

A THEORETICAL MODEL FOR BUDGETING
EXPENDITURES IN COLLEGIATE ATHLETIC PROGRAMS,

by

Greig Wesley Denny,

Project submitted to the Faculty of the
Virginia Polytechnic Institute and State University
in partial fulfillment of the requirements for the degree of

MASTER OF SCIENCE

in

Physical Education

APPROVED:

M. L. Driscoll, Chairperson

M. W. Metzler

D. T. Perry

July, 1983

Blacksburg, Virginia

Table of Contents

	Page
LIST OF FIGURES	iv
INTRODUCTION	1
PURPOSE	3
DESIGN	4
REVIEW OF LITERATURE	5
Budgeting Procedures	5
Management by Objectives	6
Implementation	7
Objectives	7
Analysis and Evaluation	8
Advantages of M.B.O.	10
Disadvantages of M.B.O.	10
Summary	11
Zero-Base Budgeting	12
When to Use Zero-Base Budgeting	12
The Z.B.B. Process	13
Identifying Decision Packages	13
Alternatives and Consequences	14
Ranking and Funding Decision Packages	14
Evaluation	15
Implementation	15
Advantages of Zero-Base Budgeting	16
Disadvantages of Zero-Base Budgeting	17
Summary	17

	Page
Line-Item/Incremental Budgets	18
When to Use Line-Item/Incremental Budgets	18
The Line-Item Budgeting Process	20
The Incremental Budgeting Process	20
Advantages of Line-Item/Incremental Budgeting	22
Disadvantages of Line-Item/Incremental Budgeting.	23
Summary	24
Conclusion	24
THEORETICAL MODEL	26
Statement of Purpose and Objectives.	26
Scenario	27
Development of a Budget.	28
Sports Expenses	28
Administrative Expenses	34
Sports Expenses Formulas.	41
Administrative Expenses Formulas.	42
Evaluation	43
DISCUSSION.	44
CONCLUSION.	51
REFERENCE NOTE.	53
REFERENCES.	54

List of Figures

Figure	Page
1. The M.B.O. Cycle (Lahti, 1973, p. 64).	9
2. The Zero-Base Budgeting Process (Pyhrr, 1973, p. 3).	19
3. Example of a Line-Item Budget (Jackson, 1981, p. 214).	21
4. Chart Showing Relationships Between Management by Objectives, Zero-Base Budgeting, and Line-Item/ Incremental Budgeting.	25

Introduction

"These are the times that try mens's souls." This was a statement made by Thomas Paine in 1776 in a political pamphlet, The American Crisis, in an attempt to appeal to the American patriot and echo the sentiments of the growing conflict over the American peoples' desire for independence from the British (Magill, 1965). This statement is also applicable today in reference to the conflict and sentiments experienced by institutions and organizations struggling to maintain programs and activities under the financial constraints resulting from a suffering economy.

Over the past decade athletic programs and athletic budgets have come under growing pressure from the public and from those in administrative positions within our educational systems. This pressure is certainly not unfounded however, and has arisen from the general trend in the economy over the last ten years, along with the fact that the operating expenses for all sports programs have increased at a faster pace than the organizations' ability to pay or the funds available (Riggs, 1982).

As a result, a need has emerged within athletic circles to gain an in-depth understanding and knowledge in regard to budgets and budgeting procedures in an attempt to control and justify expenses. It is almost inevitable that in the future, those athletic programs that can not accurately formulate and structure their budgets and budgeting policy and then justify expenses, will have trouble surviving in our economically troubled times (Driscoll, 1980).

Within athletics, or within any discipline or organization, the budget should serve a number of purposes. In general the budget should reflect the goals, objectives, and philosophy of the institution. It becomes the master financial plan and should in some sense dictate what type of program will be followed. Within athletics Bucher (1971), states the budget exists for the following purposes:

1. To help prevent the misuse or waste of funds for specified programs;
2. To help involve the entire staff in formulating policy and preparing budget items in addition to setting common objectives for programs;
3. It can help make the greatest use of the facilities, personnel, and equipment that exist;
4. It can give the athletic program a purpose for existing and existing in the form it is in.

All of these purposes should serve to help make an athletic program sound, structured, and meaningful.

Purpose

The purpose of this project was to develop a theoretical model of a budgeting process that could be used or adapted to nearly any collegiate athletic program. This model combines elements of known budgeting techniques with the objective of providing justification and accountability for budgetary allocations. It was also the purpose of the model to be relatively simplistic in nature with the potential to be easily implemented in a relatively short period of time and thus it could be an effective tool for planning, developing, and evaluating athletic programs.

Design

This project follows a basic developmental approach which first involved the writing of a scenario of a collegiate athletic program. This scenario defines the scope and magnitude of the institution and includes elements that are applicable to any collegiate athletic program such as equipment, supplies, transportation, coaching salaries, promotional cost, travel cost, staff and administrative salaries, insurance cost, and maintenance cost. Once the scenario was brought together, an athletic expenditure model was formulated using elements from known and established procedures. This model focuses exclusively on expenses and does not take into account income or funding. The model is presented using a formula concept that allows for the application to any collegiate athletic program and also includes a statement of purpose and objectives, justifiable resource expenditure request, and an evaluation phase, each of which are identified and discussed in detail.

Review of Literature

Budgeting Procedures

There are a number of budget types and procedures that have been used in the financial management of educational systems and industry alike. Among those are current (operating) budgets, capital outlay budgets, program evaluation and review technique (P.E.R.T.) budgets, planning programming budgeting systems (P.P.B.S.), management by objective (M.B.O.), zero-base budgeting (Z.B.B.), and line-item/incremental budgets. It should be noted that there is no one budgeting procedure or process that will serve as a cure-all for the financial management problems in any given institution, nor is any one budgeting procedure mutually exclusive of the others. In fact, there are certain stages that are common to many budgeting processes in some form. As stated by Jackson (1981), these include:

1. Determining objectives;
2. Designing programs and considering alternatives;
3. Actual budgeting and resource allocation;
4. Execution of programs; and,
5. Evaluation of results (p. 217).

Each of these elements serves to strengthen the budgeting process making it sound, quantifiable, and justifiable, thus making it a more effective and useful tool in making financial decisions.

In any case, a thorough budgeting system is essential for athletic programs and it is only through such a structured and designed system that administrators can provide justification and be accountable for the

allocation of resources. Any one, or combination of these budgeting procedures may serve to help fulfill this overall objective so that athletic programs may continue to be funded and provide benefits for the many people they serve. For the purpose of this project three of the mentioned budgeting systems (management by objective, zero-base budgeting, and line-item/incremental budgets) will be discussed in detail.

Management by Objectives (M.B.O.)

Management by objective, commonly referred to as M.B.O., is a budgeting system in which the organization or institution establishes goals and objectives for what it is going to try to accomplish and then approaches these goals or objectives through rational decision-making processes (Lahti, 1973). This budgeting system is in contrast to straight incremental budgeting procedures that are traditionally used. The M.B.O. concept of budgeting is often used in situations where the administrator is going to be held accountable for budget expenditures and therefore must be able to justify and defend the way available resources are allocated.

Management by objective is a system that can be long-term or short-term in nature and is based on the participation and interaction of both the individual workers and the managers. It is a system that seeks personal involvement in the functions of the organization and, as a result, should support a creative environment in addition to reinforcing the idea of obtaining the best efforts from both the individual workers and management (Odiorne, 1965).

Implementation. When implementing a M.B.O. system there are a number of specific steps that should be taken. The first step in this process is identifying the central purpose and function of the organization or institution. Once identified, the central purpose and function must be generally understood and agreed upon by all individuals involved. The importance of this step cannot be overemphasized because, once agreed upon, the central purpose or mission statement, becomes the basis upon which all succeeding steps are built (Odiorne, 1965).

Objectives. The next step in the M.B.O. system is the development of specific goals and objectives for the upcoming year or years. After these objectives have been identified they should be agreed upon by a majority of the people involved in the process. A subset of this step requires that each subunit within the institution (physical education, athletics, math, science, English) define it's objectives and state how it's purpose relates to the central purpose of the institution. These objectives for the upcoming year are stated in measureable terms with specific deadline dates for their achievement (Lahti, 1973).

Once the objectives have been established the next step in the implementation of an M.B.O. system requires the subordinate and the supervisor review and discuss stated objectives until mutual agreement is reached (Austin, 1981). After agreement is reached the objectives are prioritized and the amount of money tied to each objective is determined along with the criteria for evaluation. The supervisor and subordinate then agree on a specific date schedule for the purpose of reviewing progress.

Analysis and evaluation. The final stage of the M.B.O. system is an analysis and evaluation of what has been done. At the end of the year a report summarizing the major accomplishments and the differences between achieved results and expected results is prepared by the subordinate and discussed jointly by the supervisor and the subordinate. Following this a new set of objectives is established for the next year and long-range objectives are reviewed and adjusted according to the accomplishments made in the present year. After the completion of this stage a new commitment is made to a new or revised set of objectives and the M.B.O. system begins a new cycle (see Figure 1).

Though quite structured in its approach, management by objective is not a totally inflexible system (Lahti, 1973). The M.B.O. system should serve as an administrative framework that can be modified if and when needed. If one of the stated objectives proves to be too difficult, costly, unrealistic, or inappropriate the administrator and subordinate can discuss the situation and make appropriate changes so the objective becomes realistic and fits back into the general framework of the budget.

The strength of the M.B.O. system is in the reliance on stated and agreed upon objectives. According to Lahti (1973, p. 55), the underlying argument for M.B.O. is that, "...the clearer the idea one has of what he is trying to accomplish, the greater the chances of accomplishing it," which in the end fosters better performance. Therefore, it is the planning process, the stating of goals and objectives, where constant effort is directed in the M.B.O. process.

Advantages of M.B.O. Management by objective, like any budgeting procedure or system of management, has it's advantages and disadvantages. Some of the advantages identified by Lahti (1973), include the following:

1. "M.B.O. has built-in provisions for establishing motivation toward organization objectives as objectives are individually oriented thus providing a constant challenge to continually strive to meet defined objectives" (p. 14).

2. Feedback that is provided from performance reviews serves as a basis for self-development, increases the individual's chances for future success, and increases the individual's satisfaction with self-improvement.

3. In establishing objectives, the encouragement of creativity allows for greater flexibility, new ideas, inspirational thinking, and brainstorming by the individual workers.

4. Individuals are often more committed to their work because they are involved in the actual decision-making and formulation of objectives.

5. It is a goal-oriented process that is not only concerned with what goes in but also what you get out. It establishes a link between inputs and outputs.

6. "Through group involvement a maximum amount of information can be gathered before setting objectives or making decisions" (p. 14).

Disadvantages of M.B.O. The M.B.O. system is also not without it's faults and potential pitfalls. Odiorne (1965), identifies four major limitations of the M.B.O. system:

1. The system does not appraise and identify potential, thereby placing the burden on a supervisor to assess lack of results in light of his responsibility for coaching and development.

2. The system presumes the man and his boss will together establish suitable standards that will serve the company well.

3. It implies that the boss understands his limitations and will refrain from playing God.

4. In action, the system stresses results and does not provide methods of achieving them (p. 178).

Additional limitations of M.B.O., identified by Lahti (1973), include the following:

5. M.B.O. is not an easy system to implement. It may take three to five years to implement and once in effect it requires a strong commitment.

6. Objectives may not be defined properly and thus may be impossible to evaluate and measure.

7. Problems may arise in the subordinate and supervisor coming to agreement on a set of objectives for the year.

Summary. In summary, management by objective is not a flawless system, however, it is a system that can prove to be beneficial in the administration of a budget. Knezevich (1969), summarizes M.B.O. as a system in which, "...budget allocations are based on a series of objectives, set up, carried out, and constantly re-evaluated to determine if funds are being allocated properly to obtain stated goals and objectives." (p. 438). Thus with hard work and commitment to the system, M.B.O. can

be a valuable tool that can be used by the administrator as a guide for developing a sound budgeting process. Additionally, the M.B.O. process has the built-in benefit of providing justification and accountability for resource expenditures, giving the budget added purpose and meaning.

Zero-Base Budgeting

Zero-base budgeting is a technique that is used in business and education. Peter Pyhrr originated the concept of the zero-base budget, often called Z.B.B., and defines it as,

An operating planning and budgeting process which requires each manager to justify his entire budget request in detail from scratch and shift the burden of proof to each manager to justify why he should spend any money at all. This approach requires that all activities be identified in "decision packages" which will be evaluated by systematic analysis and ranked in order of importance (Jackson, 1981, p. 215).

In other words, the Z.B.B. concept provides a structured and systematic approach for allocating money and justifying expenses that are made.

When to use zero-base budgeting. Zero-base budgeting can be used in a number of situations but it may be particularly useful under certain circumstances. As with M.B.O., zero-base budgeting provides justification for expenses that are made and therefore, it is most useful in situations where this must be done. Z.B.B. is also useful in situations where existing programs have not been questioned for some time and may need to be re-evaluated to determine their priority in relation to other programs (Underkoffler, 1979). Another situation when zero-base budgeting would be useful would be in an organization where needs are constantly changing. By the nature of the Z.B.B. process these changing

needs are routinely assessed and evaluated. Finally, zero-base budgeting is useful in situations where an organization has limited resources and must prioritize components of the budget to determine how the resources will be allocated. In general the Z.B.B. concept is useful in situations where programs require routine and systematic evaluation to justify or rejustify their existence within an organization or any time a cost/benefit relationship can be identified (Pyhrr, 1973).

The Z.B.B. process. The zero-base budgeting procedure involves two main steps (Pyhrr, 1973). The first step is developing "decision packages" which involves analyzing and describing discrete activities that will be considered in the budget. The second step is ranking decisions packages which involves evaluating and ranking these packages in order of importance through cost/benefit analysis or subjective evaluation. Each of these steps warrants further discussion.

Identifying decision packages. In developing decision packages the main concept is to identify and describe specific activities in such a manner the management can evaluate and rank them against other activities competing for limited resources, and decide whether to approve or disapprove the package (Pyhrr, 1973). Thus, each decision package must provide management with all needed information for such an evaluation.

When identifying these activities a number of factors must be taken into account. The first of these factors is the purpose or objectives of the organization. The activities within any given decision package should fit into and support the overall objectives of the organization. Another factor related to these objectives is measures of performance.

Regardless of what the objectives are there should be some means of measuring performance to determine if the objectives are met. These two factors are analogous to the first stage common to many budgeting procedures, that being the determining of objectives with some type of measurement criteria.

Alternatives and consequences. Other factors that must be taken into account are consequences of not performing the activity and alternative courses of action. These factors force the manager to broaden his view by considering all alternatives and the potential consequences of each. By doing this, all possible activities should be considered thus preventing potentially important factors from being left out, while at the same time allowing for the best alternative in any given situation to be chosen. This concept of alternatives and consequences of activity is an element common in other budgeting procedures such as planning programming budgeting systems and management by objective.

A final factor that should be taken into account when identifying activities for decision packages is cost and benefits. In this stage the manager is concerned with the predicted budget and resource allocation for the described activities and the benefits to be derived. This stage is where the link between inputs and outputs is determined in the zero-base budgeting system.

Ranking and funding decision packages. Once decision packages have been identified the next step is ranking these decision packages. The ranking process is basically a technique for determining how resources will be allocated. In this step the question of How much should be

spent? and Where should it be spent? are the main concerns. All identified decision packages should be listed in order of decreasing benefit or importance to the organization, yielding a prioritized list of packages to be considered for funding (Underkoffler, 1979). The manager can then determine which decision packages will be funded during the coming fiscal year according to these priorities and the needs of the organization. This is where the actual budgeting and resource allocation within the Z.B.B. system takes place and money becomes directly tied to decision packages.

Evaluation. Once funded these decision packages operate for a given period of time (usually one year) after which there is an evaluation of results. A program or activity is evaluated as to it's success, goal achievement, and importance for the next year (Pyhrr, 1973). If it is still important it will probably remain high on the priority list for funding for the next year while if it becomes less important it will likely move down on the priority list and be replaced by another program of higher importance. In this way those decision packages that are most important to the organization will always have a high priority for funding.

Implementation. The zero-base budgeting system is fairly straight forward and simple in it's approach, however, it's implementation is time consuming. The implementation of the process into an organization requires that specific factors be present. According to Underkoffler (1979), those factors include the following:

1. That organizational goals and objectives be clearly stated, understood, and reflected in each decision package.
2. That criteria exist for measuring performance vs. goals.
3. An accounting system capable of generating needed financial and budgeting data.
4. A professional with the ability to guide and coordinate the Z.B.B. process.

If these factors are present the Z.B.B. process can be implemented effectively and generate maximum usefulness. If these factors are not present the implementation of the Z.B.B. system may be an exercise in futility.

Advantages of zero-base budgeting. As previously stated, zero-base budgeting is a system that is applicable in a number of different situations across a number of different settings. However, the system is not a cure-all for the economic problems of an organization and like any other system, has its benefits and limitations. Some of the benefits of Z.B.B. identified by Underkoffler (1979) and Pyhrr (1973) are:

1. All proposed activities are identified, evaluated, and justified. This helps to bring increased clarity and accountability to the budget.
2. Flexibility is provided through individual decision packages which can be altered as compared to an organization-wide budget.
3. It forces the identification of goals and listing of priorities.
4. It provides a link between inputs and outputs.

5. It prevents the waste or misuse of funds by justifying all expenditures starting from zero each year.

6. Outdated programs can be identified and replaced by higher priority programs.

Disadvantages of zero-base budgeting. Like other systems, zero-base budgeting must be implemented and operated properly for it to be successful. Aside from this fact there are other limitations that arise in the Z.B.B. system. Some of these limitations are:

1. Individual bias may come into play when ranking decision units.
2. Difficulties may arise in justifying long-standing and established programs.
3. Some programs or decisions packages may receive no funds.
4. Organizational goals may be unclear or inadequate.
5. It requires a staff that understands and can effectively operate the system (Underkoffler, 1979).

Summary. Though Z.B.B. is not a management system per se, it is a system that can reinforce or strengthen existing management techniques. Often the Z.B.B. concept is used in combination with other management techniques, such as M.B.O., as a means of reinforcing and providing further justification for existing programs or programs planned for the future. The key element in the Z.B.B. process lies in the fact that each year every existing program along with any new programs, must start from zero and identify, evaluate, and justify the purpose for it's existence. By doing this, there is greater assurance that the programs and decision packages that are funded are the ones that are up-to-date,

necessary, and in line with the goals and objectives of the organization. If this is done and the Z.B.B. system is implemented effectively, it can be a valuable tool for the manager or administrator to plan, control, and justify expenditures within an organization or institution (see Figure 2).

Line-Item/Incremental Budgets

Line-item budgeting is the oldest, most common, and traditional form of budgeting (Carey, 1983). It differs significantly from the two previously discussed budgeting procedures in that it is not a systematic process-oriented budget, but is more simplistic and straight forward in nature. However, the line-item and incremental techniques have been used predominantly in the past and are still used extensively today (Pattillo, 1977). The incremental phase is merely an adaption to the line-item budget and it will be discussed in conjunction with line-item budgets.

When to use line-item/incremental budgeting. Line-item and incremental budgeting techniques are often used when there is a need for simplicity and clarity in the budgeting procedure. These procedures do not require a long or extremely time-consuming process that must be coordinated by someone with advanced training in budgeting techniques. Line-item or incremental budgeting may also be used when it is not necessary for an institution to justify or be specifically accountable for expenditures.

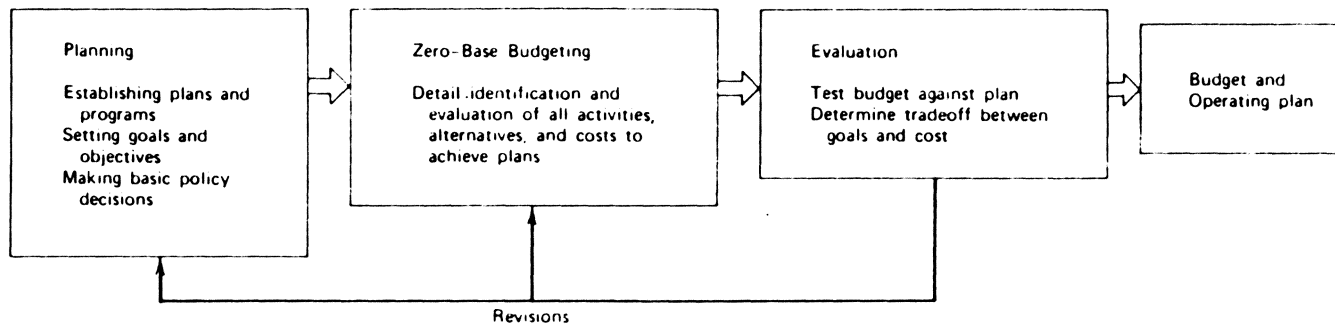


Figure 2. The zero-base budgeting process (Pyhrr, 1973, p. 3).

The line-item budgeting process. The line-item budgeting procedure is quite simple and straightforward in nature. In general it is a budget that lists objects to be purchased and salaries to be paid (Jackson, 1981). The end result is a break-down of a department or program into its individual components, and the cost of those individual components. This would include such elements as transportation, supplies, equipment, salaries, building use, custodial services, insurance, and promotional cost. Appropriations for a coming year are determined by looking at the actual expenses for the two or three previous years and then arriving at a figure that should cover expenses for the coming year. In times of inflation the manager may adjust these figures to meet rising expenses, or, in poor economic times, the manager may be forced to cut these expenses to meet set budget expenditures. In comparison to the two budgeting procedures already described in which resource allocation is dependent on program and organizational objectives, the validity of a request in a line-item budget "is judged on the basis of comparison with previous expenditure experience" (Jackson, 1981, p. 213). In line-item budgeting there is the assumption that the existing base is justified and therefore attention is directed to the changes that occur between the existing budget and the proposed budget for the future (see Figure 3).

The incremental budgeting process. Incremental budgeting is similar to line-item budgeting and often the two are used synonymously or in conjunction with one another. The basic structure of the incremental budget is the same as the line-item budget where individual components

TABLE V
EXAMPLE LINE-ITEM BUDGET

Account Number	Account Title	1978 Actual	1979 Actual	1980 Appropriations
14-100 ¹	<i>Recreation Department</i>			
01 ²	Salaries	200,000	225,000	250,000
02	Heat and light	8,000	8,500	8,750
03	Telephone	2,800	2,870	2,900
04	Mail	1,800	1,900	1,950
05	Travel and training	5,000	5,000	5,600
06	Printing	500	481	560
07	Supplies (expendable)	2,500	2,600	2,700
08	Equipment	3,000	3,000	3,000
09	Towels and laundry	1,000	1,200	1,400
10	Dues	400	400	450
11	Medical supplies	300	400	500
12	Advertising	1,000	1,100	1,200
14	Books and periodicals	150	160	175

NOTES

¹This number identifies for accounting purposes, the faculty and the department or the city department.

²This minor code number identifies the object. Often, further minor code subdivisions are used and the supporting folios would explain and try to justify the proposed expense.

Figure 3. Example of a line-item budget (Jackson, 1981, p. 214).

of a program or department are broken down and placed on a list. After this list is established, the previous year's expenditures are examined and an increment (additional amount) is added to arrive at a budget figure for the upcoming year. This procedure results in a continually upward-sloping expenditure line containing few declines or breaks (Patillo, 1977). In incremental budgeting, as in line-item budgeting, attention is directed to the changes that occur between the existing budget and the proposed budget for the future, along with the assumption that the existing base is justified.

The rationale behind this approach is that it is impossible to predict exactly what is going to happen in the future, so it is better to move in small incremental steps, as opposed to the greater risk involved in taking larger steps associated with major policy changes (Patillo, 1977). This helps to make the conservative manager comfortable and confident and will help to avoid making mistakes as a result of trying to do too much too soon or moving away from the tenets of an established budgeting procedure.

Advantages of line-item/incremental budgeting. The line-item or incremental budgeting procedure is one that can be used by itself or in combination with other budgeting processes. In either case, both advantages and disadvantages are involved. Some of the advantages of using line-item or incremental budgeting are:

1. It is an easy and simple budgeting procedure to use.
2. It is less time-consuming than many other budgeting procedures.
3. It does not require extensive knowledge of budgeting or management concepts to work successfully.

4. It provides a complete and visible breakdown of the individual components of a budget.

5. It does not necessarily require group involvement or commitment to work effectively (Pattillo, 1977).

Disadvantages of line-item/incremental budgeting. Line-item and incremental budgets also have a number of limitations which may hinder their effectiveness or usefulness within an organization. Some of the limitations of line-item and incremental budgets include the following:

1. The whole budget is not examined. The main focus of attention is the marginal difference between the existing budget and the proposed budget for the future.

2. In light of number one, it assumes that existing budgets are justified and therefore there is no routine evaluation to determine if this is true or not.

3. It provides no link between inputs and outputs, or cost and benefits.

4. It is not based on objectives nor is it goal-oriented in nature. Thus, if it is not known what is trying to be achieved, it is very difficult to achieve it.

5. It does not provide for justification or accountability of allotted expenditures.

6. There is no routine or systematic method of analysis and evaluation and therefore it is impossible to determine if the process is effective or if it is doing what it is supposed to do (Pattillo, 1977; Carey, 1983).

Summary. In summary, the line-item and incremental budgeting procedures can be quite useful when a quick and easy budgeting system is needed, however, they do not provide for the elements of justification and accountability. Therefore, if justification and accountability are to be part of a budgeting process, line-item/incremental budgeting will have to be used in conjunction with other budgeting processes that account for these elements. If these elements are not required, the line-item or incremental budgeting procedure may prove to be the easiest, fastest, and most appropriate way to set up a budget.

Conclusion

Each of the budgeting techniques discussed is unique in it's own way and yet each also has elements that are common to each other. A thorough understanding of these techniques and the advantages and disadvantages of each will help the administrator or manager to implement a budgeting system that will be effective, appropriate for the situation, and meet the needs and objectives of the organization or institution. A chart summarizing the budgeting techniques that have been discussed is presented on the next page (see Figure 4).

	Management by Objectives	Zero-Base Budgeting	Line-Item/ Incremental Budgeting
1. Objective Based	Yes	Yes	No
2. Time Required to Implement	3-5 yrs.	2-3 yrs.	1 yr.
3. Complexity	involved	moderate	simplistic
4. Accountability	Yes	Yes	No
5. Justification	Yes	Yes	No
6. Group Involvement	required	probably	optional
7. Background Knowledge by Administrator	considerable	moderate	little
8. Analysis and Evaluation	Yes	Yes	No
9. Flexibility	Yes	Yes	No
10. Links Outputs to Inputs	Yes	Yes	No

Figure 4. Chart showing relationships between management by objectives, zero-base budgeting, and line-item/incremental budgeting.

Theoretical Model

Statement of Purpose and Objectives

The first step in this theoretical model is to identify a central purpose and function of the organization or institution. This step is common to the management by objective and zero-base budgeting techniques. In the process of identifying this central purpose and function, all of the individual athletic programs involved, along with the institution as a whole, should be given optimum consideration. This should result in the formation of a central purpose and function that relates to the needs of both the institution and the individual programs that are a part of the institution. Once identified, this central purpose and function should be understood and agreed upon by the individuals involved in the process.

The next step in the theoretical model involves the stating of long-term and short-term objectives. These objectives will serve as a basis for the distribution of finances over the coming years. Long-term objectives should include changes that are expected, or goals to be achieved, two or more years into the future. These objectives might include adding new athletic teams, increasing the number of scholarships offered, improving team won/loss records, increasing ticket sales, constructing new facilities or renovating existing ones. Short-term objectives should include changes that are expected, or goals to be achieved, during the next year. Examples of short-term objectives may be recruiting a new quarterback, winning seventy-five percent of games.

developing plans for a new facility, or purchasing new uniforms for a team.

In either case, the objectives should relate to the central purpose and function of the institution and serve as a basis for the allocation of resources. These objectives should be developed by the coaches of the individual programs within the institution and then agreed upon by both the individual program coaches and the athletic administrator.

Scenario

The National Collegiate Athletic Association (NCAA) standards and regulations for Division I schools will be used as the scenario for this model. The NCAA establishes specific criteria and guidelines for membership to Division I which include the following: (NCAA Manual, 1982-83)

1. A limit on the number of scholarships that can be offered.
2. The institution must sponsor a minimum of eight varsity intercollegiate sports (p. 111).
3. The institution must schedule and play at least sixty percent of its football games against members of Division I-A Football (p. 112).

The budget in this theoretical model will be divided into two sections: one for sports expenses, and one for administrative expenses. According to Perry (Note 1), these two categories are broken down in the following way. Sports expenses include equipment (game, practice, and maintenance of), transportation, supplies, salaries and wages, travel expenses, recruiting expenses, individual insurance, laundry, and entertainment. Administrative expenses include promotional cost and advertising, salaries and wages, liability insurance, facility

maintenance, entertainment, and capital improvements. All of these elements are discussed during the process of developing the athletic budget.

Development of a Budget

Developing an athletic budget in this theoretical model involves addressing the elements within the sports expenses and administrative expenses sections of the budget referred to in the scenario. Each of these elements is discussed and then integrated into a formula in which monetary figures could later be substituted. During the development of the budget a cost-per-athlete expenditure will be calculated. This will be done by adding all of the expenses from the previous year for each element and dividing this total by the number of athletes on a team. This figure, when considered along with an inflationary figure, could then be used to project budget expenditures for the next year.

Sports expenses. Sports expenses include those expenses that are directly related to the specific sports programs within the athletic department. In the process of developing a budget each coach must identify budget request from each element under this section of the athletic budget. Once completed, the individual items within each element of the budget will be prioritized from most important to least important which adds flexibility into the budgeting process. The first element under sports expenses is equipment. Equipment is broken down into subdivisions of game equipment, practice equipment, and maintenance of equipment. Game equipment refers to equipment that would be needed or used during an actual game or competition. This would include individual equipment and clothing, and equipment relevant to the game or sport

itself. This would be represented in the budget by calculating the cost-per-athlete for game equipment and multiplying by the total number of athletes on the team. In a formula this would be represented as:

$$\text{cost-per-athlete for game equipment} \times \text{total number of athletes on a team} = \text{total game equipment expense}$$

Further explanation and examples of this formula are alluded to in the discussion section of this model.

Practice equipment would include equipment that is used during actual practice time such as individual equipment and clothing, and equipment that is relevant to the game itself such as balls and other equipment used in drills. Practice equipment would be represented in the budget by calculating the cost-per-athlete for practice equipment and multiplying by the total number of athletes on a team. This could also be shown by the following formula:

$$\text{cost-per-athlete for practice equipment} \times \text{total number of athletes on a team} = \text{total practice equipment expense}$$

This formula is also explained further in the discussion of this model.

Maintenance of equipment refers to the cost attached to the work that must be done to maintain practice or game equipment in acceptable condition. This would include repair, upkeep, or replacement of equipment used for practice or games and repair, upkeep, or replacement of individual equipment and clothing used in practice and in games. The cost of maintenance of equipment would be determined by calculating the cost-per-athlete for equipment maintenance and multiplying by the total

number of athletes on a team. This would be represented by the following formula:

$$\text{cost-per-athlete for equipment maintenance} \times \text{total number of athletes on a team} = \text{total equipment maintenance expense}$$

Transportation is another element that comes under sports expenses. This would include getting to and from games, scrimmages, or practices, and transportation for administrative purposes. Transportation expenses would be determined by calculating the cost-per-athlete for transportation and multiplying by the total number of athletes on a team. In a formula this would be represented as:

$$\text{cost-per-athlete for transportation} \times \text{total number of athletes on a team} = \text{total transportation expense}$$

Recruiting is another element that comes under sports expenses. Recruiting expenses include those expenses incurred from trying to attract athletes to participate in an athletic program. This would include travel and lodging cost for both coaches and interested athletes, meal cost, phone cost, and postage cost. Recruiting expense would be represented in the budget by calculating the average cost of recruiting one athlete and multiplying by the total number of athletes to be recruited. This could also be represented by the following formula:

$$\text{average cost of recruiting one athlete} \times \text{total number of athletes to be recruited} = \text{total recruiting expense}$$

The next element in the budget is supplies. Supplies refer to those tangible items or services that are used in different sports but are not necessarily specific to any given sport. Supplies include items such as film, medical supplies, game or practice refreshments, books, and coaching aids. The cost of supplies would be determined by calculating the cost-per-athlete for supplies and multiplying by the total number of athletes on a team. This would be represented in a formula in the following way:

$$\begin{aligned} &\text{cost-per-athlete for supplies} \times \text{total number of athletes} \\ &\text{on a team} = \text{total expense for supplies} \end{aligned}$$

The next element coming under sports expenses is salaries which include salaries of full-time and part-time coaching staff, managers, trainers, and secretaries and other staff. Since there may be a substantial difference in salaries for these people, a separate formula will be used for each group. Expenditures for salaries will be determined by calculating the average salary for each coach, manager, trainer, or secretary, adding the average benefits cost for each person and then multiplying this figure by the total number of coaches, managers, trainers, or secretaries. These costs would be represented by the following formulas:

$$\begin{aligned} &\text{average salary per coach} + \text{average benefits cost} \\ &\times \text{total number of coaches} = \text{total salary for coaches} \end{aligned}$$

$$\begin{aligned} &\text{average salary per manager} + \text{average benefits cost} \\ &\times \text{total number of managers} = \text{total salary of managers} \end{aligned}$$

average salary per trainer + average benefits cost
 x total number of trainers = total salary for trainers

average salary per secretary (other staff) + average benefits
 cost x total number of secretaries (other staff) = total
 salary for secretaries (other staff)

Wages are an element in the budget that follow the same basic pattern as salaries. Wages refer to the money paid on an hourly basis to those providing some service. Wage earners may include ticket takers and sellers, security people, parking attendants, and clerical workers. Cost for wages would be determined by calculating the average wage-per-hour for these workers and multiplying by the number of hours worked and the total number of workers. This cost could also be represented by the following formula:

average wage-per-hour-per-worker x total number of hours
 worked x total number of workers = total wage expenses

The next item that comes under sports expenses is travel expenses. Travel expenses include room and board expenditures for a team on a road trip or expenses for post-season or tournament play. Travel expenses will be broken down into two separate categories, a formula for meals and for lodging. Meal expenses would be determined by establishing a maximum allowance for each meal of the day (breakfast, lunch, dinner), and multiplying by the total number of meals in a season and the total number of athletes on a team. When calculating meal expenses the coach must determine the number of breakfasts, lunches, and dinners that will

be required as the allowance for each of these meals may vary substantially. Lodging expenses would be determined by establishing a maximum allowance-per-person-per-night for lodging and multiplying by the total number of nights in the season lodging would be required and the total number of athletes on a team. These expenses would be represented by the following formulas:

$$\begin{aligned} & \text{maximum allowance for meals (breakfast, lunch, dinner)} \\ & \times \text{ total number of meals in a season (breakfast, lunch,} \\ & \text{dinner)} \times \text{ total number of athletes} = \text{total expense} \\ & \text{for meals} \end{aligned}$$

$$\begin{aligned} & \text{maximum allowance-per-person-per-night for lodging} \times \\ & \text{total number of nights required in a season} \times \text{total} \\ & \text{number of athletes} = \text{total expense for lodging} \end{aligned}$$

Individual insurance is another element that is part of sports expenses in the athletic budget. Individual insurance refers to the insurance for the individual athletes in case of injury or harm during participating. Cost of individual insurance will be determined by calculating the cost-per-athlete and multiplying by the total number of athletes on a team. In a formula this would be represented as:

$$\begin{aligned} & \text{cost-per-athlete for individual insurance} \times \text{total number} \\ & \text{of athletes on a team} = \text{total cost of individual insurance} \end{aligned}$$

The next element under sports expenses is laundry. This includes laundering of towels, daily individual practice clothes, and game

clothes. Cost would be determined by calculating the cost-per-athlete-per-laundry and multiplying by the total number of athletes and the total number of laundries. This cost would be represented by the following formula:

$$\begin{aligned} & \text{cost-per-athlete-per-laundry} \times \text{total number of athletes} \\ & \times \text{total number of laundries} = \text{total laundry expense} \end{aligned}$$

Entertainment is the last element under the heading of sports expenses. Entertainment includes those services and privileges provided before, during, and after contest, or on other occasions, which people engage in for enjoyment. Cost for entertainment can be determined by calculating the average-expense-per-person for each occasion in which entertainment is provided and multiplying this by the number of occasions that are expected to take place and the number of people to be entertained. In a formula this would be represented by:

$$\begin{aligned} & \text{average-expense-per-person-per occasion} \times \text{total number} \\ & \text{of occasions} \times \text{total number of people} = \text{total expense} \\ & \text{for entertainment} \end{aligned}$$

The combination of these elements constitutes the sports expenses section of the athletic budget. Regardless of the specific sports any particular college or university has, these elements can still be used to develop a budget for the sports that do exist. This is done by adding the total expenses from each of the elements presented.

Administrative expenses. Administrative expenses refer to those expenses that are not attributed to the specific sports programs

themselves. The first item in this section of the athletic budget is promotion and advertising. This includes the promotion of athletic teams through radio, television, newspapers, public appearances, team programs, and brochures. Promotional cost will be determined by calculating the average cost of each promotional advertisement by each media and multiplying by the estimated number of advertisements to be used by each media during the year. These costs could be represented by the following formulas:

$$\text{average cost-per-advertisement by radio} \times \text{estimated number of advertisements needed} = \text{total promotional cost for radio}$$

$$\text{average cost-per-advertisement by television} \times \text{estimated number of advertisements needed} = \text{total promotional cost for television}$$

$$\text{average cost-per-advertisement by newspaper} \times \text{estimated number of advertisements needed} = \text{total promotional cost for newspaper}$$

$$\text{average cost-per-brochure} \times \text{total number of brochures} = \text{total promotional cost for brochures}$$

$$\text{average cost-per-program} \times \text{number of different programs} \times \text{total number of programs} = \text{total promotional cost for programs}$$

Another item that is part of administrative expenses is salaries and wages. Salaried employees would include those in athletic administration,

the promotions department, the sports information department, student aid, and secretarial/clerical. Each of these departments may also have employees working on a wage scale making that form of compensation an applicable part of the administrative expenses portion of the athletic budget. Cost for salaries would be determined by calculating the average salary-per-employee, adding the average benefits cost, and multiplying by the total number of salaried employees. Cost for wages would be determined by calculating the average wage-per-employee-per-hour and multiplying by the number of hours worked and the total number of employees paid on a wage basis. These expenses would also be represented by the following formulas:

$$\text{average salary-per-employee} + \text{average benefits cost} \times \\ \text{number of salaried employees} = \text{total salary expense}$$

$$\text{average wage-per-employee-per-hour} \times \text{number of hours} \\ \text{worked} \times \text{number of wage scaled employees} = \text{total wage} \\ \text{expense}$$

Facility liability insurance is another factor that comes under the administrative expenses section of the athletic budget. This insurance is needed to protect the athletic department and staff in the event a lawsuit is brought against the coaching staff, the athletic facility, the athletic department, or the institution itself. Cost for facility liability insurance is determined by the premiums set by individual insurance companies. As these premiums increase, the cost of facility liability insurance will increase. Though facility liability insurance

is not represented in a formula, it is an important element that must be calculated into the total athletic budget.

Facility maintenance also comes under administrative expenses and refers to the upkeep and maintenance of athletic facilities such as gymnasias, locker and shower rooms, and practice and game fields. Facility maintenance will be broken down into salary expenses, wage expenses, utility expenses, and facility maintenance supplies. Salary expenses would include the cost of salaried employees responsible for maintenance of athletic facilities. Cost for salaries would be determined by calculating the average salary-per-worker, adding the average benefits cost, and multiplying by the total number of salaried maintenance workers. This could also be represented by the following formula:

$$\begin{aligned} & \text{average salary-per-maintenance worker} + \text{average benefits} \\ & \text{cost-per-worker} \times \text{total number of salaried workers} = \\ & \text{total salary expense of maintenance workers} \end{aligned}$$

Wage expenses include the cost of wage-based employees involved in facility maintenance. Employees in this category may include workers who set up or prepare for athletic contest, workers who clean up and do post-game maintenance, or workers that are involved in the daily maintenance of athletic facilities. Cost for wages will be determined by calculating the average wage-per-employee-per-hour and multiplying by the number of hours worked and the total number of wage-scaled employees. In a formula this would be represented as:

average wage-per-hour-per employee x number of hours
 worked x number of wage-scaled employees = total
 wage expense for facility maintenance

Utility expenses would consist of the actual cost for operating a facility. This would include expenses for electricity, water, and heat. Utility expense would be determined by calculating the cost-per-hour for utilities and multiplying by the estimated number of hours the utilities will be needed. In a formula this would be represented by:

cost-per-hour for utilities x estimated number of hours
 utilities will be needed = total expense for utilities

The last part of facility maintenance is maintenance supplies. This would include supplies, equipment, and machinery that is used in the regular maintenance of athletic facilities. Cost of maintenance supplies will be determined by calculating the cost-per-athlete for supplies and multiplying by the total number of athletes. This could also be represented by the following formula:

cost-per-athlete for supplies x total number of athletes
 = total facility maintenance supplies expense

Entertainment is an item found both in the sports expenses and administrative expenses sections of the athletic budget. As part of the administrative expenses section of the budget, entertainment refers to those occasions or social gatherings that are not specific to any one sports program. This may include such events as an all-sports banquet,

a promotional dinner, or an awards banquet. Entertainment cost could be determined by calculating the estimated cost-per-hour-per-person for entertainment and multiplying by the projected number of hours and the number of people for which entertainment would be needed. In a formula this may be expressed as:

$$\begin{aligned} & \text{cost-per-hour-per-person for entertainment} \times \text{projected} \\ & \text{number of hours} \times \text{projected number of people} = \text{total} \\ & \text{expense for entertainment} \end{aligned}$$

The last item under administrative expenses is capital improvements. Capital improvements refer to improvements or renovations involving land, buildings, sports fields, or equipment. Capital improvements are usually long-term projects and therefore their cost is spread over a relatively long period of time. Capital improvements would also include incidental, one-time expenses, and unforeseen expenditures that may not be projected into the other budgetary elements. Determining cost of capital improvements for a one year period can be done by dividing the total cost of capital improvements by the number of years projected until completion. This could be represented by the following formula:

$$\begin{aligned} & \text{total cost of capital improvements} \div \text{number of years} \\ & \text{projected for completion} = \text{cost of capital improvements} \\ & \text{for one year} \end{aligned}$$

The addition of the expenses from each of these items will lead to the projected administrative expenses of the athletic budget. The combination of the administrative expenses and the sports expenses will

result in the total projected athletic budget for the coming year. A summary of the formulas from each section of the budget is presented on the following pages.

Sports Expenses

cost-per-athlete for game equipment x total number of athletes on a team = total game equipment expense

cost-per-athlete for practice equipment x total number of athletes on a team = total practice equipment expense

cost-per-athlete for equipment maintenance x total number of athletes on a team = total equipment maintenance expense

cost-per-athlete for transportation x total number of athletes on a team = total transportation expense

average cost of recruiting one athlete x total number of athletes recruited = total recruiting expense

cost-per-athlete for supplies x total number of athletes on a team = total expense for supplies

average salary-per-coach + average benefits cost x total number of coaches = total salary for coaches

average salary-per-manager + average benefits cost x total number of managers = total salary of managers

average salary-per-trainer + average benefits cost x total number of trainers = total salary for trainers

average salary-per-secretary (other staff) + average benefits cost x total number of secretaries (other staff) = total salary for secretaries (other staff)

average wage-per-hour-per worker x total number of hours worked = total wage expense

maximum allowance for meals (breakfast, lunch, dinner) x total number of meals in a season (breakfast, lunch, dinner) x total number of athletes = total expense for meals

maximum allowance-per-person-per-night for lodging x total number of nights required in a season x total number of athletes = total expense for lodging

cost-per-athlete for individual insurance x total number of athletes on a team = total cost of individual insurance

cost-per-athlete-per-laundry x total number of athletes on a team x total number of laundries = total laundry expense

average expense-per-person-per-occasion x total number of occasions
 x total number of people = total expense for entertainment

Administrative Expenses

average cost-per-advertisement by radio x estimated number of advertisements needed = total promotional cost for radio

average cost-per-advertisement by television x estimated number of advertisements needed = total promotional cost for television

average cost-per-advertisement by newspaper x estimated number of advertisements needed = total promotional cost for newspaper

average cost-per-brochure x total number of brochures = total promotional cost for brochures

average cost-per-program x number of different programs x total number of programs = total promotional cost for programs

average salary-per-employee + average benefits cost x number of salaried employees = total salary expense

average wage-per-employee-per-hour x number of hours worked x number of wage scaled employees = total wage expense

average salary-per-maintenance worker + average benefits cost-per-worker x total number of salaried workers = total salary expense of maintenance workers

average wage-per-hour-per-employee x number of hours worked x number of wage scaled employees = total wage expense for facility maintenance

cost-per-hour for utilities x estimated number of hours utilities will be needed = total expense for utilities

cost-per-athlete for supplies x total number of athletes = total facility maintenance supplies expense

cost-per-hour-per-person for entertainment x projected number of hours x projected number of people = total expense for entertainment

total cost of capital improvements ÷ number of years projected for completion = cost of capital improvements for one year

Evaluation

Evaluation is a critical aspect of the theoretical model if it is to be successful. After one year each of the elements making up the athletic budget will be examined. This examination should reveal if the stated objectives were met, if the budget served the purpose of the institution, and if the projected budget itself was accurate. The accuracy of the projected budget itself will be the main criterion used to evaluate the success of this theoretical model. Attempts should also be made to account for the differences in the projected expenditures and what was actually spent, and how to more accurately project these expenses in the future. Finally, once this evaluation is completed, objectives and priorities for the next year may need to be revised to bring the budget in line with the central purpose of the institution. At this point the budgeting process will have gone a full cycle and the process will begin again. Criteria for evaluation, other than above, will not be presented as part of this theoretical model, however, it should be recognized as an important part of the total budgeting process.

Discussion

The theoretical model that has been presented combines elements of established budgeting procedures that have been discussed. However, an explanation of the implementation of these elements into the theoretical model is needed. This should help to bring clarity to the model and facilitate a better understanding of how it works.

One of the most important factors in this theoretical model, if it is to be successful, is the cooperation of the individuals involved. The coach of each individual sport along with the directors of each administrative section of the athletic department play an integral role in the formation of the total athletic budget. If there is not cooperation on the part of these individuals, development of the budget will be a slow, difficult, and time consuming process.

The basic responsibility of the individuals involved in this process is to submit and justify expenses for their particular program or department. This process involves a number of steps. The first step is presented in the scenario and involves the stating of long-term and short-term objectives. These objectives should be written in terms of measurable outcomes and not only reflect the needs of the individual program, but also relate to the central purpose and function of the institution.

Once these objectives are agreed upon by both the athletic administrator and the individual coach, the development of an actual expense budget can begin. This process requires each coach to identify budget request from each section of the sports expenses part of the athletic budget. This would involve starting at zero and identifying each item

within an element (e.g. supplies), and then submitting the total number of the item needed for the next year. After establishing the total number of an item needed, the next step is to examine the inventory to determine the number of each specific item that presently exist. The difference between the number needed and the number present is the total number to be purchased for which a cost-per-item and total cost would be submitted. This would be done for each item within the specific element of the budget (e.g. supplies--paper, film, medical supplies, notebooks) to arrive at a total cost for that element. These individual items should also be prioritized from most important to least important so the highest priority items have the greatest chance of being funded. Once the total cost of a budget element is determined, this figure can be divided by the number of athletes on the team resulting in a cost-per-athlete expenditure.

Through this process of starting at zero, determining total need, and then determining expenses by the difference between what is needed and what presently exist justification for the purchase of additional items is provided. This process is applicable to each of the elements within the sports expenses portion of the budget. However, a discussion of these elements is needed for a thorough understanding of the process.

The elements of game equipment and practice equipment fit quite well into this process. It is important in determining expenses for these elements for each coach to set and justify standards for how much game and practice equipment is necessary. For example, a football coach may set a standard of two sets of practice clothes per athlete with the justification that practices will be held twice a day and a clean set of practice clothes is to be worn at every practice.

When calculating the cost of non-personal equipment such as footballs or basketballs, the coach must first determine the total cost for this equipment and then divide by the number of athletes on the team to arrive at a cost-per-athlete expense. For example, it is determined that a football team requires thirty footballs for the season. At a price of twenty-five dollars per football, the total cost for footballs would be seven hundred and fifty dollars. If there were seventy-five players on the football team the cost would then be ten dollars per athlete. This figure would then be added to the cost-per-athlete for personal equipment which could be substituted into the formula presented.

The cost of maintenance of equipment would be determined by starting at zero and calculating the total cost for maintenance. This would include the cost-per-hour for maintenance of equipment, the total number of hours spent, the cost of replacing equipment, and the tools and supplies needed for maintenance of equipment. Once the total cost of maintenance of equipment was determined, this figure would be divided by the number of athletes on a team to produce a cost-per-athlete expense.

Salary expenditure would be determined by starting at zero and totaling the salaries for all coaches, managers, trainers, or secretaries and adding the benefits cost to this figure. Once a total salary cost is determined this figure would be divided by the number of coaches, managers, trainers, or secretaries to arrive at an average salary per coach, manager, trainer, or secretary. This figure would then be multiplied by the total number of coaches, managers, trainers, or secretaries to arrive at a total salary.

The remainder of the elements under sports expenses which includes transportation, recruiting, supplies, wages, travel expenses, individual insurance, laundry, and entertainment could be incorporated into the budget using the basic processes that have been presented.

The administrative expenses portion of the athletic budget will follow the same basic process as the sports expenses, however, the individuals involved and the budget items themselves are quite different. The process for integrating each of these elements into the total athletic budget will be discussed further.

The first element presented in the scenario is promotion. Promotion cost will be determined by starting at zero and calculating the cost of an advertisement by each form of media and then multiplying by the estimated number of advertisements that will be used in each form of media. At the end of the year when expenses have been paid the actual cost-per-advertisement could be determined and used as a basis for the next year's budget. An inflationary factor would also be calculated into this figure. Cost for brochures and programs would follow the formulas outlined in the scenario. These expenses would be calculated by the athletic administrator or the promotion director.

The salary and wage element of administrative expenses would be determined in the same manner as in sports expenses. The athletic administrator would start at zero and total the salaries of all the salaried employees coming under administrative expenses. To this the total employee benefits cost would be added and the final figure would be divided by the number of salaried employees yielding an average salary-per-employee. Once this figure is calculated the benefit cost would be

added and then multiplied by the number of salaried employees to determine the total salary expenditures. Wage expenditures would be determined by multiplying the wage of each employee by the total number of hours worked. Once this total wage bill is determined it could be divided by the number of wage-scaled employees to determine the average wage-per-employee to which an inflationary figure would be added. This total could then be used as a basis for determining the next year's budget.

Facility maintenance is broken down into the subunits of salary expense, wage expense, utility expense, and facility maintenance supplies. Salary and wage expenses would be determined using the same process as in administrative salaries and wages, however, utility expenses and facility maintenance supplies will be determined differently. The facility maintenance supervisor or director would be responsible for this element of the budget.

Utility cost would be determined by starting at zero and adding the total utility cost over a one year period. After a total expense is calculated it can be divided by the number of hours that utilities were used. This would yield the cost-per-hour for utilities which could be used to project expenditures in the coming year after an inflation factor is added.

The cost of facility maintenance supplies could be determined in the same manner by starting at zero and totaling the cost of supplies over a one year period. Once this total cost is determined, it would be divided by the total number of athletes resulting in a cost-per-athlete expense for facility maintenance supplies. This figure could then be used as a basis for projecting maintenance supply cost for the next year.

An additional factor that must be considered in the maintenance of facilities is if there is a shared responsibility of expenses for facility maintenance between the athletic department and the university. This may include swimming pools, athletic fields, basketball courts, or other multiuse facilities. In either case, an agreement should exist between the athletic department and the university that includes how expenses for the maintenance of these facilities will be handled. This factor should be considered in developing the athletic budget.

Entertainment expenditures would also follow this process. Starting at zero and adding entertainment expenses, the total expense for a one year period would be determined. Once a total cost was determined it would be divided by the total number of people entertained and the total number of hours of entertainment. This would result in the cost-per-person-per-hour for entertainment which could be used to determine the entertainment budget for the next year.

The final element under administrative expenses is capital improvements. Cost of capital improvements can be determined by using the formula presented in the scenario.

Items within each element of administrative expenses should also be prioritized from most important to least important. This will provide flexibility in the budget if all items cannot be funded and reductions or cuts must be made.

Another factor that is important in the success of this theoretical model is that the administrative structure may differ slightly from institution to institution. For example, some institutions may not have a promotions director. In this case, the cost for promotions may come

under the individual sports programs. However, the formulas presented in the scenario for promotions and advertising should still be applicable with the exception that each coach would need to determine promotion expenses for his/her program rather than having one total promotion expense that includes all of the individual programs.

Finally, a critical factor in understanding and making this theoretical model work is that its implementation will take two years. The expenditures that are incurred during the first year will be used to establish standards such as cost-per-athlete, cost-per-hour, maximum allowance per meal, or average cost-per-advertisement which can be used as a basis for the next year's budget. In the second year, using an inflationary rate and these obtained figures, the athletic budget could be projected by directly using the formulas presented in the theoretical model. Through the use of this model, the athletic budget would then be justified and those involved would be accountable for expenditures that are made.

Conclusion

The theoretical model that has been presented should be adaptable or be able to be used in nearly any collegiate athletic program. It is a model that is relatively simplistic and at the same time incorporates a number of the elements that are necessary for an athletic budget to be sound and quantifiable.

Two elements that are incorporated into this theoretical model are justification and accountability for expenditures. These elements are becoming increasingly important in budgets as organizations and institutions continue to bear the burden of financial constraints during poor economic times. These elements are provided for through the use of organizational and program objectives, and through the use of zero-base budgeting in which expenses are justified annually by starting at zero and accounting for expenditures that are made. These elements allow the administrator to make the most efficient use of the facilities, personnel, and equipment that exist, in addition to providing a link between what is put into the budget and what is produced with the budget.

The model also requires that a number of people become involved in the budgeting process. The coach of each individual program and the directors of administrative departments (e.g. promotions, sports information) are directly involved and responsible for determining and submitting budgetary expense request for their own program or department. Through the involvement of a number of people in this process the link between organizational and program objectives and philosophies can be easily established in addition to the benefit of allowing individuals to have input into the budget of their own programs.

Finally, the theoretical model presented is relatively simplistic in nature. The model does not require advanced knowledge in budgeting techniques and therefore its implementation into an athletic program should also be relatively easy. Full implementation of this model should be able to be accomplished in a two year period with the first year being used to gather information and figures that would be used as standards to substitute into the formulas during the second year of implementation.

With the proper planning and implementation, this theoretical model should serve the purposes of both the institution and the individual programs that are a part of the institution. The athletic administrator will also be able to justify and account for budgetary expenditures making the model an effective tool for planning, developing, and evaluating athletic programs.

Reference Note

1. Perry, Don. Personal communication, 6/20/83.

References

- Austin, D. A. (1981). New athletic management techniques. Athletic Administration, 15 (4), 17-19.
- Bucher, C. (1971). Administration of health and physical education programs. St. Louis: C. V. Mosley Company.
- Carey, D. M. (1983). Budgeting strategies. Journal of Physical Education, Recreation and Dance, 54 (2), 25-26.
- Driscoll, M. L. (1980). Budget with meaning. Virginia Journal, 2 (2), 9-11, 17.
- Jackson, J. J. (1981). Sport administration. Springfield, IL: Charles C. Thomas.
- Knezevich, S. (1975). Administration of public education. New York: Harper and Row.
- Lahti, R. E. (1973). Innovative college management. San Francisco: Jossey-Bass.
- Magill, F. N. (1977). Magill's quotations in context. New York: Salem Press.
- Odiorne, G. (1965). Management by objectives. New York: Pitman.
- Pattillo, J. W. (1977). Zero-base budgeting: A planning, resource allocation and control tool. New York: National Association of Accountants.
- Phyrr, P. A. (1973). Zero-base budgeting. New York: John Wiley & Sons.
- NCAA Manual. (1982-83). Mission, Kansas: National Collegiate Athletic Association.
- Riggs, R. O. (1982). Budgeting athletic salaries: patterns and practices. Athletic Administration, 17 (1), 6-8.
- Underkoffler, L. (1979). ZBB: Keeping your budget and goals in line. Parks & Recreation, 14 (12), 40-41.