locker room is inadequate/poorly designed.

Nautilus fitness machines could be utilized vice present universal set-up.

#### E. ATHLETIC FIELDS

Ballfield at picnic grounds is dangerous.

Facilities needed for touch football, i.e., a field with lights for night play in fall when days are shorter, also could be used to extend softball games in spring/fall.

F. SAILING

Too hard to use.

G. SWIMMING

Swim classes interfere.

Leave open year round. Install solar heating.

H. YOUTH ACTIVITIES

The best! (Soccer, T-Ball)

LaMesa Resident: Not familiar with this program.

Note: The LaMesa resident who made this comment regarding youth activities has three children between the ages of seven and fourteen.

I. TICKET SALES

We seem to be the last to find out about events in King Hall. When concerts are held there, why aren't tickets available to military? Why is it the first I hear is in the paper?

APPENDIX B

B5 GOLF - RETAIL  
B6 GOLF - OTHER RETAIL

AVAILABILITY

a. Population density:		7,174
b. Hours of operation: 4000	Index:	45.66
c. Service capacity: N/A	Index:	N/A
d. Quality of service capacity:		Not Rated

PATRONAGE

a. User instances:	1,772
b. Participation rate:	24.70
c. Cost per user instance:	\$12.12

OPERATIONAL EFFICIENCY

Revenues: \$17,727.88	Expense: \$21,478.54	<u>3</u>
a. Budgeted revenue: \$20,981.00	Variance: 15.51 (U)	
b. Budgeted expenses: \$39,686.00	Variance: 45.88 (F)	
c. Salaries: \$ 8,502.50	Ratio: 39.59	
d. Maintenance costs: 0.00	Ratio: 0.00	
e. Supplies: 0.00	Ratio: 0.00	
f. Renewal & replacement: 0.00	Ratio: 0.00	
g. Miscellaneous: \$ 31.17	Ratio: 0.15	
h. Other costs: \$12,944.87	Ratio: 60.27	

FINANCIAL VIABILITY

a. Self-sufficiency	Budget: 52.87	
	Actual: 82.54	
b. Revenue per user instance:		\$10.00

#### H4 GOLF COURSE

##### AVAILABILITY

a. Population density:		7,174
b. Hours of operation:	4000	Index: 45.66
c. Service capacity:	72	Index: 10.04
d. Quality of service capacity:	38/7	Adequate: 84.44

##### PATRONAGE

a. User instances:		17,256
b. Participation rate:		240.54
c. Cost per user instance:		\$4.91

##### OPERATIONAL EFFICIENCY

Revenues:	\$86,278.53	Expense:	\$84,716.20	<u>%</u>
a. Budgeted revenue:	\$92,873.00	Variance:	7.10	(U)
b. Budgeted expenses:	\$81,621.00	Variance:	3.79	(U)
c. Salaries:	\$23,821.90	Ratio:	28.12	
d. Maintenance costs:	\$42,010.65	Ratio:	49.59	
e. Supplies:	\$ 1,178.59	Ratio:	1.39	
f. Renewal & replacement:	\$4,685.66	Ratio:	5.53	
g. Miscellaneous:	\$ 8,539.91	Ratio:	10.08	
h. Other costs:	\$ 4,479.49	Ratio:	5.29	

##### FINANCIAL VIABILITY

a. Self-sufficiency:		Budget:	113.79
		Actual:	101.84
b. Revenue per user instance:			\$5.00

H7 ATHLETICS  
H9 GROUNDS & FIELDS

AVAILABILITY

a. Population density:	2,957
b. Hours of operation: 1800	Index: 20.55
c. Service capacity: N/A	Index: N/A
d. Quality of service capacity: 61/32	Adequate: 65.59%

PATRONAGE

a. User instances:	1.592
b. Participation rate:	45.72
c. Cost per user instance:	\$7.43

OPERATIONAL EFFICIENCY

Revenues: \$0.00	Expense: \$10,042.68	%
a. Budgeted revenue:	\$ 0.00	Variance: None
b. Budgeted expenses:	\$19,430.00	Variance: 48.31 (F)
c. Salaries:	\$ 2,642.29	Ratio: 26.31
d. Maintenance costs:	\$ 4,670.45	Ratio: 46.50
e. Supplies:	\$ 571.20	Ratio: 5.69
f. Renewal & replacement:	\$1,470.00	Ratio: 0.00
g. Miscellaneous:	0.00	Ratio: 0.00
h. Other costs:	688.74	Ratio: 6.86

FINANCIAL VIABILITY

a. Self-sufficiency:	Budget: 0.00
	Actual: 0.00
b. Revenue per user instance:	\$0.00

## K4 GYMNASIUM

### AVAILABILITY

a. Population density:		5,523
b. Hours of operation:	3,800	Index: 43.38
c. Service capacity:	45	Index: 3.15
d. Quality of service capacity:	52/67	Adequate: 43.70%

### PATRONAGE

a. User instances:		13,521
b. Participation rate:		244.81
c. Cost per user instance:		41.78

### OPERATIONAL EFFICIENCY

Revenues:	\$19,765.38	Expense:	\$24,117.27	%
a. Budgeted revenue:	\$ 5,116.00	Variance:	286.34	(F)
b. Budgeted expenses:	\$14,399.00	Variance:	67.49	(U)
c. Salaries:	\$22,055.64	Ratio:	91.45	
d. Maintenance costs:	\$ 795.73	Ratio:	3.30	
e. Supplies:	\$ 138.18	Ratio:	0.57	
f. Renewal & replacement:	\$ 131.82	Ratio:	0.55	
g. Miscellaneous:	0.00	Ratio:	0.00	
h. Other costs:	\$ 995.90	Ratio:	4.13	

### FINANCIAL VIABILITY

a. Self-sufficiency:		Budget:	35.53
		Actual:	81.96
b. Revenue per user instance:			\$1.46

M8 SOFTBALL

AVAILABILITY

a. Population density:		2,957
b. Hours of operation:	1,800	Index: 20.55
c. Service capacity:	78	Index: 26.38
d. Quality of service capacity:		Not Rated

PATRONAGE

a. User instances:	1.352
b. Participation rate:	45.72
c. Cost per user instance:	\$2.86

OPERATIONAL EFFICIENCY

Revenues:	\$980.00	Expense:	\$3,872.93	<u>3</u>
a. Budgeted revenue:	\$ 991.00	Variance:	1.11 (U)	
b. Budgeted expenses:	\$5,540.00	Variance:	30.09 (F)	
c. Salaries:	0.00	Ratio:	0.00	
d. Maintenance costs:	0.00	Ratio:	0.00	
e. Supplies:	0.00	Ratio:	0.00	
f. Renewal & replacement:	0.00	Ratio:	0.00	
g. Miscellaneous:	0.00	Ratio:	0.00	
h. Other costs:	\$3,872.93	Ratio:	100.00	

FINANCIAL VIABILITY

a. Self-sufficiency:	Budget: 17.89
	Actual: 25.30
b. Revenue per user instance:	\$0.72

M9 SOCCER

AVAILABILITY

a. Population density:		2,957
b. Hours of operation: 300	Index:	3.42
c. Service capacity: N/A	Index:	N/A
d. Quality of service capacity:		Not Rated

PATRONAGE

a. User instances:	240
b. Participation rate:	0.08
c. Cost per user instance:	\$7.25

OPERATIONAL EFFICIENCY

Revenues: \$0.00	Expense: \$1,740.37	<u>%</u>
a. Budgeted revenue:	\$ 0.00	Variance: None
b. Budgeted expenses:	\$1,150.00	Variance: 51.34 (U)
c. Salaries:	\$ 0.00	Ratio: 0.00
d. Maintenance costs:	\$ 65.70	Ratio: 3.78
e. Supplies:	\$ 0.00	Ratio: 0.00
f. Renewal & replacement:	\$ 283.89	Ratio: 16.31
g. Miscellaneous:	\$ 0.00	Ratio: 0.00
h. Other costs:	\$1,390.78	Ratio: 79.91

FINANCIAL VIABILITY

a. Self-sufficiency:	Budget: 0.00
	Actual: 0.00
b. Revenue per user instance:	\$0.00

### N3 TENNIS

#### AVAILABILITY

a. Population density:		5,523
b. Hours of operation:	3,500	Index: 39.95
c. Service capacity:	48	Index: 8.69
d. Quality of service capacity:	40/29	Adequate: 57.97%

#### PATRONAGE

a. User instances:	5.134
b. Participation rate:	92.96
c. Cost per user instance:	\$0.67

#### OPERATIONAL EFFICIENCY

Revenues:	\$5,134.50	Expense:	\$3,428.90	%
a. Budgeted revenue:	\$7,850.00	Variance:	34.59	(U)
b. Budgeted expenses:	\$6,935.00	Variance:	50.56	(F)
c. Salaries:	\$ 0.00	Ratio:	0.00	
d. Maintenance costs:	\$ 184.71	Ratio:	5.39	
e. Supplies:	\$ 0.00	Ratio:	0.00	
f. Renewal & replacement:	(\$317.51)	Ratio:	(9.26)	
g. Miscellaneous:	\$3,041.90	Ratio:	88.71	
h. Other costs:	519.80	Ratio:	15.16	

#### FINANCIAL VIABILITY

a. Self-sufficiency:	Budget: 113.19
	Actual: 149.74
b. Revenue per user instance:	\$1.00

## J4 BASKETBALL

### AVAILABILITY

a. Population density:	2,957
b. Hours of operation:	Index: 43.38
c. Service capacity:	Index: 6.76
d. Quality of service capacity:	Not Rated

### PATRONAGE

a. User instances:	1,560
b. Participation rate:	52.76
c. Cost per user instance:	\$3.86

### OPERATIONAL EFFICIENCY

Revenues: \$1,107.00	Expense: \$6,027.34	<u>§</u>
a. Budgeted revenue:	\$ 0.00	Variance: 100.00 (F)
b. Budgeted expenses:	\$12,672.00	Variance: 52.44 (F)
c. Salaries:	\$ 0.00	Ratio: 0.00
d. Maintenance costs:	\$ 0.00	Ratio: 0.00
e. Supplies:	\$ 0.00	Ratio: 0.00
f. Renewal & replacement:	\$ 429.99	Ratio: 7.13
g. Miscellaneous:	\$ 0.00	Ratio: 0.00
h. Other costs:	\$ 5,597.35	Ratio: 92.87

### FINANCIAL VIABILITY

a. Self-sufficiency:	Budget: 0.00
	Actual: 18.37%
b. Revenue per user instance:	\$0.71

K6 RACKETBALL

AVAILABILITY

a. Population density:		2,957
b. Hours of operation:	3,800	Index: 43.38
c. Service capacity:	4	Index: 1.35
d. Quality of service capacity:		Not Rated

PATRONAGE

a. User instances:		4,160
b. Participation rate:		140.68
c. Cost per user instance:		\$1.14

OPERATIONAL EFFICIENCY

Revenues:	\$754.00	Expense:	\$4,749.81	<u>§</u>
a. Budgeted revenue:	\$ 0.00	Variance:	100 (F)	
b. Budgeted expenses:	\$ 150.00	Variance:	3066.54 (U)	
c. Salaries:	\$ 0.00	Ratio:	0.00	
d. Maintenance costs:	\$ 0.00	Ratio:	0.00	
e. Supplies:	\$ 0.00	Ratio:	0.00	
f. Renewal & replacement:	\$4,503.10	Ratio:	94.81	
g. Miscellaneous:	\$ 0.00	Ratio:	0.00	
h. Other costs:	\$ 246.71	Ratio:	5.19	

FINANCIAL VIABILITY

a. Self-sufficiency:	Budget: 0.00
	Actual: 15.87
b. Revenue per user instance:	\$0.18

## K9 KARATE

### AVAILABILITY

a. Population density:		5,523
b. Hours of operation: 78	Index:	0.89
c. Service capacity: 30	Index:	5.43
d. Quality of service capacity:		Not Rated

### PATRONAGE

a. User instances:	1,170
b. Participation rate:	21.18
c. Cost per user instance:	\$1.50

### OPERATIONAL EFFICIENCY

Revenues: \$1,553.00	Expense: \$1,750.50	<u>‡</u>
a. Budgeted revenue:	\$1,638.00	Variance: 5.19 (F)
b. Budgeted expenses:	\$1,350.00	Variance: 29.67 (U)
c. Salaries:	\$ 0.00	Ratio: 0.00
d. Maintenance costs:	\$ 0.00	Ratio: 0.00
e. Supplies:	\$ 0.00	Ratio: 0.00
f. Renewal & replacement:	\$ 0.00	Ratio: 0.00
g. Miscellaneous:	\$1,750.50	Ratio: 100.00
h. Other costs:	\$ 0.00	Ratio: 0.00

### FINANCIAL VIABILITY

a. Self-sufficiency:	Budget: 121.33
	Actual: 88.72
b. Revenue per user instance:	\$1.33

R2 AEROBIC DANCE

AVAILABILITY

a. Population density:		5,523
b. Hours of operation: 200	Index:	2.28
c. Service capacity: 30	Index:	5.43
d. Quality of service capacity:		Not Rated

PATRONAGE

a. User instances:	780
b. Participation rate:	14.12
c. Cost per user instance:	\$3.70

OPERATIONAL EFFICIENCY

Revenues: \$3,203.50	Expense: \$2,883.15	<u>\$</u>
a. Budgeted revenue:	\$ 0.00	Variance: 100.00 (F)
b. Budgeted expenses:	\$ 835.00	Variance: 245.29 (U)
c. Salaries:	\$ 0.00	Ratio: 0.00
d. Maintenance costs:	\$ 0.00	Ratio: 0.00
e. Supplies:	\$ 0.00	Ratio: 0.00
f. Renewal & replacement:	\$ 0.00	Ratio: 0.00
g. Miscellaneous:	\$2,883.15	Ratio: 100.00
h. Other costs:	\$ 0.00	Ratio: 0.00

FINANCIAL VIABILITY

a. Self-sufficiency:	Budget: 0.00
	Actual: 111.11
b. Revenue per user instance:	\$4.11

P1 OTHER SPORTS\*

AVAILABILITY

a. Population density:		2,957
b. Hours of operation:	N/A	Index: N/A
c. Service capacity:	N/A	Index: N/A
d. Quality of service capacity:		Not Rated

PATRONAGE

a. User instances:	N/A
b. Participation rate:	N/A
c. Cost per user instance:	N/A

OPERATIONAL EFFICIENCY

Revenues:	\$126.00	Expense:	\$3,186.72	%
a. Budgeted revenue:	\$ 750.00	Variance:	83.20	(U)
b. Budgeted expenses:	\$2,500.00	Variance:	24.47	(U)
c. Salaries:	\$ 0.00	Ratio:	0.00	
d. Maintenance costs:	\$ 53.50	Ratio:	1.68	
e. Supplies:	\$ 0.00	Ratio:	0.00	
f. Renewal & replacement:	\$ 133.22	Ratio:	4.18	
g. Miscellaneous:	\$1,091.25	Ratio:	34.24	
h. Other costs:	\$1,908.75	Ratio:	59.90	

FINANCIAL VIABILITY

a. Self-sufficiency:	Budget: 30.00
	Actual: 3.95
b. Revenue per user instance:	N/A

\*Includes M4, M7, N1, N2, N5, N9

D2 BOATING  
T4 SAILING

AVAILABILITY

a. Population density:		7,614
b. Hours of operation:	3,000	Index: 34.25
c. Service capacity:	36	Index: 4.73
d. Quality of service capacity:	27/6	Adequate: 62.79%

PATRONAGE

a. User instances:	2,300
b. Participation rate:	30.21
c. Cost per user instance:	\$3.49

OPERATIONAL EFFICIENCY

Revenues:	\$10,080.00	Expense:	\$8,033.59	<u>3</u>
a. Budgeted revenue:	\$ 9,154.00	Variance:	10.12	(F)
b. Budgeted expenses:	\$16,233.00	Variance:	50.51	(F)
c. Salaries:	\$ 0.00	Ratio:	0.00	
d. Maintenance costs:	(\$ 103.74)	Ratio:	(1.20)	
e. Supplies:	\$ 345.24	Ratio:	4.30	
f. Renewal & replacement:	\$ 3,521.90	Ratio:	43.84	
g. Miscellaneous:	\$ 3,452.11	Ratio:	42.97	
h. Other costs:	\$ 818.08	Ratio:	10.18	

FINANCIAL VIABILITY

a. Self-sufficiency:	Budget: 56.39
	Actual: 125.47
b. Revenue per user instance:	\$4.38

A4 BOWLING - RETAIL  
D5 BOWLING RECREATION

AVAILABILITY

a. Population density:		8.898
b. Hours of operation:	2,600	Index: 29.68
c. Service capacity:	30	Index: 3.37
d. Quality of service capacity:	35/26	Adequate: 57.38

PATRONAGE

a. User instances:	6,528
b. Participation rate:	73.36
c. Cost per user instance:	\$1.94

OPERATIONAL EFFICIENCY

Revenues:	\$11,994.40	Expense:	\$12,674.49	%
a. Budgeted revenue:	\$10,148.00	Variance:	18.19	(F)
b. Budgeted expenses:	\$16,604.00	Variance:	33.67	(F)
c. Salaries:	\$ 1,173.54	Ratio:	9.26	
d. Maintenance costs:	\$10,037.18	Ratio:	79.19	
e. Supplies:	\$ 252.60	Ratio:	1.99	
f. Renewal & replacement:	\$ 1,149.41	Ratio:	9.07	
g. Miscellaneous:	(\$ 627.06)	Ratio:	(4.95)	
h. Other costs:	\$ 688.82	Ratio:	5.43	

FINANCIAL VIABILITY

a. Self-sufficiency:	Budget: 61.12
	Actual: 94.63
b. Revenue per user instance:	\$1.84

F6 DRAMATICS (CLUB)

AVAILABILITY

a. Population density:	7,926
b. Hours of operation:	Index: N/A
c. Service capacity:	Index: N/A
d. Quality of service capacity:	Not Rated

PATRONAGE

a. User instances:	480
b. Participation rate:	6.06
c. Cost per user instance:	\$6.20

OPERATIONAL EFFICIENCY

Revenues: \$961.60	Expense: \$2,977.03	%
a. Budgeted revenue:	\$3,042.00	Variance: 68.39 (U)
b. Budgeted expenses:	\$6,072.00	Variance: 50.97 (U)
c. Salaries:	\$ 0.00	Ratio: 0.00
d. Maintenance costs:	\$ 0.00	Ratio: 0.00
e. Supplies:	\$ 0.00	Ratio: 0.00
f. Renewal & replacement:	\$ 0.00	Ratio: 0.00
g. Miscellaneous:	\$ 0.00	Ratio: 0.00
h. Other costs:	\$2,977.03	Ratio: 100.00

FINANCIAL VIABILITY

a. Self-sufficiency:	Budget: 50.10
	Actual: 32.30
b. Revenue per user instance:	\$2.00

F7 ENTERTAINMENT (SHOWS)

AVAILABILITY

a. Population density:	7,926
b. Hours of operation:	Index: N/A
c. Service capacity:	Index: N/A
d. Quality of service capacity:	Not Rated

PATRONAGE

a. User instances:	3,216
b. Participation rate:	40.58
c. Cost per user instance:	\$4.46

OPERATIONAL EFFICIENCY

Revenues: \$15,120.00	Expense: \$14,339.39	%
a. Budgeted revenue:	\$ 0.00	Variance: 100.00 (F)
b. Budgeted expenses:	\$ 0.00	Variance: 100.00 (U)
c. Salaries:	\$ 0.00	Ratio: 0.00
d. Maintenance costs:	\$ 0.00	Ratio: 0.00
e. Supplies:	\$ 27.03	Ratio: 0.19
f. Renewal & replacement:	\$ 0.00	Ratio: 0.00
g. Miscellaneous:	\$ 0.00	Ratio: 0.00
h. Other costs:	\$14,312.36	Ratio: 99.81

FINANCIAL VIABILITY

a. Self-sufficiency:	Budget: 0.00
	Actual: 105.44
b. Revenue per user instance:	\$4.70

P2 AMATEUR RADIO

AVAILABILITY

a. Population density:	7,174
b. Hours of operation:	Index: N/A
c. Service capacity:	Index: N/A
d. Quality of service capacity:	Not Rated

PATRONAGE

a. User instances:	N/A
b. Participation rate:	N/A
c. Cost per user instance:	N/A

OPERATIONAL EFFICIENCY

Revenues: \$0.00	Expense: \$245.26	<u>§</u>
a. Budgeted revenue:	\$ 0.00	Variance: None
b. Budgeted expenses:	\$334.00	Variance: 26.57
c. Salaries:	\$ 0.00	Ratio: 0.00
d. Maintenance costs:	\$ 0.00	Ratio: 0.00
e. Supplies:	\$ 0.00	Ratio: 0.00
f. Renewal & replacement:	\$201.26	Ratio: 82.06
g. Miscellaneous:	\$ 0.00	Ratio: 0.00
h. Other costs:	\$ 44.00	Ratio: 17.94

FINANCIAL VIABILITY

a. Self-sufficiency:	Budget: 0.00
	Actual: 0.00
b. Revenue per user instance:	N/A

R9 PARTY AND PICNIC

AVAILABILITY

a. Population density:	10,461
b. Hours of operation:	Index: N/A
c. Service capacity: 250	Index: 23.90
d. Quality of service capacity: 51/24	Adequate: 68.00

PATRONAGE

a. User instances:	N/A
b. Participation rate:	N/A
c. Cost per user instance:	N/A

OPERATIONAL EFFICIENCY

Revenues: \$500.00	Expense: \$3,755.23	<u>%</u>
a. Budgeted revenue:	\$ 800.00	Variance: 37.50 (U)
b. Budgeted expenses:	\$6,550.00	Variance: 42.67 (F)
c. Salaries:	\$ 0.00	Ratio: 0.00
d. Maintenance costs:	\$ 0.00	Ratio: 0.00
e. Supplies:	\$ 0.00	Ratio: 0.00
f. Renewal & replacement:	\$ 0.00	Ratio: 0.00
g. Miscellaneous:	\$ 0.00	Ratio: 0.00
h. Other costs:	\$3,755.23	Ratio: 100.00

FINANCIAL VIABILITY

a. Self-sufficiency:	Budget: 12.21
	Actual: 13.31
b. Revenue per user instance:	N/A

## T9 TICKET SALES

### AVAILABILITY

a. Population density:		7,174
b. Hours of operation: 2,000	Index:	23.83
c. Service capacity: N/A	Index:	N/A
d. Quality of service capacity:		Not Rated

### PATRONAGE

a. User instances:	1,028
b. Participation rate:	14.33
c. Cost per user instance:	\$10.06

### OPERATIONAL EFFICIENCY

Revenues: \$11,058.45	Expense: \$10,338.20	<u>8</u>
a. Budgeted revenue:	\$18,714.00	Variance: 40.91 (U)
b. Budgeted expenses:	\$ 8,000.00	Variance: 29.23 (U)
c. Salaries:	\$ 0.00	Ratio: 0.00
d. Maintenance costs:	\$ 0.00	Ratio: 0.00
e. Supplies:	\$ 0.00	Ratio: 0.00
f. Renewal & replacement:	\$ 0.00	Ratio: 0.00
g. Miscellaneous:	\$10,338.20	Ratio: 100.00
h. Other costs:	\$ 0.00	Ratio: 0.00

### FINANCIAL VIABILITY

a. Self-sufficiency:	Budget: 233.93
	Actual: 106.97
b. Revenue per user instance:	\$10.76

V3 OTHER RECREATION SERVICES  
(CABLE TV)

AVAILABILITY

- |                                 |        |           |
|---------------------------------|--------|-----------|
| a. Population density:          |        | N/A       |
| b. Hours of operation:          | Index: | N/A       |
| c. Service capacity:            | Index: | N/A       |
| d. Quality of service capacity: |        | Not Rated |

PATRONAGE

- |                            |     |
|----------------------------|-----|
| a. User instances:         | N/A |
| b. Participation rate:     | N/A |
| c. Cost per user instance: | N/A |

OPERATIONAL EFFICIENCY

Revenues:	\$2,219.94	Expense:	\$1,732.16	<u>8</u>
a. Budgeted revenue:	\$1,980.00	Variance:	12.12	(F)
b. Budgeted expenses:	\$2,250.00	Variance:	23.02	(F)
c. Salaries:	\$ 0.00	Ratio:	0.00	
d. Maintenance costs:	\$ 0.00	Ratio:	0.00	
e. Supplies:	\$ 0.00	Ratio:	0.00	
f. Renewal & replacement:	(\$281.85)	Ratio:	(16.27)	
g. Miscellaneous:	\$1,724.68	Ratio:	99.57	
h. Other costs:	\$ 289.33	Ratio:	16.70	

FINANCIAL VIABILITY

- |                               |         |        |
|-------------------------------|---------|--------|
| a. Self-sufficiency:          | Budget: | 88.00  |
|                               | Actual: | 128.16 |
| b. Revenue per user instance: |         | N/A    |

C1 OTHER SERVICES - RETAIL

AVAILABILITY

- a. Population density: N/A
- b. Hours of operation: Index: N/A
- c. Service capacity: Index: N/A
- d. Quality of service capacity: Not Rated

PATRONAGE

- a. User instances: N/A
- b. Participation rate: N/A
- c. Cost per user instance: N/A

OPERATIONAL EFFICIENCY

Revenues:	\$144.55	Expense:	\$100.67	<u>%</u>
a. Budgeted revenue:	\$248.00	Variance:	41.71	(U)
b. Budgeted expenses:	\$200.00	Variance:	49.66	(F)
c. Salaries:	\$ 0.00	Ratio:	0.00	
d. Maintenance costs:	\$ 0.00	Ratio:	0.00	
e. Supplies:	\$ 0.00	Ratio:	0.00	
f. Renewal & replacement:	\$ 0.00	Ratio:	0.00	
g. Miscellaneous:	\$ 0.00	Ratio:	0.00	
h. Other costs:	\$100.67	Ratio:	100.00	

FINANCIAL VIABILITY

- a. Self-sufficiency: Budget: 124.00  
Actual: 143.59
- b. Revenue per user instance: N/A

### W3 CAMPING EQUIPMENT

#### AVAILABILITY

a. Population density:		7,174
b. Hours of operation:	1,800	Index: 20.55
c. Service capacity:	15	Index: 2.09
d. Quality of service capacity:	22/33	Adequate: 40.00%

#### PATRONAGE

a. User instances:		75
b. Participation rate:		1.05
c. Cost per user instance:		\$21.50

#### OPERATIONAL EFFICIENCY

Revenues:	\$530.05	Expense:	\$1,612.58	<u>%</u>
a. Budgeted revenue:	\$ 880.00	Variance:	39.77	(U)
b. Budgeted expenses:	\$3,352.00	Variance:	51.89	(F)
c. Salaries:	\$ 0.00	Ratio:	0.00	
d. Maintenance costs:	\$ 66.89	Ratio:	4.15	
e. Supplies:	\$ 0.00	Ratio:	0.00	
f. Renewal & replacement:	\$1,471.44	Ratio:	91.25	
g. Miscellaneous:	\$ 0.00	Ratio:	0.00	
h. Other costs:	\$ 74.25	Ratio:	4.60	

#### FINANCIAL VIABILITY

a. Self-sufficiency:		Budget:	26.25
		Actual:	32.87
b. Revenue per user instance:			\$7.07

W5 FISHING BOAT

AVAILABILITY

a. Population density:			7,174
b. Hours of operation:	312	Index:	3.56
c. Service capacity:	40	Index:	5.58
d. Quality of service capacity:			Not Rated

PATRONAGE

a. User instances:		160
b. Participation rate:		2.23
c. Cost per user instance:		\$13.67

OPERATIONAL EFFICIENCY

Revenues:	\$0.00	Expense:	\$2,186.64	<u>8</u>
a. Budgeted revenue:	\$ 0.00	Variance:	None	
b. Budgeted expenses:	\$700.00	Variance:	212.38 (U)	
c. Salaries:	\$ 60.00	Ratio:	2.74	
d. Maintenance costs:	\$811.55	Ratio:	37.11	
e. Supplies:	\$122.04	Ratio:	5.58	
f. Renewal & replacement:	\$877.69	Ratio:	40.14	
g. Miscellaneous:	\$315.36	Ratio:	14.42	
h. Other costs:	\$ 0.00	Ratio:	0.00	

FINANCIAL VIABILITY

a. Self-sufficiency:		Budget:	0.00
		Actual:	0.00
b. Revenue per user instance:			\$0.00

## W8 WINTER SPORTS EQUIPMENT

### AVAILABILITY

a. Population density:		7,174
b. Hours of operation: 450	Index:	5.64
c. Service capacity: 15	Index:	2.09
d. Quality of service capacity:		Not Rated

### PATRONAGE

a. User instances:	10
b. Participation rate:	0.14
c. Cost per user instance:	\$40.93

### OPERATIONAL EFFICIENCY

Revenues: \$70.00	Expense: \$409.34	<u>§</u>
a. Budgeted revenue:	\$ 84.00	Variance: 16.67 (U)
b. Budgeted expenses:	\$1,250.00	Variance: 67.25 (F)
c. Salaries:	\$ 0.00	Ratio: 0.00
d. Maintenance costs:	\$ 0.00	Ratio: 0.00
e. Supplies:	\$ 0.00	Ratio: 0.00
f. Renewal & replacement:	\$ 0.00	Ratio: 0.00
g. Miscellaneous:	\$ 409.34	Ratio: 100.00
h. Other costs:	\$ 0.00	Ratio: 0.00

### FINANCIAL VIABILITY

a. Self-sufficiency:	Budget: 6.72
	Actual: 17.10
b. Revenue per user instance:	\$7.00

## X1 SWIMMING POOL

### AVAILABILITY

a. Population density:		10,461
b. Hours of operation:	934	Index: 10.66
c. Service capacity:	250	Index: 2.39
d. Quality of service capacity:	63/39	Adequate: 61.76%

### PATRONAGE

a. User instances: (Closed)		N/A
b. Participation rate:		N/A
c. Cost per user instance:		N/A

### OPERATIONAL EFFICIENCY

Revenues:	\$164.25	Expense:	\$2,535.16	<u>8</u>
a. Budgeted revenue:	\$ 0.00	Variance:	100.00	(F)
b. Budgeted expenses:	\$8,004.00	Variance:	68.33	(U)
c. Salaries:	\$ 14.72	Ratio:	0.58	
d. Maintenance costs:	\$1,873.99	Ratio:	73.92	
e. Supplies:	\$ 0.00	Ratio:	0.00	
f. Renewal & replacement:	\$ 646.45	Ratio:	25.50	
g. Miscellaneous:	\$ 0.00	Ratio:	0.00	
h. Other costs:	\$ 0.00	Ratio:	0.00	

### FINANCIAL VIABILITY

a. Self-sufficiency:		Budget:	0.00
		Actual:	6.48
b. Revenue per user instance:			N/A

**X4 AMUSEMENT MACHINES  
(COMPUTER CLUB)**

**AVAILABILITY**

a. Population density:		2,957
b. Hours of operation:	Index:	N/A
c. Service capacity:	Index:	N/A
d. Quality of service capacity:		Not Rated

**PATRONAGE**

a. User instances:	N/A
b. Participation rate:	N/A
c. Cost per user instance:	N/A

**OPERATIONAL EFFICIENCY**

Revenues: \$0.00	Expense: \$233.22	<u>§</u>
a. Budgeted revenue:	\$ 0.00	Variance: None
b. Budgeted expenses:	\$402.00	Variance: 41.96 (F)
c. Salaries:	\$ 0.00	Ratio: 0.00
d. Maintenance costs:	\$ 0.00	Ratio: 0.00
e. Supplies:	\$ 0.00	Ratio: 0.00
f. Renewal & replacement:	\$187.25	Ratio: 80.29
g. Miscellaneous:	\$ 0.00	Ratio: 0.00
h. Other costs:	\$ 45.97	Ratio: 19.71

**FINANCIAL VIABILITY**

a. Self-sufficiency:	Budget: 0.00
	Actual: 0.00
b. Revenue per user instance:	N/A

F1 YOUTH PROGRAMS (BASEBALL)  
 F4 YOUTH ACTIVITIES (SOCCER)

AVAILABILITY

a. Population density:		1,934
b. Hours of operation:	250	Index: 0.03
c. Service capacity:	No Limit	Index: 100.00
d. Quality of service capacity:		Not Rated

PATRONAGE

a. User instances:	5,820
b. Participation rate:	300.93
c. Cost per user instance:	\$0.69

OPERATIONAL EFFICIENCY

Revenues:	\$4,359.94	Expense:	\$4,024.39	<u>\$</u>
a. Budgeted revenue:	\$3,689.00	Variance:	18.19 (F)	
b. Budgeted expenses:	\$3,000.00	Variance:	34.15 (U)	
c. Salaries:	\$ 0.00	Ratio:	0.00	
d. Maintenance costs:	\$ 0.00	Ratio:	0.00	
e. Supplies:	\$ 0.00	Ratio:	0.00	
f. Renewal & replacement:	\$4,024.39	Ratio:	100.00	
g. Miscellaneous:	\$ 0.00	Ratio:	0.00	
h. Other costs:	\$ 0.00	Ratio:	0.00	

FINANCIAL VIABILITY

a. Self-sufficiency:	Budget:	122.97
	Actual:	108.34
b. Revenue per user instance:		\$0.75

F3 TEEN CLUB\*

AVAILABILITY

a. Population density:		218
b. Hours of operation:	780	Index: 0.09
c. Service capacity:	40	Index: 183.49
d. Quality of service capacity:	4/6	Adequate: 40.00%

PATRONAGE

a. User instances:	1,560
b. Participation rate:	715.60
c. Cost per user instance:	\$1.24

OPERATIONAL EFFICIENCY

Revenues:	\$421.00	Expense:	\$1,928.52	<u>‡</u>
a. Budgeted revenue:	\$ 0.00	Variance:	100.00	(F)
b. Budgeted expenses:	\$4,023.00	Variance:	52.14	(F)
c. Salaries:	\$1,726.32	Ratio:	89.53	
d. Maintenance costs:	\$ 0.00	Ratio:	0.00	
e. Supplies:	\$ 0.00	Ratio:	0.00	
f. Renewal & replacement:	\$ 0.00	Ratio:	0.00	
g. Miscellaneous:	\$ 225.70	Ratio:	11.70	
h. Other costs:	(\$ 23.50)	Ratio:	(1.22)	

FINANCIAL VIABILITY

a. Self-sufficiency:	Budget: 0.00
	Actual: 21.83
b. Revenue per user instance:	\$0.27

E7 CHILD CARE CENTER

AVAILABILITY

a. Population density:		1,353
b. Hours of operation:	3,258	Index: 37.20
c. Service capacity:	103	Index: 76.13
d. Quality of service capacity:	15/20	Adequate: 42.86%

PATRONAGE

a. User instances:	8.422
b. Participation rate:	622.47
c. Cost per user instance:	\$8.60

OPERATIONAL EFFICIENCY

Revenues:	\$64,279.28	Expense:	\$72,423.59	%
a. Budgeted revenue:	\$46,340.00	Variance:	38.71	(U)
b. Budgeted expenses:	\$63,868.00	Variance:	13.40	(U)
c. Salaries:	\$65,011.17	Ratio:	89.77	
d. Maintenance costs:	\$ 122.47	Ratio:	0.17	
e. Supplies:	\$ 5,183.68	Ratio:	7.16	
f. Renewal & replacement:	\$ 980.02	Ratio:	1.35	
g. Miscellaneous:	\$ 78.19	Ratio:	0.11	
h. Other costs:	\$ 1,048.06	Ratio:	1.45	

FINANCIAL VIABILITY

a. Self-sufficiency:	Budget: 72.56
	Actual: 88.75
b. Revenue per user instance:	\$7.63

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