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ABSTRACT

HESSIL, Steven C. A current survey of the corporate fitness programs and facilities in the United States. M.S. in Adult Fitness/ Cardiac Rehabilitation. 138 p. (Dr. Philip K. Wilson)

The purpose of this study was to up-date the status of Corporate Fitness Programs (CFPs) and to compare the results with a previous study done by Bartsokas and St. Louis titled: Industrial Fitness Programs in the United States: A 1979 Status Study. A questionnaire was designed to gather statistical data and to compare the results in relation to the administration, organization, equipment and facilities, and evaluation of the CFPs. The survey was distributed to 100 of the 343 members of the Association for Fitness in Business, according to a stratified random sample of the eight regions of the United States. Fifty-eight of the 100 members surveyed were affiliated with corporations providing "in-house" facilities. Forty-eight of these programs were statistically analyzed. The statistical analysis presented the following conclusions: (1) there are more in-house CFPs and facilities than any other types of programs, (2) corporations with in-house fitness programs still employ predominantly white collar workers, and male white collar workers account for the largest percentage of participants, (3) the programs are now administered by four individuals--a physician, exercise physiologist, fitness specialist, and the exercise leader, (4) corporations have utilized more exercise prescriptions, motivational techniques, educational programs, evaluation methods of education, and exercise equipment than in the past, (5) 79% of the programs believed that the benefits of the program outway the costs, (6) 71% of the programs believed their employees are more productive through participation in the exercise programs, (7) there exist only minor regional differences in regard to programs and facilities. There are more CFPs than ever before providing employees with the opportunity to increase their knowledge and physical condition. This will lead the employee to a happier and healthier lifestyle and in the long run benefit the corporation.

A Current Survey of the Corporate Fitness Programs and Facilities in the United States

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A Thesis Presented

to

The Graduate Faculty

University of Wisconsin - La Crosse

In Partial Fulfillment

of the Requirements for the

Master of Science Degree

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by

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TABLE OF CONTENTS

Table of Contents, Continued

Table of Contents, Continued

LIST OF FIGURES

LIST OF TABLES

List of Tables, Continued

CHAPTER I

INTRODUCTION

Many health experts support the hypothesis that chronic negative lifestyles are the leading cause of illness today. In the United States, the most prevalent degenerative diseases are those of the cardiovascular system, with the most common being coronary artery disease (Wilson, Fardy, & Froelicher, 1981).

Numerous clinical studies have shown the advantage of increased physical activity in diminishing primary factors relating to the risk of acquiring coronary artery disease (Boyer & Kasch, 1970; Kasch & Boyer, 1969; Montoye, Metzner, & Keller, 1972; Siegel, Blomquist, & Mitchell, 1970; and Pollock, 1972). Industries' acute awareness of this situation has caused them to seek strategies to help preserve their most important asset, the employee (Baum & Baum, 1984).

Corporate fitness and health promotion programs have experienced an exponential increase during the last decade, making physical fitness and wellness a way of life (Arnold, 1974; Condon, 1977; Schinto, 1977; Martin, 1978; Oppenheim, 1978; Bjurstrom & Alexion, 1978; Hitchings, 1978; Cooper & Collingwood, 1984). Many corporations have even gone so far as to spend millions of dollars on elaborate facilities to encourage their employees to become physically fit and healthy in the hope of reducing costs in medical care, absenteeism, and turnover rates (Pindroh, 1984).

There are many kinds of employee fitness programs and various methods that can be used to accomplish their goal, from having their own facilities, to arranging and subsidizing employee participation in community wellness programs at Ys, Jewish Community Centers, community colleges/universities, adult education classes, exercise clubs/spas, or churches (Shields, 1984).

Today, more than 400 companies and over 50,000 businesses in the nation have established health/fitness programs (Fitness in the Work Place, 1983). Companies also support fitness events and programs. For example, the Bonne Bell Company at one time sponsored 10 kilometer running events for women, and Runner's World, which conceived the "Corporate Cup Relays" in 1978, where companies compete for the title "Healthiest Company in America" (Maryk, 1982).

While existing programs are too new and too few to provide valid statistical data, accumulating evidence from both domestic and foreign research shows that workers taking part in regular physical activity programs miss fewer workdays when they do get sick, are less vulnerable to accidents, have a higher overall work output, and suffer fewer emotional disorders and physical disabilities (Fitness in the Work Place, 1983).

In considering the investment that a company has in its employees, and the reliance on their experience and skills, it becomes quite clear that longevity and good health are desirable for employees in industry.

Purpose of the Study

With the ever increasing emphasis and growth of corporate fitness facilities and programs, it was felt that an updated study pertaining to the current status of corporate fitness programs would be beneficial. The information attained will serve as comparative data to that of a previous study by Bartsokas and St. Louis (1979) to examine the growth or decline of programs, and trends of programs in the future. It will also serve as resource information to businesses with existing programs and businesses considering the establishment of programs or facilities in the near future.

Significance of the Study

Over the past few years new facilities have been constructed, and millions of dollars spent on the prevention and maintenance of a healthy lifestyle making previous information regarding trends outdated. With the use of this study, the actual state of the art facilities and programs may serve as guidelines for current and future trends in implementing new facilities and programs to meet the needs of the employees.

Assumptions

The following assumptions were established for this study:

1) That the corporate fitness centers surveyed were representative of the typical facility in the United States.
2) That different geographical locations will have no effect on construction and equipment costs.

3) That the questionnaire was a reliable instrument.

4) That respondents answered all questions pertaining to their individual fitness programs.

5) That all questionnaires were completed accurately.

6) That the contact person listed as the coordinator of the facility was the one who completed the survey.

Limitations

The following limitations were established for this study:

1) The study applied only to those programs represented by returned questionnaires.

2) Misinterpretations of some of the questions may have altered the results of the study.

3) The questionnaire was limited to certain questions and may not completely describe the qualities of each program.

Delimitations

Questionnaires were sent only to those individuals listed as members of Corporate Fitness Programs in the Association for Fitness in Business (AFB). This association was formerly called the American Association of Fitness Directors in Business and Industry (AAFDBI).

Definitions

The following definitions were established for this study:

1) Accountability is the degree to which a program or facility is responsible for an outcome. In this case adherence/compliance, and changing behaviors.

2) Administration is defined as the management of a program. Administration of fitness programs in this study involved the money allocated toward development and maintenance of the program, funding of the program, and the personnel charged with implementing the program.

3) Corporate Fitness Programs (CFPs) are physical fitness and/or health related programs and facilities provided by a corporation. These may be in-house programs, leased or contracted programs through other fitness agencies.

4) Coordinator is the person in charge of instituting, programming, and evaluating the physical fitness program.

5) Corporation is a business engaged in commerce, manufacturing, or a service with profit-seeking as the primary enterprise.

6) Cost effectiveness is the amount of money spent from the amount of money saved to determine if spending is effective in the long run.

7) Facilities and equipment are the provisions utilized by the fitness program participants for the purpose of enhancing one's health, increasing strength, endurance, and improving physical appearance.

8) In-house program is one in which facilities and equipment are provided by the corporation at or near its site of production or business.

9) Square foot (sq. ft.) is a unit of measure equal to a square one foot long on each side. One square foot is equal to 144 sq. in. (Gove, 1971).

10) Type of program is related to the designation of a physical fitness program(s) offered by a corporation. A corporate fitness offering can take on one or more of the following types:

a) Type A program is a corporate fitness program in which facilities are provided by the corporation.

b) Type B program is a corporate fitness program with facilities and recreational activities in addition to physical conditioning.

c) Type C program is a corporate fitness program in which the business or corporation involved leases facilities and equipment from outside the corporation. The organizations involved include the YMCA, YWCA, Jewish Community Center, university, or church.

d) Type D program is a corporate fitness program operated through a private fitness agency which is contracted by the corporation to manage the employee fitness program.

CHAPTER II

REVIEW OF RELATED LITERATURE

Introduction

A fitness center through its recreational offerings can serve as an integral part of people's lives. Already many of the larger corporate fitness centers have on the premises restaurants, lounge areas, meeting rooms, and other facilities that are more for social than sports or fitness related activities (Successful Sports Clubs Plan for Profitability, 1984). For this reason it is important that new facilities be as fully and carefully planned as possible to incorporate many different recreational activities.

This review of related literature will focus on seven major sections. They are: (1) the history leading to the present corporate fitness status; (2) the influence of YMCAs; (3) the influence of the President's Council on Physical Fitness and Sports (PCFFS); (4) the involvement of the Association for Fitness in Business (AFB); (5) the reasons for having a program; (6) the classification of programs for this study; and (7) the major focus of this chapter is a review of a previous study on corporate fitness programs completed by Bartsokas and St. Louis (1979).

Historical Perspectives

Corporate fitness is not a recent development in the United States. The concept began back in 1891, when the National Cash Register Company

in Dayton, Ohio, erected on the grounds a building for employee recreation (Anderson, 1955). This sparked the beginning for industrial recreation and led John H. Patterson, president of the National Cash Register Company, to further increase his company's support for fitness by introducing morning and afternoon exercise breaks for his employees in 1894 (Hawkins, 1976; Maryk, 1982; and Fitness in the Work Place, 1983). Ten years later the company also built an employee gymnasium, and then in 1911, a 325-acre recreation park (Schinto, 1977). Such an early involvement in recreation programs was viewed as an intangible investment in the individual and social betterment of the employee (Hawkins, 1976).

In 1894 the employees of the Metropolitan Life Insurance Company in New York City also realized the benefits of employee fitness and formed a recreation association called the Athletic Association (Hawkins, 1976). The following year another organization called the Ludlow Manufacturing Association set aside a recreation room inside its facilities fitted with pool tables, bowling alleys, and other game equipment. This same association in 1896 formed the Ludlow Athletic and Recreation Association, which was the second employee recreation association formed (Anderson, 1955).

During the turn of the century, it was evident that an increasing number of companies were providing recreational activities for their employees. The primary activities within these programs were athletic competitions in most of the popular team sports such as bowling, billiards, dancing, picnics, and other social gatherings (Bartsokas & St. Louis, 1979).

The growth of corporate fitness programs brought with it the formation of the National Industrial Recreation Association (NIRA) in 1941 (Anderson, 1955). This was a non-profit organization for the primary purpose of gathering together a group of industrial recreation leaders to develop methods of program administration. A result of the NIRA's efforts was the development of a journal in 1945 called Journal of Industrial Sports, which was the first periodical related to the field of industrial recreation. Shortly after its conception, this publication was replaced by the Recreation Management journal, which was started to develop a common communication system, and to serve as a resource specifically for those persons interested in recreation or physical fitness programs in business and industry (Anderson, 1955).

In the mid-1950s, industrial recreation was rapidly changing and companies had become very competitive in developing programs in order to lure prospective employees, and to retain their present employees (Eckenberg & Schwartz, 1956). While many of the earlier industrial recreation programs were aimed toward elite type sports that would portray a good public image, more contemporary industrialists realized that the value of activity should benefit the employee. In realization of this concept, the new trend of the mid-1960s was to involve more employees and their families in recreational activities (Gilbert, 1965, p. 57). One person concerned with getting the family involved with recreational programs was Frank Flick, president of Flick-Ready corporation. The Flick-Ready Corporation offered employee and family oriented activities, built around the concept, "the whole

man and his whole family." He was also quoted as stating, "the greatest satisfaction of my life is to see the increased use of our facilities by the whole family" (Flick, 1966, p. 19).

During the 1960s several corporate fitness programs came into being, one being the Rockwell International Program in El Segundo, California. This employee physical fitness program provided a gymnasium with fitness equipment, and the establishment of fitness programs based on the needs of the employees (Schinto, 1977). Another example is the Xerox Corporation which in 1965 provided one of the finest physical fitness and recreational programs possible (Oppenheim, 1978). Since then, Xerox has included fitness facilities and programs in many of their other corporations throughout the world.

Today more than 50,000 United States firms and 1,000 Canadian companies are involved in some aspect of Corporate Fitness (Cox, 1984). These corporations are realizing the need to protect their most important asset, the employee.

Influence of the YMCA

The first national organization of the Young Men's Christian Association (YMCA) was formed in 1854 (Anderson, 1955). Since its earliest beginning the YMCA has been interested in the welfare and recreation of industrial workers. In 1868 the first recorded account of recreation provided for industrial employees by the YMCA was conducted by Robert Weidensall, secretary of the national YMCA (Anderson, 1955). His program involved the men engaged in building the Union Pacific Railroad, and as a result the first railroad YMCA was formed

in Cleveland, Ohio, in 1872 (Bartsokas & St. Louis, 1970; and Anderson, 1955). It was a small room in the depot set aside for railroad men to use as a gymnasium or a place to hold meetings.

In the following years, railroad YMCAs were organized at many other important railroad junctions. But the efforts of the Ys did not stop here, for they had a tremendous influence on the lumbermen and miners of Wisconsin and Pennsylvania. This growing enthusiasm in serving industrial employees led to the establishment of the National Industrial Department of the YMCA in 1902 (Anderson, 1955). Much attention from this department was given to the organization and development of recreation programs for industrial workers.

In the 1920s, industrial YMCAs were established in textile villages, lumber mill towns, logging camps, coal and metal-mining camps, and steel communities. The following features stated by Anderson (1955) were included in the programs for industrial men:

1) Recreation activities during the noon hour, before and after shifts, and on Saturdays.

2) Shop meetings, Bible classes, health talks, safety campaigns, etc., during the noon hours.

3) Thrift programs aimed at constructive administration of personal finances, savings, investments, budget planning, and insurance.

Influence of the PCPFS

The President's Council on Physical Fitness and Sports has also played an important role in the expansion of the CFPs in the United

States. Principles recommended by the PCPFS according to Bartsokas and St. Louis (1979) were:

1) Physical fitness is the primary goal of the program.

2) Activities are designed to develop muscular strength and endurance, cardiovascular endurance, flexibility, and balance.

3) Varied exercise needs are met through the use of individualized exercise prescriptions.

4) Participants are not encouraged to compete with each other in terms of effort, goals, or gains. The primary objective is individual improvement, not personal superiority.

5) Candidates for the program should obtain medical clearance for exercise.

Influence of the AFB

The Association for Fitness in Business (AFB) was established in 1974 as the AAFDBI, the "American Association of Fitness Directors in Business and Industry," with the renaming of the organization occurring in June of 1983. This organization was brought about by a small group of worksite fitness directors who realized a need to develop their own professional organization. Today, AFB's diversified membership is composed of more than 3,000 members including fitness directors, physicians, health promotion specialists, physiologists, educators, personnel directors, exercise instructors, health-policy experts, and many others who share the conviction that fitness is good business (Ebel, 1984). This organization was founded as an affiliate with the President's Council on Physical Fitness and Sports. It provides

to its members two newsletters: (1) AFB Action, and (2) AFB Fit Prints--The Bulletin of Fitness Research.

The purpose and objectives of the association (Ebel, 1984) are to:

1) Provide an educational organization to support and assist in the development of fitness and health promotion programs in business.

2) Create increased awareness of the importance of developing and maintaining high levels of physical, emotional, and mental health among employees.

3) Cooperate, endorse, and form coalitions with national fitness and health programs of similar purpose and objectives.

4) Encourage and support programs of in-service training and continuing education for professionals associated with fitness in business.

5) Provide leadership in the field of fitness in business, including the development of performance standards for fitness and health professionals.

6) Stimulate appropriate research regarding the efforts of programs of fitness in business, and to compile and disseminate information regarding worksite facilities and health programs.

7) Develop operational, administrative and educational material for programs of fitness and health in business.

Reasons for Programs

In the past, numerous national and international studies have identified marked differences in the prevalence of cardiovascular

disease between various populations (Morris, Chave, Adam, Sirey, Epstein, & Sheehan, 1973; and Paffenbarger & Hale, 1975). Many of these studies have focused upon risk factors known to facilitate and influence the probability of a heart attack or stroke.

One risk factor frequently considered a secondary risk factor is sedentary lifestyle (Wilson, Fardy, & Froelicher, 1981). Several studies have identified an association between physical inactivity and the increased prevalence of cardiovascular disease (Morris, Chave, Adam, Sirey, Epstein, & Sheehan, 1973; and Paffenbarger & Hale, 1975). This is due in part to the strengthening evidence linking physical fitness with favorable modifications of coronary risk factors (Bjurstrom & Alexion, 1978; Hartley, Jones, & Mason, 1973; and Horne, 1975). In addition, it is generally accepted that a relationship between physical fitness and mental health exists (Caldwell, 1976; and Smith, 1978). Various studies indicate that people who are vigorously active have less heart disease, have an increased sense of well-being, and are less depressed and less anxious than those who are sedentary (Morgan, Roberts, & Brand, 1970).

In realizing these benefits of physical fitness, America is gaining momentum in enhancing the quality of work life through the establishment of more employee benefits like recreation and fitness programs. Though the benefits of specific Corporate Fitness Programs (CFPs) have not yet shown that physical fitness in terms of dollars spent, against dollars saved, has increased production and morale, results of preliminary research are encouraging when measured against

the enormity of health problems confronting American business and industry today. Three examples of health problems include: (1) premature deaths which cost American industry more than 25 billion dollars and 132 million workdays of lost production each year (Donoghue, 1977; Oppenheim, 1978; and Fitness in the Work Place, 1983) with heart disease alone accounting for 52 million of these lost days (Oppenheim, 1978; and Fitness in the Work Place, 1983), (2) heart attacks which kill more than one-half million Americans every year, and the American Heart Association (AHA) estimates that industry pays 700 million dollars each year just to recruit their replacements (Donoghue, 1977; and Fitness in the Work Place, 1983), and (3) back pain afflicts about 75 million working men and women, and accounts for one billion dollars in lost output, plus 250 million dollars in workmen's compensation claims (Fitness in the Work Place, 1983).

Business and industry have traditionally accepted these correctable conditions as normal operating hazards, and have made costly provisions for them. Heart disease, low back pain, premature retirements, excessive sick leave, early disability, and premature death should not be normal or routine, and caused health care services to rise from 27 billion dollars 20 years ago to nearly 200 billion dollars today (How to Develop a Company Fitness Program, 1982).

Insurance for the employees thus represents the single largest growing cost factor in corporations. An example of this is the Xerox Corporation which has spent 37 million dollars on insurance premiums in 1968, and 58 million dollars in 1977. Although Xerox and other

companies do not believe an overnight reduction in costs will result from health management programs, they do feel that they may be able to keep these costs from increasing (Maryk, 1982).

According to one estimate, regular exercise can reduce absenteeism by three to five days per person per year, a savings that would soon pay for the installation and maintenance of a corporate fitness program (Fitness in the Work Place, 1983). It has been shown in several other studies that physical fitness training can reduce the risk of heart attack and thus reduce absenteeism, thereby saving the administration money through medical costs (Donoghue, 1977; Ekblom, 1978; Horne, 1975; Frank, Weinblatt, Shapiro, & Sager, 1966; Fox, Naughton, & Haskell, 1971; Bonanno & Lies, 1974; Yarvote, McDonough, & Goldman, 1974; and Siegel, Blomquist, & Mitchell, 1970). In each of these studies it was concluded that people who are physically fit have fewer absences due to illness and work more productively (Donoghue, 1977; Ekblom, 1968; Horne, 1975; Frank, Weinblatt, Shapiro, & Sager, 1966; Fox, Naughton, & Haskell, 1971; Bonanno & Lies, 1974; Yarvote, McDonough, & Goldman, 1974; and Siegel, Blomquist, & Mitchell, 1970).

Economically, a well organized and properly conducted fitness program should provide a variety of benefits. Of these, decreased health costs, absenteeism, production costs and industrial accidents, and increases in a higher quality of life, levels of energy, interest on the job, fitness level, diet and health habits off the job, and enjoyment of leisure time (Elliott, Bond, Brandenburg, Cooper, Crumrine, Glasser, Haffner, Herd, Hallen, Kerr, Sherwin, Resenkor, Roberts, Simmons, Sparks, & Weiss, 1981). A fitness program is,

therefore, easily fueled by its impact on medical costs including absenteeism, productivity, disability, workmen's compensation, turnover retraining, and reduced morale (Goldbeck & Kiefhaber, 1981).

Fitness programs are increasingly becoming part of the American culture and have earned support from employers because the concept makes sense, meets defineable needs, and is good for business (Goldbeck & Kiefhaber, 1981). The idea of a fitness program being good for business is a selling point to an administration in itself, while improving employee-employer relations and a satisfaction with work production (Elliott et al., 1981).

Many companies do not necessarily go into fitness programs to cut costs, reduce absenteeism or to increase productivity. Several companies develop fitness programs for improved corporate environment, good public relations, executive perks and recruiting enticements (Barnes, 1983). It is known today that potential employees desire cultural and recreational opportunities when they consider joining a new firm, both for themselves and their families (Smith, 1978). Statements supporting CFPs with regard to recruitment have been increasing with the recent growth in the number of programs throughout the United States (Smith, 1978).

Companies are, therefore, missing the point if they over emphasize the cost saving aspect of employee fitness over the morale-building benefits, even though it might be the most important reason to start a fitness program. When deciding on whether to provide fitness facilities and/or health/fitness programs, it is important

to look at the price, hidden or obvious, of not offering employees the opportunity for exercise, with increases in absenteeism, sickness, industrial accidents, premature retirement and death, underproductivity, and low morale are just a few of the costs of poor health and lack of fitness on the job (Fitness in the Work Place, 1983).

Classification of Programs

In order to differentiate and categorize the many types of corporate fitness programs, a classification system will be used. This system will consist of four types of programs that were taken from Bartsokas and St. Louis (1979). Their study was based on program types A, B, C, and D. For this study the same classification of program types will be used to avoid confusion when comparing results. It is also necessary to become familiar with the types of programs in order to understand the review of the Bartsokas and St. Louis study of 1979 which will follow this section.

Type A Program

A type A program includes facilities and equipment provided by the particular business or industry on or near the site of its production plant. The major purpose of a type A program is for providing employees with a means of physical conditioning in conjunction with the company's medical department.

An example of a type A program is the Kimberly-Clark Corporation in Neenah, Wisconsin. This company invested 2.5 million dollars in fitness testing and physical conditioning facilities. This includes

a 7,000 square foot multi-phasic health testing facility and a 32,000 square foot physical fitness facility (Bartsokas & St. Louis, 1979). The complex is staffed by 15 full-time health care personnel.

Employees in the program fill out an extensive medical history questionnaire before they go through 14 different laboratory tests. This procedure is followed by a complete physical examination and a graded exercise test (GXT). Afterwards, an exercise prescription is presented to the employee outlining their limitations of exercise participation in the many activities provided. Finally, the health center's staff presents lectures on health-related topics to the employees. This all-around approach to health and fitness is the goal of the Kimberly-Clark program, "to help employees maintain or improve their health instead of providing medical assistance only after they become ill" (Smith, 1978).

Type B Program

A type B program has elaborate facilities and sophisticated equipment provided by the company on company premises. This program is different from a type A program in that it provides recreational activities in addition to a well-developed physical training program.

An example of a type B program is the Sentry Insurance Company in Stevens Point, Wisconsin. Sentry's goal is to promote fitness through recreation. The physical fitness complex offers a variety of facility activities including: a 25 meter pool, a full-size gymnasium (complete with 8 basketball backboards, a volleyball court, and a jogging track), racquetball and handball courts, an indoor

driving range, cross-country skiing trails, nautilus equipment, treadmills, bicycle ergometers, and rowing machines (Bartsokas & St. Louis, 1979).

Employees there are given the opportunity of having a graded exercise test free of charge, with all participants then given an individual activity prescription based on stress test results, age, needs, and the participant's interests. Sentry also offers a variety of recreational activities and tournaments to the employees to round out the program. The supervisory personnel at Sentry include two physicians, several health and physical education professionals, registered nurses, a medical assistant, and several recreational assistants and lifeguards (Bartsokas & St. Louis, 1979).

Type C Program

A type C program is one in which the business or industry leases facilities and equipment from other organizations, such as Ys, schools, churches, or Jewish Community Centers. The purpose of these types of programs appears to be participation in recreational activities rather than on overall physical conditioning.

YMCAs can be an advantage to small businesses because they offer many different types of programs such as jogging, aerobics, weight training, stretching, swimming, and a variety of health related lectures and classes. Corporations can be given membership group rates for different levels of these program activities depending upon the interest of the individual participants. Included in the membership besides program offerings, is the opportunity for each participant

to receive a physical fitness test in order to determine the present level of fitness before prescribing exercise.

Type D Program

A type D program consists of a firm contracting an outside fitness agency to evaluate the fitness levels of employees, lead the employees through a physical conditioning program, and educate the employees on the benefits of physical exercise and health. Facilities and equipment are provided by the fitness agency with the sole purpose of a type D program based on physical conditioning and no recreational activities utilized in these settings.

Fitness Systems Incorporated in Los Angeles, California, is an example of a type D program. The purpose of this establishment is to assist any organization by providing professional counseling and a variety of fitness services. Therefore, not only does Fitness Systems Incorporated provide a training center for numerous business concerns, it also offers expertise to those agencies establishing their own facilities (Bartsokas & St. Louis, 1979).

Program Review

Introduction

One previous study concerning the current status of Corporate Fitness Programs (CFPs) in the United States was done by Bartsokas and St. Louis in 1979. Their survey containing 67 questions was mailed to 206 AFB corporate members in the seven regions of the United States. A diagram of these seven regions can be found in Appendix Figure 1.

As of this date there is a restructuring of the regions totaling eight regions instead of seven (see Appendix, Figure 2).

In this study, only type A and B programs (those corporations with in-house facilities) were used for the analysis. Therefore, of those 206 members, only 69 completed surveys belonged to type A and B programs. Of these 69 programs, the regional breakdown of CFPs according to AFB's seven regions (see Appendix, Figure 1) is as follows: region 1 had 41% of the returns, region 2-17%, region 3-4%, region 4-14%, region 5-4%, region 6-10%, and region 7-10%.

The following sections will give information pertinent to aspects involved in the study. This includes: administration, organization, and facilities and equipment concerns. Also, the data will be used in Chapter IV as comparative information to determine if any changes have occurred within the past six years.

Administration

Background Information. The number of employees that a corporation has will many times dictate what type of fitness programs and facilities will be provided. This means that large corporations are more likely than small corporations to have in-house fitness facilities.

The type of employees at a corporation, for example, white collar or blue collar workers, also has an influence on the company's involvement in physical fitness programs. It has been shown that companies employing mainly white collar workers are more likely to have fitness programs and/or facilities than those corporations utilizing blue

collar workers. This is mostly due to the increased awareness for health and fitness and the higher education levels attained by white collar workers.

With the number and type of employees being just two of the many variables involved in fitness program outcomes, it has been shown that fifty-five percent of the corporations in the United States provide in-house or on-site facilities. Of the total returns in the Bartsokas and St. Louis study (1979) it was shown that: (1) 75 businesses out of 206 original contacts provided on-site facilities, (2) 26 programs were operated through either YMCAs or YWCAs, (3) 9 programs were affiliated with university adult fitness programs, (4) one program utilized the services of the Jewish Community Center, and (5) 34 programs were run through private fitness agencies, thus more CFPs utilize facilities provided by management than by any other source.

Participation. Participation by the employees is what determines the success of the programs. It was reported that participation in CFPs was mainly by white collar male workers. This may have changed substantially with the greater number of women entering the work force. Additionally, 58% of the corporations with in-house facilities do not allow employee families and friends to exercise at the facility.

In regard to facility usage, 46% of the facilities were only open on weekdays, and 33% had both weekdays and weekend hours. During these days, only 46% of the employees were given time off with pay to exercise, with 80% of the respondents exercising alone instead of their department exercising together.

Personnel: Three individuals were generally responsible for the development and implementation of CFPs. Fifty percent of the respondents stated that a physical educator or fitness specialist directed the fitness program, and 44% reported having a physician as part of the program's administration.

Organization

Physical Examinations: A total of 86% of the programs had physical examinations for the employees. Physicians were responsible for 74% of the examinations, while nurses and physician's assistants accounted for 12%. After the physical examination, 78% of the CFPs administered physical fitness tests. These tests included: stress tests on the treadmill by 46% of the CFPs, bicycle ergometer 46%, and step test 15%. The protocol followed mainly continuous by 46% of the CFPs and sub-max in 43%, with 27% doing maximum tests, and 7% doing discontinuous.

To determine percent body fat, the skin caliper procedure was done by 65% of the CFPs, and underwater weighing by 18% of the CFPs. This is most likely due to the inexpensive cost of the skin calipers and the ease in applying this method of testing. Other tests utilized were flexibility measurements done by 53% of the programs, and 45% also used strength measurement tests.

Exercise Prescription. Exercise prescriptions were used by 74% of the programs, with 71% using between 3-5 days for their exercise frequency. The exercise prescription was based on: (1) heart rates

between 61-100% used by 64% of the programs, and (2) maximal oxygen uptake of 61-100% used by 23% of the programs.

The mode of training based on five categories was: running used by 71% of the programs, bicycling 65%, jumping rope 29%, swimming 25%, and rowing 25%. These modes of exercise were continuous aerobic activities continued for 20-50 minutes by 55% of the programs.

Participant Education. Motivational techniques were used by 75% of the programs, including: 74% employing clothing items such as T-shirts and gym shorts, 30% various gift certificates, and 43% of the programs listing the participants' monthly workout accumulation in a newsletter.

Participant education appears to be an important component of CFPs. In line with this, 81% of the companies had educational programs, but not on a frequent basis. The most common educational offerings were nutrition by 75% of the programs, smoking termination 70%, risk factors for heart disease 68%, exercise prescription 68%, stress control 67%, and CPR 61%. To a lesser extent the programs offered include: drugs and alcohol by 30% of the programs, safety education 26%, emotional health 26%, health and your working environment 23%, sight and hearing 15%, occupational health 14%, family health 13%, dental care 10%, skin care 7%, and sex education 3%.

Lectures for courses on a daily basis were done by only 3% of the programs, 17% on a weekly basis, and 32% lectured at least once a month. To supplement these teachings, 68% of the programs have library facilities, while 74% of the programs brought in outside guests

for workshops and lectures. In order to measure the effectiveness of the education programs, 35% of the programs used surveys to measure knowledge, 28% used pre and post tests, 17% used interviews, and 0% used quizzes.

Fitness and Recreation Programs. Statistics showed that 19% of the programs had fitness programs that met the specific physical demands of the job. This included: club or partner activities by 49% of the programs, co-ed activities by 80% of the programs, while 19% of the programs included activities specific to age group.

A variety of tournament activities used to increase participation include: basketball and volleyball both used 50% of the time, with tennis 49%, racquetball 35%, and handball 19% of the time, respectively.

Facilities and Equipment

Physical Plant of the Fitness Facility. The facilities offered by a CFP cover a wide spectrum. The size of the company and the allocation of funds many times determines the type of facilities available to participants/employees. Of particular interest is the fact that fitness can be achieved without the use of facilities or equipment.

Bartsokas and St. Louis (1979) have statistics available on equipment, supplies, and facilities of CFPs in the United States. The four most commonly used types of exercise equipment used were stationary bicycles (86%), jump ropes (59%), motor-driven treadmills (55%), and universal machines (52%). Equipment that is less available includes: volleyball equipment (48%), padded benches (45%), rowing

machines (45%), wall pulleys (42%), olympic free weights (34%), squat racks (26%), cross country skiing (16%), and nautilus equipment (14%). Supplies provided by the companies include: towels (75%), hygenic supplies (61%), and uniforms (39%).

Availability of facility areas shows that: running tracks were provided by 59% of the programs, 29% included swimming pools, 36% had basketball courts, and 23% had handball/racquetball courts. Additional amenities were saunas 52% of the programs, whirlpools 33%, driving range 17%, and a golf course provided by 14% of the CFPs.

In the laboratory setting, equipment and facilities available were provided by 51% of the programs. Of these, 100% had emergency equipment, 89% had a defibrillator, 86% an electrocardiograph, 77% a treadmill, 74% cardiac drugs, 69% blood laboratory equipment, 51% vision and hearing testing equipment, and 51% having x-ray room equipment.

Regional Breakdown: With the low number of respondents from certain regions, review of exact percentages was somewhat misleading. Nevertheless, correlations between geographic locations, facilities and equipment provided by CFPs revealed that regional differences did not exist (Bartsokas & St. Louis, 1979).

Northeastern and upper Midwestern CFPs generally possessed more indoor exercise equipment due to the winter weather. In these regions, stationary bicycles, rowing machines, and treadmills were the most often used indoor equipment. Other regions used these modalities but not as prevalently.

Facilities provided by CFPs showed that indoor running tracks were provided more often in the North and Midwestern regions than in the South and West. Region 6 and 7 had most of their running facilities outdoors, while indoor running tracks were in regions 1, 2, and 4. Swimming pools were found in all regions, with regions 2 and 4 showing the highest percentages. The majority of these pools were indoor, with only one program having an outdoor pool. More than 80% of the programs in every region provided locker rooms. Finally, strength training facilities were prevalent in 70% of all regions, except for region 4 which had 50% of its CFPs providing strength training facilities.

Summary

Within the last one hundred years there has been an increase in the number of corporate fitness programs and facilities in the United States. The influence on these programs has come from the YMCAs, PCPFS, AFB, and from the employees within the corporation. While there are many reasons for the implementation of fitness programs, it is evident that modernization of work production has been a culprit to decrease manual labor, putting many employees into the classification of a sedentary lifestyle. This sedentary lifestyle is just one risk factor in heart disease, the number one killer, reason enough to protect the employee.

The conclusions from the data reveal that: (1) most CFPs are provided by in-house facilities, (2) companies employing predominantly white collar workers account for the largest percentage of participants,

(3) male white collar workers account for the largest percentage of participants, (4) the administration of CFPs was done mainly by a medical director, usually a physician and/or a physical fitness specialist with a physical education background, (5) exercise prescriptions are developed and used by 74% of the programs with aerobic conditioning used to some extent by 100%, and (6) 81% of the programs employ some type of participant education (Bartsokas & St. Louis, 1979).

The extent of CFPs' involvement in health and fitness is based on the goals and objectives of each corporation. With the information gained thus far it is important to further increase the knowledge available to CFPs to determine the differences or similarities that exist, and especially an evaluation on the outcome of these programs.

CHAPTER III

METHODS AND PROCEDURES

Purpose of the Study

The purpose of this study was to determine the current status of Corporate Fitness Programs (CFPs) in the United States, and to compare the results with those of a previous study by Bartsokas and St. Louis (1979). The survey instrument utilized all questions taken from the Bartsokas and St. Louis study of 1979, plus 17 additional questions specific to further investigative topics. The survey was specifically designed to gather information on administrative concerns, organization of the program, facilities and equipment, and evaluation of the fitness programs and facilities.

Development of the Instrument

The questionnaire technique was utilized because this type of format enables one to quickly obtain information from a large sample. The specific instrument used to collect the data was a structured questionnaire, with the option to write additional comments on appropriate questions.

The 84-item questionnaire is based on four main categories (see Appendix A). Part I, Administration of the program, questions 1-29, included: (A) background information on the corporation, (B) participation of the employees, and (C) personnel needed in the program. Part II, Organization of the program, questions 30-54, was utilized

for the purpose of examining the organization's involvement in: (A) physical examinations, (B) exercise prescription, (C) participant education programs, and (D) fitness and recreation programs. Part III, Facilities and Equipment, questions 55-74, was designed to gain information on what types of facilities the program has, the size, and number of the areas the corporation deems as necessary to carry out its function. In Part III questions were asked about: (A) physical plant of the fitness facility, and (B) the training room. Part IV, Evaluation, questions 75-84, was directed at determining the effectiveness of the program and facilities through questions based on: (A) program benefits, (B) participation in the programs, and (C) facility aspects. This will help the administrator examine the corporation's facilities and program offerings.

Before distribution of the questionnaire, a pilot study was undertaken to assess the effectiveness of the survey. The individuals involved in the advisory committee consisted of three members of the thesis committee, and six individuals currently involved in physical fitness and/or health related programs and facilities provided by a corporation. These individuals were: Robert Batchelder, John Castek, Dennis Colacino, Ronald Cook, Robert Dedmon, Dan Lynch, James Nord, Neil Sol, and Philip Wilson (Appendix B). These individuals were sent a questionnaire and a letter explaining the study and asking them to review the questionnaire for testing feasibility. This review involved looking at the clarity and ease of answering the types of questions asked to eliminate confusion. They were also asked for their

overall opinions in regard to the study. After suggestions from the group, a restatement of the questions and a revision of the questionnaire were done to clarify meaning.

Selection of Sample

The selection of individuals for the study was taken from the most recent (1985) membership mailing list of the Association for Fitness in Business. The AFB's membership was sampled not only for involvement in Corporate Fitness, but also because it had the most complete and specific list available. All persons listed in the "Corporate" category of the membership list, totaling 398 individuals or corporations in the United States, were analyzed to identify similar addresses. Of those individuals with identical mailing addresses, only one was chosen as the corporate coordinator. This was done to eliminate duplicate mailings. Of these 398 individuals a total of 343 were selected from the stratified random sample according to the AFB's eight regions of the United States (Appendix E). The states within the regions were put into alphabetical order, and in zip code order for each state. In the stratified random sample technique using random numbers (Appendix, Table 1), 100 of the 343 members were chosen to receive the questionnaire (Appendix D). The specific number of members represented by each state was based on the percentage of members within the region compared to the total number of members of all eight regions. The breakdown of regions receiving the questionnaire according to percentage are in Appendix E. The stratified random sample technique was used in order to represent each region as well as to get a greater rate of return during the follow-up procedures.

Administration of the Instrument

The questionnaires were sent to 100 of the 343 physical fitness coordinators/directors listed in the AFB membership list (Appendix D). Each questionnaire was accompanied by a cover letter (Appendix F), and a self-addressed stamped envelope. This cover letter explained the purpose and need for the study along with a request for their cooperation in completing and returning the questionnaire.

The questionnaires were mailed on May 3, 1985. On May 15, 1985, those individuals who had not returned the questionnaire were sent a follow-up letter (Appendix G) and another questionnaire with a self-addressed, stamped envelope. On May 29, 1985, those individuals who still had not returned the questionnaire and whose telephone numbers could be obtained, were contacted asking for their cooperation in completing the questionnaire. If the questionnaire was misplaced or they did not receive one, another questionnaire was mailed on June 3, 1985, along with a self-addressed stamped envelope. No further contact was made to solicit their cooperation. A list of respondents can be found in Appendix H.

Statistical Treatment of Data

The results obtained were organized on a nationwide basis, with descriptive measures used to present the data. Also, results were compared to the study done by Bartsokas and St. Louis (1979) using the AFB's seven regions. The map of the seven regions (Appendix, Figure 1) was drawn by Bartsokas and St. Louis (1979). As of 1985, AFB has grown to eight regional locations (Appendix, Figure 2). The

areas used for comparison are in the administration of the program, organization of the program, and facilities and equipment. A new area on evaluation of the programs was added to determine if the facilities and programs have been beneficial to the corporation and its employees.

CHAPTER IV

ANALYSIS OF DATA

Introduction

The purpose of this study was to update the current status of corporate fitness programs (CFPs) and facilities in the United States. The information attained will serve as comparative data to that of a previous study by Bartsokas and St. Louis (1979) to examine the growth or decline of programs, and trends of programs in the future. The investigation involved the following aspects of CFPs: administration, organization, facilities and equipment, and evaluation of the programs.

A survey was taken involving the eight regions of the United States according to the AFB's regional map (Appendix, Figure 2). The 84-item questionnaire was mailed to a stratified random sample of 100 members out of 343 corporate members belonging to the Association for Fitness in Business. Of these, 89 members were identified with regard to whether or not they were affiliated with a corporate fitness program. The returns by program classification are listed in Table 2. A list of the sample population can be found in Appendix D. The statistical analysis includes detailed measures only for those CFPs provided through on-site or in-house facilities (Appendix H). Therefore, only programs with fitness personnel, facilities, and equipment provided by management were examined.

Table 2

Questionnaire Returns

Types of Programs	Number	% of 100*
Types A and B[1]	48	48%
Types A, B and C[2]	4	4%
Type C[3]	6	6%
Type D[4]	0	0%
Types A and B[5] under construction	5	5%
No Program	6	6%
	69	69%

Telephone Follow-up

Types of Programs	Number	% of 100*
Types A and B[1]	5	5%
Types A, B and C[2]	1	1%
Type C[3]	2	2%
Type D[4]	1	1%
No Program	11	11%
Unable to contact	11	11%
	31	31%

(Table 2, cont.)

* 100 questionnaires distributed originally.

1. Types A and B include all in-house CFPs.
2. Types A, B and C are a combination of those CFPs operated through in-house CFPs and through YMCAs, YWCAs, Universities/Colleges, Jewish Community Centers or churches.
3. Type C includes CFPs which are operated through YMCAs, YWCAs, Universities/Colleges, Jewish Community Centers, and churches.
4. Type D includes CFPs which are run by a private fitness agency.
5. Type A and B under construction includes those in-house CFPs that will complete construction of their facilities by the end of 1985.

The number of these programs was 58, and data from 48 programs were analyzed. This represents 48% of the on-site CFPs sampled. In comparing the Bartsokas and St. Louis study of 1979 involving 206 members (Table 3) to this study (Table 2) it may be that there are more corporate fitness programs and facilities in the United States now than in 1979.

Table 3

Questionnaire Returns

Bartsokas and St. Louis Study

Types of Programs	Number	% of 206*
Types A and B[1]	75	37%
Type C[2]	35	17%
Type D[3]	34	16%
No Program	60	29%
	204	99%

*206 questionnaires distributed originally.

1. Types A and B include all in-house IFPs.
2. Type C includes IFPs which are operated through YMCAs, YWCAs, universities, or Jewish Community Centers.
3. Type D includes IFPs which are run by private fitness agencies.

The results of the survey are represented in four major sections: (1) administration of CFPs sub-divided into (a) background, (b) participation, and (c) personnel; (2) organization involving (a) physical examinations, (b) exercise prescription, (c) participant education programs, and (d) fitness and recreation programs; (3) facilities and equipment includes areas on (a) physical plant of the fitness facility, and (b) the training room; and (4) evaluation of CFPs based on (a) program benefits, (b) participation, and (c) facility aspects.

The Association for Fitness in Business (AFB) formerly the American Association for Fitness Directors in Business and Industry (AAFDBI) which was comprised of 7 regions in 1979 (see Figure 1) is now divided into 8 regions (Figure 2). Regional breakdown (Appendix E) shows that Region 4 had the largest percentage of the programs surveyed (22%), while Region 5 had the lowest percentage of the programs surveyed (3%). The number of surveys analyzed according to regions include: Region 1 having the greatest percentage of type A & B programs 11%; Region 6 with 8%; Regions 2, 7, and 8 each with 7%; Region 4 at 4%; Region 3 had 3%, and Region 5 with 1% of the programs.

Administration

Background Information

With regard to the title an individual is given in charge of a corporate fitness program (Table 4), a program director is the most common in 50% of the programs, program manager in 22%, and several others with less than 4%. It was interesting to note that none of the personnel were listed as a medical director (M.D.). The particular title that a person is given depends on that individual's educational background, the types of programs offered, goals of the program, and the structure of command.

Table 4

Corporate Personnel Title

(N=48)

Title	Number	% of 48
Program Director	24	50%
Program Manager	10	22%
Employee Fitness Coordinator	2	4%
Fitness Specialist	2	4%
Administrator Corporate Wellness Program	1	2%
Corporate Director Recreation and Fitness	1	2%
Exercise Leader	1	2%
Fitness Director	1	2%
Fitness Program Coordinator	1	2%
Manager Medical Services and Fitness	1	2%
Program Assistant Manager	1	2%
Program Coordinator	1	2%
Senior V.P. Operations	1	2%
Wellness Specialist	1	2%
V.P. Medical Director (M.D.)	0	0%
	48	100%

The size of those companies providing fitness programs indicated that 41% of the returnees had over 2,501 employees, 25% had less than

500, while 17% had between 501-1000 and 1001-2500 employees (Table 5). In 1979, 43% of the returnees had over 1,000 employees, while 32% of the respondents were from companies having less than 500 employees. Although these percentages indicate that larger corporations are more likely to have fitness programs, one should not be misled into believing that smaller agencies are without CFPs.

Table 5

Corporate Employees

(N=48)

Number of Employees	Number	% of 48
0 to 500	12	25%
501 to 1000	8	17%
1001 to 2500	8	17%
2501 or more	20	41%
	48	100%

It has been postulated in the past that the type of employees, for example white collar or blue collar workers, tends to have an influence on the likelihood for a company's involvement in fitness programs. In support of this, Bartsokas and St. Louis (1979) have observed that 35% of the returnees reported that their companies were comprised of 91-100% white collar workers, and 57% of the returnees claimed to have over 61% white collar workers. In the recent study (Table 6), 30% of the companies comprise 91-100% white collar workers,

and 55% claimed to have over 61% white collar workers. It also seems that there are more men in the working field with 51-100% of the workers being 60% males and 26% females (Table 6).

Table 6

Employee Classification

(N=48)

Percentage of Workers	Percent White Collar Worker[1]	Percent Blue Collar Worker[2]	Males[2]	Females[2]
91-100	30			
81-90	13	4	8	
71-80	6	3	13	3
61-70	6	8	17	6
51-60	10	6	22	17
41-50	4	6	13	8
31-40	6	8	17	35
21-30	8	4	4	11
11-20	4	8		8
0-10		40		6
	87%	87%	94%	94%

1. There was no response from 13% in the white collar and blue collar categories.
2. There was no response from 6% in the male and female categories.

Many of the larger corporations have other installations with fitness programs in their corporations throughout the United States. There are 31% that do while 69% do not. This percentage may be small, but at least there is a realization that fitness programs provided by the corporations for the employees are beneficial. Participation in these programs was shown to be 100% voluntary, making no one obligated to participate.

Whether an employee can participate indoors or outdoors is many times a personal opinion. It was shown that 83% of the corporations have employees that sometimes leave the building to exercise.

Ninety-six percent of those industries providing on-site fitness programs have employees utilize fitness facilities located in the same building in which they work, compared to 55% in 1979. In examining the total returns it was found that: (1) 58% of the businesses (out of 100 original contacts) provided on-site fitness facilities, (2) 5% of the programs used the YMCA, (3) 3% of the corporations utilized both corporate and YMCA facilities, (4) 1% utilized both corporate and university/college facilities, (5) 1% used corporate, school and a community center, (6) 2% used health clubs, (7) 2% used private agencies, and (8) 0% used the YWCAs or the Jewish Community Center. In comparison to the Bartsokas and St. Louis study there are fewer corporations utilizing the YMCAs and YWCAs (26 programs), university programs (9 programs), a Jewish Community Center (1 program), and 34 programs were run through private fitness agencies. Thus, from these findings, there are more CFPs providing and utilizing their facilities and programs than any other source.

To show that there has been a greater increase in the number of corporate fitness facilities constructed or renovated (Table 7), of those surveyed, 66% have been constructed after 1979. The size of the fitness facility provided by the corporation is not as important as the programs and educational offerings provided. In Table 8, it is shown that 67% of the programs have facilities with less than 14,999 total square feet.

Table 7

Facility Construction

(N=48)

Year	Number	% of 48	Year	Number	% of 48
1985*	3	6	1975	1	2
1984	5	11	1973	1	2
1983	6	13	1970	1	2
1982	9	19	1969	1	2
1981	5	11	1965	2	4
1980	3	6	1950	1	2
1979	4	8	1942	1	2
1978	2	4	1936	1	2
1976	1	2	No response	1	2
				48	100%

*This year does not include 5 facilities that will be completed by the end of 1985.

Table 8

Facility Size

(N=48)

Size in Square Feet	Number	% of 48
up to 14,999 sq. ft.	32	67%
15,000 to 29,999 sq. ft.	9	19%
30,000 to 44,999 sq. ft.	3	6%
45,000 to 59,999 sq. ft.	1	2%
60,000 to 74,999 sq. ft.	1	2%
75,000 sq. ft. or more	2	4%
	48	100%

Concerning funding and budgeting, many of the respondents either did not know or were unauthorized to provide this information. This makes analyzing the results somewhat misleading. Nevertheless, Tables 9 through 11 provide expenditure and budgetary considerations. Facility expenditures cost less than $499,999 for 21% of the programs, equipment expenditures less than $49,999 for 28% of the programs, and yearly budgets less than $49,999 in 10% of the programs. In the Bartsokas and St. Louis study, 9 programs (13%) had spent less than $20,000 originally for facilities and equipment. Many programs, therefore, can provide adequate facilities, programs, equipment and personnel at minimal expenditures. Likewise, yearly budgets will increase as

the growth of the programs occur, as will costs of facilities and equipment due to inflation.

Table 9

Facility Expenditure

(N=14)

Facility Expenditure	Number	% of 48*
$0 to $99,999	4	8
$100,000 to $499,999	6	13
$500,000 to $999,999	2	4
$1,000,000 or more	2	4
	14	29%

*No response from 34 (71%) of those surveyed.

Table 10

Equipment Expenditure

(N=21)

Equipment Expenditure	Number	% of 48*
$0 to $24,999	6	13
$25,000 to $49,999	7	15
$50,000 to $74,999	2	4
$75,000 to $99,999	1	2
$100,000 or more	5	10
	21	44%

*No response from 27 (56%) of those surveyed.

Table 11

Yearly Budget

(N=18)

Yearly Budget	Number	% of 48*
$0 to $49,999	5	10
$50,000 to $99,999	4	8
$100,000 or more	9	19
	18	37%

*No response from 30 (63%) of those surveyed.

With 100% of the programs and facilities being funded by the corporation, the specific allocation of funds by percentage according to personnel, maintenance/rent of facilities, equipment, etc., (Table 12) indicates that 50% reported that over 69% of the annual budget was allocated toward personnel compared to 32% allocating over 51% in 1979. The other budgetary considerations were secondary to personnel.

Participation

The number of participants a company has in its program varies depending upon the number and type of employees, the number of programs offered, and the employees' interest in fitness and health. Table 13 indicated that there is no average range of participants in programs. It was also found that males and white collar workers far outnumber all other groups both in number and percentage (Table 14).

Table 12

Allocation of Funds

(N=28)

Percentage	Personnel	Maintenance/ Rent of Facility	Equipment	Other
91-100				
81-90	2			
71-80	6			
61-70	6			
51-60	10	2		
41-50	10	6	2	
31-40	16		4	8
21-30	4	12	4	4
11-20	4	19	13	8
0-10		19	35	38
	58%	58%	58%	58%

No response from 42% of those surveyed.

Table 13

Participants in Fitness Programs

(N=48)

Number of Participants	Number	Percentage
0 to 99	6	13
100 to 249*	11	23
250 to 499	9	18
500 to 749	7	15
750 to 999	3	6
1,000 or more	11	23
No response	1	2
	48	100%

*Two programs were for executives only.

Table 14

Participant Classification

(N=48)

Percentage of Employees	Males*	Females*	White Collar Workers**	Blue Collar Workers**
91-100	2		43	
81-90	13		4	
71-80	8		2	7
61-70	13	2	13	2
51-60	27	13	6	2
41-50	21	25		7
31-40	10	30		9
21-30	2	8	6	9
11-20		10	2	
0-10		8		46
	96%	96%	82%	82%

*There was no response from 4% on the male and female item.

**There was no response from 18% on the white and blue collar worker item.

Summarizing the information, it was reported by 63% of the respondents that over 51% of their program's participants were men. On the other hand, 56% of the returnees with on-site programs had less than 40% participation by women. Bartsokas and St. Louis (1979) have indicated 61% and 40% female participation respectively. This disparity

between sexes has not diminished despite the talk of women's growth in the business world. Participation by white collar workers outnumbers blue collar workers. Forty-one to 100% of the programs have participation by 74% white collar workers compared to 18% blue collar workers. Respectively, Bartsokas and St. Louis have observed 62% white collar workers and 5% blue collar workers.

It was found that 78% of the programs have less than 50% participation by the employees using the facility or involved in the programs in comparison to the total number of employees (Table 15).

Table 15

Percentage of Employee Participants

(N=45)

Percentage of Employees	Number	Percentage*
71-80	1	2
61-70	3	6
51-60	4	8
41-50	6	13
31-40	8	17
21-30	10	21
11-20	10	21
0-10	3	6
	45	94%

*No response from 6% of those programs surveyed.

When inquiring as to when participation is allowed at in-house fitness facilities, the greatest number replied that their facilities were open only on weekdays (71%), while 29% had both weekday and weekend hours. Nine of the programs had certain designated hours in the morning, afternoon, and evening. One was open only Monday through Thursday since they only work four days a week, and one was open 24 hours a day. Bartsokas and St. Louis have found 46% of the facilities open on weekdays and 33% on both weekdays and weekends.

The feasibility of outdoor exercise during the year varies from program to program. In the respondent's opinion, 48% felt outdoor exercise was feasible 9-12 months out of the year, 42% for 5-8 months, 8% for 1-4 months, and 2% at 0 months. There appeared to be no difference as to geographical location in the United States.

Many programs do vary their activity offerings according to seasonal changes. Sixty-nine percent vary their programs with the seasons, while 31% do not. The Northern states vary more than the Southern states, while there is greater outdoor activity in the summer months, and greater attendance during the winter months.

With respect to whether or not employees are given time off with pay in order to exercise, 77% answered "No," compared to 54% by Bartsokas and St. Louis (1979). Also, there is still no attempt being made to keep specific departments together during their exercise periods, for 92% of the respondents reported that no such efforts were in progress, while 80% was noted in 1979.

Finally, participation by employees' families is not permitted in 67% of the CFPs surveyed. Participation by employees' friends is not permitted by 90% of the programs, and the facility is not open to the community in 96% of the CFPs. Friends of employees have been defined as a spouse, a guest or partner, or a significant other who shares the same address. Friends of employees are expected to exercise with the employees. Bartsokas and St. Louis have indicated that 58% of the programs do not allow participation by employees' families and friends. Thus, participation by family and friends of employees has declined over the past six years.

A fee/cost to use the facility is required by 33% of the CFPs. For employees, it costs between $2 and $12.50 per month, family members $1.50 to $10.00 per month, students $4 per month, community members $12 per month, partners or significant others $10 per month, and retired employees $1.50 to $5 per month. Some employee memberships are refundable based on participation.

Only 6% of the fitness programs provide preschool and grade school fitness programs for the employees' children, and 2% offer a nursery at their institution where parents can leave their children while they exercise.

Personnel

Replies to questions about personnel revealed that four individuals were generally responsible for the development and implementation of CFPs. Fifty-six percent employed exercise physiologists, 42% had

physicians, 40% had fitness specialists, and 35% had an exercise leader (Table 16). In 1979, Bartsokas and St. Louis stated that 50% were physical educators or fitness specialists, and 44% were physicians. Thus, over the years there has been a greater reliance on exercise physiologists and other non-medical personnel.

Table 16

Personnel

(N=48)

Personnel	Number Surveyed	Number of Personnel	Percentage
Exercise Physiologist	27	44	56
Physician	20	24	42
Fitness Specialist	19	21	40
Exercise Leader	17	21	35
Nurse	13	15	27
Exercise Technician	10	10	21
Physical Educator	9	10	19
Business Administrator	9	9	19
Health Educator	7	9	15
Nutritionist	6	6	13
Health Promotion Specialist	1	1	2
Medical Technologist	1	1	2
Phychologist	1	1	2
Recreation Administrator	1	1	2

Of the personnel employed in the fitness programs, 96% of the CFPs have full-time staff, averaging 2.5 per program, 44% have part-time staff averaging 1.2 per program, 8% have temporary personnel, and 25% accept internship personnel. The responsibilities of staff members vary according to program location, characteristics of the employee group, and goals of the CFPs. Physicians are charged with doing physical examinations, stress testing is done mainly physicians and exercise physiologists, and fitness evaluations and exercise prescriptions involve mainly exercise physiologists and fitness specialists (Table 17).

Table 17

Personnel Responsibilities

(N=48)

Personnel	Physical Examination	Testing	Evaluation	Prescription
Physician	25	15	3	3
Exercise Physiologist	3	14	22	22
Fitness Specialist	1	3	16	16
Physical Educator	1	1	2	4
Nurse	6	5	3	2
Cardiologist	1	3		
Exercise Technician		7	3	3
Internship Personnel		1	3	3
Recreation Administrator		1	1	1
Exercise Leader				4

Finally, when asked about the existence of an administrative board or governing body, 56% of the respondents reported that no such governing body existed. In 1979, 61% indicated no governing body. A governing body is usually comprised of a board of directors or advisory committee, possibly including an executive vice president, vice president of personnel, executive of recruiting, benefits administrator, manager of employee services, director of employee relations, medical director, etc.

Organization

Physical Examination

The data indicate that 54% of the programs require physical examinations for the participants. Eight programs require physicals prior to program participation, with most programs requiring exams annually for those over 35 or 40 years of age. Physicians were responsible for administering 94% of the program's examinations, while nurses assisted to account for 33%, lab technicians 9%, physician's assistants 6%, and exercise physiologists 3%. The specifics of a physical examination vary according to what the physician deems as necessary to adequately determine risk factors of the individual. There are no specific tests required, but the most common tests in a physical examination include: blood chemistry in 13 programs, health history in 11, stress test ECG in 10, percent body fat, FVC, and resting ECG in 7, flexibility, chest x-ray and audiogram in 6, etc. After the routine physical examination, 69% of the CFPs administer physical

fitness tests compared to 78% in 1979. The aspects of physical fitness most commonly tested are presented in Table 18. Results indicate that less treadmill tests are given, while more are being done by bicycle ergometer and step test. The type of protocol utilized more often is sub-maximum rather than max, and continuous more than discontinuous. Body fat determinations involved skin calipers by 77%, electrical impedence and under water weighing both by 2%. Strength and flexibility measurements are also being utilized more than in 1979.

Table 18

Type of Fitness Evaluation

(N=48)

Types	Number	Percentage	Number*	Percentage*
Stress Tests				
Treadmill	16	33	32	46
Bicycle Ergometer	25	52	32	46
Step Test	9	20	11	15
Protocol				
Max	12	25	19	27
Sub-max	28	58	30	43
Continuous	15	31	32	46
Discontinuous	1	2	5	7
Body Mass				
Skin Calipers	37	77	45	65
Under Water Weighing	1	2	13	18
Electrical Impedence	1	2		
Measurements				
Flexibility	34	71	37	53
Strength	27	56	31	45
Sit-ups	1	2		

*Bartsokas and St. Louis data from 69 programs in 1979.

Exercise Prescription

Exercise prescriptions were developed and used by 74% of the programs in 1979 versus 96% in the present study. The categories for prescription include frequency, intensity, duration, and mode. Eighty-seven percent of the programs used between 3-5 days for frequency, 71% were attained by Bartsokas and St. Louis. A prescription between 60-90% of maximal heart rate was used by 92% of the programs compared to 64% in 1979. Continuous aerobic activity of between 15-60 minutes was utilized by 92% of the programs for duration versus 55% of the programs between 20-50 minutes by Bartsokas and St. Louis. The mode of training was broken down into nine categories compared to the Bartsokas and St. Louis study (Table 19). Running was the most popular or most often used by 77% of the programs, cycling 73%, walking 58%, rowing 44%, aerobic dance and cross country simulator 25%, swimming 17%, jumping rope 15%, and rebounding 8%. These percentages may be misleading since 23% of the programs listed aerobic activities as the type used with no specific mode given.

Table 19

Mode of Training

(N=48)

Mode	Number*	Percent	Percent**
Running	37	77	71
Bicycling	35	73	65
Walking	28	58	
Rowing	21	44	25
Aerobic Dance	12	25	
Cross Country Simulator	12	25	
Swimming	8	17	25
Jump Rope	7	15	29
Rebounder	4	8	

*Eleven of the respondents indicated aerobic activities.

**Percentages based on 5 modes from the Bartsokas and St. Louis study of 1979.

CFPs that develop a strength training prescription for their employees noted that the mode most often used is nautilus 31%, universal 29%, circuit 19%, free weights/dumbbells 11%, Cam II 6%, eagle and paramount each 2%. How often strength training is recommended was 3 times a week by 66%, and 2-3 times a week by 25%.

Participant Education

Motivational techniques are used more often today (87%) than in 1979 (75%). The aspects that employees are rewarded for include: (1) aerobic points for miles run, biked, walked, rowed, etc., 57%, (2) number of workouts or visits to the program 50%, and (3) life style improvement, goal achievement or fitness evaluation results 12%. The awards participants are given for their efforts (see Table 20) include T-shirts 69%, certificates 61%, name published in company newsletter 52%, trophies 24%, gym shorts 22%, and various other gifts 76% of the programs.

Participant education programs are an important part of CFPs more than ever. The data revealed that 96% of the companies had educational programs versus 81% in 1979. Comparative offerings are listed in Table 21. The results indicate that more CFPs are offering nutrition, stress control, weight control, smoking termination, cardiopulmonary resuscitation, and so forth than in the past. On the average there are 9.5 educational offerings per program.

The lectures for these courses were offered on a daily basis by 9% of the programs, 25% on a weekly basis, 46% at least once a month, and 24% less than once a month. It does, therefore, appear that lectures are offered more often. For these programs, 44% charge a fee, with the costs varying depending upon the educational offerings and materials. As a supplement to these offerings 83% of the programs had library facilities available for the participant while 94% utilized outside sources such as workshops or guest lecturers in the presentation

Table 20

Participant Rewards

(N=42)

Awards	Number	Percentage	Percentage*
T-shirt	33	69	74
Certificates	29	61	30
Name in Company Newsletter	25	52	43
Trophies	11	24	
Gym Shorts	10	22	74
Mugs/Cups	6	13	
Gym Bag	5	10	
Plaque	3	6	
Patch	2	4	
Pin	2	4	
Sweat Clothes	2	4	
Towel	2	4	
Hat	1	2	
Key Chain	1	2	
Paperweight	1	2	
Pens	1	2	
Permanent Locker	1	2	
Walkman Radio	1	2	
Other Gifts	9	19	

*Results from the Bartsokas and St. Louis study (1979).

Table 21

Educational Offerings

(N=48)

Course	Number	Percentages	Percentages*
Nutrition	45	94	75
Stress Control	44	92	67
Weight Control	44	92	
Smoking Termination	41	85	70
Cardiopulmonary Resuscitation	39	81	61
Back Care	37	77	
Risk Factors for Heart Disease	37	77	68
Drugs and Alcohol	24	50	30
Emotional Health	16	33	26
Safety Education	14	29	
Occupational Health	13	27	14
Retirement Seminars	12	25	
Sight/Hearing	9	19	15
Family Health	8	17	13
Dental Care	5	10	10
Skin Care	4	8	7
Hypertension Screening	3	6	
Gerontology	2	4	
Cancer Detection	1	2	
Cooking Class	1	2	
Health Improvement Planning	1	2	23
Parenting	1	2	
Work Group Wellness	1	2	
Sex Education			3

*Percentages from the Bartsokas and St. Louis study (1979).

of material. Bartsokas and St. Louis have found 68% had supplement offerings, and 74% solicitation of outside sources.

In order to measure the effectiveness of the education programs 77% have utilized a method of evaluation. The types of evaluative procedures used were: surveys/questionnaires 66%, pre and post tests 38%, interviews 17%, quizzes, written critiques, formal discussions, and evaluation of results 6%. The Bartsokas and St. Louis study has shown 35% surveys, 28% pre and post tests, 17% interviews, and 9% quizzes. Evaluation procedures are used more often to measure knowledge and effectiveness of the course and the instructor.

Fitness and Recreation Programs

In realizing what adult fitness programs can do for employees, 19% of the CFPs offer cardiac rehabilitation. The number enrolled varies between 5 to 45 members per program.

Despite the extensive variety of individual jobs and the physical demands required of the workers, the statistics showed that 52% of the programs had fitness programs designed to meet the specific physical demands of the job. This is much improved from the 19% achieved in 1979.

A large percentage of the programs are still aware of the social-recreational aspect for the participants. Tournaments are an excellent way to increase participation in an activity program. A variety of activities are listed in Table 22 that include tournaments and games.

Over the years there has been a greater number of tournaments and games offered, with 4.8 games or tournaments offered per program.

Club or partner activities were offered by 60% of the programs compared to 49% in 1979. Co-ed activities were included in 92% versus 80% in 1979, while separate men's and women's programs were used by 50% of the programs. Specific activities for various age groups were employed by 29% compared to 19% of the CFPs in 1979.

In regard to whether participants ride their bicycles or run to work as part of their training, it was indicated that 67% of the programs do have participants that do so. Of these, 22 of the 32 programs have less than 10% of the participants exercise this way before work.

Facilities and Equipment

Physical Plant of the Fitness Facility

The extravagence of facilities that comprise a CFP can cover a wide spectrum. The size of the corporation, the number of employees and the type of educational and exercise offerings are essential components to consider when providing facilities in either the form of reconstruction of a room, all the way up to a multi-million-dollar complex.

The facilities and supplies provided by companies in Table 23, were shower room/locker room (100%), sauna/steam room (50%), whirlpool/jacuzzi (29%), with supplies of towels (62%), hygienic supplies (62%), and uniforms (31%) of the CFPs.

Table 22

Tournaments and Games

(N=48)

Type	Number*	Percentage*	Number**	Percentage**
Softball	29	60		
Volleyball	27	56	35	50
Tennis	25	52	34	49
Basketball	24	50	35	50
Bowling	19	40		
Racquetball	15	31	24	35
Road Racing	8	18		
Golf	7	15		
Handball	5	10	13	19
Skiing	3	6		
Badminton	2	4		
Bicycling	2	4		
Soccer	2	4		
Squash	2	4		
Archery	1	2		
Chess	1	2		
Flag Football	1	2		
Swimming	1	2		
Trap Shooting	1	2		
Wally Ball	1	2		

*Eleven programs indicated no tournaments or games.

**Results from Bartsokas and St. Louis (1979).

Table 23

Facilities and Supplies

(N=48)

Type	Number	Percentage	Number*	Percentage*
Shower Room/Locker Room	48	100	60	87
Sauna/Steam Room	24	50	36	52
Whirlpool/Jacuzzi	14	29	23	33
Towels	30	62	52	75
Hygienic Supplies	30	62	42	61
Uniforms	15	31	27	39

*This data is taken from the Bartsokas and St. Louis study (1979) which contained 69 programs.

One hundred percent of the programs contain an all-purpose exercise room. Contained within this exercise room is a wide array of equipment. Table 24 provides comparative information in regard to exercise equipment. The results indicate that there are greater amounts of equipment available for usage.

Other information on facilities included running tracks which were provided by 65% of the programs. This is slightly higher than the 59% attained in the 1979 study. Of these tracks, on the average the indoor tracks (23%) were between 1/15 and 1/25 of a mile in length, had three lanes, and were made of either tartan, carpet, or cement. The outdoor tracks (29%) averaged 1/4 of a mile, had 2 to 4 lanes each,

and were composed of either wood, cinder, asphalt, cement, grass or dirt. The outdoor running paths (44%) ranged from 1/2 to 10 miles in length, with surfaces of woodchips, asphalt, cement, or crushed stone. Bartsokas and St. Louis had found the running tracks to be 22% indoor, 36% outdoor, and 32% outdoor running paths.

Swimming pools are provided by 13% of the programs with four pools being indoor and two outdoor. Bartsokas and St. Louis had noted 19 indoor and 1 outdoor. Other facilities include basketball courts (33%), a baseball field (33%), tennis courts (19%), handball/racquetball courts (17%), and a playground for children (15%). In regard to tennis courts, there were three times as many outdoor courts as indoor courts. Facilities included in the Bartsokas and St. Louis study were basketball courts (36%), swimming pools (29%), and handball/racquetball courts (23%).

Other facilities not ordinarily available in CFPs (Table 25) include a golf course (29%), driving range (29%), trap shooting (19%), archery range (13%), etc. These areas have done much to provide additional recreation activities besides the traditional team sports.

Aside from the exercise aspect of fitness, there were only 42% of the programs that provided equipment for the care of athletic injuries. An interesting finding was that there is emergency equipment necessary for the care of cardiac emergencies provided by 52% of the programs.

Table 24

Equipment

(N=48)

Type	Number	Percentage	Number*	Percentage*
Stationary Bikes	48	100	59	86
Jump Ropes	45	94	41	59
Rowing Machines	41	85	31	45
Free Weights	38	79	24	34
Sit-up Board	38	79		
Motor Driven Treadmill	30	63	38	55
Universal Machines	27	56	36	52
Padded Benches	25	52	31	45
Nautilus	24	50	10	14
Mini-tramp	18	38		
Nordic Track	17	35		
Squat Rack	13	27	18	26
Wall Pulleys	10	21	29	42
Hydra-Fit	4	8		
Non-Motor Driven Treadmill	4	8		
Balance Beam, Ballet Bar, Stretching Mats	3	6		
Cam II, Cybex, Arm Ergometer, Steps, Polaris, Paramount	2	4		
Versa Climber, Total Gym, Pull-up Bar, Ankle Weights, Life Cycle, Stair Master, Eagle, MGI, Heart Rate Monitor	1	2		

*Data from Bartsokas and St. Louis (1979) study involving 69 respondents.

Table 25

Facilities

(N=48)

Type	Number	Percentage
Golf Course	14	29
Driving Range	14	29
Trap Shooting	9	19
Archery Range	6	13
Pro Shop	5	10
Vacation Resort	3	6
Kitchen	2	4
Restaurant	2	4
Bowling Alley	1	2
Ice Skating Rink	1	2
Roller Skating	1	2
Tanning Center	1	2
Bar	-	-

A Human Performance Laboratory is an integral part of CFPs. There are 16 programs (33%) that possess a Human Performance Laboratory for the purpose of testing. This is less than the 51% noted in 1979. Table 26 describes the equipment and supplies available in the laboratories of the CFPs surveyed.

Table 26

Laboratory Equipment and Supplies

(N=16)

Type	Number	Percentage	Number*	Percentage*
Telephone	16	100		
Defibrillator	15	94	31	89
Electrocardiograph	15	94	30	86
Cardiac Drugs	14	88	26	74
Lung Function Equipment	13	81		
Vision/Hearing Equipment	13	81	18	51
Treadmill	12	75	27	77
Panic Buttons	11	69		
Blood Lab Equipment	10	63	18	51
X-ray Room	9	56	24	69

*Data taken from 35 respondents in the Bartsokas and St. Louis study in 1979.

Evaluation

This section on evaluation is mostly based on the opinions of those in charge of the CFPs. There is very little hard data to substantiate any of the findings, but it is believed that the CFPs are beneficial in many different ways to the corporations, despite the fact that there may never be data to back up the statements put forward.

Program Benefits

When asked whether the number of sick days lost previously has been reduced because of the programs, there were 56% of the CFPs that stated a reduction in the number of sick days. In 38% of the programs they did not know or the programs were too new, therefore it was too early to tell. The other 6% that found no reduction stated that: (1) the number of sick days has always been low, (2) the company has never had a problem with sick days, absenteeism, tardiness, etc., and (3) senior executives do not take sick days unless they are really sick.

Seventeen percent of the companies stated that their insurance premiums have been reduced since the implementation of the programs. Another 17% stated no reduction in insurance premiums, while the remaining 66% included those that: (1) simply do not know, 37%, (2) too soon to tell, 13%, (3) premiums have always been low, 4%, (4) self-insured, 4%, (5) have not evaluated the program, 4% (6) not a program goal, 2%, and (7) coverage included employees and dependents, 2%.

Whether or not the number of sick days lost previously or whether the insurance premiums have been reduced, 79% of the CFPs believe that the benefits of the program outway the costs or that the program is cost-effective. Also, 71% believe that their employees are more productive through participation in the exercise sessions. At least if money is not the issue or goal, it does appear that the morale of the employees has increased, therefore increasing productivity.

Participation

Of the employees at the corporations, there was a 100% agreement that there are some individuals not involved in the programs that should be there. This is an accurate statistic, since it is very hard if not impossible to find any program that can boast a 100% adherence and compliance rate to a program.

The average time that an employee participates in the programs is less than 3 hours for 38% of the programs, 3 hours for 42%, and greater than 3 hours for 20% of the CFPs. Exercise of at least 3 days per week, which approximately would come out to 3 hours per week, is necessary to obtain the desired results of cardiovascular fitness or a reduction in percent body fat.

Of the participants who started in the CFPs throughout the United States, it can be seen that the percentage of these people still in the program is quite low. Twenty-three percent of the programs have between 76 and 100% of the original people in their program, 25% are between 51 and 75%, 15% have 26 to 50%, while 8% have between 0 and 25% of the original participants in their program. These statistics imply a low rate of compliance for which there can be a variety of reasons.

Facility Aspects

Whenever there is construction of a fitness facility, many times there are factors that are not taken into consideration. For example, 44% of the programs indicated that the fitness facility was not adequate

for their needs. The primary reason given by all programs was that more space is needed because the facilities are too small and the programs have outgrown them.

What 54% of the companies have done to make up for this lack of space was to make additions to the existing facility. The types of additions are listed in Table 27.

One of the striking observations made during the evaluation process was to find that 50% of the fitness and educational programs were not developed before construction of the facility. The explanations given include: (1) 38% were simply developed afterwards, (2) 29% were developed during construction, (3) 8% were not sure which direction they were going, (4) 4% developed the programs to meet the needs of the employees, and (5) 2% hired the personnel after construction.

Regional Breakdown

With the low number of respondents from certain regions, a review by percentages according to the regional breakdown used to compare data may be somewhat misleading. A comparison with the Bartsokas and St. Louis study will not be done due to the restructuring of the regions. Correlations between geographic location, facilities and equipment provided by CFPs still revealed that some regional differences exist.

There were subtle differences in the construction of new facilities since many regions had additional facilities since 1979. White

Table 27

Facility Additions

(N=26)

Type	Number	Percentage
Increased Space	9	19
Equipment	8	17
Aerobics Room	5	10
Locker Room/Shower Room	5	10
Testing Laboratory	2	4
Field House	1	2
Gymnastics Center	1	2
Indoor Running Track	1	2
Office	1	2
Sauna	1	2
Soccer Field	1	2
Swimming Pool	1	2
Weight Room	1	2

collar workers were most prevalent in all but region 3 (Southeast) and region 6 (Southwest). The feasibility of outdoor exercise during the year was lowest in region 4 (Great Lakes), which listed outdoor exercise as feasible between 1 and 8 months out of the year. The obvious reason for this is the long winters experienced in the Great Lakes area.

Programs that vary most with the seasons are in regions 3 through 6. Once again this is partly due to the winter months. The use of indoor equipment showed very subtle differences, because various aerobic activities are possible with the use of equipment, that no region had more than another.

Facilities provided by CFPs likewise showed only subtle regional differences. The use of running tracks provided by the programs showed that regions 1, 2, and 8 had more indoor tracks; regions 1, 6, 7, and 8 had more outdoor tracks; and regions 1, 3, 6, and 8 had a greater number of outdoor running paths. It seems that the long winter months had no effect on the number of running facilities available.

Swimming pools were not prevalent at all, since there was a total of only 4 indoor pools compared to 2 outdoor pools. Golf courses were most likely to be provided in regions 2, 6, 7, and 8. Trap shooting and archery were prevalent in regions 7 and 8. Tennis was most popular in regions 6, 7, and 8, while there were no differences in number of racquetball or basketball courts. Outdoor activities, though, do appear to be more prevalent in the Southern portions of the United States.

CHAPTER V

DISCUSSION, CONCLUSIONS, AND RECOMMENDATIONS

Discussion

With the concern of keeping employees physically fit and healthy, there has been continual growth in corporate involvement in fitness programs and facilities. No longer is a corporation just a place to work, but a place where they care enough to provide recreational outlets, educational programs, and social activities for the benefit of the employees.

Administration

The size of those companies providing fitness programs is not a critical factor. Most important in determining the presense of a program is the white collar workers. These workers tend to have an influence on the likelihood for a company's involvement in corporate fitness. Many companies take the viewpoint that by investing in the employees' health, this money is protecting a valuable asset. On the other hand, the number of employees a corporation has does not have an effect on its involvement in corporate fitness.

Participation by females is considerably lower than that of males, despite women's growth in the business world. Almost all of those corporations providing on-site fitness programs have employees utilize fitness facilities located in the same building in which the employees

work. This is of great value to an employee or corporation since a worker can exercise before, during or after work and never have to leave the building.

There are not as many programs as in the past that utilize a YMCA, YWCA, university/college, Jewish Community Center, church or private agency. In addition, there has been an increase in the number of corporate fitness facilities constructed in recent years, with 67% of these facilities less than 14,999 square feet in size. Corporations, therefore, are taking it upon themselves to provide physical fitness to their employees with the size of the fitness facility not as important as the programs and educational offerings provided.

Concerning funding and budgeting for the fitness facility, equipment, etc., many of the respondents either did not know, or were unable to provide this information. It appears that many corporations do not reveal their budgets for confidential and competitive reasons over another company. Specific allocation of funds is mainly given to the personnel in charge of the facility and programs, with smaller allocations for the facility and equipment.

Participation in fitness programs at the corporation is once again mainly by male white collar workers, with the total number of employees participating actually less than 50% in 78% of the programs. Most of the programs' facilities are open on weekdays with several also open on weekends.

Seventy-seven percent of employees are not given time off with pay in order to exercise. There is also no attempt being made to

keep specific departments together during exercise periods. Of course this would not be feasible with the varying work schedules, conflicts of interest, and the feeling of being regimented into a certain time schedule.

Family and friend participation is not allowed by well over half of the programs. This type of participation, when incorporated into a CFP, may result in long-term benefits to an employer and employee. By having family members participate together, employees working for a company are more likely to continue with their individual fitness programs.

Less than half of the programs charge a fee for participation, which is minimal, and in some cases is refundable based on participation. This helps to pay for materials and instruction costs.

There are four individuals generally responsible for the development and implementation of a CFP. They are exercise physiologists, exercise leaders, physicians and fitness specialists. This combination compliments itself in that specific tasks can be delegated and that reliance on a physician is not as important as it has been in the past. Examples of specific duties include the physician doing physical examinations, stress testing by physicians and exercise physiologists, and fitness evaluations and exercise prescriptions by exercise physiologists and fitness specialists. More than half of the programs do not have an administrative board or governing body. It would seem necessary to have some type of governing body to control the direction of the CFP.

Organization

Since the physician was an integral part of the CFPs, it is logical to assume that this was the reason physicians administered 94% of all physical examinations. More than half of the programs required physical examinations, while the specifics of an examination varied based on what the physician deemed as necessary. After the examination an exercise prescription was given in 96% of the programs. This exercise prescription followed a general pattern according to the guildeines established by the American College of Sports Medicine (Guidelines for Graded Exercise Testing and Exercise Prescription, 1980).

In order to provide incentive to exercise, 87% of the programs have employed motivational techniques. Along these lines, participant education programs have been a major focus in almost all CFPs. Besides physical fitness there are many other aspects of a healthy lifestyle that would benefit the employee. While education is an important part of any CFP, the education sessions are not held on a frequent basis. Some reasons for the majority of the programs not having weekly education programs probably is related to the time available and the personnel required to give the lectures. To measure the effectiveness of these educational offerings, 77% of the programs have utilized a method of evaluation. These evaluation procedures are used not only to measure knowledge and effectiveness of the course and instructor, but also to assess the need for the class in the future.

Besides adult fitness programs, 19% of the CFPs offer a cardiac rehabilitation program. Despite low enrollment, corporations are heading in the right direction with prevention, maintenance and rehabilitation.

A large percentage of the CFPs are still aware of the social-recreational programs for their employees. Tournaments, games and a variety of other club, partner and co-ed activities have increased participation among corporate fitness employees.

While fitness does not always occur at the work site, there are many programs that have employees ride their bikes or run to work. While the percentage of employees who do so is low, many times it is more feasible and economical for them.

Facilities and Equipment

The facilities and equipment provided by CFPs have become necessary components in a fitness regimen. An example of this is that shower and locker room areas were provided by 100% of the programs. Likewise, many programs provide saunas, whirlpools, hygienic supplies, and so on.

Probably the most important room which all programs utilize is an all-purpose exercise room. This room can be used for various exercise sessions, education classes, and workshops. The types of equipment contained in an all-purpose exercise room include mainly aerobic types offered by the program in the form of stationary bikes, jump ropes, rowing machines and treadmills. Strength training equipment was used by 79% of the programs surveyed.

Correlations among regions regarding indoor and outdoor facilities have shown that across the entire nation there were only slight differences. The regions that have more indoor and outdoor facilities were the Northeast (Region 1), Southwest (Region 6), Far West (Region 7), and the Heart of America (Region 8). It does seem likely that the Southern states would have more outdoor facilities, but they also had approximately the same number or more indoor facilities as the Northern states.

Aside from the exercise aspect, there were only 42% of the programs that provided equipment for the care of athletic injuries. Of interest was that more programs (52%) provided care for cardiac emergencies. This must be deemed as more important than the daily bumps and bruises that may occur. While a Human Performance Laboratory is not as prevalent in many of the programs, there are still 33% that use a laboratory for testing purposes.

Evaluation

While it is believed that all CFPs are beneficial to the company in some way, there are many distinct differences among corporations. For example, 56% of the programs stated that the number of sick days had decreased because of the program. While this is in most cases a non-substantiated claim, what was needed to determine this was: the number of sick days when the program started, the number of sick days reduced, and whether that number was significant. Another example involved 17% of the CFPs who stated that their insurance

premiums had been reduced since the implementation of the programs. While these may not be program goals to some corporations, they are important considerations to give support for the program.

Even if there is no reduction in the number of sick days lost or in the insurance premiums, there were 79% of the CFPs that believe the benefits of the program outway the costs. Also, 71% believe their employees are more productive through participation in the exercise sessions.

All of the programs are in agreement that there are some individuals not involved in the programs that should be there. While this is not surprising, it is interesting to find that there are less than half of the original participants still in the programs. There are many possible and plausible reasons, but many of the programs are not that old to have such a low compliance rate.

Many of the facilities constructed eventually turned out to be too small for the company's purpose. To make up for this, 54% of the companies have added onto the existing facility.

One surprising observation about the CFPs made during the evaluation process was to find that 50% of the fitness and educational programs were not developed before construction of the facility. This major lack of planning could have led to inadequate facility size and unanticipated needs to begin with.

Conclusions

The following conclusions from the data in relation to the CFPs reveal that:

1. There are more in-house CFPs and facilities than any other type of programs now than ever before.
2. Those companies employing mainly white collar workers still account for the largest percentage of participants.
3. Male white collar workers once again account for the largest percentage of participants.
4. Most corporate facilities are rather small in size.
5. The primary allocation of funds is once again given to personnel in charge of running the programs.
6. Less than 50% of the employees are participants in the CFPs.
7. Most programs still do not allow participation by employee family members and friends.
8. The administration of the CFPs surveyed was charged mainly to four individuals: exercise physiologist, exercise leader, physician, and fitness specialist, compared to three in 1979, when they were physical educator, fitness specialist, and the physician.
9. Physicians were responsible for administering 94% of the physical examinations.
10. Exercise prescriptions were developed and used by 96% of the CFPs versus 74% in 1979.
11. Motivational techniques were used by 87% of the programs compared to 75% in 1979.
12. Ninety-six percent of the programs offer educational programs compared to 81% in 1979, averaging 9.5 educational offerings per program.

13. Seventy-seven percent of those programs with educational programs employ a method to evaluate their program.
14. Indoor and outdoor facilities and equipment have become a larger part of corporate fitness programs.
15. Fifty-six percent of the CFPs have indicated a reduction in the number of sick days lost.
16. Only 17% of the programs reported a reduction in their insurance premiums since the implementation of the programs.
17. Seventy-nine percent of the programs believe that the benefits of the program outway the costs.
18. Seventy-one percent believe their employees are more productive through participation in the exercise sessions.
19. Many facilities constructed were not adequate for the company's needs.
20. Fifty percent of the fitness and educational programs were not developed before construction of the facility.

Recommendations for Future Studies

Some recommendations in regard to future studies pertaining to this study, are to:

1. Use the Association for Fitness in Business "Corporate" membership list as the survey sample.
2. Survey the complete list of members to get as accurate a response as possible.
3. Reduce the number of questions asked in the questionnaire.

4. Expand on the evaluation section and go into greater depth on these questions.

5. Maintain an advisory committee to add credibility to the questionnaire and study.

6. Design the questionnaire so that results of all CFPs can be analyzed and compared to indicate differences and similarities.

7. Maintain some form of follow-up procedures to increase the rate of return.

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APPENDIX A

Questionnaire

Name _____
(last) (first)

Please check which category you are in:

_____ V.P. Medical Director (M.D.)

_____ Program Director

_____ Program Manager

_____ Program Assistant Manager

_____ Exercise Leader

_____ Other (please specify) _____

Please have the person holding the highest ranking position in your organization's fitness program (possibly yourself or whoever you feel appropriate) fill out the questionnaire and return it to:

Steven C. Hessil, Graduate Student
La Crosse Exercise Program
Mitchell Hall
University of Wisconsin-La Crosse
La Crosse, WI 54601

Results of this survey will be confidential and sent to all respondents. You should be receiving a copy no later than August 15th.

Your assistance is greatly appreciated. Thank you.

A SURVEY OF CORPORATE FITNESS PROGRAMS

Name _____

Position _____

Company _____

Address _____
(street)

_____
(city) (state) (zip)

Phone _____
(area code) (number)

I. ADMINISTRATION

A. Background Information

1. How many employees work at this corporation? _____

2. What percentage of employees fall into the following categories:

   _____ % blue collar workers

   _____ % white collar workers

   _____ % males

   _____ % females

3. Are there other installations with fitness programs within your company? (1) _____ Yes (2) _____ No

   If YES, please list the following information about the program(s):

   Director _____

   Address _____
   (street)

   _____
   (city) (state) (zip)

Director _____

Address _____
(street)

_____
(city) (state) (zip)

4. Is your physical fitness program required _____, or voluntary _____?

5. Do your employees sometimes leave the building to participate?

(1) _____ (2) _____
Yes No

6. Is the fitness program contained within facilities provided by your company?

(1) _____ (2) _____ (3) _____
Yes No Both

a. If YES, what year and month was the facility built?

Year _____ Month _____

b. If YES, what is the size of your facility in square feet?

_____ up to 14,999 sq. ft.

_____ 15,000 to 29,999 sq. ft.

_____ 30,000 to 44,999 sq. ft.

_____ 45,000 to 59,999 sq. ft.

_____ 60,000 to 74,999 sq. ft.

_____ 75,000 sq. ft. or more

c. If No, through which of the following is the program organized?

YMCA _____

YWCA _____

College/University _____ (name) _____

Jewish Community Center _____

Other (please specify) _____

7. What was the original expenditure for the program facilities?

_____ (optional)

8. What was the original expenditure for the program equipment?

_____ (optional)

9. What was the yearly average budget of your fitness program?

_____ (optional)

10. How was the program funded?

Primary source _____

Additional source(s)_____

11. Allocation of funds (approximate percentages of the annual budget):

Personnel _____%

Maintenance of facilities _____%

Equipment _____%

Other _____%

B. Participation

12. Please estimate the number of participants in your fitness program(s):

_____

13. The participants are:

Males _____%

Females _____%

Blue collar workers _____%

White collar workers _____%

14. Of the total number of employees at the corporation, what is the percentage of employees who use the facility or are involved in the program?

_____%

15. What days and times of the day are the facilities open?

_____

16. In your opinion, how many months per year is outdoor exercise feasible where you are located?

_____ 0 months

_____ 1-4 months

_____ 5-8 months

_____ 9-12 months

17. Do your programs vary with the seasons? (1)_____ (2)_____
Yes No

If YES, please specify _____

_____

18. Are the participants given time off with pay from their jobs in order to exercise?

(1)_____ (2)_____
Yes No

19. Are there blocks of time set aside for specific departments to exercise together?

(1)_____ (2)_____
Yes No

20. Are your facilities open to the families of the employees?

(1)_____ (2)_____
Yes No

21. Are your facilities open to friends of employees?

(1)_____ (2)_____
Yes No

If YES, how do you define friends? _____

_____

22. Is your facility open to the community? (1)_____ (2)_____
Yes No

23. Is there a fee/cost to use the facility? (1)_____ (2)_____
Yes No

If YES, please indicate the amount charged per month:

Employee membership _____

Family membership _____

Student membership _____

Community membership _____

Other (specify) _____

24. Do you provide preschool and grade school fitness programs for the employees' children?

(1) _____ (2) _____
Yes No

If YES, please specify _____

25. Is there a nursery at your institution where parents can leave their children while they exercise or work?

(1) _____ (2) _____
Yes No

C. Personnel

26. Which of the following individuals are responsible for the development and implementation of the fitness programs?

	Years of Experience
_____ Physician	_____
_____ Exercise Physiologist	_____
_____ Exercise Technician	_____

	Years of Experience
_____ Nurse	_____
_____ Fitness Specialist	_____
_____ Business Administrator	_____
_____ Exercise Leader	_____
_____ Nutritionist	_____
_____ Physical Educator	_____
_____ Health Educator	_____
_____ Other _____	_____

27. Of these individuals, how many fall into the working categories below?

_____ Full time

_____ Part time

_____ Temporary

_____ Internship personnel

_____ Other (please specify) _____

28. Which person involved with the administration of the program is assigned the following duties?

Physical examination _____

Stress testing _____

Fitness evaluation _____

Exercise prescription _____

29. Does your program have a governing body? (1)_____ Yes (2)_____ No

If YES, what is the name(s) of the governing body(bodies), and what are the positions of its members?

_____

_____

II. ORGANIZATION

A. Physical Exams

30. Are routine physical exams required? (1)_____ (2)_____
Yes No

If YES, how often are they given? _____

31. These physical exams are administered by:

_____ Physician

_____ Nurse

_____ Physician's assistant

_____ Other (specify) _____

32. What are the specifics of the routine physical exam?

_____

_____

_____

33. After the routine physical exam, are prospective participants also given a fitness test?

(1)_____ (2)_____ (If NO, skip to number 35)
Yes No

34. If a fitness evaluation was used, which, if any, of the following are included?

a. Stress test:

_____ Treadmill

_____ Step test

_____ Bicycle ergometer

b. Protocol(s) used:

_____ Max

_____ Sub-max

_____ Continuous

_____ Discontinuous

c. Lean body mass and measurement determination used:

_____ Skin calipers

_____ Underwater weighing

_____ Flexibility measurements

_____ Strength measurements

_____ Other (specify) _____

B. Exercise Prescription

35. Is an exercise prescription given after the physical exam and/or fitness test?

(1) _____ Yes (2) _____ No (If NO, skip to number 38)

36. If an exercise prescription is utilized, which of the following are recommended for the program participants?

Frequency of training _____ days a week

Intensity of training _____% of max heart rate

Duration of training _____ minutes of continuous aerobic activity

Mode (type) of training (i.e., swimming, running, etc.)

_____

_____

37. If a strength training prescription is used, what is the most common mode (type) and how often is it recommended?

_____

_____

C. Participant Education

38. Does your program employ any motivational techniques?

(1)_____ (2)_____
Yes No

If YES, what aspects of participation are rewarded (i.e., number of miles run, time spent on a stationary bicycle)?

_____

_____

39. How are participants rewarded for their efforts?

_____ T-shirts
_____ Gym shorts
_____ Trophies
_____ Certificates
_____ Gift certificates
_____ Name published in the company newsletter
_____ Other (specify)
_____

40. Do you have an education program within your fitness program?

(1)_____ (2)_____ (If NO, skip to number 47)
Yes No

41. Which of the following health programs are included in your education programs?

_____ Nutrition
_____ Stress control
_____ Emotional health
_____ Drugs and alcohol
_____ Smoking termination
_____ Heart disease risk factors
_____ Exercise prescription
_____ Sight, hearing
_____ Skin care
_____ Dental care
_____ Weight control
_____ Cardiopulmonary resuscitation
_____ Safety education
_____ Family health
_____ Sex education
_____ Occupational health
_____ Back care
_____ Retirement seminars
_____ Gerontology
_____ Other (specify)
_____

42. Is a fee charged to participate in any of these programs?

(1)_____ (2)_____
Yes No

If YES, what is the fee per person? _____

43. How often are lectures offered by your health education program?

_____ Daily _____ Monthly

_____ Weekly _____ Other (specify)_____

44. Does your education program have a library containing fitness periodicals, health magazines, books, etc.?

(1)_____ (2)_____
Yes No

45. Does your education program solicit any outside sources, such as guest lecturers or educational workshops, to assist in the presentation of materials?

(1)_____ (2)_____
Yes No

46. Does your education program use a method of evaluation in order to determine its effectiveness?

(1)_____ (2)_____
Yes No

If YES, what method(s) of evaluation is(are) used?

_____ Pre and post-tests _____ Survey

_____ Quizzes _____ Other (specify)

_____ Interviews _____

D. Fitness and Recreation Programs

47. Does your organization have a cardiac rehabilitation program?

(1)_____ (2)_____
Yes No

If YES, how many individuals are in the program?_____

48. Are fitness programs designed to meet the various physical demands of individual jobs?

(1)_____ Yes (2)_____ No

49. Which of the following do you have games or tournaments for?

_____ Handball
_____ Racquetball
_____ Badminton
_____ Basketball
_____ Bowling
_____ Squash
_____ Baseball
_____ Tennis
_____ Volleyball
_____ Other (specify)
_____

50. Are any of your programs organized into clubs?

(1)_____ Yes (2)_____ No

51. Do you have coed programs? (1)_____ Yes (2)_____ No

52. Do you have separate men's and women's programs?

(1)_____ Yes (2)_____ No

53. Does your program have special activities for various age groups?

(1)_____ Yes (2)_____ No

If YES, please specify _____

54. Do participants ride bicycles or run to work as part of their training?

(1)_____ Yes (2)_____ No

If YES, what percentage of the participants do so? _____%

I. FACILITIES AND EQUIPMENT

A. Physical Plant of the Fitness Facility

55. Does your program provide any of the following specifically for program participants?

_____ Shower room
_____ Locker room
_____ Sauna/steam room
_____ Uniforms
_____ Towels
_____ Hygienic Supplies
_____ Whirlpool/jacuzzi

56. Does your program have an all-purpose exercise room?

(1)_____ (2)_____ (If NO, skip to question 58)
Yes No

57. Does this room have any of the following?

	How Many?
_____ Stationary bicycles	_____
_____ Rowing machines	_____
_____ Motor driven treadmills	_____
_____ Non-motorized treadmills	_____
_____ Jump ropes	_____
_____ Mini tramp	_____
_____ Nordic track	_____
_____ Universal	_____
_____ Nautilus	_____
_____ Free weights	_____
_____ Balance beam	_____
_____ Sit-up Board	_____
_____ Other (specify)	
_____	_____

58. Does your program have a running track? (1)_____ (2)_____
Yes No

(If NO, skip to question 60)

59. If YES, is your running track:

Indoor:
Length _____
Number of lanes _____
Surface type _____

Outdoor:
Length _____
Number of lanes _____
Surface type _____

A running path through the surrounding area:
Length _____
Surface type _____

60. Does your program have a swimming pool?

(1)_____ (2)_____ (If NO, skip to question 62)

61. If YES, is your program's pool:

Indoor (dimensions):	Outdoor (dimensions):
Width _____	Width _____
Depth _____	Depth _____
Length _____	Length _____

62. Does your program have access to:

_____ Golf course	_____ Trap shooting
_____ Driving range	_____ Archery range

63. Do your program's participants have access to a weight room?

(1)_____ (2)_____ (If NO, skip to question 65)
Yes No

64. If YES, does your weight room have any of the following?

_____ Universal machine	_____ Padded benches
_____ Wall pulleys	_____ Rowing machines
_____ Olympic weights/ free weights	_____ Exercise bikes
_____ Nautilus machines	_____ Other (specify) _____
_____ Squat rack	

65. Does your program have handball/racquetball/squash courts?

(1)_____ (2)_____
Yes No

If YES, how many of each type? ____ indoor ____ outdoor

66. Does your program have basketball courts? (1)_____ (2)_____
Yes No

67. Does your program have tennis courts? (1)_____ (2)_____
Yes No

Indoor:	Outdoor:
No. of courts _____	No. of courts _____
Surface type _____	Surface type _____

68. Does your program have a baseball field? (1)____ (2)____
Yes No

69. Does your program have a playground for children?

(1)_____ (2)_____
Yes No

70. Does your program provide any of the following?

_____ Canoes
_____ Jump ropes
_____ Vacation resort
_____ Volleyball equipment
_____ Cross-country equipment
_____ Other (specify)
_____

71. Does your program/facility contain any of the following?

_____ Restaurant
_____ Kitchen
_____ Pro shop
_____ Bar

B. Training Room

72. Does your program include a room equipped for the care of athletic injuries?

(1)_____ (2)_____
Yes No

73. Does your program have emergency equipment necessary for the care of cardiac emergencies?

(1)_____ (2)_____
Yes No

74. Does your company possess a human performance laboratory for the purpose of exercise testing?

(1)_____ (2)_____
Yes No

If YES, does this lab have:

_____ X-ray room
_____ Treadmill
_____ Blood lab
_____ Telephone
_____ Panic buttons
_____ Vision/hearing tests
_____ Electrocardiograph
_____ Lung function equipment
_____ Defibrillator
_____ Cardiac drugs
_____ Other (specify)
_____

IV. EVALUATION

A. Program Benefits

75. Do you feel that the number of sick days lost previously have been reduced because of the program?

(1)_____ (2)_____
Yes No

If NO, please explain: _____

_____

76. Have your company's insurance premiums been reduced since the implementation of the program?

(1)_____ (2)_____
Yes No

If NO, please explain: _____

_____

77. Do the benefits of the program outway the costs (is the program cost effective)?

(1)_____ (2)_____
Yes No

78. Are the employees more productive through participation in the exercise program?

(1)_____ (2)_____
Yes No

If NO, please explain: _____

_____

B. Participation

79. Of the employees at your coporation, are there some not in your programs that you feel should be there?

(1)_____ (2)_____
Yes No

80. Of the participants in the program, what is the average time they participate or come to the program?

_____ Hours a week

81. Of the participants who started in the program, what percentage of these people are still in the program?

_____ % of the people

C. Facility Aspects

82. Is the physical facility adequate for the company's needs?

(1)_____ Yes (2)_____ No

If NO, please specify:_____

83. Have there been any additions to the existing facility since its construction?

(1)_____ Yes (2)_____ No

If YES, what are they: _____

_____

84. Were the physical fitness programs developed before construction of the fitness facility?

(1)_____ Yes (2)_____ No

If NO, please explain:_____

Additional comments you would like to add: _____

_____

_____

Thank you for your time and consideration in completing this questionnaire.

Return to: Steven C. Hessil, Graduate Student
La Crosse Exercise Program
Mitchell Hall
University of Wisconsin-La Crosse
La Crosse, Wisconsin 54601

APPENDIX B

Advisory Committee

ADVISORY COMMITTEE

Robert Batchelder
Physical Education
Mitchell Hall
University of Wisconsin-La Crosse
La Crosse, WI 54601

John Castek
Computer Science
North Hall
University of Wisconsin-La Crosse
La Crosse, WI 54601

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International Fitness Associates
369 Ashford Dr.
Dobbs Ferry, NY 10052

James M. Nord
Fitness Administrator
Johnson Wax
Racine, WI 53403

Neil Sol
Manager Cardiac Rehabilitation/
Health Enhancement
Cardiovascular Outpatient Services
Medical Arts Center
1325 Eastmoreland
Memphis, TN 38104

Philip K. Wilson
Executive Director
La Crosse Exercise Program
Mitchell Hall
University of Wisconsin-La Crosse
La Crosse, WI 54601

APPENDIX C

Advisory Committee Letter

La Crosse Exercise Program

Mitchell Hall
University of Wisconsin-La Crosse
La Crosse, Wisconsin 54601

April 10, 1985

Steven C. Hessil
La Crosse Exercise Program
Mitchell Hall
University of Wisconsin-La Crosse
La Crosse, Wisconsin 54601

Dear _____:

This is a follow-up letter in regard to our recent conversation. To review, I am contacting you to request assistance in a Corporate Fitness research project. I am a graduate student at the University of Wisconsin-La Crosse, studying for the Master of Science Degree in Adult Fitness/Cardiac Rehabilitation.

This project will serve as a follow-up study that was previously completed by Bartsokas and St. Louis in 1979 titled "Industrial Fitness Programs in the United States." This four-part survey concerning the current status of Corporate Fitness Facilities and Programs in the United States, will examine areas related to: (1) Administration, (2) Organization, (3) Facilities and Equipment, and (4) Evaluation of the program.

I am soliciting your assistance and would like to inquire whether you are willing to serve in a pilot group for this study. The purpose of the pilot group will be to provide input, expertise, and direction.

Enclosed is a copy of the tentative survey, and a list of others being contacted in regard to this project. I would like you to complete and analyze each question of the survey and write comments in regard to questions that are confusing or hard to answer. Upon receipt of your comments, the questionnaire will be rewritten. I am grateful for your consideration in this matter and look forward to the possibility of working with you on this project. Please return the questionnaire in the self-addressed stamped enveloped by April 20.

Thank you very much. Your consideration in this matter is appreciated.

Sincerely,

Steven C. Hessil

cc: Philip K. Wilson
Thesis Chairman

APPENDIX D

List of Contacts

for

Corporate Fitness Survey

List of Contacts

for

Corporate Fitness Survey

Region 1

Mr. James Barnicle
Middletown Fitness Cntr.-MCA2
Aetna Life and Casualty
1000 Middle Street
Middletown, CT 06457

Ms. Laurie A. Alexander
Fitness Coordinator
Blue Cross & Blue Shield of CT
370 Bassett Road
North Haven, CT 06473

Mr. Charlie T. Kelly
Employee Fitness Coordinator
Harvey Hubbell, Inc.
584 Derby Milford Road
Orange, CT 06477

Ms. Marsha G. McCabe
Aetna Life & Casualty
19 Amherst Street
Hamden, CT 06518

Ms. Susan M. Fumasoli
93 Old Church Street
Greenwich, CT 06830

Ms. Michelle Seibert
Xerox Corporation
Pickwick Plaza Bldg. 2
Greenwich, CT 06830

Mr. Schuyler J. Proctor
International Playtex
700 Fairfield Avenue
P.O. Box 10064
Stamford, CT 06904

Ms. Helen R. Quigley
Health Promotion Specialist
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Casco Street
Freeport, ME 04033

Ms. Terri L Zauft
Boston Five Cents Savings Bank
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Mr. Paul D. Spiro
Chief Executive Officer
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Mr. Curtis D. Cleland
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One Chase Manhattan Plaza
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Mr. Anthony Alfano
Mobil Oil Corporation
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New York, NY 10022

Ms. Janet R. Murname
Manager, Health Enhancement Program
ITT Corporation
320 Park Avenue
New York, NY 10028

Mr. Russell K. Fleischmann
International Paper Co.
77 W. 45th St.
New York, NY 10036

Mr. David Hillery
Cybex
Division of Lumex, Inc.
2100 Smithtown Avenue
Ronkonkoma, NY 11779

Region 2

Ms. Shirley P. Shull
Westinghouse Electric Corp.
9130 East Stayman Drive
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APPENDIX E

Regional Breakdown

AFB Regional Breakdown

	*Number of Members	Number Surveyed	Number Returned	Number Analyzed
REGION 1: Northeast				
Connecticut (CT)	19	7	5	5
Maine (ME)	1	1	1	1
Massachusetts (MA)	10	2	1	1
New Hampshire (NH)	0	0	0	0
New York (NY)	24	7	4	4
Rhode Island (RI)	1	0	0	0
Vermont (VT)	2	0	0	0
Total	57	17%	11	11
REGION 2: Mid Atlantic				
Delaware (DE)	1	0	0	0
Kentucky (KY)	2	0	0	0
Maryland (MD)	6	3	1	1
New Jersey (NJ)	20	4	2	2
North Carolina (NC)	1	0	0	0
Pennsylvania (PA)	14	5	4	4
Virginia (VA)	7	1	1	0
District of Columbia (DC)	2	2	2	0
West Virginia (WV)	0	0	0	0
Total	53	15%	10	7
REGION 3: Southeast				
Alabama (AL)	2	1	1	0
Florida (FL)	8	2	1	0
Georgia (GA)	9	3	3	2
Louisiana (LA)	2	1	0	0
Mississippi (MS)	2	0	0	0
South Carolina (SC)	5	1	1	0
Tennessee (TN)	9	3	2	1
Total	37	11%	8	3
REGION 4: Great Lakes				
Illinois (IL)	21	8	6	2
Indiana (IN)	8	2	2	1
Michigan (MI)	13	4	3	0
Minnesota (MN)	11	2	1	0
Ohio (OH)	12	4	1	1
Wisconsin (WI)	11	2	1	0
Total	76	22%	14	4

*The totals and the percentages represent the number of addresses and the percentage of these addresses out of 343.

REGION 5: Northwest	*Number of Members	Number Surveyed	Number Returned	Number Analyzed
Alaska (AK)	0	0	0	0
Idaho (ID)	3	1	0	0
Montana (MT)	0	0	0	0
Oregon (OR)	3	0	0	0
Washington (WA)	5	1	1	1
Total	11	3%	1	1
REGION 6: Southwest				
Arkansas (AR)	1	1	0	0
New Mexico (NM)	1	1	1	1
Oklahoma (OK)	4	1	1	1
Texas (TX)	37	9	7	6
Total	43	12%	9	8
REGION 7: Far West				
Arizona (AZ)	2	0	0	0
California (CA)	35	11	8	6
Hawaii (HI)	0	0	0	0
Nevada (NV)	1	0	0	0
Utah (UT)	2	1	1	1
Total	40	12%	9	7
REGION 8: Heart of America				
Colorado (CO)	8	2	2	2
Iowa (IA)	4	2	2	2
Kansas (KS)	8	2	1	1
Missouri (MO)	5	1	2	2
Nebraska (NE)	1	1	0	0
North Dakota (ND)	0	0	0	0
South Dakota (SD)	0	0	0	0
Wyoming (WY)	0	0	0	0
Total	26	8%	7	7

APPENDIX F

Cover Letter

Mitchell Hall
University of Wisconsin-La Crosse
La Crosse, Wisconsin 54601

La Crosse Exercise Program

April 27, 1985

Steven C. Hessil, Graduate Student
La Crosse Exercise Program
Mitchell Hall
University of Wisconsin-La Crosse
La Crosse, Wisconsin 54601

Dear _____:

I am a graduate student at the University of Wisconsin-La Crosse, studying for the Master of Science Degree in Adult Fitness/ Cardiac Rehabilitation. As you are aware, over the past several years corporate fitness programs in the United States have steadily increased. Along with these increases have been many changes in the programs and structures of corporate fitness programs. The changes that have occurred need to be examined as there appears to be a lack of information on this subject.

In recognizing the need for research in this area, this project will serve as a follow-up study to one that was previously completed by Bartsokas and St. Louis in 1979, titled "Industrial Fitness Programs in the United States." It is the intention of this project to gather current data concerning "Corporate Fitness Facilities and Programs in the United States." This investigation will examine the following categories: administration, organization, facilities and equipment, and evaluation. With this information, a comparison will be made among facilities and programs to determine what differences and similarities exist in comparision to the Bartsokas and St. Louis study six years ago.

Assisting in the direction of this project are three members of my thesis committee and six individuals on my advisory committee, all of whom are connected with integral facets of corporate fitness in America. These individuals are: Robert Batchelder, John E. Castek, Dennis Colacino, Robert Cook, Robert Dedmon, Dan Lynch, James M. Nord, Neil Sol, and Philip K. Wilson.

Enclosed is the questionnaire I am using as the research tool. Please complete and return the questionnaire in the enclosed envelope before May 13. Your assistance in this matter will contribute significantly to the ever-growing base of knowledge dealing with corporate fitness. Results of this survey will be sent to all respondents upon completion of this study.

(Cover Letter, cont.)

Thank you very much. Your consideration in this matter is appreciated.

Sincerely,

Steven C. Hessil

cc: Philip K. Wilson,
Thesis Chairman

APPENDIX G

Follow-up Letter

La Crosse Exercise Program

Mitchell Hall
University of Wisconsin-La Crosse
La Crosse, Wisconsin 54601

PHONE NUMBERS
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Adult Fitness Unit
(608) 785-8683
Cardiac Rehabilitation Unit
(608) 785-8683
Education Services Unit
(608) 785-8686
Insurance Office
(608) 785-8688
Job Placement Service
(608) 785-8688
Master's Degree Program
(608) 785-8685
Nutrition Services Unit
(608) 785-8694

May 15, 1985

Steven C. Hessil, Graduate Student
La Crosse Exercise Program
Mitchell Hall
University of Wisconsin-La Crosse
La Crosse, Wisconsin 54601

Dear _____:

You should have received a copy of the enclosed questionnaire sometime around May 3. As of this date I have not received your reply.

Your corporation is a vital member in the data collection process, and the importance of obtaining good results cannot be overstressed. Your response is necessary to make this study complete and accurate.

Assuming that the original questionnaire may have been lost or misplaced, another one is enclosed for your convenience. Your assistance in completing and returning the questionnaire by May 29 will be greatly appreciated. You will receive the results of this study upon completion.

Sincerely,

Steven C. Hessil

cc: Thesis Advisory Committee
Robert Batchelder
John E. Castek
Dennis Colacino
Ronald Cook
Robert Dedmon
Dan Lynch
James M. Nord
Neil Sol
Philip K. Wilson

APPENDIX H

List of Respondents

LIST OF RESPONDENTS

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FIGURE 1

Seven Regions of the

United States

SEVEN REGIONS BY BARTSOKAS AND ST. LOUIS (1979)

LOCATIONS OF 69 RESPONDENTS

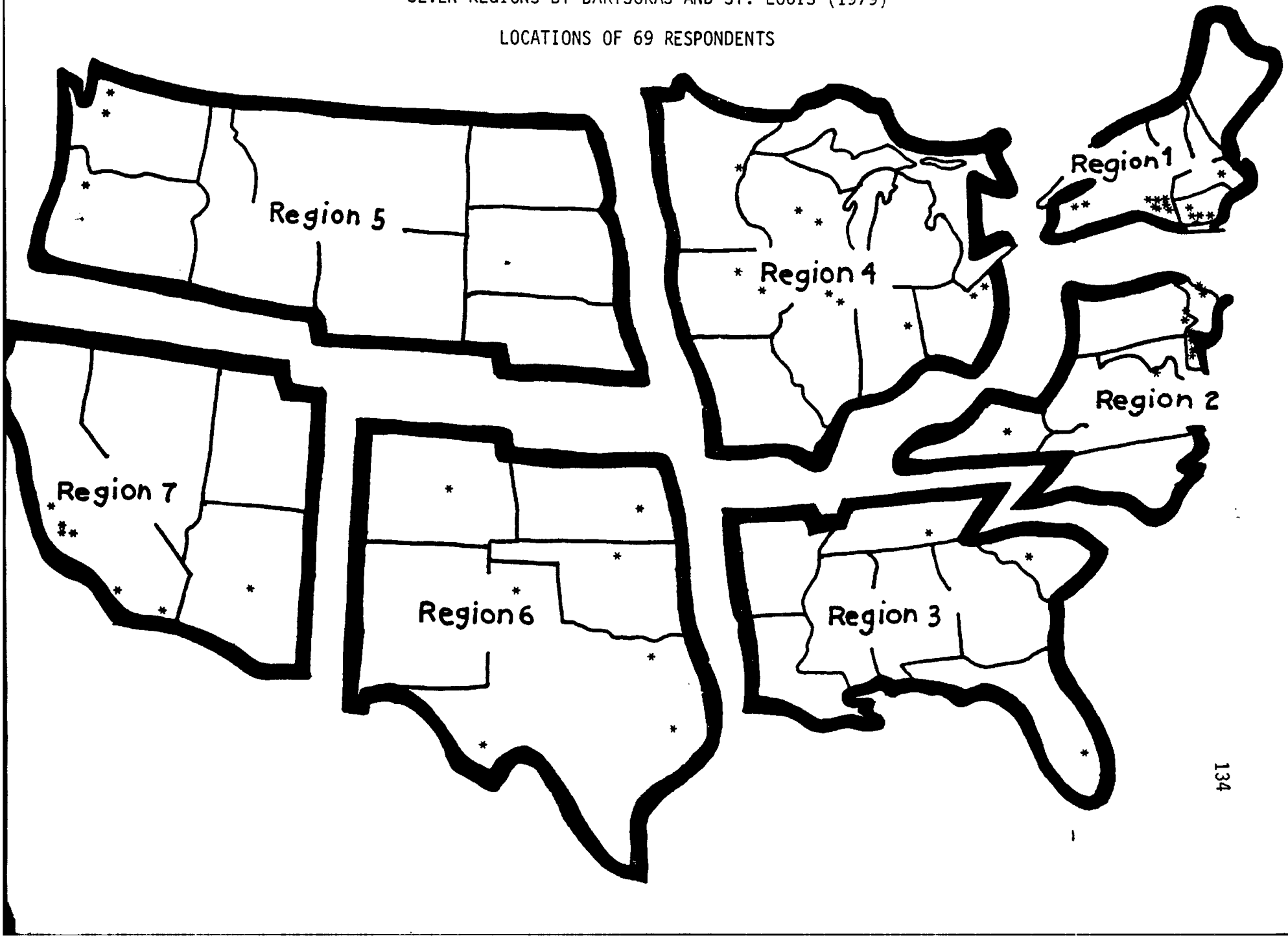

FIGURE 2

The AFB's Eight Regions

of the United States

THE AFB'S EIGHT REGIONS OF THE UNITED STATES

LOCATION OF 48 RESPONDENTS

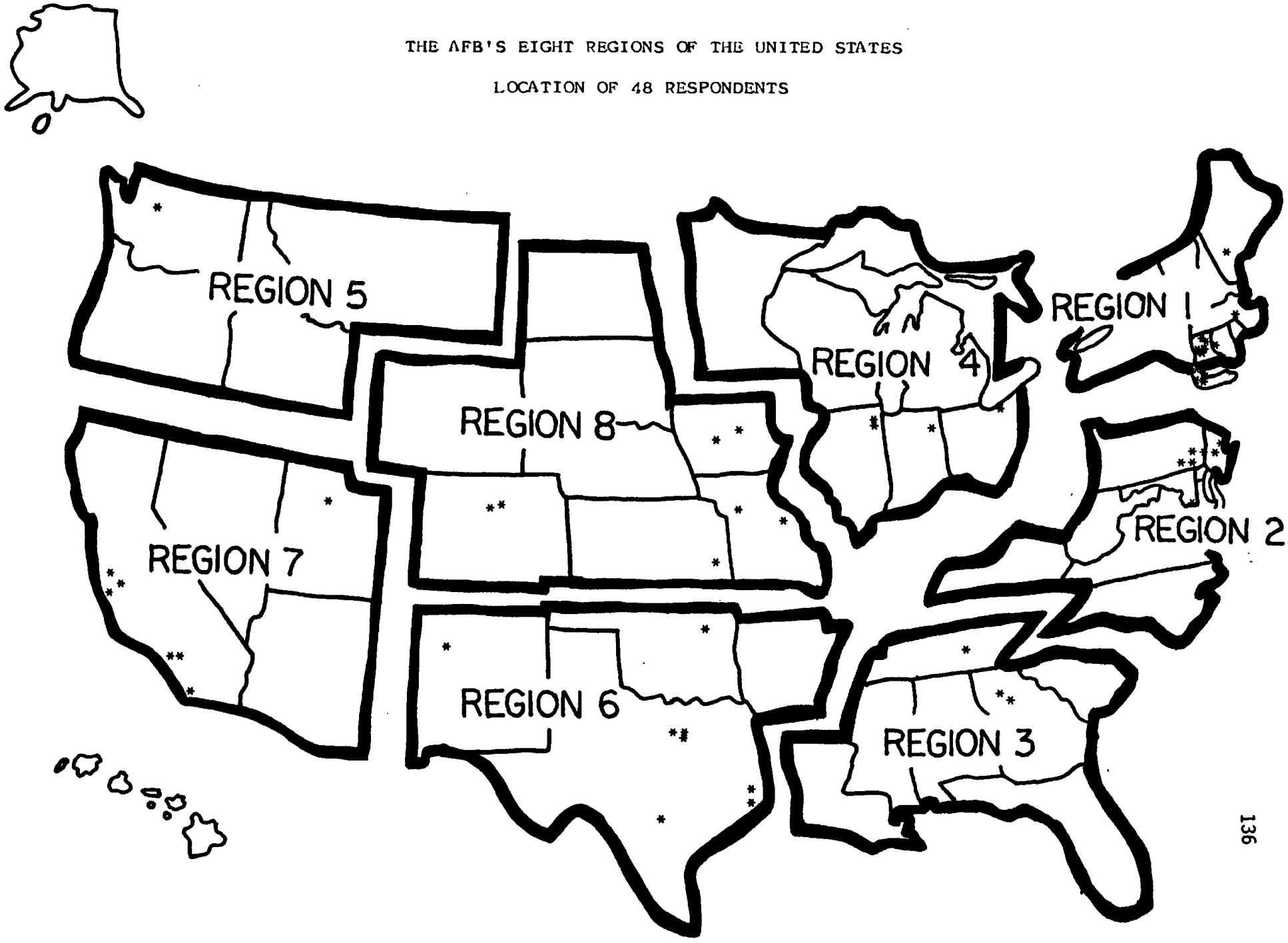

TABLE 1

Random Numbers

Table 1*

Random Numbers

22 17 68 65 84	68 95 23 92 35	87 02 22 57 51	61 09 43 95 06	58 24 82 03 47
19 36 27 59 46	13 79 93 37 55	39 77 32 77 09	85 52 05 30 62	47 83 51 62 74
16 77 23 02 77	09 61 87 25 21	28 06 24 25 93	16 71 13 59 78	23 05 47 47 25
78 43 76 71 61	20 44 90 32 64	97 67 63 99 61	46 38 03 93 22	69 81 21 99 21
03 28 28 26 08	73 37 32 04 05	69 30 16 09 05	88 69 58 28 99	35 07 44 75 47
93 22 53 64 39	07 10 63 76 35	87 03 04 79 88	08 13 13 85 51	55 34 57 72 69
78 76 58 54 74	92 38 70 96 92	52 06 79 79 45	82 63 18 27 44	69 66 92 19 09
23 68 35 26 00	99 53 93 61 28	52 70 05 48 34	56 65 05 61 86	90 92 10 70 80
15 39 25 70 99	93 86 52 77 65	15 33 59 95 28	22 87 26 07 47	86 96 98 29 06
58 71 96 30 24	18 46 23 34 27	85 13 99 24 44	49 18 09 79 49	74 16 32 23 02
57 35 27 33 72	24 53 63 94 09	41 10 76 47 91	44 04 95 49 66	39 60 04 59 81
48 50 86 54 48	22 06 34 72 52	82 21 15 65 20	33 29 94 71 11	15 91 29 12 03
61 96 48 95 03	07 16 39 33 66	98 56 10 56 79	77 21 30 27 12	90 49 22 23 62
36 93 89 41 26	29 70 83 63 51	99 74 20 52 36	87 09 41 15 09	98 60 16 03 03
18 87 00 42 31	57 90 12 02 07	23 47 37 17 31	54 08 01 88 63	39 41 88 92 10
88 56 53 27 59	33 35 72 67 47	77 34 55 45 70	08 18 27 38 90	16 95 86 70 75
09 72 95 84 29	49 41 31 06 70	42 38 06 45 18	64 84 73 31 65	52 53 37 97 15
12 96 88 17 31	65 19 69 02 83	60 75 86 90 68	24 64 19 35 51	56 61 87 39 12
85 94 57 24 16	92 09 84 38 76	22 00 27 69 85	29 81 94 78 70	21 94 47 90 12
38 64 43 59 98	98 77 87 68 07	91 51 67 62 44	40 98 05 93 78	23 32 65 41 18
53 44 09 42 72	00 41 86 79 79	68 47 22 00 20	35 55 31 51 51	00 83 63 22 55
40 76 66 26 84	57 99 99 90 37	36 63 32 08 58	37 40 13 68 97	87 64 81 07 83
02 17 79 18 05	12 59 52 57 02	22 07 90 47 03	28 14 11 30 79	20 69 22 40 98
95 17 82 06 53	31 51 10 96 46	92 06 88 07 77	56 11 50 81 69	40 23 72 51 39
35 76 22 42 92	96 11 83 44 80	34 68 35 48 77	33 42 40 90 60	73 96 53 97 86
26 29 13 56 41	85 47 04 66 08	34 72 57 59 13	82 43 80 46 15	38 26 61 70 04
77 80 20 75 82	72 82 32 99 90	63 95 73 76 63	89 73 44 99 05	48 67 26 43 18
46 40 66 44 52	91 36 74 43 53	30 82 13 54 00	78 45 63 98 35	55 03 36 67 68
37 56 08 18 09	77 53 84 46 47	31 91 18 95 58	24 16 74 11 53	44 10 13 85 57
61 65 61 68 66	37 27 47 39 19	84 83 70 07 48	53 21 40 06 71	95 06 79 88 54
93 43 69 64 07	34 18 04 52 35	56 27 09 24 86	61 85 53 83 45	19 90 70 99 00
21 96 60 12 99	11 20 99 45 18	48 13 93 55 34	18 37 79 49 90	65 97 38 20 46
95 20 47 97 97	27 37 83 28 71	00 06 41 41 74	45 89 09 39 84	51 67 11 52 49
97 86 21 78 73	10 65 81 92 59	58 76 17 14 97	04 76 62 16 17	17 95 70 45 80
69 92 06 34 13	59 71 74 17 32	27 55 10 24 19	23 71 82 13 74	63 52 52 01 41
04 31 17 21 56	33 73 99 19 87	26 72 39 27 67	53 77 57 68 93	60 61 97 22 61
61 06 98 03 91	87 14 77 43 96	43 00 65 98 50	45 60 33 01 07	98 99 46 50 47
85 93 85 86 88	72 87 08 62 40	16 06 10 89 20	23 21 34 74 97	76 38 03 29 63
21 74 32 47 45	73 96 07 94 52	09 65 90 77 47	25 76 16 19 33	53 05 70 53 30
15 69 53 82 80	79 96 23 53 10	65 39 07 16 29	45 33 02 43 70	02 87 40 41 45
02 89 08 04 49	20 21 14 68 86	87 63 93 95 17	11 29 01 95 80	35 14 97 35 33
87 18 15 89 79	85 43 01 72 73	08 61 74 51 69	89 74 39 82 15	94 51 33 41 67
98 83 71 94 22	59 97 50 99 52	08 52 85 08 40	87 80 61 65 31	91 51 80 32 44
10 08 58 21 66	72 68 49 29 31	89 85 84 46 06	59 73 19 85 23	65 09 29 75 63
47 90 56 10 08	88 02 84 27 83	42 29 72 23 19	66 56 45 65 79	20 71 53 20 25
22 85 61 68 90	49 64 92 85 44	16 40 12 89 88	50 14 49 81 06	01 82 77 45 12
67 80 43 79 33	12 83 11 41 16	25 58 19 68 70	77 02 54 00 52	53 43 37 15 26
27 62 50 96 72	79 44 61 40 15	14 53 40 65 39	27 31 58 50 28	11 39 03 34 25
33 78 80 87 15	38 30 06 38 21	14 47 47 07 26	54 96 87 53 32	40 36 40 96 76
13 13 92 66 99	47 24 49 57 74	32 25 43 62 17	10 97 11 69 84	99 63 22 32 98

*Table 1 is taken from Conducting Educational Research (p. 441) by B. W. Tuckman, 1978, New York: Harcourt Brace Jovanovich, Inc.