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INTRAMURAL-RECREATIONAL SPORTS PROGRAM FISCAL MANAGEMENT

A Comparative Study of University of

Montana Peer Institutions

by

Adrienne M. Corti

B.S., Lyndon State College, 1980


Presented in partial fulfillment of the requirements  
for the degree of

Master of Science in Recreation Management


UNIVERSITY OF MONTANA

1989

Approved by:

  
Chairman, Board of Examiners

  
Dean, Graduate School

  
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Recreation Management

Intramural-Recreational Sports Program Fiscal Management: A Comparative Study of University of Montana Peer Institutions. (150 pp.)

Director: Dr. Stephen F. McCool *sgm*

Intramural-Recreational sports programs at many public institutions are struggling with declining monetary support. This has forced many administrators to examine their funding base and search for strategies that will reduce expenses and/or increase revenue. Guidelines concerning appropriate funding methods and pricing decisions do not exist for university intramural-recreational sports department administrators. This study is an investigation of intramural-recreational sports department budgets at institutions similar to the University of Montana. Budget information is compared to measures of quality, intervening variables, and funding strategies.

The study analyzes data collected from 36 University of Montana peer institutions, a 90% response rate. Peer institutions were selected based upon state and local support, student fee revenue, state population, enrollment trends, size, and status as a public institution. Data were collected from a variety of sources in a variety of ways. Data specific to the intramural-recreational sports department were collected using a questionnaire. Data pertaining to the institution were collected through telephone solicitation from appropriate institutional departments.

The study sought to answer the following questions about University of Montana peer institutions: what is the size and scope of programs and facilities; what is the administrative structure; what is the per capita budget; is there a correlation between measures of intramural-recreational sports department quality, student quality, state quality and the per capita budget.

The study gathered baseline information about the University of Montana's peers and discovered that the University of Montana rates very highly on quality measures, scope and delivery of its program opportunities for students, and size and number of facilities available to students. Results indicated that there is no correlation between quality measures and the per capita intramural-recreational sports program budgets.

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## CHAPTER ONE

### Overview of the Problem

Man is the only animal that laughs and weeps;  
for he is the only animal that is struck by the  
difference between what things are and what they  
ought to be.

William Hazlett

### Introduction

" More than 500 students have signed a petition in the (University of Montana Campus Recreation Department's Recreation) annex calling to revoke the \$1-per-day weekend fee. Last winter Campus Recreation received \$18,000 in student money from ASUM to run the annex and Schreiber Gymnasium. The group requested \$26,000. For some ridiculous reason, Campus Recreation officials thought they could make up the difference by charging students for services throughout the year. Keith Glaes, student activities director, says that if the fee doesn't raise enough money, and if Central Board doesn't grant Campus Recreation a special allocation, gymnasiums might be closed and campus playing fields might not be watered next summer. That's a bluff students should be willing to call. If Central Board wants to give Campus Recreation the money, fine. But the highway robbery that takes place at the annex every weekend must stop" (McRae 1987).

As university affiliated intramural-recreational sports program managers reflect upon the past decade, often is heard, "What ever happened to those good ol' days?" Ever shrinking budgets, declining enrollment, and greater need to justify the existence of intramural-recreational sports programs has lead to the proliferation of current management jargon: Cutback Management, Up For Review, Getting the Most For the Budget Dollar, and Crisis Management. For many years,

university recreation professionals took pride in the fact that they did not have to charge fees, advertise their product or generate revenue in order to provide quality programs and services (Mize 1988). However, the economic recession of the mid-seventies severely tightened the budgets of many collegiate institutions. Traditionally, when universities receive budget cuts, the severest hit areas have been the non-academic or support type programs that include intramural-recreational sports programs (Kirch 1983). In keeping step with that tradition, the University of Montana Campus Recreation Department is currently struggling with declining budgetary support.

The University of Montana Campus Recreation Department operates under the auspices of Auxiliary Services. Theoretically, those nonacademic enterprises within auxiliary services are essentially self-supporting. In order to be fully self-supporting, an auxiliary enterprise must generate sufficient revenue to cover both its direct and indirect costs (Hyatt 1983). It is not uncommon for an institution to subsidize certain auxiliaries. During fiscal year 1985, total support for the UM Campus Recreation Department equaled \$626,434 while total expenses were \$728,995. This resulted in a deficit of \$102,561 (Mitchell 1986). It is desirable that the UM Campus Recreation Department generate sufficient revenues to cover all their operating expenses, pay their share of bond payments, and generate net earnings equivalent to 1.5% of the replacement cost of the recreation facilities (Mitchell 1986). The current deficit situation can only be expected to worsen in light of the impact of the severe reductions of state support of higher education and declining student enrollment.

The traditional organizational pattern for intramural-recreation sports programs has been to assign administrative control to physical education or varsity athletic departments (Stevenson 1976). Mull (1971) found that 57% of university intramural-recreational sports departments received funds from physical education and/or varsity athletic departments. A historical review of intramural-recreation sports (IM-REC sports) reveals that serious financing problems are as old as the profession.

Ostrander (1976), contends that IM-REC sports cannot exist within a physical education department or athletic department and will always be in conflict with the goals of that department. The philosophical incongruity between the assumed responsibilities of a physical education department and the primary service role of IM-REC sports is evident when examining funding priorities, facility use, and program identity (Stevenson 1976). Similar problems are present when IM-REC sports are affiliated with varsity athletics and are further complicated by declining gate receipts and reduced general fund support for many varsity athletic programs.

The current trend is to define IM-REC sports as a division of student services (Stevenson 1976). Under this scheme, IM-REC sports program directors are able to establish a direct line of communication to the central administration and advocate their own program needs even if conflicts with the physical education or athletic department exist (Ostrander 1976). Unfortunately, administrative structure alone is not the panacea for the financial woes of IM-REC sports departments. Separating IM-REC sports from athletic or physical education departments

necessitates the search for alternative funding sources. Currently, the revenue sources for recreation sports on a university campus in 1988 include (Parsons 1988 and Kleindienst 1978):

1. Student general or activity fees - may fund facility construction, renovation, debt retirement and/or programming.
2. University funds - from state general funds in support of salaries, utility costs, administrative overhead.
3. Entry or forfeit fees - from sports or informal recreation classes.
4. Self generated income - which may take the form of:
  - a. facility membership fees
  - b. daily guest passes
  - c. "pro shop" sales
  - d. equipment rentals
  - e. concessions
  - f. facility rentals
  - g. trips and special events
5. Fund raising and/or donations
6. Endowment funds

Income for the University of Montana Campus Recreation Department comes from three primary sources: ASUM (student activity fees), revenue generated by the Department in the form of fees for services, and, to an ever decreasing degree the, state general fund. The closer the IM-REC sports department is to the individual responsible for the disbursement of funds, the more likely the chance of receiving a favorable response to budget requests (Stevenson 1976). While the UM Campus Recreation Department sits comfortably close to central administration there exists the perception that current funding sources are inadequate (Mitchell 1986).

### Definition of the Problem

The present funding base for the University of Montana Campus Recreation Department is more a product of its evolution as a separate Department on campus than the result of any form of conscious planning. The intramural program at the University of Montana began as unit of the Health, Physical Education and Recreation Department. The program grew to include separate activities for men and women, and occasionally some co-recreational programs. In 1971, these programs were combined and transferred to the administration of a new department - Campus Recreation (Warnick 1975). Early facility construction was enabled by legislative appropriation and maintained by the University Physical Plant. Subsequent facility construction and major maintenance was derived from student building fees; e.g., Field House, Field House Annex, Swimming Pool, Riverbowl Play Fields (Mitchell 1986).

Currently an independent department operating as an auxiliary enterprise, the UM Campus Recreation Department's total revenue for fiscal year 1985 was \$626,434 and that support came from (Mitchell 1986):

1. General fund	30%
2. Student activity fee	10%
3. Revenue generated through fees by Campus Recreation	60%

Although acceptable for fiscal year 1985, to maintain funding in this manner is to "flirt with death" in the face of reduced general fund support and continued dependence on student activity fee money that is inexorably tied to enrollment. Since 1985, general fund support covering Department salaries and benefits was eliminated, a loss of

\$59,401 or a reduction of 32% of total general fund support. Mitchell (1986) stated:

"The principal problems with the current funding base are: (1) funding is inadequate to properly care for facilities and equipment, (2) sufficient increases of support from existing sources is very improbable, and 3) as an auxiliary enterprise Campus Recreation should be self-supporting rather than heavily dependent on subsidy."

If the University of Montana Campus Recreation Department is to remain an auxiliary enterprise it is evident that changes in the funding base are inevitable. Possible changes are numerous and can be generalized as: (1) increase fees, (2) find alternative funding sources to replace or augment general fund support and ASUM activity fees (3) reduce the size and scope of the Department.

The concept that the direct beneficiaries of recreational services should pay a more proportionate share of the cost has been gaining momentum in recent years (Hines 1974). As recently as 1983, the majority of all intramural sports were offered free of charge (Mize 1988). Now, if IM-REC sports are to survive, user fees will have to increase as a revenue base (Smith 1983). User fees are a reliable alternate funding source which, with appropriate policies and methodology, may provide a strong and predictable financial base (Jamieson 1985).

Ideally, IM-REC sports programs should be financed with the same stability, credibility and consistency as any other phase of education, however, this is often not the case (Reznik 1983). A percentage of the student activity fee is the most popular form of supporting the recreational sports program (Kleindienst 1978). The student allocation



can take many forms. A predetermined proportion of the student activity fee can be earmarked for a recreation department or student government may determine what percent of the total annual activity fee budget will be allocated to the recreation department. Recently, some schools have enacted a separate recreation fee that is paid by all students for the exclusive use of the recreation department. This special fee is independent of the general activity fee.

The economic picture has forced many administrators to face radical changes in leisure service delivery systems resulting in cutting such services and staffing, or reducing program offerings that have been popular (Jamieson 1983). Perhaps the least palatable of all budgeting alternatives, program and personnel reductions pave the way for the new "Smaller but Better" philosophy adopted by many higher education institutions today. Cutting services to offset budget deficits is the most severe approach of cost containment.

Funding alternatives are numerous. In seeking solutions, administrators could head in several directions exploring solutions that appear to be diametrically opposed. Should program offerings be reduced or should additional programs thought to be revenue generators be introduced to cover revenue shortfalls? Careful evaluation of all options is critical. Insight might be gained by examining what institutions similar to the University of Montana are doing to cope with reduced budgetary support. It must be remembered that since all institutions are unique, what may work at one may not work at another (Dutler 1984).

### Statement of the Problem

The central question this research addresses what is the minimal funding level needed by the University of Montana Campus Recreation Department to provide services of acceptable quality? Although the perception of UM administrators is that the current level and method of funding is inadequate, how does it rate when compared to similar institutions Is UM's Campus Recreation Department funding adequate but the manner in which funds are obtained antiquated and vulnerable to swift and certain elimination? Clearly, University of Montana administrators are operating in a vacuum and additional data are needed before major changes can be enacted.

Costs are often determined by the amount of money departments are able to raise, not necessarily by some rational determination of what constitutes an acceptable program and what the program should cost (Bowen 1981). When establishing a budget, the recreation administrator predicts income and commits expenditures for services (Hines 1974). The process may not be as cut-and-dried as that as Bowen (1970) illustrates through his set of closely interrelated "laws" pertaining to unit costs in colleges and universities:

1. The dominant goals of institutions are educational excellence, prestige and influence.
2. In the quest for excellence, prestige, and influence, there is virtually no limit to the amount of money an institution could spend for seemingly fruitful educational ends.
3. Each institution raises all the money it can.
4. Each institution spends all it raises.
5. The cumulative effect of the preceding four laws is toward ever increasing expenditures.

Guidelines concerning appropriate funding methods and pricing decisions do not exist for university IM-REC sports department administrators. In the absence of absolute frames of reference, higher education has no choice but to rely on relative standards (Brinkman 1983). As this relates to IM-REC sports programs, the collection of comparative data from peer institutions will help administrators establish a range of viable alternatives. The simple collection of revenue and expenditure data is useless to administrators unless it is presented in a meaningful context. Therefore, budget variables should be measured in relationship to the quality of the programs.

It is usually difficult, if not impossible, to determine whether an institution with relatively low costs per student is highly efficient, or, in fact, under funded (Brinkman 1983). This difficulty stems from the fact that the product outcomes, or educational results, are hard to quantify. Furthermore, disagreement exists over which variables actually measure educational outcomes. Should a graduate's lifetime earnings be calculated or should outcomes be considered some desirable change in a student from the way he entered as a freshmen to the way he graduated as a senior? To avoid these problems, institutions are often ranked on resource inputs such as faculty salaries, faculty-student ratios, percent of terminal degrees on the faculty, and scores on entrance exams. Virtually every quantitative measure is flawed. For example, an oversupply of professors with terminal degrees (PhDs) in the 1970s has lead to a high number of PhDs at some mediocre colleges, and some faculty-student ratios may be distorted by colleges that count

graduate student teaching assistants as part of their faculty (Henderson 1988).

A study of the Big Ten and Big Eight IM-REC Sports programs revealed that there was no set system used for construction of fees and most administrators commented that the "hodge-podge" of fees was a problem (Jamieson 1983). The external pressure placed upon IM-REC Sports programs to generate increasingly larger amounts of revenue through user fees is symptomatic of the 1980s and is stimulated, in part, by rising costs, declining enrollment and reductions in federal aid. It is of critical importance that IM-REC sports administrators have a defensible, rational plan of action as to how they will cope with future major budget reductions (Stevenson 1983).

Bowen (1981) showed that as institutions become more affluent they spend a smaller proportion of their budget for instructional functions and more on nonacademic staff. More specifically, affluent institutions allocate their money selectively, devoting a somewhat larger percentage of their expenditures on student services and student financial aid. It follows then, that impecunious institutions are unable to fund student services fully and thus IM-REC sports administrators must be good fiscal managers.

The demand for accountability in the absence of standard performance measures creates the need for comparative data (Brinkman 1983). Simply put, administrators need to know what's going on around them to justify their own actions. Comparative data provide the framework for making defensible decisions concerning matters such as reasonable charges and appropriate funding sources.

### Study Purpose

The purpose of this study is to investigate IM-REC sports department budgets at universities similar to the University of Montana and to search for correlations between measures of quality, intervening variables, and funding strategies. The University of Montana Campus Recreation Department must review and evaluate the adequacy and appropriateness of its current administrative structure. While the need for review is clear, no instrument exists for conducting the task. Through an in-depth investigation of the Department's peer institutions, this study has established baseline information and developed an instrument to evaluate the University of Montana's Campus Recreation Department in relation to its peers.

To attain this goal, this study sought answers to the following questions concerning the nature of the study population's IM-REC sports departments:

1. What is the size and scope of the IM-REC sports programs and facilities at the peer institutions?
2. What is the administrative structure of the IM-REC sports departments at the peer institutions?
3. What is the per capita budget of the IM-REC sports department at the peer institutions?
4. Is there a correlation between the quality of the IM-REC sports department and the per capita IM-REC sports department budget?
5. Is there a correlation between the quality and demographic characteristics of the student body and the per capita IM-REC sports department budget?
6. Is there a correlation between the quality and attributes of the entire peer institution and the per capita IM-REC sports department budget?

7. Is there a correlation between the quality of state funding and demographic characteristics of state residents?

To answer these questions, the study objectives were to:

1. Inventory the programs and facilities of the peer institutions IM-REC sports Departments.
2. Identify the administrative structure of the peer institution's IM-REC sports Departments.
3. Collect detailed revenue and expense budget data from the peer institution's IM-REC sports departments.
4. Correlate the quality of the IM-REC sports department with the per capita IM-REC sports department budget.
5. Correlate the quality and specific demographic variables related to the student body with the per capita IM-REC sports department budget.
6. Correlate the quality and specific attributes of the entire peer institution with the per capita IM-REC sports department budget.
7. Correlate the quality of state funding and specific demographic variables related to the state residents with the per capita IM-REC sports department budget.

Data were derived from a variety of sources in order to meet the objectives of the study. Questionnaires were sent to peer institution IM-REC sports administrators to obtain information regarding their programs, facilities, budgets, and self-evaluation of department quality. Data concerning measures of quality and intervening variables for students, peer institutions, and states were collected through phone solicitation from appropriate university departments or previously collected data. The selection procedure for peer institutions and a more complete description of study design and methodology can be found in Chapters 3 & 4.

## CHAPTER TWO

### Literature Review

The good old days are now.

Dr. George Haniford

#### The Recreation Participant in a University Environment - Who Are They and What Do They Want?

By the nature of their existence, collegiate IM-REC sports programs are affected by issues in higher education. Trends in areas such as enrollment patterns, student demographics, and state and federal support of higher education all impact the IM-REC sports program either directly or indirectly. The United States Department of Education projection for higher education spending in 1987 was \$124 billion, seven percent higher than 1986 (Elias 1987). In 1988, state governments spent \$36.3 billion on higher education, up 12.4% from 1986 (Chronicle of Higher Education 1989). Nationally, a full professor earned an average of \$50,420.00, up 5.8% over 1987 marking the eighth consecutive year where faculty salaries outpaced the rate of inflation (Chronicle of Higher Education 1989). It is no small wonder then that higher education is often considered a growth industry.

The state of Montana does not mirror the national trend and it might be argued that it is doing its best to lower the national average. State appropriations for the state of Montana decreased nine percent (adjusted for inflation) from 1984 to 1986 (Chambers 1986). During the

1988-89 academic year, Montana ranked 47 on state appropriations for higher education, with total state appropriated dollars down 4% (adjusted for inflation) from 1986 (Chronicle of Higher Education 1989). Regional enrollment trends reveal a picture that deviates considerably from the national trend. Full-time freshmen student enrollment decreased twelve percent in the Rocky Mountain states while, at the same time, it increased sixteen percent in the Mideast (Ludwig 1986).

Currently, state legislatures view higher education as a lower priority than during the "golden years" of higher education, 1969-1970 (Delworth 1980). As illustrated earlier, this trend is more pronounced in the state of Montana than in other regions of the country. Compounding the problem of declining state support is the shift in enrollment from the private to the public sector. Students are searching for the best of the bargain schools, realizing that high quality doesn't have to mean high cost (Henderson 1988). Consequently, state institutions are scrambling to insure quality education within the confines of shrinking budgets, the latter often leading to internal budget cuts.

The student population has changed markedly in past years. As the baby boomers move through the higher education system and the birth rates in caucasian and middle class families declines, college campuses are enrolling an increasing number of minorities (Jedamus 1980). Another noteworthy phenomenon is the "graying of the campus" or, the increase in nontraditional students (above the 18-21 year range). Quite obviously, the needs of an eighteen year old are significantly different than those of a forty year old student. Many of these nontraditional



students are returning to education after holding a full time job and/or are returning to pursue a second degree (Slepitzka 1984). Some additional trends that will ultimately affect IM-REC sports programs are: an increase in the number of women, more students with relatively poor academic achievement, and an increase in the number of commuter students (Delworth 1980).

Changes in student population translates to changes in student's educational goals. Today's student is more self-centered, competitive, and extremely concerned with vocational preparation (Slepitzka 1984). Fifty percent of students enrolled in college today hold a job. Also noted is the steady growth in student power as a participant in decisions in higher education (Delworth 1980). It is anticipated that there will be greater consumer resistance to tuition increases and other techniques for passing on the costs to students (Jedamus 1980).

Higher education isn't the only service industry facing monumental changes in its clientele. Back in the 1950s, social critics warned of the dangerous glut of leisure time as we entered the age of automation and unemployment (Harris 1989). The predicted trend toward more play time and less work has been reversed. Twice as many Americans say they have less time for leisure today than those who say they have more (Anderson 1986). So profound is the change in work time, it is now estimated that from 1974-1989, the typical adult's leisure time has shrunk by forty percent; down from 26.6 to 16.6 hours a week (Harris 1989). In 1975, the average work week was 36.1 hours (Kleindienst 1978). The average adult now pumps 46.8 hours per week into school, work and commuting (Harris 1989). Clearly, Americans are working harder

and longer and those time-starved consumers will be seeking the most qualitative recreational experiences.

Slightly removed from the "national scene" is the collegiate IM-REC sports program participant. Identifying who that person is can be confusing in itself. Mueller (1979), sought to identify users in terms of units of participation. Those units can include: students living in dorms, students living off campus, students involved in fraternities and sororities, faculty and staff members, foreign students, graduated students, sports clubs, religious organizations, and alumni. While not an exhaustive list, it does illustrate the fact that participants are diverse and it should be understood that their reasons for participating and their expectations may vary significantly.

Considerable attention has been focused on the college freshman. The most outstanding statistic associated with freshmen is their high attrition rate; forty-five percent (Kintigh 1984). It is also known that the need to re-establish a sense of competence as a freshman makes the transition from high school to college is critical to their development as a college student (Slepitzka 1984). Because of old high school ties, many freshmen return home frequently; as many as 30% of all freshmen return home for weekends at the University of Dayton (Kintigh 1984). Finally, during the first years in college, one's peer group plays a strong role in defining what is acceptable and unacceptable (Slepitzka 1984). All this information offers insight into the reasons freshmen students participate, or not, in IM-REC sports programs.

Numerous studies have investigated the motivations behind IM-REC sports program participation. In 1984, Chesnutt and Haney used the

Recreation Experience Preference scale developed by Driver (1977) to measure the relative importance of different psychological outcomes desired and expected by intramural participants. The top five motivations were: 1) keeping physically fit, 2) releasing or reducing built up tensions, 3) giving your mind a rest, 4) testing your abilities, and 5) having a change from daily routine. This was probably the most definitive research of student motivations in the field of IM-REC sports. The results of other studies are similar, though they are much more simplistic in their approach and use of measurement scales.

In 1956, McGuire found that male intramural participants at the University of Texas engaged in activities because they liked the activity, wanted to help their organization win a trophy, and as a means of recreation. Women at the University of Arkansas participated in intramurals because they enjoyed sports, played sports in high school and enjoyed meeting people (Cain 1963). Other researchers approached the issue from a slightly different angle and asked why students didn't participate in intramurals (Bialeschki 1988 and Boothby 1981). Results of the two studies were similar and cited reasons for nonparticipation as lack of interest, lack of facilities, loss of interest in the sport, lack of personal fitness or personal injury, lack of knowledge of the program, personal conflicts, and limited ability to participate.

In 1980, Zuercher measured the perceptions of University of Maryland intramural participants and it is interesting to note that the result were similar to the 1956 study of McGuire and Cain's 1963 study. Students at Maryland engaged in intramural activities because they were fun, their organization needed the points, for the physical exercise, to

meet or be with other people, for the competition, and because their friends expected them to.

Other studies in the field of intramural and recreational sports sought to clarify the values held for intramural activities. Men and women at Kansas State University identified social and aesthetic values as well as the promotion of health and fitness, and the pursuit of vertigo (Edmunson 1975). Mueller's (1979) classification of the values of intramural and recreational sports participation is slightly expanded:

1. success and failure experiences
2. physical fitness
3. mental and emotional health
4. social contacts
5. use of leisure time
6. esprit de corps

The reasons students participate in intramurals or the values they hold for IM-REC sports programs is of critical importance to administrators. Obviously, recreational sports personnel should know the preferences of students and the areas providing the greatest satisfaction. In times of fiscal austerity, responsiveness to the desires of the students is not only wise management practices, but a matter of survival when considering the contribution of student fees to the IM-REC sports budget.

#### Budgeting and the Intramural-Recreational Sports Program

"The major financial instrument used--or misused--by administrators is the budget" (Krause 1977). Since most decisions rendered by recreational sports directors are finance based, their competence in fiscal management is critical if intelligent decisions are

to be made (Karabetsos 1988). Budgets are defined in many ways. They can be thought of as an expression of standards in measurable, quantitative terms (Hicks 1976) or, according to Rodney (1964), a financial plan used by management that forecasts the estimated income and expenditures of and organization for a given period of time. The complexity of intramural-recreational sports budgets tend to vary from institution to institution. They may reflect multi-million-dollar expenditures with ambitious capital improvement plans and large salary obligations or they may be rudimentary financial plans, projecting conservative needs with few or no plans for growth (Karabetsos 1988).

Krause (1977), identified four major types of budgets:

1. Object classification - Proposed expenditures are broken down systematically by type or classification. In the IM-REC sports setting, typical classification used include: personnel operating expenses such as supplies, advertising, and memberships.
2. Function classification - Proposed expenditures are assigned to the specific departmental function they will serve. For example, three major functional areas may be defined as: administration, programs, and facilities.
3. Fund classification - In cases where revenues are drawn from a variety of sources and some of those funds are restricted to special uses, the expenditures are classified by the funds they are drawn from.
4. Performance budgets - Proposed expenditures are directed toward the accomplishment of specific measurable units of performance. Basically, it is a combination of object and function classification. Through program evaluation, units and costs are determined.

Krause's classification of budget types is based upon the manner in which the budget is prepared. Another way to identify different

types of budgets is to look at the subjects they deal with. Reynolds (1976), outlines three major budget types:

1. Revenue budget - This is the estimate of all income and the sources of that income.
2. Operating budget - The estimated expenditures and where those expenditures will be directed.
3. Capital budget - Estimates of expenditures for major improvements or purchases.

By reviewing the technique employed in their development, Karabetsos (1988), proposed the following types of budgeting processes commonly used in recreational sports programs:

1. Incremental budget - Increments, expressed in percentages, are used to establish each year's categorical request. The base amounts of each budget item remain the same with only the changes for the next fiscal year projected.
2. Program budgets - In this approach, budgets are designed so that large units of work, or special programs, are isolated, identified, and clearly presented. This technique is sometimes referred to by its acronym PPBES, for Planning, Programming, Budgeting, and Evaluation System.
3. Zero-based budgets (ZBB) - Budget information from the previous year is disregarded, and the present budget is built from the ground up.
4. Formula budgets - While formulas utilized in this technique vary widely, many are based on a cost-benefit analysis of the number of units or, in the case of recreational sports programs, the number of participants in the program.

The budget process may be view as a tool which provides a rational basis for making economic decisions (Boucher 1979). Others have described a budget as a financial plan for providing predetermined services for a specified time period (Hines 1974). Whatever the approach, it is generally accepted that the budgeting process is a vital

to the success of any program. Through budgets, managers learn of purchasing opportunities, determine problem-solving options, and manage ongoing activities (Karabetsos 1988). Furthermore, and perhaps a little closer to home, budgetary adeptness is frequently the sole criterion upon which administrators are evaluated (Jensen 1983). With the increasing interest in the way all sectors of a university use the resource allocated to them, the trend is toward more formalized modes of accountability (Jedamus 1980).

### Revenue Sources for Intramural-Recreational Sports Programs

Revenue production has become a budgetary necessity for the majority of university recreation programs (Jenkins 1988). Many institutions have found that the methods which successfully funded programs ten years ago are not adequate to fund today's extensive and varied programming areas. Consequently, recreational sports professionals have had to develop alternative funding methods (Ostrander 1988). Revenue sources are varied and it is important to identify and evaluate those sources. For purposes of this discussion, revenue will be classified into five major headings:

1. Appropriated funds or general fund money
2. Athletics department in the form of gate receipts
3. Donations, contributions, fund raising
4. Student fees
5. Earned income which will include:
  - a. equipment or facility rental
  - b. concessions or "pro-shop" sales
  - c. membership or user facility fees
  - d. fees for services (classes, trips, intramurals)

A slightly more technical review of funds is provided by Karabetsos (1988):

1. Appropriated funds or "hard money" - Those funds set aside by legislatures for specific purposes. The expenditure of these funds is generally restricted and composed of tax allocated dollars, endowment money, and student fees.
2. Nonappropriated funds or "soft money" - Those funds collected from sales and service activities sponsored by state institutions, for example; lab and course fees or printing services. The individual institution generally creates any restrictions upon the expenditure of these funds.
3. Auxiliary funds - Those revenues generated by auxiliary agencies within the university such as residence halls, student unions and food services. Auxiliary enterprises are self-supporting and generate their own revenues to defray costs.
4. Carry-over funds - Those monies not spent in the previous year that are transferred to the current fiscal year's budget.

The entire structure of the university recreational endeavor is based upon an insured dependable base of income which is pledged solely to satisfy intramural-recreational sports programs. The recreational sports manager must develop a sound financial package that will utilize income from innovative financial sources (Jamieson 1988).

As discussed earlier, appropriated funds channeled to intramural-recreational programs are declining at many institutions. This trend has led some departments to remove themselves from academic enterprises that traditionally derive operating revenue from general fund money. In this case, the intramural-recreational sports administrator is fearful that general fund dollars that are allocated will be utilized solely for academic endeavors, perhaps at the expense of the intramural program. Most IM-REC professionals agree that the split from educational units is



vital to the survival of the profession, however, the feeling is not unanimous. Maas (1985), states:

"The student affairs reporting sequence along with student fee generation has the potential to be dangerous for recreational sports."

"The fact that budget cuts occurred and most university programs which were cut were outside of educational units added credibility to being administered within an academic unit."

The general consensus is that general fund support for intramural-recreational sports programs will decrease, or in the best scenario remain the same. Program expenses will continue to increase and general fund contributions will have to be augmented.

Another dwindling source of revenue available to intramural-recreational sports programs is gate receipts from varsity athletics. This situation generally arises when the IM-REC sports program is administered through the athletic department. Problems with this parallels the short-comings of reporting to an academic department. Intramurals may be sacrificed at the expense of the varsity program. Additionally, varsity athletic programs are feeling the general fund pinch and, at some schools, declining gate receipts.

The concept of private fund raising within recreational sports represents a "change element" for many, yet may well be that unrecognized opportunity awaiting proactive response (Parsons 1988). Caution must be used as many institutions currently have an active alumni giving program or excellence fund and additional efforts of individual intramural-recreational sports programs may be in conflict with or jeopardize existing university fund-raising programs. Coordinating intramural fund-raising through the university foundation

office will eliminate conflicts and will also insure that donations will be tax deductible (Ostrander 1988). The trend in fund-raising seems to be towards material goods or special projects (Hines 1974, Mize 1988, Parsons 1988). The 1986 Managed Recreation Research Report indicated that 4.9 percent of college or university revenue is from grants and donations.

The process of establishing a fund-raising campaign for an intramural-recreational sports program is outlined by Parsons (1988), and is as follows. Identify a list of needs, narrow the focus to one special project and estimate the cost. Consult the university's development office to obtain clearance. With the aid of the development office target foundations which regularly offer grant funding to non-profit organizations. Develop a "donor probable" list and receive clearance from the university development office. While fund raising is one of many options, it is important that a college or university not saturate the community with too many pleas for assistance.

Student fees are one of the primary sources from which recreational sports programs are funded (Reznik 1988). These fees can be procured in a number of fashions. One is a separate recreation fee established as part of the student's registration expenses. In this case all monies collected through the fee are given to the intramural-recreational sports program. An approach commonly used is the intramural-recreational sports program is to receive a portion of the student activity fee. Again the manner in which that portion is determined can vary. The intramural-recreational sports program might be entitled to a fixed percent or dollar amount of that fee. The only

yearly variation in that amount would be attributed to fluctuations in enrollment. The system currently utilized at the University of Montana is yearly requests to the student senate for a specific budget amount to be taken out of the student activity fee "pot." In this case, yearly variations in student fee revenue is tied to enrollment and the whims of the current student senate members.

Probably the most widely discussed topic in the professional literature today is the increase in earned income as a revenue source. At the municipal recreation level, user fees are no longer a trend; they're an institution (Lemov 1989). For local governments nation wide, revenues from user fees have tripled since the mid-1970s, and their growth has outpaced local tax receipts (Lemov 1989). Today, the central administrators of many universities are requiring that recreational sports programs generate more and more revenue through income producing programs and services. For purposes of this discussion earned income will be classified as: 1) equipment or facility rental, 2) concessions or sales, 3) membership or user fees, and 4) fees for services such as intramurals, classes or trips.

One of the best methods of generating marginal income is to discover ways to utilize a recreational sports facility for rentals (Slepitzka 1988). Facility rental to university and non-university groups is attractive in that it is a way to increase revenue and perhaps offset the need to increase fees in other areas. Potential "renters" can include: church groups, summer camps, youth groups, alumni organizations, and other unaffiliated community users.

A secondary benefit of facility rental is the corresponding increase in concession sales during rental events. Concession items may be any items of potential sales, food and otherwise, in facilities under the recreation sports department's administration (Ostrander 1988). Vending machine sales are popular and departments can contract for a percentage of sales with local or university contracted vending services. Sales of sports equipment including racquetball and tennis equipment, t-shirts, and towel service can also produce revenue subject to the department's percentage of mark up.

Charging fees for use of privileges or for services provided constitutes another type of earned income. Membership fees are often charged to sports club members to help defray costs. In addition, many individuals beyond the scope of the university student are willing to pay a fee to use the recreational facilities and facility use fees are often charged to faculty, staff, alumni, and community members (Combes 1988).

Finally, and perhaps most importantly, fees are assessed for services, or programs. In current practice, fees are assessed for programs that previously were free of charge such as intramural sports or for new programs that must be self-supporting and fees are assigned so that revenue can cover expenses. Many of the revenue producing programs offered by intramural-recreational sports programs today include: team and individual sports, non-credit classes, outdoor program trips and related activities, wellness programs, summer camps, and special events.

The need to generate additional revenue over and above the general university allocation and the student fee allocation is a situation more and more recreational sports professionals are facing each day (Ostrander 1988). By developing a well planned and implemented fees and charges program, recreational sports budgets may be strengthened and become less reliant on other kinds of appropriations (Jamieson 1985).

#### Pricing Decisions in the Intramural-Recreational Sports Program

As mentioned earlier, most recreation programs and facilities (federal, state, and local) are feeling the pinch of limited tax dollars which has resulted in appropriations that are not keeping pace with the costs of operation. The National Park Service received sufficient tax dollars in the 1950s and 60s so that the need to generate revenue from visitors was not an issue (Murray 1984). However, in 1951, Congress passed the "fees and charges act" stating that all Federal agencies should prescribe fees and charges which would make services rendered to special beneficiaries self-sustaining to the fullest extent possible (Bossi 1984).

The National Park Service had no choice but to decide where entrance fees should be charged and what that charge should be. Prior to the federal legislation of the 50s, some parks charged entrance fees. In 1908, the first park to charge a fee for auto permits was Mount Rainier National Park (Mackintosh 1984). Presently there are seven Federal agencies that charge recreation fees to some extent (Bossi 1984).

Recreational sports programs must set appropriate policies when implementing a major fees and charges system (Jamieson 1985). Among other things, it must be determined what proportion of costs the price is intended to recover (Crompton 1984). Pricing is defined as the ability to price products or services low enough that people will buy in volume sufficient for profit and high enough to maximize that profit (Ellis 1988). The establishment of a price for park and recreation services is presented as a three stage process by Crompton (1984):

1. Stage 1 - The agency determines what proportion of the costs incurred in delivering a service should be recovered from direct pricing.
2. Stage 2 - The agency determines what the going rate is. A service's price has to be perceived as reasonable by potential client groups or they will either refuse to pay and/or will vigorously protest through the political process.
3. Stage 3 - The agency examines the appropriateness of varying the determined price for some user groups or use within some specific context.

Before determining what percentage of the total budget the fees will comprise, the intramural-recreational sports administrator must know what the total costs of delivering the service are. Generally, costs can be conceptualized as three types: fixed, variable, and semivariable (Stoner 1978). Fixed costs are those that are unaffected by the amount of work being performed by the recreational sports program. Expenditures such as insurance, facility rent, and full-time staff salaries accumulate in a stable and predictable manner with time. Variable costs, on the other hand, vary directly with the quantity of work being performed. For example, the amount of sports equipment purchased each fiscal year will be directly proportional to the size of

the intramural program. Some may view this as a semivariable cost, which is the final expenditure category. These are costs that vary with the volume of work performed by not in a directly proportional way. In other words, semivariable costs contain a mix of both fixed and variable elements (Stoner 1978). The number of the intramural program's part-time referees will vary over the long term however, will rarely be based upon the day-to-day changes in the intramural sports program.

Reiling (1983) is noted for his work in measuring the costs of publicly supplied outdoor recreation facilities. He identified three cost categories that should be considered in cost provision studies. The first is the opportunity cost of land. Land set aside for publicly provided recreational use has an opportunity cost. That is, the land could be devoted to other productive uses if it were not set aside for recreation. The value of the land in alternative uses that are foregone represents a cost. The second cost category is the provision of capital improvements such as roads, buildings, and trails. These costs vary widely from facility to facility depending upon the magnitude of the improvement. The final category in cost provision studies is operation and maintenance. This includes direct labor, equipment, and supplies to name a few. Reiling's conclusion is that, contrary to public opinion, the cost of providing outdoor recreational facilities is quite large and that cost of provision studies are useful in that they document these cost.

Unfortunately, current accounting systems in many park and recreation agencies are not structured to capture and report cost data for each specific service delivered (Crompton 1984). In the absence of

a formal cost accounting system, cost finding, which is a less rigorous approach, may be adopted (Crompton 1984). In this case, cost estimation is gained through the examination of existing financial data such as fiscal year end reports, payroll records, and invoices. Whatever the method, the final product of determining the total expenditures is a comprehensive cost for each service delivered.

When determining cost recovery, the intramural-recreational sports administrator must review the nature of the services provided. Much of the debate about whether or not user fees should be levied revolves around the classification of the service. Crompton (1984) developed a "service continuum" ranging from public to private.

Public service in its pure form is equally available to all citizens in a community and traditionally no fees are charged. Because individuals cannot be excluded, it is not possible to implement a user pricing system. At the other end of the continuum is private service. Its benefits are received exclusively by participating individuals rather than by the rest of the community. Because it is possible to exclude persons not willing to pay, the individual users can pay the full cost.

Many of the recreation and park services lie somewhere between public and private services. These services are called merit services and are considered private services that have some public service characteristics (Crompton 1984). Here, users should be subsidized only to the extent that benefits to the whole community are perceived to occur.



The intramural-recreational sports administrator must determine the relative benefits of all the services provided by the department to be able to assign the appropriate cost recovery method. For example, open gym periods might be identified as a public service for the university community and that no charges should be applied. A ski trip to Europe might be defined as being essentially private service in nature and 100% of the costs should be recovered (including overhead costs). Most likely, intramural sports will be perceived as a merit rather than public service in times of fiscal austerity, and the administrator must then determine which costs of providing the service should be recovered.

The first cost recovery method outlined by Crompton (1984) is full cost recovery where the price of a service is intended to produce sufficient revenue to cover all the fixed and variable costs associated with the service. To determine the average cost price, the total fixed and the total variable costs are added together and divided by the projected number of users. When the intention is to recover only a portion of the costs of providing the service the choice is two-fold. Variable cost pricing, seeks to recover only the variable cost price which is determined by dividing the total variable costs by the projected number of participants. The second choice, or partial overhead recovery price, is arrived at by adding the average fixed and variable costs together then subtracting the average subsidy. A fourth, and final option, is not to charge a price.

Pricing based on costs is not market oriented because it assumes that service users will pay the suggested price. This is not

necessarily the case. Service suppliers can be thought of as "price takers" who have to accept the going market price if they wish to make significant sales, or "price setters" who operate in an imperfectly competitive market so they can raise prices without losing profit (Bovaird 1984). Suppliers must estimate the degree of responsiveness of demand to price changes, or elasticity of demand. In general, an increase in price will result in a decrease in the quantity consumed (Bovaird 1984).

This brings us to Crompton's (1984) second stage in pricing recreational services. The identification of the going rate is critical to price setting and requires that a survey of prices charged by other suppliers of this service be undertaken (Crompton 1984). This will address what the client groups are willing to pay.

Once the price is determined for a given service, it is important for administrators to review the appropriateness of differential pricing. Because different users exhibit varying price elasticities of demand, it may be wise to vary the price for different user groups. Crompton (1984), divided clientele into distinct user groups based upon - participant category, product, place, time, quantity of use, and incentives to try.

Examples of this in the recreation setting might include the following. Fees set for aerobics classes might vary for university and non-university users with the assumption that the program is a service to students and they should be charged less than community members. A price differential based on product relates to higher fees charged to intramural leagues utilizing referees as compared to leagues without

referees. The time element might dictate reduced cost of swimming pool rental for late evening hours of traditionally low use. Finally, quantity discounts could be charging an annual alumni recreation pass fee of \$65 rather than the quarterly fee of \$20.

In summary, pricing considerations must account for the competitive structure of the industry, the price sensitivity and the total industry demand (Ellis 1988). Currently, information is lacking concerning the effects of alternative pricing strategies on recreational services and facilities (Bovaird 1984). Only by comparing existing prices with those charged for similar services elsewhere, will a range of prices acceptable to users of a particular service be established (Crompton 1984).

#### Today's Intramural-Recreational Sports Program: Case Studies

The intramural-recreational sports program has changed considerably since its early beginnings as a baseball game between Yale's freshmen and sophomore students. Most recently, schools have responded differently to various budget constraints. Insight to the appropriateness or inappropriateness of those responses may be gained through a review of some individual cases.

Thomas Kirch (1983), from the University of Washington in Seattle reviewed the economic recession in his state and how it impacted the Department of Recreational Sports Programs. The Department is funded in three ways. First, from allocations made by the Services and Activities Fees Committee (SAF). Charges are included in each student's tuition which are appropriated by the SAF Committee and used for non-academic or

intercollegiate athletic programs. Funding is also provided through the collection of user fees, interdepartmental charges, and general University support for general maintenance and operations costs.

During fiscal years 1980 through 1982, the UW Department of Recreational Sports Program experienced several budget support changes. Service and Activities Fees support for 1980 and 1981 was reduced though remained stable in 1982. A freeze on capital improvements was imposed. In 1982, the Department was informed that general university funding would no longer be available for the provision of routine custodial maintenance in recreational facilities. The combination of the budget support reduction impacted the Department \$367,000 or 36.2% of the total budget.

To resolve the budget reductions, the UW Department of Recreational Sports Programs implemented the following changes. User fees were increased or implemented to generate necessary revenue to maintain the existing level of facility hours and programs. Most user fees were increased 10 to 33%. An intramural sport entry fee was created and vacated staff positions were not filled. The golf course was opened up to the public to increase revenue from a new source. Additional fiscal support was gained from the SAF Committee and finally, the Department was allowed to retain any surplus revenue remaining at fiscal year end.

Although the basic overall nature of the program did not change dramatically, internal adjustments were considerable. Kirch (1983) concluded by saying, "It is expected that there will be an increased desire on the part of Service and Activities Fees Committee members to

generate as much revenue as possible through various user fees. Because of declining resources, it is expected that the Department will have to continue to look for additional ways to generate department revenue."

The financial picture for intramural-recreational sports programs on the eastern side of the United States was significantly different during the same period of time. Louisiana State University (LSU) was extremely successful from an economic perspective (Reznik 1983). During fiscal year 1982 the Leisure Sports Department received an increase in financial support from the institution. The only area for concern was the potential reduction in student aid that might affect the LSU Leisure Sports Department. The concern was not financial in nature, more a vision of a change in clientele. The Department was in the enviable position of not anticipating the need for staff reductions or the initiation of any user fees.

The situation at the University of Michigan was similar to the University of Washington. Canning (1984) reported major budget cuts that took the form of personnel reduction and program retrenchment. A subcommittee comprised of five faculty members and one student was established to review the Recreational Sports Department and determine whether the General Fund budget for the Department should be reduced \$250,000 from its initial 1980-81 budget of \$470,000. The subcommittee sought to determine the effects of the reduction, the implications of a reduced program, discuss the nature and amount of the proposed budget reduction, and consider alternative funding sources.

The results of the review were: to reduce general fund support by \$130,000 instead of \$250,000 and make some staffing changes. Those

changes resulted in staff reductions of one associate director, three assistant directors, three clerical positions, and two locker room attendants. In addition, two assistant directors were changed from 12 to 9 month contracts. Finally, the Committee recommended that the high use facility hours during fall and winter terms be maintained, that no new programs be initiated, and that fees be increased , in some cases, as much as 300%.

## CHAPTER THREE

### Conceptual Framework

"No information is better than the question that evoked it"

source unknown

#### Introduction

The purpose of this chapter is to develop a conceptual framework that provides an understanding of the administration and scope of intramural-recreational sports programs and how those program components are affected by outside influences. A model of the IM-REC sports program influences is presented and discussed. The framework includes sections dealing with the basic entities that are thought to influence the IM-REC sports program which are; the state, the university, and the students at the university. In addition, those factors associated with each of the three entities are examined. The chapter concludes with the development of major hypotheses to be tested.

The Model

FIGURE 1  
IM-REC Sports Program Influences

## THE STATE

State Appropriations  
High School Dropout Rate  
Resident Education Level  
Remedial Course Credit  
% Faculty with Tenure  
Enrollment Trends  
Per Capita Income  
Test Scores

## THE STUDENT

Grade Point Average  
Distribution by Class  
Distribution by Year  
Distribution by Age  
Distribution by Sex  
Dorm Status  
FTE Status

## THE UNIVERSITY

Student:Faculty Ratio  
Student:Staff Ratio  
# Terminal Degrees  
Volumes in Library  
Faculty Salaries  
Staff Salaries  
Enrollment Trends  
Size

The Evaluation of Quality

The process of making a decision should involve some rational way of selecting between the identifiable alternatives (Tyler 1981). Through knowledge of the profession and the collection of relevant information, administrators in any field should be able to evaluate the alternatives presented. Evaluation can be thought of as a process which



attempts to assign pertinent values or characterize a given subject in terms of what it is worth (Shivers 1967). The process of evaluation may be looked at in terms of Baumgartner and Jackson's (1975) three broad steps:

1. Collecting suitable data (measurement).
2. Judging the value of these data according to some standard.
3. Making decisions based on these data and the alternative courses of action available.

There are many models for evaluation that basically set the stage for establishment of goals or objectives, the conduct of the program, assessment of the outcomes of the program, and revision of the program on the basis of the evaluation results (Farrell 1978).

For purposes of this research, it is important to be able to differentiate between the study institutions in terms of their relative worth. It has been noted earlier that it is difficult to tell if an institution with relatively low costs per student is highly efficient, or in fact, under funded (Brinkman 1983). The need exists to determine the quality of the institution if the budget information collected is to be useful to administrators.

What is the point in cost below which an IM-REC sports program cannot go without decreasing effectiveness? What is the point in cost above which quality is no longer improved? In the case of higher education, unit costs and institutional quality do not necessarily stand in a cause and effect relationship, although a relationship will exist, and in most cases, will be positive (Meeth 1975).

Assessing quality requires that the level of goal attainment appropriate to the entity in question be examined (Kauffman 1984).

Program quality has become an issue of paramount concern in higher education today though the profession has not achieved wide acceptance for proxy measures of program quality (Jones 1982). In the case of recreational programs, the process of evaluation is contingent upon the knowing what the goals and objectives of the program are and comparing the data collected to those stated goals and objectives.

Quality is defined as a degree of excellence or degree of conformity to a standard (Webster's 1976). In this study the quality of the IM-REC sports department, university, students at the university, and state support of higher education were examined. In all cases, no absolute frame of reference were available so quality was determined in a comparative sense rather than in relation to a predetermined "level" of quality.

The method of determining the quality of each IM-REC sports program in this study was determined by a portion of the questionnaire filled out by selected IM-REC sports directors. This valuative portion solicited information regarding the department's administrative structure, programming objectives, participant profile, and facility management. The valuative tool was modeled after Betty van der Smissen's Evaluation and Self-Study of Public Recreation and Park Agencies and is discussed in greater detail in the Methodology Chapter.

### The State

The contribution of state tax dollars to higher education is critical to the financial well being of the institutions in that state. At the University of Montana, a consensus has emerged that the

University does not have sufficient resources to support adequately all of the programs it now offers (Koch 1989). After years of insufficient state money needed to fund the institution at its current level, the University has entered a period of retrenchment and reduction. As mentioned earlier, the national picture is quite different, and the majority of states have realized an increase in appropriations to higher education.

Wide variations from state to state can be explained, in part, by two competing goals facing public institutions. When deciding how to spend its money, colleges must seek to find a balance between developing and improving the institution while still facilitating the access of students (keeping tuition down). The federal government has concentrated its support for higher education in the form of financial aid to students, leaving institutional support to the states and private donors. In turn, state governments have tied their support overwhelmingly to formulas in which enrollment is the principal factor. So without planning it that way, the American higher education system has become almost wholly reliant on enrollment for support (Bowen 1981). The dilemma facing many less affluent institutions is that they cannot get additional resources because they cannot attract more students, and they cannot compete for students because of inadequate resources.

When comparisons are made between states the basic concern is to detect differences in the way states provide funds for higher education (Brinkman 1983). The 1950s and 60s were a period of rapidly increasing enrollment and also a time when most of the current budget formulas and tuition setting policies were developed (Allen 1983). Each year as

enrollments increased, institutions were funded on the basis of the historical average cost of enrolling a student. The costs per student unit (total dollars spent divided by the number of students) resulted from three societal decisions: the total amount to be spent on higher education; the number of units of service to be provided; and the level of quality (Bowen 1981). It is presumed that the average cost of enrolling a student is greater than the marginal cost (the change in total cost associated with producing one additional unit of output) of educating increased numbers of students in existing programs and institutions (Allen 1983). In situations where enrollments are declining, the concern is that the marginal savings attributable to enrolling fewer students will be less than the estimated savings calculated on the basis of average historical costs.

It has been noted earlier that some IM-REC sports programs receive general fund money directly. In these cases changes in IM-REC sports departmental support may be commensurate with changes in state support. If the IM-REC sports program does not receive any general fund money, and there is a decline in state appropriations to the institution, the program may still be affected. Affluent institutions devote a smaller percentage of their current expenditures to educational purposes, and a larger percent to student services (Bowen 1981).

The quality of college students prepared by the state is frequently determined by the entrance exam scores (Bowen 1981). The average high school drop out rate may also provide insight to the quality of the states young people. The relationship between the quality of the state's high school students, the state funding level for

higher education, and how that effects the IM-REC sports budget was tested by this model.

Enrollment trends should provide insight to the state's higher education picture and be related to the amount of appropriated dollars. The percent of faculty with tenure will indicate the stability of the institution (Oloman 1989). Again, relationships to the final IM-REC budget were examined. Finally, the influence of the state's per capita income and the average number of residents with four or more years of college were included as contributing variables. Hendon (1982) found that the relative numbers of persons with incomes above \$10,000 had a positive influence on the size of a municipal recreation budget.

#### The University

One measure of the quality of a university is the amount of state money allocated for its operation. Reliable information is lacking on the relationship between educational expenditures and their educational results. Consequently, institutions are ranked on resource inputs such as: faculty salaries, faculty to student ratios, number of books in the library, and student scores on entrance exams. Bowen (1977), reports that educational expenditures per student unit vary as much as three to one. The least affluent schools in his study spent \$1,612 per student unit, while the most affluent of the schools spent \$4,599. How much and where those dollars are spent will contribute to the quality of the institution. Wide differences among institutions in cost per student have been observed in every study of comparative costs (Bowen 1981). This may be due in part to the character of their program offerings.

Within the confines of its budget, other university variables may affect the IM-REC sports program. For example, research has shown that the relationship between enrollment and participation in IM-REC sports programs to be moderately high and positive, and that it can be reasonable expected that when enrollment increases, participation increases, and vice versa (Lass 1987).

Policy or decision factors will ultimately affect the IM-REC sports program. The specific institutional attributes or elements of goals, objectives, programs, the organizational structure, and operating policies are directly and substantially affected by administrator's decisions (NACUBO 1980). The relative importance assigned to the department administering the IM-REC sports program could have significant impact on the program's funding. For example, student services are often considered educational costs while auxiliary services a non-educational cost (Bowen 1981).

Affluent institutions employ a much larger nonacademic staff; including administrators, special support staff, and nonprofessional persons (Bowen 1981). Because of this, Bowen (1981) believes the focus should be on the ratio of nonacademic staff to students. This model will include staff to student ratios as well as average staff salaries.

### The Students

The characteristics of the student body has considerable impact upon the services that institution offers. For example, if the institution has enrolled large numbers of single parents, there may be a need for child care services and for counseling services related to the

need of returning adult students. Another trends in the change in the student body includes an increase in the number of commuter students. It has been estimated that 75 percent of all college students in the nation have been commuters and that the percentage is increasing (Jacoby 1981).

In general, recreation budgets of local city governments appear to be associated with certain demographic characteristics. Large size brings forth larger budgets; larger proportions of nonwhite citizens create larger budgets; higher marriage and birth rates may result in larger budgets as do higher divorce rates and higher crime rates (Hendon 1982).

Research has examined intramural participation of college student by subgroup: the collegiate, vocational, academic, and non-conformist (Amuchie 1975). Following are several of the major findings of that work:

1. The academic and collegiate groups possessed higher athletic ability than the non-conformist or vocational groups and that those with high athletic ability tended to be high intramural participants.
2. The collegiate and academic subgroups had significantly greater participation than the other two groups.
3. Academic and collegiate groups were found to have a greater knowledge of intramurals than the other groups.
4. Subculture, marital status, and residential affiliation were found to have significant but independent effects on the extent of intramural sports participation.

Those findings are supported by Searle (1985) who noted that demographics such as age, sex, and marital status to affect leisure attitudes. Bialeschki (1988), determined that males were more likely to participate in intramurals than females.

### Study Hypotheses

The model presented is multi-directional; there is no specific starting point. For example, lack of state support could lead to the elimination of programs at an institution and change the student population. On the other hand, students and/or the university could effectively influence the funding decisions of the state. In this study, the rejection or acceptance of four central hypotheses determined if there was a positive relationship between the affluence of an IM-REC sports program and various measure of quality. The quality variables were grouped into four major profiles: IM-REC sports department, student, university, and state.

*Profile 1. IM-REC Sports Department Profile.* The relationship between budgets and quality is noted by Reynolds (1976) who stated that the quality and extent to which facilities can be provided depends upon the amount of money made available for recreation purposes. Do high quality programs receive better funding? This question resulted in the study's initial hypotheses:

H1) There is a positive correlation between recreation departments judged as being high quality and the affluence of that department.

To review, it is documented that well-to-do institutions have more of everything than poor institutions and they allocate their money selectively. Does quality increase proportionally with total resources? Though not conclusive, research indicates that institutional affluence is correlated with quality in the sense that affluent institutions generate greater outcomes (Bowen 1981). How does all of this relate to recreation departments? If high quality institutions are more affluent,



will the money "trickle down" to the recreation department? Will recreational sports programs also be more affluent or will they operate independently of the university community? The remaining three study hypotheses were presented under the final three profiles.

*Profile 2: Student Profile.* The excellence of an institutions students is often used as an indicator of quality. Will this relationship translate to the recreation department level?

H2) There is a positive correlation between the quality of students and the IM-REC department's affluence.

*Profile 3: University Profile.* How closely related is the overall quality of the institution to the recreation department? The connection between the total university community and the relative wealth of the IM-REC department leads to the third hypothesis.

H3) There is a positive correlation between the quality of the university and the IM-REC department's affluence.

*Profile 4: State Profile.* Public institutions are inexorable tied to state support in the form of tax dollars. The level of state support (quality of their support) will ultimately affect the amount of money available to student services. Therefore:

H4) There is a positive correlation between the quality of state support of higher education and the IM-REC department's affluence.

The purpose of this study was not limited to seeking relationships between a department's budget and quality. Data were also collected that will summarize:

1. Sources of revenue and distribution of revenues sources.
2. Expenditure patterns and distribution of expenditures.
3. Administrative structure and university integration.

How IM-REC programs are integrated into the university system may play a critical role in determining the source and adequacy of funding. This was discussed briefly in the introduction and is now expanded as it is believed that the administrative structure will play a critical role in determining departmental affluence, which leads to the final two hypotheses of the study.

H5) IM-REC programs that are aligned with student services will receive greater funding than those aligned with academic departments.

and

H6) IM-REC programs that are aligned with student services will receive greater funding than those aligned with varsity athletic departments.

A brief review of the administration of IM-REC sports programs will serve to illustrate the importance of an administrative reporting sequence.

Depending upon the historical interpretation reviewed, Princeton University is credited with having the first intramural event when, in 1857, the freshman class created the "NASAU Baseball Club" and challenged the sophomore class to a friendly little competition (Stein 1985). Up until the 1920s, intramural programs were hit or miss in nature because the prominent administrative departments (physical education and varsity athletics) were so involved with their own programs that the "athletic needs" of the masses of students were almost entirely neglected (Mueller 1979). In 1913, Michigan and Ohio State each inaugurated a Department of Intramural Athletics under the direction of one man who was expected to handle the demands for competition in the various leading sports (Mitchell 1945). Dr. Elmer

Mitchell, considered by many to be the father of intramurals, wrote the first book on that subject in 1925, and so the profession was off to slow but certain start.

A key ingredient in the growth of IM-REC Sports programs is a student affairs administrative reporting sequence (Monaghan 1984). According to Stewart (1984), IM-REC sports programs reported to administrative departments as follows: student services 47%, physical education 23.1%, athletic department 14.5%, separate administrative unit 4.3%, and other 11.1%. Ideally, the program should be administered by the department that can best support it. The student affairs reporting sequence has been looked upon as "the place" to be on campus though this might not be the best place to be on all college campuses (Mass 1985). Research indicates that less affluent institutions tend to streamline student services (Bowen 1981).

Aligning intramurals with student services is a logical progression. The rationale can find its roots in National Education Association where, in 1918, one of the seven principles of education became, "The Worthy Use of Leisure Time". As our society becomes more technologically oriented, the need to educate students regarding the proper use of leisure time will become critical (Smith 1983). Currently, undergraduates view the college experience as one related to their total developmental growth, not to the cognitive and occupation aspects of their lives alone (Carnegie Commission 1973). The university has an obligation to contribute to the development of the total individual and to educate for living as well as learning (Lengfeld 1968).

While students and recreation professionals appear to be in agreement of the importance of recreational opportunities in the college setting, the attitude of some faculty and university administrators continues to be that intramural-recreational sports are not an academic or educational program and not important enough to draw dollars out of academic funds (Smith 1983). Fortunately, attitudes are changing, and many are beginning to acknowledge student services to be of central importance as they permeate and undergird all academic and service functions (Delworth 1980).

A shift to the student services unit of an institution may not be a guarantee of fiscal salvation. In fact, some believe that IM-REC sports programs which derive fiscal support from a variety of sources are usually the most financially secure programs (Maas 1985). As noted earlier, the revenue sources available to university based recreation programs are numerous, each with advantages and disadvantages. Because the trend in administrative reporting sequence appears to be towards the student services branch, this study sought to determine if such a relationship existed at University of Montana peer institutions.

## CHAPTER FOUR

### Methodology

#### Study Design and Method

The purpose of this study was to investigate IM-REC sports department budgets at universities similar to the University of Montana and to search for correlations between measures of quality, intervening variables, and funding strategies. This section describes the procedures that were used to collect and analyze the research data.

#### Study Population

Thirty-nine universities and colleges identified as University of Montana peer institutions made up the study population. Peer groups were defined as a group of institutions considered essentially similar with respect to contextual factors important to a particular analysis. Several assumptions were accepted regarding peer groups (Brinkman 1983):

1. No set of peer institutions is a set of purely identical institutions.
2. The researcher must delineate just how similar the institutions must be to be similar enough.
3. The degree of similarity required will be a function of the objective of the analysis.
4. The objectives of the analysis will also provide the context within which the analyst can decide in what ways the peer institutions must be similar.

When identifying peer institutions, nominal and interval variables are used to determine an institution's degree of similarity. Nominal variables, such as private versus public, are often used to categorize institutions. This sectoring process rarely produces peer groups alone. The power and applicability of sectoring in peer group analysis can be increased substantially by using it in conjunction with a threshold approach to one or more interval variables (Brinkman 1983). An institution is in or out of a peer group depending on where it lies on an interval scale, i.e.; institutions with more than 6,000 FTE students with annual state appropriations no greater than \$127,000,000.

The simplicity of sectoring threshold techniques becomes one of its weaknesses in that the method of choosing peers is easily politicized. The inherent arbitrariness of the threshold sectoring approach is easily attacked by those unhappy with the results (Brinkman 1983). Furthermore, the data being collected suffer from shortcomings:

1. The data are often derived from multiple sources.
2. The rules of recording data may be inconsistent across sources.
3. The familiarity that is helpful in spotting data errors is often missing because one must typically depend on secondary sources.

In summary, any empirical comparison (comparison based on data) will involve data that are to some degree invalid, inaccurate, or unreliable (Brinkman 1983).

The universities sampled in this study are actually two distinct groups. The first seventeen universities listed (Appendix A) are those that were identified as University of Montana and Montana State University peer institutions in the 1982 Montana State Legislative

Finance Committee report, College and University Funding Study. The addition of Montana State University and the University of Montana increases the number of universities in group one to nineteen although they are not listed in Appendix A. The study sought to determine, in a comparative sense, how well Montana supported its colleges and universities. The group they chose was used to set standards for instructional costs and work load, tuition levels, and salary levels. The University of Montana and Montana State peers were selected from institutions that grant bachelors, master and doctoral degrees. Schools considered similar in terms of economic and geographic characteristics resulted in schools being selected from a north to south, Rocky Mountain region. Finally, schools fitting the aforementioned criteria that were willing to cooperate, comprised the final seventeen (Oloman 1987).

The methods employed by the 1982 Montana State Legislative Finance Committee in their selection of peers has been the subject of some controversy. The sectoring process failed to utilize interval level data. Furthermore, parties on both sides of the issue accuse the process of including schools that were too affluent, thus raising the curve or schools that were not well off and therefore lowering the curve. In answer to this, and to increase the sample size, another twenty-one peer institutions were selected (Appendix A). The additional institutions were selected in the following manner.

First, states were chosen based upon their financial support of higher education. Using data from the State Higher Education Executive Officers (SHEEO) Report (Johnson 1986) and the Chambers Figures (1986),

seven interval variables were identified (Appendix B). Those variables were:

1. Combined state and local appropriations for higher education per FTE student.
2. Combined state and local appropriations for higher education per capita.
3. Combined state and local appropriations for higher education per \$1,000 of personal income.
4. Combined state and local appropriations and student operating fees per FTE student.
5. Percentage of student enrollment in public institutions to total population.
6. Percentage of student enrollment to total population in public four year institutions.
7. Annual state appropriation to NASULGC (National Association of State Universities and Land-Grant Colleges) and AASCU (American Association of State Colleges and Universities) institutions.

For each variable, Montana was located in the ranking. In the case of the SHEEO statistics (variables 1-6), states three points plus or minus the Montana rank were listed. The seventh variable, annual appropriations, included all state within five points, plus or minus, of Montana. The SHEEO statistics considered population characteristics of the state and addressed the Montana concern of high educational costs relative to the population. An eighth variable was added. Any state that was in the 1982 Montana State Legislative Committee Report joined the list. This produced thirty states. Those thirty states were narrowed to nineteen states that:

1. Ranked on two or more variables, or
2. Ranked on variable seven - annual appropriations.



Schools in these nineteen states were selected based upon the following threshold:

1. They were four year public institutions.
2. Members of AASCU or NASULGC.
3. Had a total enrollment greater than 6,000 and less than 24,000. The enrollment range was based upon the institution with the lowest and highest enrollment in the 1982 Montana State Legislative Finance Committee Report.

### Study Design

This study sought find correlations between measures of quality and a institution's IM-REC sport program budget. In order to have a standard measure of the recreation budget, the dependent variable "recreation dollar per student unit" was created. This variable equals the total recreation expenditures for an institution for fiscal year 1987-88 divided by the number of FTE students for that same period.

After all the budget data were coded it became apparent that the information given by the responding institutions was incomplete. Some institution's budgets account for 100% of the costs involved in running a particular program while other IM-REC sports programs are only obligated to cover a portion of total expenses. For example, many universities pick up utility or full time staff costs and those costs are not part of the total IM-REC sports budget.

The matter is further complicated by the fact that some institutions have fiscal responsibility for only IM-REC sports activities. Other institutions are much broader in their scope and offer many different programs and manage facilities. The majority of the schools in the study maintain only one budget so, for example, it is

impossible to ascertain what proportion of the total expenses relate to intramural sports, facility management, or an outdoor program.

For budget information given, all expenses and revenue were combined in one budget. Responding IM-REC sports program directors were contacted and the scope and completeness of their budgets were determined. Programs and facilities were divided into eight major areas:

1. Intramural and recreational sports
2. Outdoor program
3. Paid non-credit classes
4. Sports clubs
5. Major facilities
6. Swimming pool(s)
7. Ice rink
8. Game room

If the IM-REC sports director indicated that his department had fiscal responsibility for a program or facility area listed above, he or she was asked to estimate if the budget they submitted covered 100%, 75%, 50% or 25% of the total cost associated with the operation.

Budget variables were then weighted according to the response with 100% receiving a weight of 1.00, 75% receiving a weight of .75, 50% receiving a weight of .50, and 25% receiving a weight of .25. The maximum weight an institution could be assigned is 8. The dependent variable is a relative measure, not an absolute dollar value.

Additional measures of the IM-REC sports program included:

1. Total student activity fee money allocated to the IM-REC sports program budget.

2. Amount of state appropriated money allocated to the IM-REC sports program budget.
3. Amount of money generated by the IM-REC sports program budget in user fees.
4. Expenditure patterns for the department.
5. Money spent for capital improvements or repairs in the period 1983-85.

Recreation budget variables were compared to measures of quality and additional intervening variables thought to influence the total program. Those measures were divided into four areas yielding four profiles.

1. Recreation Department Profile. This included measures of quality through the administrator's self-evaluation of the department's program, facilities, and administrative structure. The recreation department profile also included several intervening variables: an inventory of the department's program offerings, and inventory of the department's facilities, and participant demographic information.

IM-REC sports department quality was established by responses to the director's self-evaluation portion of the questionnaire. This section was modeled after Betty van der Smissen's Evaluation and Self-Study of Public Recreation and Park Agencies.

Question 26 of the questionnaire (Appendix E) is comprised of 12 questions. These questions addressed program quality, facility and equipment quality, institutional administrative support, and reasons for non-participation. Responses were checked off the Likert scale as: strongly agree, agree, neither agree or disagree, disagree, and strongly disagree. Responses were scored on a scale of 1 to 4. Four was awarded

to the most positive response. In some cases, depending upon the wording of the question, it was better to disagree than agree with the statement. The scale response "neither agree of disagree" received zero points. Response scores were grouped according to the area it measured: program quality, facility quality, and administrative support (identified in Chapter 5 pages 78-80).

Questions 27 through 30 of the survey measure the level and scope of administrative structure at responding peers. Question 27 addressed departmental philosophy, question 28 addressed departmental goals, question 29 addressed staff orientation and direction, and question 30 determined if the department was guided by a board and ,if so, the make-up and power of the board. Each positive response received a point. The scores from those four areas were added together to create the variable, administrative total.

2. Student Profile. The only collectable measure of student quality was thought to be the student grade point average (GPA's). Data collection revealed that the statistic was unreliable because; some schools did not record that statistic, or, some schools refused to share that statistic. Of those schools that were able to provide that statistic (12 schools) some kept GPA's for each class of students and others only provided a combined GPA. In the case of the combined GPA, some schools included graduate students, excluded freshmen, or only recorded GPA's for junior and senior students. Therefore, the quality measure "GPA" was discarded for purposes of this research. A number of intervening variables thought to contribute to the total IM-REC program were identified including: number of male versus female students

enrolled; number of students living on versus off campus; number of full versus part time students; number of in versus out of state students; age distribution of students; and distribution of students by class.

3. University Profile. A number of quality variables addressing the university quality were measured and they include: student to faculty ratio; student to staff ratio; number of terminal degree faculty on staff; and number of volumes in the library. Additional intervening are: total number of FTE students attending the institution; selected average faculty salaries; selected average staff salaries; and enrollment trends in the past five years (increased, remained the same, or decreased).

4. State Profile. Measures of state quality are numerous and include: per capita rank in appropriations to higher education; average ACT or SAT score for state's high school students; state high school drop out rate; two year change in state funds for higher education operating expenses; and if state institutions give college credit for remedial courses at their institutions. A number of intervening variables collected are: percent of faculty in the state with tenure; state enrollment trends in the past ten years; per capita income; and percent of adults in the state with four or more years of college.

#### Data Collection

Data were collected from a variety of sources in a variety of ways. Data specific to the recreation department profile were collected using a questionnaire. Questionnaires were preceded by a phone call to determine the appropriate IM-REC sports department contact and to

ascertain some base line information about the programs in the study (Appendix C). An introduction letter was then mailed to all IM-REC sports department directors reiterating the intent of the study, how their institution was selected for inclusion in the study population, the significance of the study and the added incentive to all institutions cooperating with the study the promise of a copy of the final report (Appendix D). One week later, directors were mailed the questionnaire with a cover letter that briefly reviewed the information on the introduction letter(Appendix E). Each questionnaire was comprised of five parts requesting specific information about their operation:

1. An inventory of their programs and facilities.
2. The number of students participating in their programs and/or using their facilities.
3. The 1986-87 year-end budgets for all the programs and facilities over which they have fiscal control. This will include appropriated revenue, user fees revenue, and any other miscellaneous revenue, and direct and indirect expenses.
4. Any capital expenditures over the fiscal period 1982 to 1987.
5. A self-evaluation form designed to measure the quality of the department.

Five days after the questionnaires were sent, a postcard reminder was sent to all institutions in the study (Appendix F). Two weeks after the questionnaires were sent a follow-up letter was mailed to all institutions not responding, reiterating the importance of the study and requesting that they fill out and return the survey immediately (Appendix G). Three weeks after the questionnaires were sent, non-responding institutions were mailed another questionnaire and letter

(Appendix H). All institutions returning surveys were sent a letter thanking them for completing their survey and informing them that they would be contacted by phone to verify any confusing responses or complete any information that is missing (Appendix I). As mentioned earlier, responding departments were contacted by phone a second time to establish the correct weighting value for their budgets.

The final response rate from the University of Montana IM-REC sports department peers was 90%, with 36 of the 40 institutions returning the survey. It is believed that the high response rate is attributed to the fact that responding institutions are desperate for information concerning program financing and the incentive of receiving study results was sufficient motivation for participation.

The remaining independent variables classified under student, state, and university profiles were collected from different sources, including:

1. Participating institution's office of institutional research, registrar's office, student housing office, and personnel office.
2. The Chronicle of Higher Education state review of higher education.

In all cases, information concerning fall session 1987 was requested. In the case of previously recorded data, the year reported will be noted.

### Pretest

The questionnaire was pretested using the University of Montana, Montana State University, and universities that qualified only on the seventh variable in the sectoring threshold technique for the selection

of peer institutions (Maine, New Hampshire, Rhode Island, and Vermont). Those IM-REC sports departments included were not told that they were part of a pretest. The data collected in the pretest was judged as valid and accurate, and was included in the final data analysis.

### Data Analysis

The central hypotheses in this study sought to find a positive relationship between quality and affluence and administrative reporting sequence and affluence. In addition, intervening variables were collected and tested to determine if significant relationships exist. Although the budget data collected was ratio level data, many of the independent variables were nominal and ordinal level data. Initial statistical analysis revealed that the data are not normally distributed, that is, expense and revenue totals range from very low values to considerably high values, however the distribution is bunched at the bottom range. Therefore, nonparametric tests were utilized to determine if the variation in the observed frequencies is statistically significant.

Data were analyzed with the Statistical Package for Social Sciences (SPSSx) software. In cases of interval or better data, Pearson's  $r$  statistics were used to determine the correlation of the variables. The nonparametric test statistics used were chi-square, Mann-Whitney U, and Kruskal-Wallis. The advantage of the latter two tests is that the dependent variable does not have to be grouped thus using more information in the data because they make use of intervals on the measurement scale as well as ranks.



## CHAPTER FIVE

### Description of Responding Institutions and Respondent Budgets

The purpose of this chapter is to present descriptive material relating to the peer institution's organization and financing. Specifically, administrative structure, program and facility inventory, fee structure, participant demographics, and institution's budgets are described.

#### Administrative Structure and Organization of Peer Institutions

Survey results show that the majority (42%) of the peer institutions follow an academic reporting sequence. In this situation, IM-REC sports programs are part of the institution's Health and Physical Education Department. Staff members working with intramural sports may also have teaching responsibilities. Institutions reporting to varsity athletics accounted for 22% of the respondents. Another 22% report to student affairs, 8% report to a student union, and 6% report directly to auxiliaries. During fiscal year 1987-88, the University of Montana had a student union reporting sequence. That reporting sequence has changed to auxiliary services.

The questionnaire sought to trace the reporting sequence of the peers and determined that of the IM-REC sports directors responding, 36% indicated their immediate supervisor is an academic dean or chair, 19%

report to an athletic director, 19% report to a student services administrator, 14% report to a recreation director, 8% report to a student union director, and the final 3% to a housing director.

Policy development and direction for responding peers was determined by the responses to the administrative aspect of the questionnaire (Appendix E, questions 27-30). This portion of the survey contained statements that measured a department's administrative structure and guidance. Responses in those major areas (Table 1) were scored with a positive answer receiving one point and a negative answer receiving zero. The scores for the four major areas were totaled to provide an overall administrative total. In general, institutions scored moderately on philosophy and staff orientation and direction, scored low on goals and administrative total, and scored very poorly on board direction (Table 1).

Table 1. Responses to Administrative Aspect of the Peer Institution Survey

Administrative Aspect	average score	score as % of max	UM's score
Departmental Philosophy	3.1	78%	100%
Departmental Goals	3.0	60%	0%
Staff Orientation and Direction	3.6	72%	80%
Existence and Structure of Policy-Making Board	2.2	44%	80%
Administrative Total	12.0	63%	63%

Staffing patterns among peers shows a high degree of variability, especially for student staffing patterns (Table 2). The average number of full time employees employed by UM peers is 3.3 with 60% reporting a

range of one to three staff members. Part time staff are utilized at 64% of the institutions, with an average of 1.8 part time employees. The number of students employed that do not receive work study funds ranges from 5 to 945 with 90.5 the average.

Table 2. Staffing Patterns of Peer Institutions

Staffing Category	average # staff	response range	UM's response
Full Tim Staff	3.3	1-9	6
Part Time Staff	1.8	0-9	2
Work Student Student Staff	23.1	0-60	60
Student Staff (non-work study)	90.5	0-945	40

UM peer institutions were also asked to indicate capital improvement activity (projects of \$1,000 or greater) during the 1982 to 1987 period. Of the responding institutions, 72 % indicated that capital improvement projects had occurred in their departments during the five year period specified. The number of projects ranged from one to twenty with an average of 3.6. The dollar amount assigned to capital improvement activity varied greatly with values from \$1000 to \$9 million (Table 3).

Table 3. Capital Improvement Profile of UM Peer Institutions

Total dollars spent on capital improvements	frequency of response	percent of response
no improvement	10	28%
\$1,000 to \$25,000	5	14%
\$25,001 to \$50,000	4	11%
\$50,001 to \$75,000	0	0%
\$75,001 to \$100,000	2	5%
\$100,001 to \$125,000	1	3%
\$125,001 to 500,000	4	11%
\$500,001 to \$1 million	1	3%
\$1.1 million to \$4 million	4	11%
\$4.1 million to \$9 million	5	14%

#### Inventory of Peer Institution Programs and Fee Structure

All the responding institutions offer a wide variety of sports. The sports most commonly offered are softball, basketball, volleyball, and football. Team fees are charged for these sports at 61% of the peer institutions. At least 80% of the peers offer racquetball/handball, tennis, soccer, and golf with fees charged at 30-60% of the institutions. As the number of institutions offering a particular sport decreases so does the incidence of fee assessment (Table 4).

Table 4. Inventory of IM-REC Sports Activities and Fee Assessment

Sport Offered	% Peers Offering	sport @ peer % charge fee
Softball	100%	61%
Basketball	100%	61%
Volleyball	100%	61%
Football	97%	63%
Racquetball/handball	92%	34%
Tennis	92%	30%
Soccer	86%	67%
Golf	83%	67%
Runs/track events	75%	37%
Wrestling	67%	9%
Table Tennis	56%	30%
Billiards	44%	43%
Aerobics	44%	57%
Water Polo	44%	68%
Triathlons	42%	52%
Bicycle Races	31%	19%
Frisbee Sports	25%	56%
Swimming Events	22%	27%
Bowling	19%	89%
Hockey or Broomball	17%	47%
Baseball	6%	100%

Fee structure varies with the type of activity offered. Team fees are not charged at 39% of the responding institutions. For those peers

charging team fees, charges range from \$5 to \$25 (Table 5). Charges take the form of non-refundable fee or forfeit fees. In the latter case, forfeit fees are returned if the participating team does not forfeit any games during the season. In the case of non-team events (individual events), 33% of the peers charge a fee. For those charging a fee, it ranges from \$1 to \$10. Aerobics classes are offered at 44% of the peers, with 64% charging fees ranging from \$9-\$30 per session (semester or quarter).

Table 5. Fee Structure of Team Activities

Fee Type	type of fee charged in %
No fee charged	39%
\$5 to \$10 forfeit fee	11%
\$16 to \$20 forfeit fee	11%
\$21 to \$25 forfeit fee	6%
\$26 and over forfeit fee	3%
\$5 to \$10 non-refundable fee	14%
\$11 to \$20 non-refundable fee	8%
\$10 to \$20 non-refundable fee plus forfeit fee	8%

In addition to traditional IM-REC sports activities, 36% of the responding IM-REC sports departments manage an outdoor program and 25% offer non-credit classes. Club sports are provided for students at 89% of the institutions with 53% of club sports managed by IM-REC sports departments. For those club sports not managed by IM-REC sports programs, 14% are managed by student government, 8% are managed by

student services, 8% are managed by campus activities, and 6% are managed by the student union.

IM-REC sports department directors were asked to summarize attributes of their programs. This was based upon different components of their programs such as structure, supervision, activity level, and success. As a general rule, peers ranged widely regarding the distribution of activity types (Table 6).

Table 6. Program Attributes of UM Peer Institutions (percent of programs matching the attribute indicated).

Attribute Description	average response	Range of responses
Programs designed for individual participation	29%	5-60%
Programs designed for small group participation (up to 30 people)	60%	26-91%
Programs designed for large group participation (over 30 people)	11%	0-67%
Programs that are passive in nature	4%	0-21%
Programs that are active in nature	90%	79-100%
Programs with no supervision	5%	0-50%
Programs with general supervision	27%	0-70%
Programs with direct supervision	68%	30-99%
Team events that result in forfeits	11%	1-96%

#### Inventory of Peer Institution Facilities and Fee Structure

In general, 75% of the IM-REC sports program departments responding manage the recreational facilities as well as programs. This statistic varies widely when viewed in terms of specific facilities. For example, 69% of respondents indicate they have management

responsibility of the institution's recreational-use weight room (Table 7). In contrast, only 17% of the IM-REC sports departments have management responsibility of the institution's outdoor track (Table 8).

Table 7. Large Facility Inventory and Management Responsibility

Facility	distribution of responses	mgmt. resp. (% with)
Gymnasium		
0 to 7,200 square feet	6%	
7,201 to 15,000 square feet	14%	67%
15,001 plus square feet	80%	
Playing Fields		
0 to 65,000 square feet	8%	
65,001 to 130,000 square feet	39%	67%
130,001 plus square feet	53%	
Weight Room		
Do not have	3%	
0 to 1,200 square feet	39%	69%
1,201 plus square feet	58%	



Table 8. Facility Inventory and Management Responsibility

Facility	distribution of responses	% w/mgmt responsibility
Tennis Courts	100%	64%
Indoor Tennis Courts	47%	31%
Golf Course	28%	25%
Pool(s)	97%	61%
Racquetball/handball Courts	92%	61%
Indoor Track	67%	39%
Outdoor Track	94%	17%
Gymnastics Area	53%	22%
Game Room	72%	17%
Climbing Wall	22%	11%

Many IM-REC sports programs at the peer institutions control facility use with recreation passes. Of respondents, 36% do not charge fees for their passes. The remaining 64% charge fees, however, only 28% are allowed to retain that revenue. Faculty and staff passes are free at 67% of the peers. The further removed the individual is from the institution (spouses, alumni, community members) the more likely a fee is charged (Table 9).

Table 9. Recreation Pass Fees at UM Peer Institutions

User	do not have	free	\$10-50	\$51-90	\$91-130	\$130 +
faculty/staff	0%	67%	19%	8%	6%	0%
spouse of faculty/staff	8%	39%	36%	11%	11%	3%
child(ren) of faculty/staff	19%	47%	25%	6%	3%	0%
alumni	50%	17%	6%	8%	8%	11%
alumni spouse	58%	14%	0%	8%	14%	6%
community	61%	5%	0%	3%	17%	14%
student spouse	0%	53%	36%	8%	3%	0%
student child	25%	47%	19%	6%	3%	0%

#### Peer Institution IM-REC Sports Program Participant Demographics

Respondents were asked to give their professional estimate of student participation in various activities and by different user types. Intramural sports and facilities received the highest student participation of all programs. Male participation is greater than participation by females in all cases except aerobics (Table 10). The percent of students participating in IM-REC sports and living on campus ranges from 0-80% with the average 40%. Of off campus residents (commuters), an average of 21% of IM-REC sports participants live in fraternity or sorority housing with a range of 0-60%.

Of all participants, freshman and sophomore students involvement is estimated at 44% of total participation. The average estimate for junior and senior participation is 43%, graduate students and non-degree

students comprise the remainder. Finally, student participation was examined by age. IM-REC sports program peers estimated that of all their users, 18-21 year old students represent 68%, 22-25 year old students 20%, with the remainder being 26 and older.

Table 10. Average Student Participation by Activity

Activity	participation as % total student body (min-max)	of all program participants, % male (min-max)	of all program participants, % female (min-max)
IM-REC sports	39% (6-75%)	72% (50-90%)	44% (10-64%)
Aerobics	6% (3-30%)	9% (0-90%)	49% (0-100%)
Outdoor program	4% (0-30%)	22% (0-70%)	17% (0-50%)
Facility Use	39% (0-95%)	48% (0-90%)	21% (0-50%)

Peer Institution Director's Evaluation of Programs, Facilities, and Administrative Support

Question 26 of the survey (Appendix E) asked IM-REC sports directors to respond to various statements about their programs and facilities. In general, most directors indicated that their facilities and equipment are in a good state of repair and that their budgets are sufficient for the purchase of equipment. However, half of the respondents believe that their recreation areas and facilities are not adequate for the recreation programs that utilize them (Table 11).

Table 11. Responses to the Program Quality, Facility Quality, and Administrative Support Scale (in %).

SA=strongly agree, A=agree, N=neither agree/disagree, D=disagree, SD=strongly disagree	SA	A	N	D	SD
1. Our recreation areas and facilities are in a good state of repair	25	44	11	17	3
2. Our recreation equipment is in a good state of repair	33	50	6	3	8
3. Our rec areas and facilities are adequate for the rec programs that utilize them	11	31	0	50	8
4. Our budget is sufficient for the purchase of our recreation equipment	17	44	8	25	6
5. The University admin. considers our program a valuable aspect of student life	39	42	14	0	5
6. Many of the students are dissatisfied with the recreational programs we offer	0	5	8	47	40
7. Many of the students are dissatisfied with the rec facilities for their use	11	28	14	30	17
8. The majority of our programs are filled to capacity	28	36	11	25	0
9. We regularly try new programs and activities to augment the regular offerings	25	67	8	0	0
10. Compared to other University events and activities, our programs are given low priority for use in rec facilities	3	22	19	17	39
11. The reasons students do not participate in our programs is attributed to:					
a. lack of time	8	72	14	6	0
b. lack of skill	3	28	30	28	11
c. lack of interest	6	61	22	11	0
d. cost	3	0	19	31	47
e. time of day event occurs	3	36	25	31	5
f. lack of knowledge the program exists	3	44	28	19	6
12. The size of our staff is adequate	11	44	6	31	8

The responses to question 26 in Table 10 were divided into three main areas to arrive at the director's perceptions of their: (1) facility quality, items 1-5 and 7; (2) program quality, items 6, 8-9; (3) administrative support, items 5, 10, 12. Item responses were scored from 1 to 4 with 4 being awarded to the highest possible response for that item. The results of this scoring are presented in Table 12.

Table 12. IM-REC Sports Director's Evaluation of Facility & Program Quality and Administrative Support.

Area of Evaluation	average score	score as % of max	UM's score
Facility Quality	13.0	65%	80%
Program Quality	8.8	73%	75%
Administrative Support	7.8	65%	83%

Item 11 of Table 11 measures IM-REC sports director's opinion of why students do not participate in their programs. Lack of time, interest, and knowledge that the program exists received the greatest consensus for contributing to non-participation. Cost did not appear to be a significant factor, and respondents were split when assessing the impact of the student's lack of skill or the time of day the event occurs.

#### The Budget - Revenue Review

Dollar values presented are weighted FTE dollars. To review (Chapter Four, pages 59-61), the actual dollar amounts for various expense and revenue items were divided by that university's FTE (full time equivalent) student count for fall 1987. The computed "recreational dollar per FTE" was then weighted. The weighting factors for budget variables were determined by how many of the eight identified program and facility areas the IM-REC sports department had fiscal responsibility for. Of those areas, department directors were asked if the budget they submitted for that area represented 100%, 75%, 50%, or 25% of the total program costs. For example, many institutions in the study do not have to pay the utility costs associated with facility

management or pay for the maintenance or repairs of equipment and/or facilities.

The greatest sources of revenue for IM-REC sports programs at the University of Montana peers is student activity fee money, user fees, and state money. Considerable variety was exhibited between the range of values for different revenue sources (Table 13). For example, the amount of revenue collected through user fees ranges from \$0.00 to \$23.08 per weighted FTE recreation dollar. The range in revenue collected from recreation passes is much smaller, \$0.00 to 5.32. The University of Montana had the highest reported values for user fees, merchandise for resale profits, and financial support from its own department (auxiliaries). The University of Montana also scored highest on total weighted FTE revenue at \$44.67.

When examining what percent of total revenue a particular revenue source represents, some interesting figures are revealed. User fees represent 52% of the total revenue acquired by the University of Montana. The average contribution of user fees to total revenue for peer institutions is 11%. In contrast, money from student activity fees accounts for an average of 48% of UM peer institution's IM-REC sports budgets. At the University of Montana only 12% of total revenue comes from student activity fee money.

Table 13. Revenue Profile of University of Montana Peer Institutions  
(values are weighted FTE dollars)

Revenue Source	mean rec \$/FTE	range rec \$/FTE	UM rec \$/FTE	highest reporting institution
Student Activity Fee	\$6.79	\$0-34.64	\$5.18	U New Mexico
Separate Recreation Fee	\$.95	\$0-13.20	\$.00	U Southern Maine
Facility Rental	\$.49	\$0-6.50	\$3.24	U Idaho
Recreation Passes	\$.45	\$0-5.32	\$.70	Montana State
User Fees	\$1.59	\$0-23.08	\$23.08	U Montana
Sale of Merchandise	\$.22	\$0-4.59	\$4.59	U Montana
Donations & Fund Raisers	\$.22	\$0-4.59	\$.00	Washington State
State Money	\$1.64	\$0-16.44	\$4.59	New Mexico State
Money From Department	\$.22	\$0-3.31	\$3.31	U Montana
Miscellaneous Other	\$.09	\$0-1.40	\$.00	Colorado State
TOTAL REVENUE	\$12.63	\$1.79- 44.67	\$44.67	U Montana

#### The Budget - Expense Review

The data indicate that personnel costs dominate IM-REC sports program budgets at UM peer institutions (Table 14). On the average, staff salaries account for 80% of total expenses with a range of 24% to 99%. The University of Montana expends 60% of its budget in this area. IM-REC sports program peers apportion an average of 49% of their total budget to full and part time employees. The average student employee expenditures account for an average of 31% of peer budgets. Again, there is considerable variation in values presented. Student employee expenditures account for 4% to 68% of total costs depending upon the institution in question. The University of Montana apportions 30% of its budget in this area and the same proportion to full and part time staff. The range for full and part time staff is 19% to 82%. The remaining expenses do not contribute significantly to overall expenses. The average total expense value is \$15.82. Again, the University of

Montana scores highest in this area with a computed dollar equivalent of \$47.04.

Table 14. Expense Profile of University of Montana Peer Institutions (values are weighted FTE dollars)

Expense Source	mean rec \$/FTE	range rec \$/FTE	UM rec \$/FTE	highest reporting institution
Full and Part Time Staff	\$7.59	\$1.08-20.78	\$14.06	U New Mexico
Student Staff	\$4.59	\$.48-14.08	\$14.08	U Montana
Contracted Services	\$.15	\$.00-2.64	\$2.64	U Montana
Supplies	\$1.25	\$.05-3.65	\$2.87	Nebraska-Lincoln
Communications	\$.43	\$.00-5.20	\$2.43	Colorado State
Travel	\$.65	\$.00-5.01	\$1.51	U AB-Birmingham
Rent	\$.24	\$.00-5.75	\$1.50	U South Dakota
Utilities	\$.71	\$.00-3.88	\$.24	Idaho State
Repair and Maintenance	\$.28	\$.00-2.35	\$2.35	U Montana
Dues and Memberships	\$.06	\$.00-.51	\$.11	Utah State
Merchandise for Resale	\$.13	\$.00-3.45	\$3.45	U Montana
Administrative Assessmnt	\$.09	\$.00-1.80	\$1.80	U Montana
Miscellaneous Expenses	\$.17	\$.00-1.50	\$.00	U New Mexico
<b>TOTAL EXPENSES</b>	<b>\$15.82</b>	<b>\$1.89-47.04</b>	<b>\$47.04</b>	<b>U Montana</b>

#### Summary of Descriptive Results

The majority of peer institution IM-REC sports programs are administered by academic departments, specifically, Health and Physical Education Departments. Many of the remaining IM-REC sports programs report to varsity athletic or student services. Only a few peers report to a student union or auxiliary department. The majority of IM-REC sports program directors report to an academic dean or chair.

The responding department's administrative organization and direction was measured. Overall, peers scored low in areas of goal setting, and existence and structure of a policy making board. Peers scored moderately in the area of departmental philosophy and staff



orientation and direction. When all these units were totaled, the average total response was again low at 63% out of a possible 100%.

Staffing patterns among peers shows a high degree of variability, especially for student staffing patterns. The average number of full time employees is 3.3, and the average number of part time employees is 1.8. Student work study staff ranges from 0 to 60 employees with an average of 23.1. The number of student employees without work study averages 90.5, with a range of 0 to 945.

Capital improvements were made at 72% of responding institutions. The number of improvements ranged from 1 to 20 with an average of 3.6. The dollar value of improvements varied from \$1000 to \$9 million.

All the responding institutions offer a wide variety of sports with softball, basketball, volleyball, and football the most common. The majority of institutions charge fees for team and individual events. The percent of institutions charging fees fluctuates widely with each sport in question. Team fees vary from \$5 to \$25 with some peers charging forfeit fees or a combination of non-refundable and forfeit fees. Non-team events are offered free of charge at 33% of peer departments and of those charging fees the cost is from \$1 to \$10. Aerobics classes are free at 44% of the peers offering classes. The cost varies from \$9 to \$30 per session.

IM-REC sports department directors were asked to summarize attributes of their programs. On an average, 96% of all programs offered are active in nature with an average of 4% passive. The level of program supervision was examined and an average of 27% of all programs are run with general supervision, 68% with direct supervision,

and 5% with no supervision. The majority (60%), of the programs offered are designed for small group participation, 29% are for individual participation, and only 11% of all activities are for large groups.

In general, 75% of the IM-REC sports departments responding manage the recreational facilities as well as programs. Gymnasium and playing field management is controlled by 67% of the peers. The recreational weight room is managed by 69% of the peers. Many programs control facility use with recreation passes. Of respondents, 36% do not charge fees for their passes. The remaining 64% charge fees, however, only 28% are allowed to retain that revenue.

Respondents were asked to give their professional estimate of student participation in various activities and by different user types. Intramural sports and facilities receive the highest student participation of all programs. Male participation is greater than participation by females in all cases except aerobics. An average of 40% of intramural sports participants live on campus. Freshman and sophomore participation is rated highest of all classes. The majority of users (68%) are estimated to be in the 18 to 21 year old range.

On an average, most IM-REC sport directors indicated that their facilities quality is fair, that their program quality is good, and their administrative support is fair. In general, most directors indicated that their facilities and equipment are in a good state of repair and their budgets are sufficient for the purchase of equipment.

The greatest source of revenue for IM-REC sports programs at responding peers is student activity money. The University of Montana deviates from the norm, receiving approximately 52% of its operating

revenue through user fees. Money from student activity fees accounts for an average of 48% of UM peer institution's IM-REC sports budgets.

The data indicate that personnel costs dominate budgets at peer IM-REC sports programs. On the average, staff salaries account for 80% of total expenses. Of all staff expenditures, peers apportion an average of 49% of their total budget to full and part time employees. The University of Montana apportions 30% of its budget to full and part time employees.

The results of these findings are interpreted in Chapter 7.

## CHAPTER SIX

### Results of Hypotheses Tests

#### Introduction

In this chapter, the results of the hypothesis testing will be reported through both reference to the profile of IM-REC programs compiled by this study, and through the investigation of the features of the external factors which most influence these programs. Hypotheses 1, 5, and 6 address program quality and administrative structure as they relate to IM REC program affluence. The remaining test hypotheses relate to REC profiles as follows: student profile and Hypothesis 2, quality of university support and Hypothesis 3, and quality of state support and Hypothesis 4.

#### Recreation Department Profile Tests

Hypothesis 1 stated that there is a positive correlation between recreation departments judged as being high in quality and the affluence of that department. The dependent variable used to test this hypothesis was the weighted FTE (full time equivalent) recreation dollars allocated per peer institution. This variable is the sum of the total recreation expenditures for an institution for fiscal year 1987-88 divided by the number of FTE student participants during the same period. The FTE expenditure value was then weighted by figuring in the number of program and facilities areas (1 to 8 possible) for which the department has

fiscal responsibility and the percent of total expenditures represented by the FTE value (25%, 50%, 75%, or 100%). A complete review of the weighting procedure can be found in Chapter Four, pages 59-61.

Eight measures of IM-REC sports department quality were established based upon Betty van der Smissen's Evaluation and self-study of public recreation and park agencies (1972). In the case of four of the quality measures which presented a wide range of scores, institutions were classed as high, moderate, or low. The distribution of institutions across these classes according to those measures is shown in Table 15.

Table 15. Distribution of classes for four IM-REC sports department quality measures.

Quality measure	high quality	moderate quality	low quality
Program quality score	10-12	7-9	3-6
Facility quality score	15-20	9-14	3-8
Administrative support score	9-12	5-8	1-4
Administrative total score	13-19	7-12	1-6

In most cases, two different statistical tests were used to determine if relationships existed between the dependent variable and the independent quality measures. Chi-square statistics were used to discover associations between variables when measured at the ordinal or nominal level. To accomplish this, the dependent variable was ranked as a low, moderate or high cost IM-REC sports program. Institutions were classed based on the weighted FTE recreation costs as follows:

- 1) low costs - \$1.88 through \$10.00 (number of cases = 11)
- 2) moderate costs - \$10.01 through \$19.00 (number of cases = 13)

3) high costs - \$19.01 through \$47.25 (number of cases = 10)

To a degree, the ranking of the dependent variable is arbitrary. Because data measuring the "per student" cost of providing recreational services has never been collected there are no scales of reference. Therefore, the range of low to high costs established in this study is a relative scale for the represented population. The mean weighted FTE recreation dollar value is \$15.82 with a standard deviation of \$9.48. Variability displayed by this measure is high with 76% of the observed values fall between \$6.34 and \$25.31 (within one standard deviation above or below the mean). Also the variability is more pronounced at the high end with the values above one standard deviation.

A second statistical test utilizing both Kruskal-Wallis 1-Way ANOVA and Mann-Whitney U Wilcoxon Rank Sum W test statistics was also run to test for differences between quality scores and to determine if ranking affected the chi-square test results. This allowed the dependent variable, weighted FTE recreation dollars to be analyzed based computed on a value, rather than categories ranked from high to low. The Mann-Whitney statistics were used in cases of two-sample tests, the Kruskal-Wallis for k-groups, and the results of both are reported. Table 16 shows the test results for the relationships between measures of quality and weighted FTE recreation dollars.

The statements in survey question 26 (Appendix E) were used to create the quality measures: program quality, facility quality, and quality of administrative support. A discussion of the determination of these measures can be found in Chapter Five, pages 78-80. A discussion

of how these measures were scored can be found in Chapter Four, pages 62-63.

Table 16. Relationship between weighted FTE recreation dollars and IM-REC sports department quality measures.

IM-REC sports department quality measure	chi-square significance	Kruskal-Wallis significance
1) Program Quality	0.56	0.68
2) Facility Quality	0.85	0.70
3) Administrative Support	0.39	0.62
4) Departmental Philosophy	0.64	--
5) Departmental Goals	0.10	--
6) Staff Orientation and Direction	0.49	--
7) Existence and Structure of Policy Making Board	0.43	--
8) Administrative Total (Numbers 4-7 from above)	0.63	0.99

The chi-square test identified a significant difference in the category "Departmental Goals" ( $p \leq 0.1$ ), the only quality measure exhibiting statistical significance. The measure "Departmental Goals" was scored on a scale of 0 to 5 (Table 17). A very significant tendency is discovered when looking at the distribution of responses by department affluence rather than score (as reported in Table 17), only 10% of the low cost departments had a score of 0 while 50% of the high cost departments received that score. It would appear that the lower the "Departmental Goal" score, the higher the department cost.

Table 17. IM-REC department affluence by quality measure "departmental goals," in per cent.

affluence	score 0 n=11	score 1 n=1	score 2 n=0	score 3 n=3	score 4 n=5	score 5 n=14
low	10	100	0	67	80	21
moderate	45	0	0	33	20	43
high	45	0	0	0	0	36

chi-square = 13.23      d.f. = 8       $p \leq .10$

The measure for assessing program quality was comprised of three responses from survey question 26 (Appendix E). The response to only one of those statements, "Many of the students are dissatisfied with the recreational programs we offer" was significant ( $p \leq 0.1$ ). Of all respondents, 85% disagreed or strongly disagreed with the statement. Of those that strongly disagreed, 55% were low cost schools, 8% were moderate cost schools, and 42% were high cost schools.

Results of the preceding analyses do not support Hypothesis 1. Only one quality measure "Department Goals" proved to correlate with the dependent variable and that relationship is negative. This suggests that IM-REC sports department quality, as self-evaluated by respondents, is not related to the department's budget.

Hypotheses 5 and 6 stated that IM-REC sports departments aligned with student services will receive greater funding than departments aligned with either academic or athletic departments. Both the Kruskal-Wallis and the chi-square tests failed to reveal that a significant relationship exists between the weighted FTE recreation dollar and the particular administrative structure of programs. The Kruskal-Wallis



test presented the following mean ranks as: academic departments - 15.40, athletic departments - 20.00, and student services departments - 18.55. The lower the score, the lower the weighted FTE recreation dollar value. The statistical significance of the test is  $p \leq .05$ . Because of the lack of statistically significant correlation, Hypotheses 5 and 6 were also rejected.

Relationships between administrative reporting sequences and other variables were also tested. The literature reviewed indicates that the reporting sequence of IM-REC sports programs is progressing from athletic or physical education departments to student services. If the future of IM-REC sports programs lies in this direction, the question as to how the administrative reporting sequence will affect the size, scope, and revenue collection policies of the programs and facilities. Of all the intervening variables tested, no statistically significant relationships were discovered:

- 1) Administrative reporting sequence is not related to the program's source of funding (student activity fee, recreation fee or general fund monies).
- 2) Administrative reporting sequence is not related to the imposition of fees for non-student use of facilities; or if fees are charged, to who retains the fees.
- 3) Administrative reporting sequence is not related to whether or not the IM-REC sports program has management responsibility for sports clubs.
- 4) Administrative reporting sequence is not related to whether or not the IM-REC sports program has management responsibility for an outdoor program or for non-credit classes.
- 5) Administrative reporting sequence is not related to the imposition of fees for team sports; and if fees are charged, to how much those fees are.

- 6) Administrative reporting sequence is not related to the imposition of fees for non-team events; and if fees are charged, to how much those fees are.
- 7) Administrative reporting sequence is not related to whether or not the IM-REC sports program manages both the facilities and the programs or just the programs.

The only relationship that proved to be statistically significant ( $p \leq .08$ ) correlates the administrative reporting sequence with fee assessment for aerobics classes (Table 18).

Table 18. IM-REC sports department administrative reporting sequence by fee assessment for aerobics classes, in per cent.

Administrative department	no charge n=19	fee charged n=17
Academic department	53	29
Student services	32	42
Varsity athletics	15	29

chi-square = 19.16      d.f. = 12       $p \leq .08$

Several other variables were tested in relation to the dependent variable, weighted FTE recreation dollars. A positive relationship exists between capital improvements undertaken 1982 to 1987 and the total cost of the IM-REC sports department (Table 19). Capital improvements occurred in 100% of all high cost departments, in 77% of those of moderate cost, and in 45% of low cost departments.

Table 19. IM-REC sports department affluence by capital improvements, in percent.

department affluence	capital improvements n=25	no capital improvements n=9
low	20	67
moderate	40	33
high	40	0

chi-square = 8.13                      d.f. = 2                      p ≤ .02

In all cases, high cost departments manage both programs and facilities, 69% of moderate cost and 63% of low cost institutions manage both. This finding is statistically significant at  $p \leq .10$ .

No significant relationship exists between the weighted FTE recreation dollar and the list of departments which charge fees for their programs. Fees tested include: team fees, non-team events, and aerobics classes.

A significant relationship exists between the weighted FTE recreation dollar and both the size of the staff and the ratio of full-time to student work-study staff (Table 20). Because both variables represent ratio level data, Pearson's  $r$  correlation coefficients were computed. This test supports the chi-square test and the strength and direction of the relationship is both moderated and positive. Results of the staffing categories which tested as significant are reported in Table 21.

Table 20. Relationship between weighted FTE recreation dollars and staffing category.

IM-REC sports department staffing category	Chi-square significance	Pearson's r significance
number full time staff	0.06	.00
number part time staff	0.34	.50
number work-study student staff	0.01	.01
number student staff (w/o work-study)	0.70	.97

Table 21. IM-REC sports department affluence by staffing category, in percent.

department affluence	full time staff*			work-study student staff**		
	1-3	4-6	7-9	0-20	21-40	41-60
low	43	12	25	53	13	33
moderate	43	44	0	47	31	33
high	14	44	75	0	56	33

\* chi-square = 8.93 d.f. = 4 p ≤ .06

\*\* chi-square = 12.84 d.f. = 4 p ≤ .01

The final IM-REC sports department variables tested with the dependent variable measure student participation in IM-REC sports programs and facilities. Users were categorized as intramural participants, aerobics participants, outdoor program participants, or facility users. Respondents also indicated an estimate of their degree of involvement. Responses represented student participation as a percent of the total student body. In addition, estimates were included of the percent that were male and percent that were female. The only significant relationship ( $p \leq .05$ ) was between weighted FTE recreation

dollars and outdoor program participants as a percent of total student body, where participation is higher in high cost IM-REC sports programs.

### Student Profile Tests

As mentioned in the methodology chapter, the primary qualitative measure, student GPA, was not collectable. Hypothesis 2 was therefore neither accepted or rejected, but instead discarded. Seventeen additional variables thought to influence the total IM-REC sports budget were collected, but only four of these were significant, and then only one out of three tests (chi-square, Kruskal-Wallis, Pearson's r).

When chi-square and Kruskal-Wallis tests were run, all independent variables were classed as high, moderate, or low cost. Ranking that was used in previous tests was maintained:

- 1) low costs - \$1.88 through \$10.00 (number of cases = 11)
- 2) moderate costs - \$10.01 through \$19.00 (number of cases = 13)
- 3) high costs - \$19.01 through \$47.25 (number of cases = 10)

Relationships that are significant in the case of chi-square tests are not significant when Kruskal-Wallis and regression statistics were applied. The distribution of institutions across these classes for those measures testing statistically significant is shown in Table 22.

Table 22. Distribution of classes for statistically significant student profile measures, in percent.

student profile measure	high % students	moderate % students	low % students
% students age 21 & younger	49-62	36-48	23-35
% students age 22-25	26-40	22-25	18-21
% students age 26 and older	41-55	26-40	11-25
% full time students	81-95	72-80	44-71

The relationship between the weighted FTE recreation dollar and the distribution of students within three different age categories proved significant ( $p \leq .10$ ) when referred by the chi-square statistic (Table 23). The percent of full time students also proved to be related to the weighted FTE recreation dollar ( $p \leq .06$ ).

When looking at the distribution of responses among the most affluent IM-REC sports departments, the greatest number of students were found in the traditional age range of 21 to 25. These programs also have the lowest number of students that are 26 years and older. However, institutions with the largest numbers of students in the 26 years and older tend to be moderate cost schools in terms of IM-REC sports budgets (Table 24).

Institutions with 72 to 80% of the student body comprised of full time students tend to be high in weighted FTE recreation dollars (Table 25). Correspondingly, the lowest per cent of full-time students are found among the least affluent IM-REC sports programs. The relationship between part time students and the dependent variable did not prove to be statistically significant.

Table 23. Relationship between weighted FTE recreation dollars and characteristics of the student body.

Student body characteristics	chi-square significance	Kruskal-Wallis significance	Pearson's r significance
Total FTE students	0.29	----	.82
% full time students	0.06	0.24	.95
% part time students	0.32	0.59	.97
% students living on campus	0.66	0.48	.99
% students living off campus	0.43	0.60	.80
% freshmen students	0.79	0.70	.73
% sophomore students	0.80	0.93	.53
% junior students	0.25	0.78	.48
% senior students	0.37	0.34	.45
% graduate students	0.54	0.96	.70
% students 21 and younger	0.07	0.92	.90
% students 22-25 years old	0.05	0.97	.97
% students 26 and older	0.03	0.49	.69
% male students	0.39	0.30	.32
% female students	0.24	0.36	.32
% in-state students	0.32	0.90	.79
% out-of-state students	0.24	0.31	.79

Table 24. IM-REC sports department affluence by distribution of age of students at the peer institutions, in per cent.

department affluence	age 21 & younger*			age 22-25**			age 26 & older***		
	high	moderate	low	high	moderate	low	high	moderate	low
low	30	50	37	33	42	43	50	27	44
moderate	30	20	25	34	25	14	12	36	22
high	40	30	38	33	33	43	38	36	33

\* chi-square = 14.64      d.f. = 8      p ≤ .07  
 \*\* chi-square = 12.45      d.f. = 6      p ≤ .05  
 \*\*\* chi-square = 13.36      d.f. = 6      p ≤ .04

Table 25. IM-REC sports department affluence by distribution of full time students at peer institutions, in per cent.

department affluence	high # of full time students 81-95%	moderate # of full time students 72-80%	low # of full time students 44-71%
low	50	11	36
moderate	33	22	45
high	17	67	18

chi-square = 11.91      d.f. = 6      p ≤ .06

### University Profile Tests

Hypothesis 3 stated that there is a positive relationship between the quality of the university and the IM-REC sports department affluence. Data concerning four variables measuring university quality were collected. One of these tests showed that the percent of faculty with terminal degrees (the highest degree possible in that profession, usually a PhD) was significantly related ( $p \leq .06$ ) to the dependent variable, weighted FTE recreation dollars. The chi-square test for differences between the percent of PhD's at an institution and the recreation budget demonstrated that the higher the percent of PhD professors, the greater the weighted FTE recreation dollars (Table 26).



Table 26. IM-REC sports department affluence by distribution of terminal degree faculty at peer institutions, in per cent.

department affluence	high # of terminal degrees 81-94%	moderate # of terminal degrees 72-80%	low # of terminal degrees 49-71%
low	14	55	33
moderate	14	27	44
high	71	18	22

chi square = 11.99      d.f. = 6      p ≤ .06

Three other institutional quality variables were identified: student to faculty ratio, student to staff ratio, and number of volumes in the library. None of these quality variables tested were significant ( $p \leq .10$ ), nor were any strong linear correlations discovered (Table 27). As only one of four quality measures proved significant, Hypothesis 3 was rejected.

Table 27. Relationship between weighted FTE recreation dollars and university quality measures.

University quality measures	chi-square significance	Kruskal-Wallis significance	Pearson's r significance
% faculty with terminal degrees (PhD's)	0.06	0.11	.54
student to faculty ratio	0.60	0.64	.85
student to staff ratio	0.16	0.33	.31
number volumes in library	0.19	0.46	---

Seven additional variables were thought to contribute to total IM-REC sports department budgets. Of those seven, three proved to be statistically significant (Table 28). Average salary expenditures for four different positions at an institution were collected. Faculty salaries as related to weighted FTE recreation dollars were not

significant, however, the staff, president/provost, and clerical salaries were significant,  $p \leq .10$  (Table 29). Curiously, the relationship of the salaries to the dependent variable was negative: low salary expenditures were related to IM-REC sports departments determined as high cost. This proved significant with both chi-square and Kruskal-Wallis tests.

The third variable that was significant ( $p \leq .08$ ) concerned the university calendar. Schools that run on semesters rather than the quarter system are more likely to be high cost schools, though this only proved significant with the chi-square test.

In summary, the only association between the weighted FTE recreation dollars and quality measures was the percent of terminal degrees. Other characteristics proved significant however, indicated the unexpected tendency of high cost programs to exist in institutions that pay lower average staff salaries.

Table 28. Relationship between weighted FTE recreation dollar and selected university characteristics.

University characteristics	chi-square significance	Kruskal-Wallis or Mann-Whitney significance
average associate professor salary	0.29	0.79
average full professor salary	0.50	0.84
average clerical salary	0.04	0.09
average provost/vice president salary	0.02	0.09
enrollment trend since fall 1982	0.79	0.95
open enrollment policy	0.73	0.68
quarter vs. semester calendar	0.08	0.22

Table 29. Relationship between the IM-REC sports department affluence and the average salaries of selected staff positions, in percent.

department affluence	clerical position*				vice president/provost**			
	\$9000-11600	\$11601-14200	\$14201-16800	\$16801-19400	\$65000-68500	\$68501-76500	\$76501-84500	\$84501-92500
low	18	80	50	50	28	20	80	50
moderate	27	0	50	0	43	0	0	25
high	55	20	0	50	29	80	20	25

\* chi square = 16.03 d.f. = 8  $p \leq .04$

\*\* chi-square = 18.03 d.f. = 8  $p \leq .02$

### State Profile Tests

Hypothesis 4 states that a positive correlation exists between the quality of state support of higher education and the IM-REC sports department's affluence. Five variables were identified to evaluate a state's commitment to higher education. It is assumed here that the greater the commitment to the higher education system, the greater the educational quality of that state. Data for this portion of testing were collected from The Chronicle of Higher Education Almanac - 1988.

The Chronicle's source of each variable was:

- 1) Remedial course credit - Chronicle reporting, 1988.
- 2) State ACT/SAT scores - U.S. Department of Education, 1987.
- 3) High school dropout rate - U.S. Department of Education, 1986.
- 4) Two year change in state funds - Edward R. Hines, Illinois State University, 1987-88.
- 5) State appropriations rank - Chronicle reporting, 1988.

Of all the state quality variables collected, only one variable, "Remedial Course Credit," proved to be statistically significant, and then only for one test (Table 30). In this case, it is indicated that

institutions that do not award course credit for remedial classes tend to be institutions with high cost IM-REC sports programs. Although the variable "State Appropriations Rank" demonstrated a degree of correlation, weighted FTE recreation dollars, it was not great enough to be significant. The final study hypothesis, Hypothesis 4, is rejected because of the lack of meaningful correlation.

Table 30. Relationship between weighted FTE recreation dollars and state quality measures.

State quality measures	chi-square significance	Kruskal-Wallis or Mann-Whitney significance	Pearson's r significance
remedial course credit	0.25	0.08	---
average state ACT/SAT score	0.89	0.87	---
high school drop-out rate	0.31	0.19	---
2-year change in state funds	0.53	----	---
state appropriations rank	0.40	----	.15

Five additional variables thought to contribute to the dependent variable were also tested. Data for these variables were collected from The Chronicle of Higher Education Almanac - 1988, whose sources were as follows:

- 1) Per capita income - U.S. Department of Commerce, 1987.
- 2) Percent of adults in state with 4 or more years of college - Census Bureau, 1980.
- 3) Ten year enrollment trend - U.S. Department of Education, 1986-1987.
- 4) Percent faculty with tenure - U.S. Department of Education, 1985-1986.
- 5) Average state tuition - U.S. Department of Education, 1986-1987.

However, the tests for these variables did not reveal any association between them and the dependent variable, weighted FTE recreation dollars (Table 31).

Table 31. Relationship between weighted FTE recreation dollars and selected state characteristics.

State characteristics	chi-square significance	Kruskal-Wallis significance	Pearson's r significance
per capita income	----	0.11	----
% of adults with 4 or more years of college	0.53	0.59	----
10 year enrollment trend	0.17	0.13	----
% faculty with tenure	0.53	0.32	----
average state tuition	0.19	0.15	.60

#### Summary of Hypotheses Tests

None of the hypotheses statements were accepted in their entirety. No significant relationships were detected between the dependent variable, weighted FTE recreation dollars, and the quality measures. Furthermore, no significant relationship was discovered to exist between the IM-REC sports department's reporting sequence and the affluence of the institution. Those variables that tested as bearing a significant relationship to the dependent variable are summarized in Table 22.

Table 32. Variables exhibiting a statistically significant relationship to the dependent variable, weighted FTE recreation dollars.

variable tested	chi-square significance	Kruskal-Wallis significance	Mann-Whitney significance	Pearson's r significance
recreation profile: Departmental Goals	0.10	n/a	n/a	n/a
recreation profile: Capital Improvements	0.02	n/a	n/a	n/a
recreation profile: Facility Management	0.10	n/a	0.24	n/a
recreation profile: Full Time Staff	0.06	n/a	n/a	.00
recreation profile: Work Study Staff	0.01	n/a	n/a	.01
recreation profile: Outdoor Program Participants	0.05	n/a	n/a	.05
student profile: % Full Time Students	0.06	0.24	n/a	.95
student profile: % students $\leq$ 21	0.07	0.92	n/a	.90
student profile: % students 22-25	0.05	0.97	n/a	.97
student profile: % students $\geq$ 26	0.03	0.49	n/a	.69
university profile: % terminal degrees	0.06	0.11	n/a	.54
university profile: vice pres. salary	0.04	0.09	n/a	n/a
university profile: clerical salary	0.02	0.09	n/a	n/a
state profile: remedial class credit	0.25	0.08	n/a	n/a

## CHAPTER SEVEN

### Thesis Research: What Does It All Mean?

#### Introduction

The implications of the study results are discussed in this chapter. First, the findings of the hypotheses tests are analyzed. This is accomplished in sections comparing IM-REC program budgets to the following considerations: department characteristics; program participants; institutional characteristics; and finally, state support of programs. In each of these sections, the implications of the failure of the collected information to verify the respective hypothesis is discussed, and then an analysis of the specific test questions which did show a significant correlation is undertaken.

The profiles portion of the chapter is followed by a consideration of the effect of the particular methodologies utilized in the study upon the test results. This leads into a discussion of the concepts of "peer institutions" and "peer IM-REC programs." The chapter concludes with a brief section presenting overall conclusions and recommendations.

#### Implication for IM-REC Sports Program Budgeting

The University of Montana is clearly the blue ribbon winner when it comes to highest weighted FTE recreation revenue dollars and expense dollars (total revenue or expense divided by the number of participants and adjusted to the program size). The average dollar value for this

figure among institutions studied is \$12.63, while the University of Montana value is \$44.67, 3.5 times higher than the average. At the same time, the average weighted FTE recreation expense dollar value is \$15.82 among all schools, while the University of Montana value is \$47.04, 3 times higher than the average. This difference is felt to be due, in part, to the precise nature of the University's accounting practices than substantive differences in program offerings.

Even if the accounting situation distorts any comparison of the magnitude of the weighted FTE values, the revenue and expense line item distribution accurately indicated the origin of budget components. The greatest source of revenue for the IM-REC sports department peers is student activity fee money. This accounts for an average of 48% of peer's operating revenue. But, at the University of Montana, student activity fee money contributes to only 12% of the total budget. Revenue from user fees accounts for 52% of UM's operating revenue, while contributing an average of 11% at peer institutions. Clearly, UM relies much more heavily on user fees than does its peers. This may account, in part, for the greater revenue.

The data indicate that the dominant budget expense goes to personnel. Staff salaries account for an average 80% of total costs at peer institutions, and 60% of the total costs at the University of Montana. And, while full and part time staff account for a greater piece of the pie than student employee costs at peer institutions, at the University of Montana 50% of all personnel costs relate to full and part time staff and the remaining 50% of costs are expended on student staff.



The weighted FTE total expense recreation dollar values range from \$1.89 to \$47.04 in the peer programs. This value was used as the dependent variable for all statistical tests. The reliability of this measure was judged as being greater than the related revenue dollar. Many IM-REC sports programs in the study operate with an expense budget only, and in these cases, a record of revenue accounting was not available. Also, because the majority of the follow-up phone calls concentrated upon revenue reporting by programs, revenue information collected was thought to be incomplete or incorrect in many cases.

Hypothesis 1 stated that there is a positive correlation between IM-REC sport departments judged as being high quality and the affluence of that department. Overall, the hypothesis was rejected because only one of eight quality measures proved to be statistically significant. The single significant measure, "department goals," indicated that the lower the score (assumed to signify poor management attention to setting and following goals) the higher the costs of the IM-REC sports department. Does this mean high cost programs are providing good services as indicated through the greater disbursement of dollars? Or that they not very efficient (because of lack of direction) at what they are doing while low cost programs are providing the same services at reduced costs?

Additionally, a positive relationship between capital improvements and the IM-REC sports department's budgets was found. All high cost IM-REC sports programs completed capital improvement projects during the period of 1982-87, despite the fact that capital improvement budgets are generally separate from operating budgets. And, while it is interesting

to note that institutions are more likely to allow capital improvements at IM-REC sports programs that operate at a higher cost, the general source of the capital improvement money is not known. In the case of the University of Montana, some capital improvements were accomplished through the use of student building fee money. Other improvements were subsidized by the Department of Auxiliary Services.

As is logical, a positive relationship exists between an IM-REC sports department's staff size and the weighted FTE recreation dollar value. The correlation between this value and the quantity of full time and work study student staff is strong and the relationship positive. This is not the case with part time and student staff without work study funding. In the latter situation, staff size did not account for any part of the variation in dollar values. It should also be noted that, in the case of part time and student staff without work study, the range of values was both much greater and it was hampered by a small sample size.

One possible explanation for the relationship between high cost IM-REC sports programs and high outdoor program participation is that higher quality program will probably incur greater costs due to equipment and travel expenditures. It would then follow that high cost programs will be able to operate quality programs and participation will be greater in these instances. Conversely, high cost IM-REC sport programs may have an inflated view of themselves and, as a result, overestimate participation on the survey.

Hypotheses 5 and 6 stated that IM-REC sports departments that are aligned with student services receive greater funding than departments

that are aligned with academic or athletic departments. These hypotheses were also rejected because no statistically significant relationships were detected. The one variable which did test positive indicated that IM-REC sports programs administered by academic departments are more likely to offer free aerobics classes. It seems likely that Health and Physical Education Departments are more inclined to appreciate the need for physically fit students and are willing to subsidize that expense. On the other hand, respondents may have confused academic skills classes in aerobics as being an intramural component and recorded them as a free activity. In conclusion, the collected data did not show that either IM-REC sports department quality or that the administrative reporting sequence were related to the cost of operating the program.

In the questions concerning Hypotheses 5 and 6, IM-REC directors were asked to summarize the attributes of their programs. In the profile this produced, the University of Montana Campus Recreation Department compared favorably with the peers included in the study. The following paragraphs analyze significant information about the programs which was gathered while researching Hypotheses 5 and 6. Of all the intramural activities identified, UM offers 76% of them. Of all facilities available for student recreational use, UM provides and manages 73% of them. IM-REC sports directors were asked to summarize attributes of their programs. On an average, 96% of all programs offered are active in nature and an average of 4% are passive. The distribution for UM is 90% and 10%. The distribution at UM has been cited at 90% active and 10% passive, though responses to this particular

query are clearly more influenced by the interpretation of the respondent than most of the questions in the survey.

Program types based upon the degree of supervision averaged 68% with direct supervision, 27% with general supervision, and 5% without supervision. The University of Montana scored 75%, 20%, and 5% respectively. At peer institutions, the majority of programs are offered for small group participation (60%), with 29% for individual participation and the remaining 11% for large groups. The University of Montana directs 80% of its programs towards small group participation, 15% to individual participation and 5% for large group participation. Because the shift in student population toward non-traditional students translates to intramural participation, the University of Montana may have to rethink its position of devoting 80% of all activities towards small group participation. Furthermore, the majority of small group activities at the University of Montana are team sport activities, and non-traditional student participation in this area is low. When participating in activities as a cohesive user group, these students tend to concentrate in large group (family) activities or individual activities.

The relationship between the weighted FTE recreation dollar and both the distribution of students within three different age categories and the number of full-time students at each institution proved to be significant. In the case of institutions with greater numbers of students in the age range of 21 years and younger the IM-REC sports department expenses are greater. This relationship also holds true for institutions with greater numbers of students ages 22 to 25. However,

institutions with the largest numbers of students in the 26 years and older tend to be moderate cost schools in terms of IM-REC sports budgets. Conversely high cost departments have the lowest number of students in the highest age category.

This set of relationships could be explained if the FTE status of students was known by the age of students. The research indicates that the majority of IM-REC sports programs in this study receive the largest portion of their operating revenue from student activity fees. However, older students may tend to be part-time students who traditionally do not pay into the student activity fee "pot," but still represent a "whole person" when participating in intramurals.

A competing argument relates to the statistical test. It has been noted that these variables proved statistically significant in the chi-square test and not the Kruskal-Wallis test. In the case of the chi-square test, the independent variables were ranked high, moderate, and low. The ranking was achieved by determining the range and dividing by three to establish the lower and upper limits for each class. The chi-square test is less powerful because it uses less of the information in the data than the Kruskal-Wallis test. In this case, the Kruskal-Wallis test is more likely to detect the true alternate hypothesis. However, it appears likely that the FTE ranking reflects the inconsistencies resulting from a small sampling rather than an accurate depiction of financial relationships.

The fact that full time students will disperse more money to an institution probably accounts for the significance of the relationship. Full time students account for 80% of the student body at the University

of Montana while the range for peer institutions is from 44% to 95%. This is clearly a significant part of the reason for UM's situation as the highest revenue program in the study.

Hypothesis 3 stated that there is a positive relationship between the quality of the university and the IM-REC sports department affluence. The percent of faculty with terminal degrees is significantly related to the dependent variable, weighted FTE recreational dollars. Because this is the only quality variable of four that proved significant, the third hypothesis was also rejected.

Rather than a quality measure, as a resource input the per cent of faculty with terminal degrees may more accurately function as a measure of institutional affluence. This is assuming more terminal degrees on faculty equals more money allocated for faculty salaries, and that an institution willing to allocate more money for staff is more inclined to allocate funds for student services. Average staff salaries for vice president/provost and clerical positions tested as being significantly related to weighted FTE recreation dollars. Curiously, the relationship of the salaries to the dependent variable is negative. Low salary expenditures are related to IM-REC sports department determined as high cost.

Although not statistically significant, the data indicate that the highest cost IM-REC sports programs are aligned with athletics, then with student services, and finally, the lowest cost are found in academic departments. Taken together, this suggests is that institutions that pay low staff salaries apportion considerably greater resources to IM-REC sports programs. It also suggests that an athletic

or student services reporting sequence is preferable to an academic reporting sequence.

Finally, Hypothesis 4 stated that there is a positive correlation between the quality of state support of higher education and the IM-REC sports department's affluence. Of all the state quality variables collected, only one variable, "remedial course credit," proved to be statistically significant. In this case, it appears that institutions that do not award course credit for remedial classes are institutions with high cost IM-REC sports programs. None of the state quality variables proved to be statistically significant so the last study hypothesis was also rejected.

#### Methodological Considerations

A decision made prior to the collection of data was to collect a very large and detailed amount of information from a small group of institutions that are extremely similar to one another. It is now apparent that extensive information does not exist for this population. As a result, the researcher was forced to deal with a large amount of highly variable information for a small sample size. Furthermore, the characteristically high variance in the dependent and independent measures was complicated by the small sample size. Had the sample size been larger, greater statistical significance might have been found between groups.

The quality measures created some problems. How accurately the survey measured the quality of the respondent's programs and facilities cannot be concretely established. Obviously, the accuracy of quality

measures will be reduced if the variance of responses is systematically high or low. IM-REC sports directors may not be totally candid when evaluating the relative worth of their programs; they may see the process as an opportunity to justify a perceived failing of the related budget information. The reliability of the survey-based technique should be addressed by future research.

Quality information concerning the institution's student population is difficult or impossible to gather. The collection of intervening variables not immediately related to quality is possible but interpreting results of those findings proves extremely difficult. As with student questions, measures of university quality are based upon resource inputs such as number of terminal degrees on staff, average salaries, or number of volumes in the library. The result is that of comparing institutional resource inputs with IM-REC sports department inputs. While the results may prove entertaining, they cannot be shown to be directly related to quality. The collection of quality information concerning state funding is subject to the same problems as student and university quality and further hampered by both multiple sources of evidence and inconsistent periods of data collection.

University of Montana peer institutions were selected based upon:

1. State and local appropriations for higher education based upon FTE student numbers.
2. State and local appropriations for higher education per capita (state).
3. State and local appropriations for higher education per \$1000 of personal income (state).
4. Combined state and local appropriations and student operating fees per FTE student.



5. Percent of student enrollment in state public institutions related to total state population.
6. Percent of state student enrollment as related to total population enrolled in a public four year institutions.
7. Annual state per capita appropriations to NASULGC and AASCU.
8. Inclusion in the 1982 Montana State Legislative Finance Committee Report.

Stewart (1984), determined that IM-REC sports programs reported to administrative departments as follows: student services - 47%, physical education - 23.1%, athletic departments - 14.5%, separate administrative units - 4.3%, and others - 11.1%. This study established that UM peer departments reported to administrative departments as follows: student services - 22%, physical education - 42%, athletic departments - 22%, and others 14%. And while literature states that the trend in reporting sequence is away from physical education and athletics and towards student services (Monaghan 1984, Stewart 1984, Smith 1983), University of Montana peers do not reflect this trend.

When selecting peers, it was decided that state and local support of higher education be within a narrow range in all peers. Furthermore, the financial well-being of the state, as it relates to support of higher education, was thought to be an important consideration. The contribution of student fees to state higher education operating budgets, the state population as it relates to percent of population enrolled in colleges and universities and the state's enrollment picture as it relates to the national picture were also identified as important criteria in establishing a homogeneous group of peers. However, the

evidence gathered by this report indicates that the classification of peer universities in no way accomplished the anticipated goal of establishing a group of peer IM-REC sports departments.

The University of Montana consistently scored at the average or above when compared to its peers. It often rated disproportionately higher than its peers. The evidence indicates the IM-REC programs included in this study are not peers of the University of Montana program. Instead UM is sitting on the top of the "bottom of the pile." Peer sectoring for IM-REC sports departments must be based upon variables specific to particular departments and not just characteristics of the entire institution.

#### The State of Fiscal Affairs at Peer IM-REC Sports Departments

In a word, the state of affairs is abysmal. IM-REC sports directors were asked to provide detailed information of both revenue and expenditures. Line item spread sheets were provided although directors were encouraged to submit computerized spread sheets to limit their work and to ascertain the integrity of the information provided. In 66% of the cases, expenses exceeded revenue. In six cases, the magnitude of difference was two to one. In five cases, expenses exceeded revenue by a ratio of as much as 11 to 1. In 26% of the responses, revenue actually surpassed expenses. However, this was a small margin and can probably be explained as carry-over revenue. In only 3 instances did revenue and expenses balance.

Many IM-REC sports programs only maintain one budget and it is impossible to determine which expenses or revenue relate to different

aspects of the program or facilities. The accounting procedures at the University of Montana Campus Recreation Department are fairly stringent when compared to those of peer institutions, perhaps because the Department is administered by Auxiliary Services and, at the time, reported to a fiscal vice president.

At the University of Montana, separate budgets are maintained for each function (program and facility area). What is missing at the University of Montana is a capital improvements budget. Operating budgets are detailed and utilized to provide a rational basis for making economic decisions. However, as in most peer institutions, future development plans are not accounted for in terms of long range significant dollar expenditures.

The importance of competent fiscal management in the IM-REC sports profession has been addressed in the literature. Non-academic programs are often targets when university budgets tighten (Kirch 1983). With the increasing interest in the way all sectors of a university use the resources allocated to them, the trend is toward more formalized modes of accountability (Jedamus 1980).

Clearly, IM-REC sports program administrators must be in a position to respond accurately and proficiently to proposed budget cuts. Increased emphasis on revenue collection has been discussed above. For instance, managers can no longer expect to receive the majority of their funding from student activity fees. In addition, as the fiscal health of an institution deteriorates, all segments of the institution will ultimately suffer. Because this process will increasingly effect IM-REC sports programs, administrators must be prepared to face the challenges

of fiscal austerity. If IM-REC sports is to be a "profession," for those who organize it, these administrators must be prepared to deal with operations that are increasingly fiscally complex.

### Conclusions and Recommendations

This study gathered baseline information concerning IM-REC program finances. However, the extent to which the information accurately reflects University of Montana peers is very questionable. This study also sought to develop an instrument to evaluate the University of Montana in relation to its peers. Depending upon the definition of "an instrument" this may or may not have been accomplished. The University of Montana rates very highly when compared to the peers identified in this study by quality measures, by the scope and delivery of program opportunities for students, and by the size and number of facilities available to students.

The study also sought to determine the minimal funding level required from the University of Montana in order to provide services of acceptable quality. Before that question can be addressed, University of Montana administrators must thoroughly evaluate recreational programs and facilities. Even if programs and facilities are judged as good, the task is not completed. The data indicated that the University of Montana receives 52% of its operating revenue from user fees, while the average contribution from user fees to total revenue in peer programs is 11%. The causes and effects of the unique funding process at the University of Montana need to be investigated.

A minimal funding level can only be determined after the University of Montana administrators determine what proportion of the costs incurred in delivering its programs and services should be recovered from direct pricing and what should be subsidized. This analysis should be done for each program area in order to identify sources of subsidy. If the dollars needed for subsidy outweigh the total subsidy possible, then programs and facilities must be reevaluated.

These considerations still do not address the need for future development. Capital improvements are not considered in operating budgets. Long range plans need to be developed which take into account the depreciation of existing structures and equipment. Again, the appropriate degree of subsidy should be determined before funding alternatives are selected.

The need for further research is apparent. The scope of this study was too broad for the current state of the profession. Future research examining IM-REC sports department budgets should be narrower in focus, for example, investigating only the financing of intramural sports activities. At the same time, sample size should be increased. And, research focusing on budgeting should attempt to minimize the amount of extraneous information collected so as not to mask or distort the quality of the budget data.

Because the peer sectoring methods employed by this study emphasized institutional similarities over departmental similarities, it is doubtful that the University of Montana Campus Recreation Department was ever compared to its true peers. Future peer sectoring should

account for the scope of the department, as determined by the number of different programs and facilities available to students through that department as well as the administrative reporting sequence and the environmental setting of the campus.

If quality measures are to be used in future research, focus should be within IM-REC sports departments. University, student and state quality measures are either uncollectible or unreliable. They also appear to be too far removed from the IM-REC sports program to be of much value. Additionally, the possibility of enhancing measures through the use of external evaluations of quality instead of self-evaluation should be investigated.

Clearly, universities exercise a degree of control over the ultimate fiscal profile of an IM-REC sports department. Because departmental affluence is related to the particular administrative reporting sequence department. Utilized by each, this subject should be addressed in greater detail.

The study of IM-REC sports departments as fiscally solvent entities is a newly evolving discipline. As fiscal constraints affect universities the pinch will reach the IM-REC sports programs wherever they may be located within the institution. The profession must become proactive in its approach to sound management practices. The door is wide open for research.

## APPENDIX A

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STATE	1982 Montana State Legislative Finance Committee Report	Additional 21 Institutions
Alabama		University of Alabama-Birmingham (13,511) Auburn University (19,056) Jacksonville State University (7,020) University of South Alabama (9,318)
Arizona	Northern Arizona University (12,615)	
Colorado	Colorado State University (18,084)	University of Northern Colorado (9,040)
Delaware		University of Delaware (18,162)
Idaho	Idaho State University (6,993) University of Idaho (8,948)	Boise State (10,198)
Iowa		University of Northern Iowa (12,150)
Maine		University of Southern Maine (8,339) University of Maine-Orono (11,090)
Nebraska		University of Nebraska-Lincoln (24,020) University of Nebraska-Omaha (13,789) Kearney State College (3,725)
Nevada	University of Nevada-Las Vegas (9,402) University of Nevada-Reno (9,281)	
New Hampshire		University of New Hampshire (12,120)
New Mexico	New Mexico State University (12,838) University of New Mexico (24,910)	
North Dakota	North Dakota State University (9,413) University of North Dakota (10,920)	
Oregon	University of Oregon (not available) Oregon State University (15,217)	Portland State University (14,768)
Rhode Island		Rhode Island College (3,550) University of Rhode Island (14,235)
South Dakota	South Dakota State University (7,839) University of South Dakota (6,663)	
Utah	Utah State University (11,804)	
Vermont		University of Vermont (11,063)
Washington	Washington State University (16,139)	Eastern Washington University (8,102) Western Washington University (9,200) Central Washington University (6,993)
Wyoming	University of Wyoming (10,123)	

Note: Figures in the ( ) represent fall 1985 enrollment, total of full-time and part-time students. (Ludwig 1986)

APPENDIX B

STATE	SHEEO Combined State & Local Appropriations For Higher Ed. per FTE	SHEEO Combined State & Local Appropriations For Higher Ed. per Capita	SHEEO Combined State & Local Appropriations For Higher Ed. per \$1000 personal income	SHEEO Combined State & Local Appropriations and Student Operating Fees per FTE	SHEEO Percentage of Student Enrollment in Public Institutions to Total Population	SHEEO Percentage of Student Enrollment to Total Pop. Public & Private Institutions	Annual Appropriation MSU/FTE	
Alabama +	3983 (34)	136.14 (17)	12.61 (12)	4944 (39)	3.39 (9)	2.78 (4)	96,797,000(47)	X
Arizona +			13.20 (9)	4614 (43)	3.10 (15)		126,030,000(40)	X
Colorado +								X
Delaware +								X
Idaho +								X
Iowa +		137.76 (16)						X
Kansas			12.07 (14)				125,216,000(41)	
Maine +	4194 (28)				3.23 (13)			
Maryland								
Michigan								
Minnesota		128.07 (22)						
Mississippi		129.27 (21)						
Montana	4058 (31)	133.19 (19)	12.63 (11)	4787 (40)	3.28 (12)	3.05 (2)	103,167,000(45)	
Nebraska +	4170 (29)			5127 (37)				X
Nevada +							102,419,000(46)	X
New Hampshire +					3.19 (14)		55,961,000(49)	X
New Mexico +					3.30 (11)	3.45 (1)	124,430,000(42)	X
North Dakota +	3986 (33)	131.49 (20)	13.12 (10)	4770 (41)			147,149,000(43)	X
Oregon +								X
Rhode Island +								X
South Carolina +			13.78 (8)					X
South Dakota +	4059 (30)		12.31 (13)			2.82 (3)	73,223,000(48)	X
Tennessee								
Texas								
Utah +		127.43	10.40	5613	3.35 (10)	1.75	111,583,000(44)	X
Vermont +								
Virginia	4003 (32)			4633 (42)				X
Washington +		133.35 (18)		4972 (38)				X
West Virginia								
Wisconsin								
Wyoming +	4534				2.77			
National Ave.								

Note: Numbers in ( ) represent the ranking of states from 1-50.  
 +SHEEO Statistics based on Fall 1984 enrollment (Johnson 1986).  
 \*Chamber's Figures based on 1986-87 appropriations (Chamber's Figures 1986).  
 †Indicates states selected for study.



APPENDIX C

1) Name of institution: \_\_\_\_\_

2) Phone Number: \_\_\_\_\_

3) Name of Contact \_\_\_\_\_ Position \_\_\_\_\_ Date \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

4) Official name of your Department: \_\_\_\_\_

5) How is your department integrated into University administration?

- | <u>Academic</u>   | <u>Auxiliary/Student Services</u>                        |
|---|--|
| <input type="checkbox"/> Health, Physical Education & Recreation Department | <input type="checkbox"/> Varsity Athletics               |
| <input type="checkbox"/> Recreation/Leisure Services                        | <input type="checkbox"/> Student Union/University Center |
| <input type="checkbox"/> Health & Physical Education Dept                   | <input type="checkbox"/> Auxiliary Services Directly     |
| <input type="checkbox"/> Other _____  | <input type="checkbox"/> Dean of Students office         |
|   | <input type="checkbox"/> Other _____                     |

6) Which of the following services does your department provide?

- |   |   |
|---|---|
| <input type="checkbox"/> intramural sports    | <input type="checkbox"/> adult evening non-credit classes |
| <input type="checkbox"/> facility management  | <input type="checkbox"/> summer camps for kids            |
| <input type="checkbox"/> outdoor program      | <input type="checkbox"/> golf course                      |
| <input type="checkbox"/> game room/rec center | <input type="checkbox"/> pool                             |
| <input type="checkbox"/> sports club          | <input type="checkbox"/> other _____                      |

7) Who should the survey be sent to?

Name: \_\_\_\_\_

Address: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Phone: \_\_\_\_\_

Office hours: \_\_\_\_\_

8) When will you be the busiest so that we don't bother you during that time.

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

November 15, 1988

Susan Nunnelly, Recreational Services  
204 Student Activity Center  
Auburn University  
Auburn, AL 36849-5324

Dear Ms. Nunnelly:

As I mentioned in my recent telephone call, the University of Montana Campus Recreation Department is conducting a study of its peer institutions in order to gain a better understanding of recreation and sports program budgeting alternatives. Over the years, our institution has suffered from a variety of budget cuts that eventually affected the Campus Recreation Department. We have responded by tapping additional revenue sources, raising fees, and cutting programs and staff. We anticipate continued budget constraints and, rather than responding in a haphazard manner, we're considering pursuing a more stable revenue source. The intramural-recreational sports profession seems to be lacking specific information regarding the financing of programs and facilities. For that reason, we are conducting our own detailed study of thirty-eight peer institutions.

Your institution was selected for this study because of its similarity to the University of Montana. The thirty-eight four-year institutions included were identified based upon previous research in state financing of higher education and controlled for variables such as size, state population, and AASCU or NASULGC membership.

In approximately one week you will receive a questionnaire. We are soliciting information about your programs and facilities, user characteristics, and, finally, detailed information about your 1987-88 budgets. This information will help us develop a more systematic and equitable method of funding campus recreation programs. We also anticipate that the results will have significance for campus recreation programs around the country.

We realize that we are requesting a large volume of information and more importantly, a considerable amount of your time. The one incentive we are able to provide is that a copy of the final report will be mailed to you in return for your participation. Furthermore, we will be willing to run a limited amount of statistical analysis for your institution if you believe the data could provide you with additional information. Adrienne Corti, the University of Montana Campus Recreation Program Coordinator, is conducting this study. If you have any questions, please contact Adrienne at (406) 243-2757 or 243-2802, 8:00 a.m. to 5:00 p.m. (Mountain Standard Time).

Thank you for your time and interest. You will be receiving your questionnaire shortly.

Sincerely,

KEITH S. GLAES  
Director of Student Activities

ADRIENNE M. CORTI  
Campus Recreation Program Coordinator

**UNIVERSITY  
OF MONTANA**

**Campus Recreation**  
University of Montana  
Missoula, MT 59812

APPENDIX E

Campus Recreation Programs 121  
(406) 243-2802  
Campus Recreation Facilities  
(406) 243-2320  
Campus Recreation Outdoor Program  
(406) 243-5172

November 21, 1988

File Copy

x  
x  
x

Dear

I have enclosed your copy of the Campus Recreation Peer Institution Survey. I have requested a considerable amount of information but feel that had I asked any less, the data generated would be so general it would be virtually useless. As you spend time filling out the survey remember that you will be mailed a copy of the final report. In addition, I can run a limited amount of statistical analysis for your department if you feel it would be helpful.

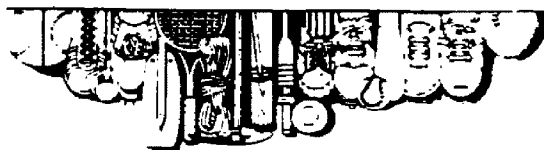
A number of the questions ask for your estimate of participation, types of participants, etc.. I only want your professional estimate so please don't knock yourself out looking up old statistics tucked away somewhere in your office. Most importantly, I am requesting information for last year (fall 1987 through summer 1988) so answer the questions as they relate to that time period.

Finally, I am asking for your fiscal year-end reports for fiscal year 1987-88. I would prefer your send computerized spread sheets generated by your school's business or controllers office. If that is not possible, I have enclosed some 12-column spread sheets for your use.

Thank you for participating in this study. Your contribution of time and effort makes this study possible and it is greatly appreciated. I'm confident that the results will be interesting as well as useful. I look forward to hearing from you.

Sincerely,

Adrienne M. Corti  
Campus Recreation Program Coordinator  
University of Montana  
Missoula, MT 59812  
(406)243-2802 or 243-2757



## Campus Recreation Survey

1. Name of University \_\_\_\_\_

2. Contact (person filling out survey) \_\_\_\_\_

Position \_\_\_\_\_

Phone number \_\_\_\_\_

Address \_\_\_\_\_

\_\_\_\_\_

What is the best time of day to reach you at your office? \_\_\_\_\_

3. Indicate how your intramural sports program is integrated into the University administration. Check only one box that best fits your situation.

Academic  
 Health, Physical Education & Recreation Dept.

Auxiliary/Student Services  
 Varsity Athletics

Recreation/Leisure Services Dept.

Dean of Students Office

Health & Physical Education Dept.

Student Union/University Center

Other, please explain \_\_\_\_\_

Auxiliary Services directly

Other, please explain \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

4. What is the title of your immediate supervisor? \_\_\_\_\_

5. What is the title of the person your immediate supervisor reports to? \_\_\_\_\_

6. What activities do you offer students through your intramural sports program? Please check all the boxes and circle the responses that apply. I'm interested ONLY in scheduled, organized activities, not unsupervised recreational play.

	Men	Women	CoRec	A fee is charged		
softball				yes	no	sometimes
basketball				yes	no	sometimes
football				yes	no	sometimes
soccer				yes	no	sometimes
volleyball				yes	no	sometimes
baseball				yes	no	sometimes
racquet/handball				yes	no	sometimes
golf				yes	no	sometimes
tennis				yes	no	sometimes
wrestling				yes	no	sometimes
table tennis				yes	no	sometimes
billiards				yes	no	sometimes
aerobics				yes	no	sometimes
triathlons				yes	no	sometimes
runs				yes	no	sometimes
bike races				yes	no	sometimes
other _____				yes	no	sometimes
other _____				yes	no	sometimes
other _____				yes	no	sometimes

7. If you charge intramural sports participants a fee, please answer the following.

- No. (Please go on to question 8.)  
 Yes. (Please answer the following.)

- a. How much do you charge teams \_\_\_\_\_  
 \_\_\_\_\_
- b. How much do you charge for non-team sports \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_
- c. If you offer aerobics, how much do you charge \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

8. Do you offer an outdoor program?

- No. (Please go on to question 9).  
 Yes. (Please check all the activities you offer.)

- |  |   |
|--|---|
| <input type="checkbox"/> overnight camping           | <input type="checkbox"/> kayaking classes                     |
| <input type="checkbox"/> day hikes                   | <input type="checkbox"/> canoeing classes                     |
| <input type="checkbox"/> raft trips                  | <input type="checkbox"/> rock climbing/mountaineering classes |
| <input type="checkbox"/> canoe/kayak trips           | <input type="checkbox"/> nordic ski classes                   |
| <input type="checkbox"/> lectures                    | <input type="checkbox"/> alpine ski classes                   |
| <input type="checkbox"/> rent outdoor equipment      | <input type="checkbox"/> other _____                          |
| <input type="checkbox"/> resource/information center | <input type="checkbox"/> other _____                          |

9. Do you offer noncredit adult/evening education classes?

- No. (Please go on to question 10.)  
 Yes. (Please answer the following questions.)

- a. Are the classes open to the public?  yes  no
- b. Do you charge a fee for the classes?  yes  no
- c. How are the instructors paid? Please check all that apply.
- hourly wage  volunteer
- percentage of the class fee
- other \_\_\_\_\_
- d. What is your total average enrollment each session?

10. Do you offer camps for children?

No. (Please go on to question 11.)

Yes. (Please answer the following questions for every camp you offer.)

a. What is the total number of camp programs you offer? \_\_\_\_\_

b. Do you offer camps during the summer?             yes         no

c. Do you offer camps during the school year?        yes         no

11. Are there sports clubs at your campus?

No. (Please go on to question 12.)

Yes, but they're managed by a department other than ours. Please indicate department \_\_\_\_\_

Yes. They're managed by our department.

12. Do you offer any other programs that generate revenue for your department. Please DO NOT include revenue generated through facility charges.

No. (Please go on to question 13.)

Yes. Please explain briefly. \_\_\_\_\_

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13. Check the statement that best describes how your intramural sports program and recreational facilities are related.

Both the intramural sports program and recreational facilities are managed by our department.

Just the intramural sports program is managed by our department, another department manages the facilities. Please indicate the name of the department that manages the recreational facilities \_\_\_\_\_

Other, please explain. \_\_\_\_\_

14. With respect to individuals other than students, who use the facilities and participate in your programs, please answer the following questions for each group.

	Is a pass available to them?	Does pass allow use of facilities?	Does pass allow participation in programs?	What is the cost of the pass?	Name of the issuing Department
a. Faculty	yes no	yes no	yes no	free or \$____/yr	OURS or
spouse of faculty	yes no	yes no	yes no	free or \$____/yr	(Dept. name)
children of faculty	yes no	yes no	yes no	free or \$____/yr	
b. Staff	yes no	yes no	yes no	free or \$____/yr	OURS or
spouse of staff	yes no	yes no	yes no	free or \$____/yr	(Dept. name)
children of staff	yes no	yes no	yes no	free or \$____/yr	
c. Alumni	yes no	yes no	yes no	free or \$____/yr	OURS or
spouse of alumni	yes no	yes no	yes no	free or \$____/yr	(Dept. name)
children of alumni	yes no	yes no	yes no	free or \$____/yr	
d. Community (adults)	yes no	yes no	yes no	free or \$____/yr	OURS or
community children	yes no	yes no	yes no	free or \$____/yr	(Dept. name)
e. Spouse of Student	yes no	yes no	yes no	free or \$____/yr	OURS or
children of student	yes no	yes no	yes no	free or \$____/yr	(Dept. name)

If any of the information you have given above needs to be explained further, please use space provided:

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15. What facilities are available to students for recreational use. Please check all that apply. Also, please state who manages those facilities available to student for recreational use. (Circle yes if you manage the facilities. If no, indicate who manages the facility in the space provided below.)

FACILITY	WE MANAGE FACILITY		ANOTHER DEPT. MANAGES FACILITIES			
	Name of your Dept.		HPE	Athletics	Student Union	Other. Please Explain
[ ] Gymnasiums (total size) ---- 0 - 7200 sq. ft. ---- 7201-15,000 sq. ft. ---- over 15,000 sq. ft.	Yes	No ---->				
[ ] Outdoor fields (total) ---- 0-65,000 sq. ft. ---- 65,000-130,000 sqft ---- over 130,000 sq. ft.	Yes	No ---->				
[ ] Outdoor tennis courts How many ----	Yes	No ---->				
[ ] Indoor tennis courts How many ----	Yes	No ---->				
[ ] Golf course How many holes ----	Yes	No ---->				
[ ] Swimming pool(s) How many indoor ---- How many outdoor ----	Yes	No ---->				
[ ] Racquet/handball courts How many ----	Yes	No ---->				
[ ] Weight room(s) (total) ---- 0-1200 sq. ft. ---- over 1200 sq. ft.	Yes	No ---->				
[ ] Indoor track Length -----	Yes	No ---->				
[ ] Outdoor track Length -----	Yes	No ---->				
[ ] Gymnastics area	Yes	No ---->				
[ ] Recreation center/game room	Yes	No ---->				
[ ] Climbing wall	Yes	No ---->				
[ ] Other-----	Yes	No ---->				
[ ] Other-----	Yes	No ---->				

16. Please estimate the percent of student participation or use for the categories indicated:

	Not Applicable	% of Total Student Body	Of All Participants % Males	Of All Participants % Females
Intramural sports (exclude aerobics)		_____ %	_____ %	_____ %
Aerobics and fitness classes		_____ %	_____ %	_____ %
Outdoor program		_____ %	_____ %	_____ %
Noncredit adult education		_____ %	_____ %	_____ %
Summer camps for kids*		_____ %	_____ %	_____ %
Facilities (exclude game room)		_____ %	_____ %	_____ %
Game room		_____ %	_____ %	_____ %

\* percent of students with children in camp

17. As it relates to your intramural sports program ONLY, please check the box that best describes your situation.

We receive a portion of a student activity fee.

Student pay a separate recreation fee that we receive.

We do not receive any student activity fee or student recreation fee money.

Other, please explain: \_\_\_\_\_

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18. Indicate the number of departmental employees who work with your recreation programs and facilities. Please include all the staff that work with all your programs and facilities (intramurals, facilities, camps, etc.). If you have an employee who splits his/her time between your department and another, list him/her as a part-time employee.

\_\_\_\_\_ full time

\_\_\_\_\_ part time (do not include students)

\_\_\_\_\_ work study students (average number per semester/quarter)

\_\_\_\_\_ student without work study (average number per semester/quarter)

The following questions refer ONLY to your intramural sports program. Please fill in your estimate of participation for each question.

19. Of all the students in intramurals, estimate participation by age.

\_\_\_\_\_ % 18-21 years old

\_\_\_\_\_ % 22-25 years old

\_\_\_\_\_ % 26-30 years old

\_\_\_\_\_ % 31 years and older

100%

20. Of all the students in intramurals, estimate participation by housing status.

\_\_\_\_\_ % live on campus

\_\_\_\_\_ % live in Greek housing

\_\_\_\_\_ % live off campus

100%

21. Of all the students in intramurals, estimate participation by class.

\_\_\_\_\_ % freshmen and sophomores

\_\_\_\_\_ % junior and seniors

\_\_\_\_\_ % graduate students and non-degree students

100%

22. Of all your supervised league games, please estimate forfeited versus played games.

\_\_\_\_\_ % of games forfeited

\_\_\_\_\_ % of games played

100%

23. Of all the activities you offer, please estimate what percent of those activities are for individual, small, and large group participation.

\_\_\_\_\_ % individual participants (i.e., fitness swims)

\_\_\_\_\_ % small group; up to 30 people (i.e., softball games)

\_\_\_\_\_ % large group; over 30 people (i.e., track meet)

100%

24. Of all the activities you offer, please estimate what percent of those activities are organized with direct, general, or no supervision.

\_\_\_\_\_ % no supervision

\_\_\_\_\_ % general supervision (i.e., only a gym supervisor)

\_\_\_\_\_ % direct supervision (i.e., class instructor or referee)

100%

25. Of all the activities you offer, please estimate what percent of those activities are passive versus active in nature.

\_\_\_\_\_ % passive (i.e., lectures)

\_\_\_\_\_ % active (i.e., basketball)

100%

26. To what degree do you agree or disagree with the following statements as they relate to your program:

SA-strongly agree    A-agree    N-neither agree    D-disagree    SD-strongly disagree  
nor disagree

	SA	A	N	D	SD
Our recreation areas and facilities are in a good state of repair					
Our recreation equipment is in a good state of repair					
Our recreation areas and facilities are adequate for the recreation programs that utilize them					
Our budget is sufficient for the purchase of our recreation equipment					
The University administration considers our program a valuable aspect of student life					
Many of the students are dissatisfied with the recreational programs we offer					
Many of the students are dissatisfied with the recreation facilities available for their use					
The majority of our programs are filled to capacity					
We regularly try new programs and activities to augment the regular offerings					
Compared to other University events and activities, our programs are given low priority for use in the recreation facilities and areas					
The reasons students do not participate in our programs is attributed to:					
a. lack of time					
b. lack of skill					
c. lack of interest					
d. cost					
e. the time of day the event occurs					
f. lack of knowledge the program exists					
The size of our staff is adequate to manage our programs					

Please respond to the following question regarding the administrative aspect of your program. (Please circle your answer)

27. Our program has a written philosophy.  
 No. (Please go to question 28.)  
 Yes. (Please answer the following.)
- a. The philosophy addresses the department's relationship to the students yes    no
- b. The philosophy addresses the department's relationship to academic life yes    no
- c. The philosophy addresses the staff's relationship to the recreation program yes    no
28. Our program has written goals.  
 No. (Please go on to question 29.)  
 Yes. (Please answer the following.)
- a. The goals are measurable yes    no
- b. The goals are referred to during program planning yes    no
- c. The goals are reviewed at least once a year yes    no
- d. The goals have been reviewed and updated in the past five years yes    no
29. Our program has a staff manual.  
 No. (Please go on to question 30.)  
 Yes. (Please answer the following.)
- a. The manual outlines the program's organizational structure yes    no
- b. The manual lists job qualifications yes    no
- c. The manual lists job responsibilities yes    no
- d. Employees are required to read the manual yes    no
30. Our program is guided by a policy-making board.  
 No. (Please go on to question 31.)  
 Yes. (Please answer the following.)
- a. Our board has adequate faculty representation yes    no
- b. Our board has adequate staff representation yes    no
- c. Our board has adequate student representation yes    no
- d. Our board is an active, dynamic board yes    no

31. Has your department undertaken any capital improvement projects (\$1000 or greater) in the past five years? Please include major equipment purchases, facility repairs or renovations, and facility projects

- No. (Please go on to question 32.)  
 Yes. (Please answer the following.)

How many individual projects have you undertaken in the past five years (since fall 1983)?

---

Approximately what is the total amount of dollars spent for capital improvement projects since fall 1983?

---

32. What individual accounts/budgets does your department manage? Please check all that apply.

- Intramural sports program and recreational facilities combined in one budget  
 Intramural sports program only  
 Recreational facilities only  
 Swimming pool(s)  
 Golf course  
 Recreation center/game room  
 Sports clubs  
 Outdoor programs  
 Noncredit adult/evening education  
 Summer camps for children  
 Other, please explain \_\_\_\_\_

Finally, I'm interested in your revenue and expenses for fiscal year 1987-88. The information needed is very specific. I would prefer you enclose your 1987-88 fiscal year-end statements (computerized spread sheets generated by your school's business or controller's office). Please include statements for every account your department is responsible for. If you are unable to enclose year-end statements, I have included two 12-column spread sheets for your use. The first sheet is for revenue, the second is for expenses.

Thank you for all of your valuable time. I'm sure it's been a painful and tedious process for you. Your copy of the final report will be mailed to you in January

REVENUE	Intramural sports & recreat'n facilities	Intramural sports	Recreational facilities	Swimming pool	Golf course	Recreation center/ game room	Sports clubs	Outdoor Program	Noncredit Adult/Evening Education	Summer Camps	Other explain:
Fees from student activity fees											
Fees from special recreation fees											
Rental Equipment rental											
Facility/field rental											
Locker rental											
Other, please indicate											
Passes Faculty/staff recreation passes											
Alumni recreation passes											
Community recreation passes											
Guest passes											
Recreation fees											
Team and class fees											
Game room fees											
Green fees (golf course)											
Other, please indicate											
Other, please indicate											
Other Dues											
Damages and fines											
Sale of merchandize											
Donations and gifts											
Other revenue sources											



EXPENSES	Intramural sports & recreat'n facilities	Intramural sports	Recreational facilities	Swimming pool	Golf course	Recreation center/game room	Sports clubs	Outdoor Program	Noncredit Adult/Evening Education	Summer Camps	Other explain
<u>Personnel services</u>											
Full time employees (wages only)											
Part time employees (wages only)											
Student work-study											
Student part time											
Employee benefits											
<u>Contracted services</u>											
Insurance and bonds											
Consultant & professional svc.											
<u>Supplies &amp; materials</u>											
Athletic & recreational equip.											
Educational											
Food											
Printing											
Laundry											
Office supplies											
<u>Communications</u>											
Postage & mailing											
Advertising											
Telephone											
<u>Travel</u>											
In-state travel											
Out-of-state travel											
<u>Rent</u>											
Land											
Meeting rooms											
Building rent											
<u>Utilities</u>											
Utilities general (elect. heat)											

EXPENSES	Intramural sports & recreat'n facilities	Intramural sports	Recreational facilities	Swimming pool	Golf course	Recreation center/ game room	Sports clubs	Outdoor Program	Noncredit Adult/Evening Education	Summer Camps	Other explain
<u>Repair &amp; Maintenance</u>											
building & grounds											
Office equipment											
Athletic & recreational equip.											
Other repairs											
<u>Other Expenses</u>											
Dues											
Subscriptions											
Goods purchased for resale											
Administrative assessment											



By now you have received your "1988 Campus Recreation Peer Institution Survey". I'd like to thank you again for your willingness to participate in this study. As you've probably discovered, the survey is as complex as I said it was. Please contact me if you have any questions at all.

(406)243-2757

243-2802

I hope you are having a good intramural season and I'm looking forward to hearing from you shortly.

Sincerely,

A handwritten signature in cursive script that reads "Adrienne Corti".

Adrienne Corti

Campus Recreation Program Coordinator



**UNIVERSITY  
OF MONTANA**

**Campus Recreation**  
University of Montana  
Missoula, MT 59812

APPENDIX G

September 27, 1988

Campus Recreation Program 138  
(406) 243-2502  
Campus Recreation Facilities  
(406) 243-2320  
Campus Recreation Outdoor Program  
(406) 243-5172

Tom Lindskod  
202 Shroyer  
Montana State University  
Bozeman, MT 59717

Dear Tom:

Recently I sent you a Campus Recreation Peer Institution Survey. At this time I have not received the Survey back from you. As an Intramural Program Director myself, I appreciate how busy you are. Finding half an hour to have one coherent thought often begins to resemble the quest for the Holy Grail. Never-the-less, I am hopeful you can find an hour to complete your Survey.

Your response is very important to me. Your school was selected because of its similarity to the University of Montana. Those similarities include:

1. State funding of higher education. Montana ranked 45th nationally. The other ten states in this study ranked from 40th to 50th.
2. The total state dollars were divided by variables such as number of students, state population, total operating fees, income earned in the state, and national enrollment in four year institutions.
3. Total student body size ranging from 6,000 to 24,000.

These and other variables yielded 38 institutions all extremely similar to one another. The benefit of this intense screening is that the funding and administrative strategies employed by each school are viable alternatives for all the institutions in the study. Apples won't be compared to oranges. The major disadvantage to the screening is the small sample size. That is why your response is so critical to the success of this study.

Again, I realize and appreciate how busy you are. Please remember that you will be mailed a copy of the final report. In addition, I will be able to run a limited amount of statistical analysis for your department if you feel it would be helpful.

I have enclosed a copy of the survey. Remember, on those questions asking for your estimate of participation, types of participants, etc., I only want your professional estimate. The information requested is for last fiscal year (fall 1987 through summer 1988). Additionally, I am requesting copies of your fiscal year-end reports. I would prefer you send computerized spread sheets generated by your school's business or controller's office. If that is not possible, I have enclosed some 12-column spread sheets.

Thank you for taking the time to complete the Survey. If you have any tips on finding the Holy Grail, please include that as well, we're all interested.

Sincerely,

Adrienne Corti  
Campus Recreation Program Coordinator



**UNIVERSITY  
OF MONTANA**

**Campus Recreation**  
University of Montana  
Missoula, MT 59812

APPENDIX H

Campus Recreation Dept. 139  
(406) 243-2320  
Campus Recreation Dept.  
(406) 243-2320  
Campus Recreation Outdoor Program  
(406) 243-5172

January 24, 1989

Scott Cassells  
CU Box 5770  
Northern Arizona University  
Flagstaff, AZ 86011

Dear Scott:

They say that hope springs eternal. At this time, 82% of the surveys have been returned, but we still haven't heard from Northern Arizona University. I am especially interested in your University because of its regional similarity to the University of Montana.

I will be spending the next two weeks coding surveys and entering data on the computer. If you need something to fill those idle moments, I would be delighted to see your survey in the morning mail.

Of course, if you respond now, you'll receive a copy of the final report. But wait, there's more: I can run a limited amount of statistical analysis for Northern Arizona's Campus Recreation Department if you believe the data would provide you with additional information.

All kidding aside, it would be great to hear from you.

Sincerely,

Adrienne M Corti  
Campus Recreation Program Coordinator



**UNIVERSITY  
OF MONTANA**

**Campus Recreation**  
University of Montana  
Missoula, MT 59812

APPENDIX I

Campus Recreation Programs 140  
406 243-2320  
Campus Recreation Facilities  
(406) 243-2320  
Campus Recreation Outdoor Program  
(406) 243-5172

January 24, 1989

Tom Lindskod  
202 Shroyer  
Montana State University  
Bozeman, MT 59717

Dear Tom:

Thanks to your investment of time and effort, the University of Montana Peer Institution Study is resting comfortably on a remarkable 82% response rate. We truly appreciate your contribution to this research project. We've begun coding the surveys and anticipate entering the data on the computer within the next two weeks.

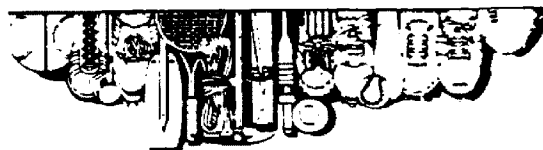
Due to the wide diversity of budget information returned, it is necessary for us to make some follow-up phone calls to insure that we're interpreting the responses correctly. Depending upon the "diversity" of your response, we'll need approximately 5-15 minutes of your time. On the survey you returned, you noted the best time for us to contact you. We will attempt to call you at that time. If we happen to catch you when you're busy, please tell us and we will be happy to call you back at a more convenient time.

Again, thank you for your interest and especially your time. Once we've cleaned up the budget information we won't bother you anymore. As promised earlier, we will send you a copy of the final report.

Sincerely,

Adrienne M Corti  
Campus Recreation Program Coordinator

Darwin Cikanek  
Research Assistant



Hi. I'm (put your name here) from the University of Montana Campus Recreation Department. Could I have a minute of your time to verify some budget information?

I'm interested in what program and facility expenses were covered in the budgets you sent us. After coding all the surveys, it appears that total costs aren't accounted for at some schools. For example, many schools manage play fields but don't have to pay for maintenance out of the budgets.

Intramurals	(1) all expenses (2) 3/4 of expenses (3) 1/2 of expenses (4) 1/4 of expenses
Outdoor Program	(0) do not have (1) all expenses (2) 3/4 of expenses (3) 1/2 of expenses (4) 1/4 of expenses
Paid Classes (ie., aerobics)	(0) do not have (1) all expenses (2) 3/4 of expenses (3) 1/2 of expenses (4) 1/4 of expenses
Sports Clubs	(0) do not have (1) all expenses (2) 3/4 of expenses (3) 1/2 of expenses (4) 1/4 of expenses
Facilities in General (play- fields, gyms)	(0) do not have (1) all expenses (2) 3/4 of expenses (3) 1/2 of expenses (4) 1/4 of expenses
Swimming Pool	(0) do not have (1) all expenses (2) 3/4 of expenses (3) 1/2 of expenses (4) 1/4 of expenses
Ice Rink	(0) do not have (1) all expenses (2) 3/4 of expenses (3) 1/2 of expenses (4) 1/4 of expenses
Gare Room	(0) do not have (1) all expenses (2) 3/4 of expenses (3) 1/2 of expenses (4) 1/4 of expenses

\*some hidden costs: full-time staff salaries, cost of heat & lights, intramural sports equipment, building/field maintenance

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