

INDUSTRIAL RECREATION PROGRAMS IN THE STEEL
MILLS OF NORTHWEST INDIANA:
CASE STUDY REPORTS

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CHAPTER I

INTRODUCTION

Prior to becoming a recreation professional, this investigator worked as an employee in a steel mill. The job was physically hard, the hours were long, and the conditions were hot and dirty. The people with whom this investigator worked in the mill were a close-knit group, traditional, and proud. Steelworkers' job classification range from common laborers to highly skilled machine operators.

This investigator worked in the mills as a common laborer, blast furnace cinder snapper, coke batteries laborer, rolling mill greaser, finishing mill cutter, metallurgical laboratory technician, plant security officer, and accounting clerk. The nature of the steelworkers' job in the steel mill poses constant threats of accident and physical stress, both of which take their toll on the day-to-day health of the workers. It is because of the investigator's past experience, present occupation, and concern for steelworkers that this research was undertaken.

A look at the past aids in understanding the trends of the future. The United States began as an agrarian country and then moved into the industrial age. Industrial society was based on physical labor and machines to assist in production. The country is now moving from that industrial society into an information-based society of high technology (Naisbitt, 1982). Today, many workmen merely sit at desks,

in cabs of high powered machinery, or work with an assortment of power tools (Arnold, 1977). This work requires little physical activity.

Though there has been an increase in mechanization, automation, and technology, the human body's muscular, respiratory, and circulatory systems have not changed. These systems were designed for and require vigorous physical use. Through regular use the human body can attain and maintain a level of cardiovascular fitness which may reduce the risk of premature death due to coronary disease (Arnold, 1974).

Employees' health, fitness, and recreation have become major concerns for private industry and business, governmental agencies, and other organizations. This developing need has fostered the formation of the following organizations: Association of Fitness in Business (formally American Association of Fitness Directors in Business and Industry), National Employees Service and Recreation Association, Corporate Fitness and Recreation, President's Council on Physical Fitness and Sports, and the National Association of Governors' Councils on Physical Fitness and Sports.

The efforts of these organizations are all part of a much larger process which may be referred to as a "recreation and fitness renaissance." In the past, fitness needs of people engaged in highly competitive sports have been the focus of research studies; however, today the emphasis is on the need for all individuals to develop an optimal level of physical fitness. Physicians are recommending physical exercise and regular use of our bodies for maintaining acceptable levels of fitness at all ages. Public parks and streets are experiencing large crowds of walkers and joggers. Many governmental agencies and

private companies, both large and small, now provide encouragement and facilities for employee recreation and fitness programs.

Federal agencies with organized fitness programs include the National Aeronautics and Space Administration, the Environmental Protection Agency, the Smithsonian Institute, and the Departments of Justice and Transportation. These agencies have taken their cues from the Public Health Service's plan for health, 1978-82, which stated that "Federal agencies should provide their work force with both time and facilities for regular and vigorous physical activities" (President's Council on Physical Fitness and Sports, 1978, p. 6).

A list of private corporations which are involved in industrial recreation employee fitness reads like a 'Fortune 500': Chase Manhattan, Exxon, General Foods, Pepsi Company, Phillips Petroleum, Xerox, Mobile, Texaco, Weyerhaeuser, and many others. The interest in health, specifically in recreation and corporate fitness, is growing to such an extent that some day union negotiators may request in-house fitness and recreation programs with fully staffed facilities, comprehensive diagnostic testing, evaluation, and prescriptive exercise programs for all company employees (Kremsener, 1980, p. 96).

The primary goal of business and industry is to make a profit. They invest money in order to make money. If their profits are greater than their costs, they are successful. The bottom line for industry and business is the profit and loss ratio. Recreation is a service which adds to the quality of life. Recreation affects the individual's physical and mental health, ability to work, and interpersonal relationships (Arnold, 1974). The profit-loss margin in business is directly attributable to the productivity of the worker. In steel, as in other industries, the health of the worker and his

interpersonal relationships affect his productivity and the success of his company (Steinback and White, 1978).

Industrial accidents occur for a number of reasons--some are environmental and others are human. Accidents are attributable to such human causes as: health status, poor attitudes, emotional upsets, alcohol and/or drug abuses, inadequate skills, fatigue, and lack of attentiveness. Accidents may be prevented if employees are physically, mentally, and emotionally healthy (DeFranco, 1975).

Accidents cost a company minutes, hours, and days. This translates into higher health and accident insurance premiums, increased cost in workman's compensation, lost production time, and plant morale problems. Poor health and accidents cause absenteeism. Increased production costs result from the time and one-half that is paid to the substitute employee for overtime work to maintain the production level of the industry. Both employee accidents and employee absenteeism increase the cost of production (Wilson, Page, and Daniels, 1979).

The philosophy and objectives of recreation, in general and in industrial recreation, specifically address these concerns. Recreation should refresh and restore the individual and add a positive influence to one's lifestyle. Recreation should enhance positive self concept as well as provide a release for stress and tension. Those who engage in recreation activities may gain a sense of achievement, exhilaration, acceptance, success, personal worth, and pleasure.

Recreation is a response to experience and achievement of personal goals; therefore, by providing opportunities for employees to achieve the objectives of recreation, business and industry should show a substantial profit ratio.

Statement of the Problem

The primary purpose of this investigation was to describe the industrial recreation programs in the four steel mills of northwest Indiana. Additionally, the researcher identified the absenteeism and accident rate of each mill.

Significance of the Study

The steel mills in this study employ thousands of individuals. Factors affecting employees' productivity are of great concern to both the company and the employees. This descriptive study of recreational programs and the cost of absenteeism and accidents in the steel mill industry should contribute to the understanding of the benefits that can be derived from business and industry providing recreation programs for their employees.

Employee recreation programs can produce positive benefits for both the employee and employer. In the review of literature, the contribution of employee accidents and absenteeism to increased labor costs was cited numerous times. Studies also indicated that recreation programs appear to have a beneficial effect on the employee, are a factor in reducing absenteeism and accidents in those industries having such programs, and contribute to the well being of the employee (Bjurstrom and Alxiou, 1978; The Chicago Tribune, 1979; Cohen, 1982; Time, 1979).

Limitations

Several factors imposed limitations upon the study:

1. Company records were not made available for this study.
2. Data was given orally through a company representative, and the information provided was assumed to be accurate.
3. Recreation activities of those employees other than company sponsored recreation programs were not investigated.

Delimitations

The following were considered delimitations for the study:

1. Interviews were conducted for 60 minutes with mill representatives.
2. Information was collected for the year of 1981.
3. This study was delimited to the four steel mills of northwest Indiana.

Definitions

For the purpose of clarification, the following definitions and descriptions are necessary:

Absenteeism: not present for work.

Accident: an unexpected or unforeseen event which results in interruption of production.

Average Hourly Rate: \$23.00 per hour.

Club Sports: special interest groups banded together for a common purpose (chess club, fishing club, trap shooting club, fitness club, ski club, photo club, etc.).

Fringe Benefits: insurance (health and life), 10 paid holidays, three weeks of vacation, retirement, and sub-pay.

Industrial Recreation: recreation programs sponsored or co-sponsored by the company for its employees.

Management: employees who are plant managers, superintendents, supervisors, or foremen.

Membership: belonging to an association or organization sponsored by the steel mill.

Off Site: programs offered at sites other than on company grounds, such as schools, local recreation centers, fitness centers, health clubs, golf courses, etc.

On Site: programs offered on company owned grounds.

Overtime: hours over the maximum 40 hour work week. Time and one-half per hour pay scale.

Work Day: eight hours of work.

Work Year: 234 working days.

Chapter II will provide a review of the literature on industrial recreation, corporate fitness, and the potential benefits that can be derived from these programs.

CHAPTER II

REVIEW OF LITERATURE

This chapter presents a review of the literature dealing with industrial recreation programs, corporate fitness, and the benefits which result. For clarity the chapter has been divided into the following areas: steel mill industrial recreation programs, recreation and corporate fitness, fitness, health, exercise, absenteeism and accident rates, recreation and fitness program benefits, and summary.

Industrial and Steel Mill Recreation Programs

One of the purposes of industrial recreation programming is to foster a sense of belonging. Years ago this was accomplished primarily with company picnics, baseball, softball, and bowling leagues. Industry has changed, and so have the employees. Today, they have a broader range of interests and means of self-expression. Currently, industrial recreation activities include diverse programs of year-round activities designed to meet the recreational and physical needs of almost all individuals ("Company Profile, Bethlehem Steel, Burns Harbor," 1974).

Many steel companies have organized their recreation programs on a club basis ("Company Profile, Bethlehem Steel, Burns Harbor," 1974; Time, 1979). This structure permits employees to take an active part in the governance of the club. Participants elect officers and develop

guidelines from the constitution provided by that recreational organization. These clubs serve useful purposes in that the employees meet new people and learn things about them that they might not otherwise have known. These clubs include a variety of activities such as gardening, photography, travel, and dance groups.

Employee recreation programs are funded in several ways. Some methods of funding are listed below:

1. Employee membership dues are deducted from the employee's paycheck. The dues are used to fund the total program.
2. Matching funds provided by the company and its employees is another method for program funding. In this instance, for every dollar the employee contributes, the company matches or doubles the employees' contributions, depending upon the cost of the program and the employee's ability to fund it.
3. Company-financed programs include social outings such as picnics, Christmas parties, and dances.
4. Vending machine proceeds sometimes support the program. All profits from the vending machines are allocated to the recreation department.
5. The company provides outright grants to the employee recreation program.
6. The company makes contributions that finance salaries, office space, office equipment, telephone, and services such as printing use of the computer ("Company Profile, Bethlehem Steel, Burns Harbor," 1974).

Industrial recreation programs fall into four broad areas ("Company Profile, Bethlehem Steel, Burns Harbor," 1974; Worick, 1975:

1. Social Recreation: social activities can be enjoyed by the entire family. Many of these activities build meaningful and lasting relationships among employees when they discover they have the same interests and are given an opportunity to jointly pursue them. These activities present a wide diversification which includes the company picnic where employees and their families get together to spend a day socializing. Christmas parties also provide another opportunity for employees and their families to spend a few fun-filled hours with friends during the holiday season. Retirees of the company often are invited to share in special social activities. This provides the retirees with opportunities to renew old friendships, keep abreast of new developments in the company, and feel like a worthwhile human being (Worick, 1975).

2. Physical Recreation: the area of physical recreation has been a popular means of employee participation. One finds a wide spectrum of sporting activities in which employees participate throughout the year. According to a recent study sponsored and conducted by the National Industrial Recreation Association ("Commercial Recreation and Physical Fitness Centers Meeting a Need," 1981), the most popular activity among its members was golf. Approximately 95% of the companies surveyed reported having a formal organized golf program.

Those individual sports activities that fall into the category of lifetime sports have been growing in unprecedented popularity during the past few years. Lifetime sports are those that can be learned and participated in throughout the course of one's life on an individual or team basis. Examples include swimming, golf, volleyball, tennis,

archery, jogging, hiking, and orienteering ("Commercial Recreation and Physical Fitness Centers Meeting a Need," 1981).

The area in which there has been the largest growing interest within the last few years is that of employee fitness and health. Many companies, both large and small, have begun to recognize the importance of having their employees in good health. Firms are developing exercise programs in cardiovascular fitness and aerobic exercises. These programs are changing the lifestyle of employees. Under proper medical and professional supervision, exercising and fitness activities have reduced stress situations and developed better health for employees and management (Weyerhaeuser Co., 1978).

3. Cultural Recreation: our society is experiencing a cultural boom which has created a renewed interest in music. Many individuals are learning to play a musical instrument or participate in various other musical endeavors. Some activities that employees enjoy are performing in a mixed chorus, concert orchestra, or a theatrical production. Similar areas that are growing in popularity are art fairs and dinner and theater outings in which many employees and their spouses participate in once or twice a year ("Company Profile, Bethlehem Steel, Burns Harbor," 1974).

4. Tourism and Travel: most company programs have promoted travel and tourism as a large part of their programs. Special interest groups may promote travel programs to athletic contests or hobby tours. Some may be interested in vacation-oriented programs. The obvious advantages would be the right combination of price, destination, duration, services, and management which can be accomplished through group fares sponsored by large companies. Today we find

shorter trips primarily within the United States or to neighboring countries. The cost of travel and exchange of currency has had a great effect on the success of these travel programs. Many companies organize short, one day local tours to cities and nearby towns for historical or cultural purposes. These trips are inexpensive and very appealing to many employees and their families ("Corporate Investment in Human Resources: A New Twist," 1982).

Many steel companies have organized programs with the following components: club activities, team sports, and special events. This structure permits employees to take an active part in the governance of the organization. They select officers and develop guidelines from the constitution provided by that recreation organization. The structure and organization serve many useful purposes: the employer can meet new people and learn things about the employees that they might have otherwise never known (Worwick, 1975).

Funding for steel mill recreation programs is usually a shared responsibility. Employees may have a membership program where dues are taken from paychecks in the form of payroll deductions. Some programs are financed with matching funds--for every dollar employees put in, the company will match it with a dollar of their own. The majority of funds are allocated by the company with little or no contribution from employees. This also requires that the company furnishes the supervision, office equipment, telephone, electricity, and other services to assist the administration of a successful program. Another funding method comes from vending machine profits where the money is allocated for one purpose: recreation. All programs

have been designed to be conducted before or after working hours ("Company Profile, Bethlehem Steel, Burns Harbor," 1974; Young, 1975).

Young (1975), President of Inland Association, Inland Steel Company, gave the behind-the-scenes story of four decades of Industrial Recreation. The Inland Association boasts a membership of over 13,600 employees out of 23,000. Young described the program as a well-balanced program of athletic, social, and cultural activities designed for the betterment of the employee and his family. It is believed that the competition which the employees experience through recreational activities helps to build pride in themselves, in teams, in departments, and in the company itself. Management supports the program financially through the use of company equipment, bulletin boards, telephones, plant mail, communications, printing, salaries for supervisors, and time off with pay for board members. The cost to the employee is \$1.00 per year to join.

The recreation association offered something for everyone, even though Inland Steel did not have any recreation facilities of its own. All programs were carried on through rentals, leases, and/or cooperation with local recreation facilities and nearby school systems. The association had an extensive list of 20 activities that employees participated in during the year. These activities ranged from bowling to self-defense. Many activities had a cultural flair, such as the Inland Choir who entertained the 15,000 children at the annual Christmas party. Each July a picnic was held for the families of the employees, with attendance ranging from 44,000 to 48,000 people. The Inland Athletic Association had proven that a well balanced recreation program can be successful without on site facilities (Young, 1975).

In 1964, the Burns Harbor plant of Bethlehem Steel in Indiana, located on the shores of Lake Michigan, 30 miles southeast of Chicago, became the nation's newest major steelmaking plant. The administration felt something was needed to meet the special needs of the employees. It was suggested that a recreation program be formed.

Recreation was not new to the Bethlehem Steel Company. Many of their plants had supervisors' clubs which feature golf courses, clubhouses, dining facilities, pools, and tennis courts. It was decided that a recreational program was needed for all employees at all levels. The employees took it upon themselves to provide such a program. With limited volunteer involvement, the Burns Harbor Activity Association (BHAA) was organized and subsidized.

The company's position on recreation was that it benefited all employees, from superintendents to laborers. The company provided use of its existing facilities, dues collected through payroll deductions, and supervision for the program. The employee paid \$1.00 per month to belong to the BHAA. The recreation program sold itself in more ways than one. It helped in everyday work relationships, absenteeism, reduction of accident rates, and increased employee morale ("Company Profile, Bethlehem Steel, Burns Harbor," 1974).

The National Employee Services and Recreation Association endorsed the nation's first employee fitness day ("Nation's First Employee Fitness Day," 1982). It was considered the biggest event in this nation's history for the purpose of promoting fitness in the workplace. It was the first such event of its kind in the nation; and, organizers anticipated 65,000 to 100,000 participants. The idea was so promising that the National Employee Services and Recreation

Association, the President's Council on Physical Fitness and Sports, and the American Association of Fitness Directors in Business and Industry had all joined together in their official support of this project in Illinois. This program was designed to get thousands of employees to engage in a noncompetitive physical activity such as walking, jogging, or cycling during the regular work and lunch hours.

The management of both large and small companies, more than ever before, realize that recreation programs provide for the physical, social, emotional, and productive development of their employees. These programs vividly illustrate that management has a great concern for the employees' welfare, and thus make employment with these companies more attractive. The philosophy of employee relations will express the true willingness of management to focus on the individual and the services provided.

Recreation and Corporate Fitness

The Canadian business community has acknowledged that employee fitness programs can improve employee fitness and job satisfaction. At the same time, the quality of the employees' lifestyles has improved. Over 1,000 companies in Canada are currently involved in some way with employee fitness. Sources indicated that a well-designed fitness program could improve job performance in several ways: (1) direct increase in physical work capacity, (2) reduction in absenteeism due to illness, and (3) reduction in boredom or anxiety. The important factors stressed in assuring the success of an employee fitness program included professional leadership, program convenience,

management support, and encouragement ("Corporate Investment in Human Resources: A New Twist," 1982).

Palisano (1982) stated that about 3,000 companies now conduct organized health and physical fitness programs for their employees, and the trend indicates strong future growth. The Kimberly Clark Company has a Health Management Program that includes a medical history, health screening, and a complete physical examination (Palisano, 1982).

A study by English (1982) traced the history of industrial recreation and corporate fitness from 1894, when the president of the National Cash Register Company (NCR) implemented morning and afternoon exercise for his employees. Later, the president installed a gymnasium and built a 325 acre park for the employees' use. Since then company sponsored recreational facilities have become commonplace, and they continue to increase as more companies realize that recreational programs benefit their employees and ultimately make more productive employees. These corporate programs create positive results, including improved employee loyalty and help with employee recruitment and retention.

An increasingly popular area of corporate recreation is physical fitness. Its benefits include assistance in reducing preventable conditions such as heart disease. One estimate is that 25% of all United States' corporations will provide employee recreation and fitness programs by 1990. Current recreation and corporate fitness programs constitute a two billion a year business that is considered cost effective in lieu of returned benefits, such as: (1) reduced absenteeism, (2) reduced accidents, and (3) reduced premature deaths (English, 1982).

Taylor (1981) stated that results from his research indicated that over 97 million work days are lost each year because of employee illness, costing business over five billion dollars. Much of this illness can be traced to heart disease, stress, and other ailments related to a lack of exercise. It has been expressed that more companies are studying the effects of exercise each year. The reasons given are that exercises help an employee's performance in several ways, including: (1) a positive attitude, (2) becoming more alert and able to do mental work with greater accuracy, (3) improved morale, (4) less depression, (5) reduction in the likelihood of heart disease, and (6) less insomnia. Taylor stressed that physical fitness programs cost the company money, but very little compared to the money spent when employees were absent due to illness which created productivity losses and the need for replacements. He noted that many companies save thousands of dollars per year because of these programs.

A federal agency called "Fitness Canada," initiated a controlled-demonstration study on employee fitness with cooperating life assurance companies from Canada ("The Bottom Line, Employee Fitness Canadian," 1982). The sponsoring companies were Canada Life in Toronto and North American Life in Ontario, respectively. The results of this experiment were: after six months of fitness classes, 45.6% of the participants continued the program, with a 20% reduction in absenteeism among those continuing the program. It was reported that 60% of their employees participated in the exercise classes offered.

LeRoux (1982) stated that a pharmaceutical manufacturer in Triangle Park, North Carolina, has benefited from an employee fitness program in terms of savings. The savings come from detecting potential

health problems among its employees and from reducing absenteeism. LeRoux stated that the program can also be credited with saving and lengthening the lives of the company's employees. The employee fitness program provided a variety of health services including: (1) physical examinations at its health center, (2) visual screening and blood pressure tests, (3) proper training techniques for employees with back injuries, (4) classes on smoking and cardiopulmonary resuscitation, and (5) counseling services. Other features of the program included: (1) company sponsored recreation activities, (2) a cafeteria that offers food for workers on low-fat and low-sodium diets, and (3) health information literature.

The organization of a corporate fitness program involves the distribution of information to all employees on the value of physical fitness. Such an educational process uses advertising material on the risk factors associated with poor fitness and on the prevention of stress-related illnesses. When an employee is physically fit, it results in improved morale. Participants are given a medical examination, including an exercise stress test. Then they begin an individually prescribed program suited to each employee's needs, age, and physical condition. Activities included simple calisthenics and stretching and the use of an exercise bicycle, treadmill, jump rope, rowing machine, and weight equipment. Results of the government's study indicated that fitness programs benefited the company because employees felt better, lived and worked more efficiently, and had less absenteeism due to illness or accidents (McCann, 1981).

Carpo (1973) reported that the rapid increase in technology resulted in an extraordinary amount of sedentary lifestyles in our

society. This created a great demand for new exposure to various forms of leisure time activities. These programs have a mutual benefit both for the employee and the employer. They assist in promoting the difficult task of improving relations between the employee and the employer. Management has been very receptive and supportive of various employee leisure activities since research has proven it increased profits for the company as well as instituting a high degree of positive employee morale and productivity.

Hitchings (1978) described ways for the business executive to reduce the risk of heart disease. The subjects of the study were male executives over the age of 40. Procedures in the program were for the subjects to exercise daily, drink no liquor, reduce smoking, work without anxiety and tension, and incorporate a change in lifestyle. The findings pointed out that executives became changed men by reducing their weight, exercising daily, cutting down on smoking, and revising reactions to the stresses of business.

According to Mika (1982), Blue Cross and Blue Shield of Indiana has offered its employees an opportunity to participate in a four-part health promotion service since 1977. The program involves: (1) education of people regarding health risk factors and dangerous lifestyles, (2) confidential screening questionnaires, (3) a mini-examination conducted twice annually, and (4) intervention programs designed to promote positive lifestyle changes.

Franklin (1978) used motivational written materials and lectures to suggest methods for group participation in exercise programs. The information disseminated stressed the physical needs of each

individual and explained the effects exercise had on the reduction of orthopedic disorders.

According to Debats (1982), industrial recreation programs have extended their offerings to embrace employee services. More companies are offering their employees programs such as company parks, discounts on sales, access to employee stores, and physical fitness programs. It was noted that both the company and the employees benefit in many ways from these programs.

Industry in heavily industrialized communities, where facilities are limited, have contracted programs and facilities with commercial centers. These contracts are being offered in a membership plan with reduced payment to employees because they are subsidized by the company (Debats, 1982).

The benefits of commercial recreation centers and health clubs are that their programs have full service facilities with a complete staff of qualified specialists to program activities in a professional manner. This option in programming for employee fitness can be of great value to both the community and the individual ("Commercial Recreation and Physical Fitness Centers Meeting a Need," 1981).

Coors Wellness Center (1981) reported on its exercise facility, a health and wellness facility for all employees, spouses, and eligible dependents. The Center is a renovated supermarket at the entrance to the brewery, and was introduced to the employees as a health benefit. Mr. Coors considered it an obligation to provide his employees with a work environment that encouraged good health and well-being. For the majority of the work force, there is little or no answer to the pressures of stress, especially from one's employer, who is constantly

looking for greater production at a reduced cost. This Center is an answer to that statement, since this facility will provide programs to the employees that would assure them a better lifestyle through health, exercise, nutrition, and stress management.

The Coors Wellness Center (1981) contains a jogging track, five treadmills, jogging type trampolines, rowing machines, and six bicycle ergometers. The facility also has large exercise areas, a classroom, and a nutrition bar. To use the facilities, Coors employees undergo an orientation, which includes an overview of the wellness concept and an explanation of the health modules available at the Center. Each employee undergoes a health screening which provides the staff with information for prescribing the proper program for the individual.

The Weyerhaeuser Company (1978) reported that all employees and their families were eligible to participate in the company's exercise facility. The concept was to bring about a closer interaction with employees and their families. Fitness screening evaluations were administered to provide the staff with information to monitor the fitness levels of each individual. These evaluations permitted the staff to develop an individual exercise program based on the weaknesses and strengths of the individual. Weyerhaeuser Company (1979) reported on its membership program in the Puget Sound Athletic Club, Inc. This program provided all employees and families with the opportunity to use the facility. The facility was designed as a social athletic facility. This program is funded by payroll deductions and is under the direct administration of the Weyerhaeuser Exercise Club. The setting of the facility provides everyone with a relaxed atmosphere.

DeFranco (1975) studied the Recreational and Physical Fitness Center of the Xerox International Center for Training and Management Development. Approximately 1,000 Xerox employees from the areas of sales, service, and management development were the subject of this study. The program was committed to providing meaningful experiences for participants of all abilities: instructional classes for beginners, tournaments for the more skillful, and other activities for non-athletic individuals. The Fitness Center, which was open seven days a week, provided programs for participants of all abilities, including beginners' classes, skill contests for those more athletically inclined, and less strenuous activities for non-athletic individuals. Detailed information on the Center's activities was provided in brochures listing all the events, rules and restrictions, a map of the complex, and an evaluation form requesting input for new ideas to improve the facility.

In 1979, Pyle outlined a prototypical corporate fitness program from data collected through a survey of 14 recognized facilities. Pyle sent questionnaires to several hundred volunteers from the facilities' executive branch to inform them of the program's existence. Those prospects who volunteered were given a thorough routine physical, including an exercise stress test. Information gathered from this testing was used by the director to devise a personally prescribed exercise plan for the further development of the subjects: (1) fitness, (2) endurance, (3) flexibility, and (4) strength. The prescribed exercise plan is known as "circuit interval training" which details the nature of each exercise, the amount of time to be spent, and the amount of rest between each exercise. Time spent in the

exercise room was about 35 minutes; the total time off the job was one hour or less. This routine was recommended at least three days per week to show an improvement in the employee's fitness. Participants were required to keep a chart to mark their progress by recording pulse rates taken during the exercise break. The program director adjusted each employee's exercise plan every three to six months, providing the subject revealed a marked improvement. Close scrutiny of the volunteer's progress, and reporting the same to the subject, was necessary to communicate the effects of the exercise and to inspire motivation for continued participation. Pyle concluded that promoting employee fitness is a worthwhile pursuit for both the employee and the company, providing it is properly designed for the various participant groups.

Arnold (1977), like DeFranco (1975) studied the Xerox International Center for Training and Management Development, whose employees come from the United States and Canada. Employee attendance is encouraged by the recreation staff through letters of invitation. Each participating employee received a registration packet containing information about the recreation and fitness program. Activity sign up sheets for badminton, basketball, bowling, football, softball, soccer, golf, handball, racquetball, paddleball, jogging, paddle tennis, squash, table games, billiards, bocce, volleyball, and swimming were distributed to each employee. The recreation staff provided instruction for those unfamiliar with the fundamentals or techniques of the activity. Tournaments were also organized, for which the top participants received certificates. Arnold found that the recreation staff's

success for improvement in the physical fitness and recreation program and the Center was made possible by strong management backing.

Lang (1978) discussed the comparison of employee exercise to worker productivity. Industry has lost an estimated 52 million work days to heart disease alone, and one billion dollars annually in lost productivity because of common backaches. Lang studied the health and work productivity of employees who participated in their company's physical fitness programs, which emphasized cardiovascular efficiency through rhythmical exercises. These subjects attempted to raise their pulse rate to a certain level and maintain that level through cardiovascular exercise.

Employees and consultants of Weyerhaeuser Company (1978) participated in recreation programs directed from the corporate headquarters. Prospective participants were required to apply for membership and conform with the guidelines established by the trustees. The Exercise Club was a company-supported organization dedicated to the belief that such programs of exercise contribute to both mental and physical well-being.

Arnold (1974) studied 1500 participants of the Xerox-Leesburg fitness program and facility, which was built on the company's belief that a physically fit employee is an energetic, productive employee. Upon arrival, each participant receives literature on the complex and recreation facilities. Arnold found that by maintaining physical fitness, employees reduced the risk of cardiovascular disease, minimized hypertension, and better controlled their body weight.

In Illinois, a Fitness Day was created to combat the high cost of health care. Since exercise has proven to be a major impetus to

increasing productivity among the work force and reduce the risk of heart disease, the President's Counsel on Physical Fitness and Sports sent out a newsletter emphasizing the need for recreational facilities in the work environment, and the urgency for planned programs and competent staffs to administer them.

Fitness

Steinback and White (1978) studied two programs designed to increase exercise, encourage proper nutrition, and stimulate self-motivation. The test group was made up of business executives. The procedure that was used consisted of a physical examination and a questionnaire eliciting information on smoking habits, stress levels, hereditary factors, and history of past health status. The results from this information was then evaluated with fitness standards and norms. Each participant had a special prescribed program designed to meet the needs of each individual with the proper exercise and nutrition. The individuals studied were retested every three months for one-half year. The tests revealed significant information, noting a reduction of body fat and improved heart rates, blood pressure, stress, and reduction of alcohol and tobacco use. Over all, a general improvement in physical fitness was found. The results of a questionnaire, answered by 275 participants, suggested a feeling of increased productivity and better health.

In article appearing in the U. S. News and World Report ("Fitness Programs: A Fringe That's Paying Off for Employees," 1977), it was reported that more and more companies are developing fitness programs for their employees. The programs are based on the new

philosophy that this is not a fringe benefit, but an investment to improve the fitness of the employee. The results of this study indicated a significant improvement in the reduction of weight and improvement of cardiovascular conditioning.

Hitching (1978) studied recreation and corporate level fitness programs, once considered a fringe benefit, but now commonplace. The participants included employees and family members of both sexes, and others serving these corporations. Prescribing the proper intensity of the exercise workout is the most important and most difficult factor. The program included jogging, weightlifting, and cycling. The individual would exercise and shower in less than one hour. The final evaluation of this study indicated that exercise was beneficial to the individual and company. These programs could be offered to the employee before or after working hours.

North American Rockwell and Phillips Petroleum Companies (1972) encouraged other corporations to promote the programs of the President's Council on Physical Fitness and Sports. Information on each employee was collected to evaluate the present health status and fitness habits. Fitness level assessment tests, evaluations from physicians, and personal interviews were conducted to evaluate and prescribe an exercise program to meet the needs of the individual. Each program is regulated to adhere to the basic principles of exercise prescription. These include mode, intensity, duration, frequency, and progression.

Each class begins with 10 to 15 minutes of warm-up, with stretching and muscle conditioning exercises to increase flexibility and reduce the chance of muscular skeletal injuries. After a 15 to 60

minute workout period, there is a 5 to 10 minute cool-down period, including activities to slow down the heart rate.

Baetz and Wright (1975) provided a detailed recreation program that included fitness programs for all employees. The participants for this project ranged from management to trainee. A questionnaire was sent out requesting personal data on each individual. The questionnaire also asked if the employee was willing to assist as a member of the fitness committee. Employees were requested to share in part of the expenses of the program. Committees were organized to determine costs and to make out a budget. After the budget was established, methods of financing were selected.

The program areas of awareness, education, and motivation were emphasized to serve the needs and interests of the employee. the results of the study indicated that the employee was more productive, happier, and healthier.

Health

Geannette (1979) found that companies with multimillion dollar recreational facilities justified their programs by citing examples of employees who were said to be mentally and physically healthier. The participants studied ranged from the corporate chairman, employees and their dependents, to retirees and employee widows or widowers. Employees' relatives, business guests, and friends were also eligible to use the recreational facilities. The participant was required to undergo a stress test as a prerequisite to admission. In addition, a fitness profile, which included a measurement of body density and an analysis of proper body weight, was prepared. Geannette estimated the

replacement cost for a \$100,000 a year executive to range between \$500,000 and \$1,000,000, which amount included surviving family benefits, and the cost of hiring and training the replacement.

Martin's (1978) studies revealed that more American businesses are creating and financing recreation and fitness programs for their employees, and that the percentage of employee participation continues to grow. Martin's study focused on both management and labor. The applicant is required to fill out an extensive medical history questionnaire, which is fed and analyzed in a computer. The computer was programmed to compare the employee's health status with actuarial standards for persons of identical sex and age. In addition, the applicant was required to undergo a complete physical, including chest x-rays and an electrocardiogram. In addition, the applicant's blood sugar, cholesterol, lung function, skin fold thickness, and body fat were measured. Finally, a treadmill test was administered to evaluate heart response. The results of each examination and test were then revealed to the employee by a staff member, and a health prescription was administered.

It was reported that many recreational programs were offered for both physical and mental health benefits by incorporating physical fitness ("Physical Fitness Through Recreation," 1982). Physical fitness programs can be designed to be recreational instead of exercises in self-discipline. Improved creativity and redesigning of activities can bring about a more pleasurable and desirable health program. Industrial recreation in the future will improve the health through recreational activities.

Salisbury (1979) studied a program developed by the Milwaukee YMCA where business and industry send employees to programs administered outside the corporate structure. Approximately 840 employees and management officers from 19 different Milwaukee companies enrolled in a starter fitness course, where classes met three days each week at various hours. If a certain business had a sufficient number to fill a class, the days and starting times were set at the company's convenience. Each participant was required to obtain his own medical clearance before entering the program. The program contained lectures from qualified personnel in the areas of exercise physiology and health. The exercise segment of the program began with a warm-up, and worked up to heavy exercise and aerobic activity. Each participant's aerobic activity was modified to keep the exertion within their respective target heart rate range. At the conclusion of the Start Fitness Course, each participant was provided with a copy of his test scores for comparison with the pre and post course scores. These comparisons provided evidence that regular physical activity helped to improve the cardiovascular fitness and health of many participants.

Exercise

The Office of Occupational Medicine (1976) studied the effects of exercise in the Recreational and Physical Fitness Program of the National Aeronautics and Space Administration (NASA). The study was intended to provide information for new program applicants as well as for businesses desiring to create their own employee recreation and fitness programs. NASA headquarters allowed 1,540 employee

participants to engage in a series of programs. A review of the subject's physical condition by his private physician and the NASA medical doctor, however, was required prior to exercise. The employee's physical condition was reviewed each year by a NASA physician during participation in the program, which study included an examination of the exercise record kept by the participant. The programs available to participants included an unsupervised, unstructured jogging program and a supervised exercise program. Those in the supervised program went through a regimen of 10 exercises, with 10 minutes of rest time between sessions. The general consensus was that the program benefited both the employer and the employee, with the former obtaining improvement in his physical and mental health, and the latter obtaining success with the increased productivity of his workers.

Peace (1979) examined the recreation programs of the Williams Company, interviewing more than 70 members of the executive staff. Each participant in the program underwent a physical examination and treadmill test administered by a licensed physician. The medical staff assessed body strength, flexibility, and density. Data from the treadmill test was then analyzed to determine the subject's training heart rate and training zone, which is the area where the heart works to develop fitness and minimize health risk factors. After the training heart rate was determined, the staff then developed an exercise program based on the training heart rate, to allow participants to personally monitor their own vital signs, and to keep from exceeding the limits of their training zone. This program lasted for a period of six to nine weeks. Peace found the response

to the programs to be positive, with executives experiencing increased stamina and improved mental disposition.

Sholtis (1979) studied this fitness pursuit in a more general sense, finding that thousands of employees in private industry who used to talk and sit complacently past their lunch breaks, were now exercising on the jogging path. More and more companies are now installing recreation and fitness facilities on their premises. Employees at one major corporation were given a complete physical examination and private counseling. Those employees who volunteered for the fitness program provided data relative to their medical history, which was analyzed by a computer. In addition, a treadmill test was administered to evaluate the subject's cardiovascular response to exercise. After the data was collected and analyzed, a program was prepared, with the approval of the employee's physician, and given to the employee for his use. The prescription usually called for a program of heavy exercise and aerobic activity to strengthen the cardiovascular system. If the need arose, the prescription would also mandate counseling on obesity, alcohol, and drugs. One corporation, the American Can Company, actually encouraged its employees to take 45 minutes away from their work schedule to exercise. Sholtis found that recreation and exercise actually reduced absenteeism and accident rates among participants. Major benefits directly attributable to industrial recreation programs included: (1) increased productivity, (2) better employee morale and pride, (3) reduced absenteeism, (4) reduced stress for individuals, (5) increased communications between employer and employee, (6) increased health and physical fitness, (7) lower employee medical bills, (8) higher

employee retention, (9) decreased accident rate, and (10) greater recruitment possibilities.

Absenteeism and Accident Rates

There has been considerable debate among industrialists and researchers with regard to the effect employee recreation programs have on absenteeism and accident rates. Cohen (1982) disclosed that companies throughout the United States and Canada had begun to realize that a company-sponsored recreation fitness program can reduce employee turnover, absenteeism, and increase productivity. Many of these fitness programs began with a medical fitness screening. Employees were often surprised to learn just how overweight or unfit they were. The company arranged for the employees to schedule workouts two or three times a week, either in a facility rented by the company close to the office, or in facilities within the office building. He indicated that facilities provided do not have to create a big expense--approximately 1,000 square feet is adequate. Sophisticated equipment is not necessary. Jogging, calisthenics, and active games can be the basis for an excellent program. The results of this program as reported could save the company thousands of dollars in reducing poor productivity, hospital claims, and absenteeism.

Pehanick (1982), in analyzing this data, indicated that many corporations are anxious to provide group health club memberships for their employees. Increasingly, companies are implementing a preventive type philosophy that improved health habits, and when combined with regular exercise, will improve worker performance. The

"wellness" movement taking place across the country supports: (1) reduced absenteeism, (2) improved morale, and (3) increased productivity.

The Jack LaLanne Spas serve 200-300 companies by providing them with group membership plans which affords a 50% reduction on individual membership costs ("Fitness Programs: A Fringe That's Paying Off for Employees," 1977). Many health clubs are tailoring their programs to executive fitness needs. This trend in the health club industry tends to aim its programs to the corporations which could provide benefits for both the industry and the business.

In the mid-1970's, the President's Council on Physical Fitness and Sports ran a successful campaign that was accepted by the business community (Allen, 1982). Currently over 1,000 corporations spend more than two billion dollars annually on employee fitness programs. Corporations have noted a return on this expense because the program produces such benefits as: (1) greater productivity, (2) less absenteeism, (3) fewer accidents, and (4) better morale.

Time (1979) published an article on industry trends, noting that more companies were providing employee services and recreation programs for their employees. These programs have rapidly gained management support and financing. Integral parts of these programs include health assessments and exercise.

One study was conducted on the health programs of 400 corporations, with the primary purpose of each program being designed to improve the cardiovascular efficiency, strength, and flexibility of the individual. Upon enrolling in the program, each person was required to complete a personal health history. After a review of

the individual's health history, a series of aerobic tests, including a stress test, was administered, and the individuals were given a program and a goal. The individuals were monitored by the staff to determine if the objectives were achieved, such as improvement of heart rate and cardiorespiratory efficiency. Companies have found that fitness is fast becoming an integral part of the American lifestyle. Through fitness, individuals feel better and are able to work with greater efficiency. Companies in this country lose an estimated three billion dollars per year due to absenteeism and poor health. Many of these companies have reported that the employee fitness programs have reduced absenteeism and increased productivity.

McCann (1981) studied the wellness program called "Staywell" in 1979. The program was developed by Control Data Corporation for its employees and their families. The concepts on which the Staywell program were based are: (1) lifestyle has a major effect on illness, (2) people can change their habits, (3) since people spend much of their time at work, that is a good place to change habits, and (4) preventive programs will increase productivity and lower insurance costs. Wellness programs can cut sick leave costs which are in excess of three billion dollars annually.

Bjurstron and Alexiou (1978) developed a behavior modification program that included information on cardiovascular disease. The experimental population was made up of employees of the New York State Education Department, and were all classified as sedentary. The program provided a period of time for physical conditioning, which consisted of one hour per day, three days per week. It is believed that this program had positive results in changing the

lifestyle of the employees, by relieving boredom, building cohesiveness in the work force, reducing absenteeism, and achieving employee cooperation.

The Chicago Tribute (1979) reported on the Flick-Ready Corporation, where management has developed programs for employees on the company's grounds. Participants include employees and their families. Each participant has use of the pool, cafeteria hall, meditation room, tennis courts, horseshoe pits, and stocked lagoons. The pool was built with a dual purpose; one for swimming, and the second to store water for the plant tire department. The employees are satisfied with the company, and believe it to be a good place to work. This can be seen in the reduced absenteeism, low worker turnover, and high productivity.

Summary

A review of the above studies indicates that industrial recreation and corporate fitness in the United States will continue to achieve significant growth for the next five to ten years. Physical fitness programs will be prescribed for the individual's total health and well being. Current programs reflect the influence of the fitness boom on the working public and on society as a whole. Many companies have realized the benefits of instituting physical fitness programs, such as reduced absenteeism, improved health and awareness, and increased productivity. This is believed by many as a new beginning; the renaissance of industrial recreation programs.

As these programs begin to expand and develop, we may find the need for computers to play a greater role in analyzing a participant's

medical history and formulating a program to improve his physical well being and minimize the health risks. In this regard, lifestyles will change to cope with the everyday stress and to improve mental health. It is expected that employee fitness programs of the future will be an influence in attracting new employees and retaining the old.

CHAPTER III

METHODOLOGY

The primary purpose of this investigation was to describe the industrial recreation programs in the four steel mills of northwestern Indiana. Additionally, the research identified the absenteeism and accident rates of each mill. No formal hypothesis was advanced; rather, emphasis was placed on the description of recreation programs of the four steel mills: activities provided, memberships, governance, publicity, finances, absenteeism, and accidents.

The descriptive method of research was selected because of the nature of the information that the investigator obtained through personal interviews using a survey instrument. According to Van Dalen (1962):

In descriptive surveys, investigators do not try to relate one variable to another. They merely search for accurate information about the characteristics of particular subjects, groups, institutions or situations or about the frequency with which something occurs (p. 285).

Van Dalen (1962) also emphasized that:

Descriptive researchers do the pioneer spade work upon which experimental researchers build: hence, the variables in their studies may not be defined operationally with the degree of specificity that they are in experiments, their measuring instruments are often cruder, and many of their data are qualitative rather than quantitative in nature (p. 342).

Demographics

The 1981 bulletin from the Northwestern Regional Planning Committee (1981) provided the information on the demographics. The area of northwestern Indiana includes the counties of Lake, Porter, and LaPorte. This area enjoys a moderate climate with an average annual temperature of 50.3 degrees. The close proximity of Lake Michigan exerts a tempering effect on the climate. The highest temperature recorded at the Duneland Observatory in Ogden Dunes was 103 degrees in June, 1953, and the lowest of 24 degrees below zero was recorded in January of 1982 (Northwestern Indiana Regional Planning Committee, 1981).

The average annual precipitation is 34.28 inches, and the average annual snowfall is 44.1 inches. Lake Michigan has a considerable effect on the amount of snowfall in the area, due to the predominant northwest winds which bring moist air off the lake. Northwestern Indiana consistently receives more snowfall than the neighboring city of Chicago (Northwestern Indiana Regional Planning Committee, 1981).

The annual average number of clear days is 107, partly cloudy is 97, and cloudy is 61. Most of the cloudy days occur during the winter. There is an average of 18 days when the temperature is 90 degrees or above, and 39 days when the maximum temperature does not exceed 32 degrees (Northwestern Indiana Regional Planning Committee, 1981).

Northwestern Indiana has an approximate elevation of 620 feet above sea level. The surface of Lake Michigan averages about 580 feet above sea level. The soil structure is made up of clay, silica sand, molding sand, gravel, and peat. The principal agricultural products

of northwestern Indiana are corn, soybeans, oats, wheat, and hay. Animal products include beef, pork, lamb, poultry, eggs, and dairy products (Northwestern Indiana Regional Planning Committee, 1981).

Lake Michigan performs several services for the people of the area. It supplies water for consumer needs and industry, and acts as a medium of transportation of materials. Lake Michigan and its surrounding populace are responsible for the presence of the steel mills. Northwestern Indiana is made up of 34 cities and towns with a total population of 751,413. The racial breakdown is as follows: 70.9% White, 12.5% Black, 8.6% Latino, 7.5% Asian, and 1.0% Indian. A great percentage of the population of northwestern Indiana is European in origin: Czechoslovakian, English, German, Greek, Italian, Irish, Mexican, Norwegian, Polish, Rumanian, Russian, Scottish, Spanish, Swedish, and Yugoslavian, most of whom immigrated within the last 70 years. Many ethnic traditions are still observed as a part of the respective cultures. Early immigrants from these countries made up a large part of the labor force that developed and worked in the steel mills of northwestern Indiana (Northwestern Indiana Regional Planning Committee, 1981). Records would indicate that they were hard-working, honest people who came to this country for a better way of life. Census data also indicated a large number of Afro-Americans migrated to this area from 1900 to 1950 (Northwestern Indiana Regional Planning Committee, 1981).

The Instrument

In order to obtain the necessary data for the study, the survey interview method was selected, since direct access to company records

was not permitted. The interview technique served the needs of the investigator by providing a means for obtaining information concerning status, practices, opinions, and situations. In order to insure consistency from one interview to the next, a simple interview survey questionnaire was constructed. In the survey the initial group of questions (I and II) were designed to elicit general information about the number of employees, wages, work week, and year. The next group of questions (III, IV, V, VI, VII) revealed data relative to the industrial recreation programs (if applicable); i.e., activities, membership, participation, governance, and costs. The third group of questions requested information about absenteeism and accidents (Appendix A).

The preliminary interview survey instrument was developed by the researcher and then submitted to Dr. C. E. Gronbeck, a professor at Chicago State University, whose specialization is research design and statistics, for his comments and recommendations. In order to validate the instrument, it was revised and distributed for review to authorities in the field of health, physical education, and recreation (Appendix E). A meeting was held with these authorities at the Midwest Conference for Health, Physical Education, and Recreation, which was held in Dayton, Ohio. Following this consultation, the researcher developed a final draft of the survey instrument which was used in collecting the information for this study.

Collection of Information

Because this researcher was acquainted with members of management in the mills, initial contact with each of the four mills was

accomplished by telephone. Company approval to participate in the investigation was given at this time. The individual in the personnel department who could provide the requested information was identified by each mill. This was followed with a letter to confirm the details of the interview (Appendix B).

The interviews took place at each mill so company officers would have access to corporate records regarding the requested information. Sixty minutes were allotted to explain the investigation and collect the necessary data from each individual interviewed. This schedule and the use of the instrument insured continuity, accuracy, and organization to most efficiently make use of the corporate representatives' time. Interviews were conducted personally by this investigator during the spring and summer of 1982; however, the data collected was for the calendar year of 1981.

Reporting of Information

Information was recorded directly on the interview survey instrument. All of the information gathered was compiled and became the data base for the case studies of the four steel mills. The information gathered was presented in the format of a case study for each steel mill. The information related to the recreational program of each steel mill was described as follows: program activities, membership, governance, publicity, finances, absenteeism, and accidents.

CHAPTER IV

CASE STUDIES

Introduction

The primary purpose of this investigation was to describe the industrial recreation programs in the four steel mills of northwestern Indiana. The researcher also identified the absenteeism and accident rates of each mill. The information collected was gathered and presented in the following categories: recreational programs, absenteeism, and accident rates.

The study was descriptive in nature. The findings are based upon the information gleaned from the interviews with the representatives from each mill. The steel mills in this study operated on a seven day week, 24 hour day work schedule which requires employees to work various shifts. All recreation programs were offered during the evening hours and on weekends. Since all mills rotated work schedules every week, each employee had an opportunity to participate in some phase of the recreation programs. In all mills the average hourly rate of pay per employee is \$23.00. This includes fringe benefits. Each employee had 10 paid holidays and three weeks of paid vacation. There were 234 working days per year. Each working day was eight hours in length. The average daily wage was \$184.00, and the average yearly wage was \$47,656.00.

Case Study Mill "A"

Recreation Programs

Mill "A" had 17,717 participants in the employee recreation program for the year of 1981. These individuals participated in 32 activities with a total of 221 teams, 6 non-team activities, 3 club activities, and 11 special events as follows:

Team Sports

- men's basketball had 20 teams with 200 participants and a financial allocation of \$6,000.00.
- women's softball had 6 teams with 84 participants and a financial allocation of \$700.00.
- men's softball had 20 teams with 288 participants and a financial allocation of \$3,000.00
- mushball had 20 teams with 120 participants and a financial allocation of \$1,200.00.
- bowling had 240 teams with 1,200 participants and a financial allocation of \$5,000.00.
- women's volleyball had 10 teams with 64 participants and a financial allocation of \$800.00.
- men's volleyball had 15 teams with 106 participants and a financial allocation of \$1,200.00.

Individual Activities

- men's golf had 1,200 participants and a financial allocation of \$5,000.00.
- women's golf had 150 participants and a financial allocation of \$600.00.
- racquetball had 30 participants and a financial allocation of \$800.00. All activities were conducted in off site areas in local raquetball clubs.

- billiard players had 25 participants which met every Tuesday evening at an off site local billiard parlor with a financial allocation of \$300.00.
- men's tennis had 36 participants and a financial allocation of \$800.00. All matches were played at an off site tennis club.
- women's tennis had 24 participants and a financial allocation of \$700.00. All matches were played at an off site tennis club.

Club Sports

Mill "A" had several club sports which fostered a close relationship with its members. These clubs had a wide range of interest involving both physical and mental activity.

- chess club had 30 members that met every Sunday afternoon at an off site location from November through April with a financial allocation of \$150.00.
- fishing club had 1,500 members that met periodically to determine the best catch within divisions. This club sponsored fishing tournaments off site during the year. The financial allocation was \$3,000.00.
- trap shooting club had 50 members that met from June until late August at an off site shooting area. The financial allocation was \$800.00.
- fitness group had 100 members that met once a week at an off site center during the evening hours. This club was allocated \$500.00
- ski club had 150 members that conducted meetings each month. Weekend ski trips were planned and conducted during the winter months. This club was allocated \$600.00.
- photo club had 50 members that conducted meetings monthly to discuss common topics of interest. This club was allocated \$400.00.

Special Events

Special events consisted of special interest programs conducted

throughout the year. These activities were attended by large numbers of participants such as:

- the Christmas party was designed for the employees' children 12 years old and younger. Each child received a gift; refreshments and entertainment was provided. The attendance was slightly in excess of 3,000 youngsters at the cost of \$45,000.00.
- the Recreation Association picnic was an event that was conducted for the employee's entire family. Employees requested tickets in advance to attend this event. All food, refreshments, entertainment, and prizes were paid for by the Recreation Association. The picnic was attended by more than 5,000 people and had a financial allocation of \$25,000.00.
- the Association conducted three theater outings during the year of 1981. Each outing had 100 tickets available on a "first-come" basis. These activities had a financial allocation of \$1,800.00.
- the Recreation Association conducted three separate sporting events (trips) each year: one in each season (football, basketball, and baseball). One hundred tickets for these activities were made available on a "first come" basis. This program had a financial allocation of \$900.00.
- the Association also conducted a recognition dinner for its members. At this dinner, the members were recognized and received awards for their efforts. It was attended by 1,000 members and was financed by an allocation of \$8,000.00.
- the Association conducted an annual semi-formal dance for employees and their spouses. This event was attended by 500 people and had a financial allocation of \$2,000.00.

Memberships

Membership in the Recreation Association was open to all employees and required a payment of \$2.00 annual dues. These dues were paid to a departmental representative. The membership in Mill "A" was voluntary. Mill "A" had a membership of 13,000 non-management employees, or 58.7% of the total work force. The management group of Mill "A" had 1,200 members, or 41.3% of management personnel.

Governance

Mill "A" had a constitution and by-laws instituted by its Employee Recreation Association. This document stated that membership was open to all employees of that company who paid annual dues. The governing board of the Recreation Association consisted of departmental representatives. A steering committee of 11 members was elected by the departmental representatives. This steering committee had the responsibility of conducting the business of the Association. All monies allocated by this committee were approved by the board of directors. They also had the responsibility of approving all programs and activities.

The duties of the board of directors included policy making, preparation of budgets, allocation of funds, and planning programs. All membership dues were set by the board of directors on an annual basis. The board used Roberts Rules of Order at all meetings of the Association or board of directors. Members of the board met weekly and were given release time from their respective departments.

Publicity

The Association publicized recreation programs through various media methods. They were:

- company newspaper
- bulletin boards
- flyers
- special mailings
- local radio announcements

Company Contribution

The company supplied both direct and indirect support to the Recreation Association. The estimated contribution was \$142,262.00 per year, or \$5.49 per employee.

Absenteeism

Mill "A" employed 25,900 workers. Employees were paid an average hourly wage of \$23.00 per hour, which included benefits. Mill "A" reported a yearly total of 23,000 employees absent for 1981. This computed to 0.88% days per year per employee absence. The average number of absences per day was 98 employees. Total costs for Mill "A" during the year of 1981 was \$2,116,000.00, or \$9,042.73 per day for absences. Each absence cost the industry \$23.00 base rate plus \$11.50 per hour for time and a half. This added \$92.00 per day for an eight hour shift. If an employee did not report for work during a scheduled shift, another employee was substituted in that shift slot.

Accidents

Accidents were recorded when an employee visited the medical offices of the mill or an accident report was submitted by the employee's department. Mill "A" had 2,614 accidents reported for the year of 1981, or 0.10% accidents per employee per year. The average number of accidents per day was 11.1 for Mill "A".

Case Study Mill "B"

Recreation Programs

Mill "B" had 7,447 participants in the employee recreation program for the year of 1981. These individuals participated in 18 activities with a total of 48 teams, one non-team activity, two club activities and special events.

Team Sports

- Coed softball had 6 teams with 72 participants and a financial allocation of \$500.00.
- men's basketball had 10 teams with 100 participants and a financial allocation of \$3,000.00.
- men's softball had 18 teams with 216 participants and a financial allocation of \$1,000.00.
- men's bowling had 30 teams with 150 participants and a financial allocation of \$1,500.00.
- women's bowling had 10 teams with 50 participants and a financial allocation of \$500.00.
- women's volleyball had 8 teams with 64 participants and a financial allocation of \$600.00.

Individual Sports

- Men's golf had 150 participants with a financial allocation of \$2,000.00.

Club Sports

- ski club had 100 members that conducted meetings each month off site and weekend ski trips were planned and conducted during the winter months. This club was allocated \$1,100.00.

- photo club had 45 members that conducted meetings monthly to discuss common topics of interest. This club was allocated \$540.00.

Special Events

Special events consisted of special interest programs conducted throughout the year such as:

- the Christmas party was designed for the employee's children 12 years and younger. Each child received a gift; refreshments and entertainment were provided. The attendance was about 600 at the cost of \$6,000.00.
- the Recreation Association picnic was an event that was conducted for the employee's entire family. Employees had to request tickets in advance for this event. All food, refreshments, entertainment, and prizes were paid for by the Recreation Association. The picnic was attended by 4,000 people and had a financial allocation of \$20,000.00.
- a theater outing to the local Holiday Star Theatre was conducted three times a year. One hundred tickets per outing were made available on a "first come" basis. These tickets were on a subsidized plan, and total allocation for these events was \$1,500.00.
- shopping trips to Chicago for employees or employee spouses were offered four times a year, with a total of 200 participants and a financial allocation of \$800.00.
- for the racing enthusiast, a trip to the Indianapolis 500 for 50 participants on a "first come" basis was offered, with a total allocation of \$500.00.
- employees' children enjoyed an outing to the Brookfield Zoo, with a participation of 100 on a "first come" basis for tickets. This activity had a financial allocation of \$600.00.
- the Association conducted three separate sporting events (trips) each year--one in each season: football, hockey, and baseball. Fifty tickets for each activity were made available on a "first come" basis. This program had a financial allocation of \$500.00.
- the Association sponsored a semi-formal dance for employees and their spouses. This event was attended by 600 people and had a financial allocation of \$2,000.00.

- each year the Association sponsored a New Year's Eve party for its members. Tickets were made available to the first 500 requests. In 1981, \$2,500.00 was allocated for expenses.

Memberships

Membership in the Recreation Association was open to all employees and required a payment of \$1.00 monthly dues. These dues were paid through payroll deduction. The membership in Mill "B" was voluntary. Mill "B" had a membership of 5,000 non-management employees, or 58% of the total work force. The management group of Mill "B" had 700 members, or 50% of the management personnel. They also paid monthly dues of \$1.00.

Governance

Mill "B" had a constitution and by-laws for its Employee Recreation Association. The Employee Recreation Association membership was open to all employees who paid monthly dues. The board of directors for the Association consisted of departmental representatives. These representatives were elected by their peers. The board of directors had the responsibility of conducting the business of the Association, and of approving all requests for funds, programs, and activities.

The duties of the board of directors included policy making, preparation of budgets, allocation of funds, and planning programs. All membership dues were regulated by the board of directors on an annual basis. The board used Roberts Rules of Order at all meetings of the Association or board of directors. Members of the board met weekly and were given release time from their respective departments.

Publicity

The Association publicized recreation programs through various media methods. They were:

- bulletin boards
- Association newsletter
- flyers
- special mailings
- local radio announcements

Company Contribution

The company supplied both direct and indirect support to the Recreation Association. The estimated contribution was \$91,204.00 per year, or \$9.12 per employee.

Absenteeism

Mill "B" employs 10,000 workers. Employees work for an average hourly wage of \$23.00 per hour, which included benefits. Mill "B" reported a yearly total of 14,198 employees absent for the year of 1981. This computed to 1.4% days per year per employee absence. The average number of absences per day was 60.7 employees. Total costs for Mill "B" during the year of 1981 was \$1,306,216.00, or \$5,882.12 per day for absences. Each absence cost the industry \$23.00 base rate plus \$11.50 per hour for time and a half. This adds \$92.00 for an eight hour shift. If an employee did not report for work during a scheduled shift, another employee was substituted in that shift slot.

Accidents

Accidents were recorded when an employee visited the medical offices of the mill or an accident report was submitted by the employee's department. Mill "B" had 2,054 accidents reported for the year of 1981, or 0.20 accidents per employee per year. The average number of accidents per day was 8.7.

Case Study Mill "C"

Recreation Programs

Mill "C" had 5,113 participants in the employee recreation program for the year of 1981. These individuals participated in 17 activities with a total of 74 teams, 3 non-team activities, 1 club activity, and 6 special events.

Team Sports

- men's basketball had 10 teams with 100 participants and a financial allocation of \$3,000.00.
- mixed team tennis doubles had 20 teams with 40 participants and a financial allocation of \$600.00.
- men's softball had 12 teams with 144 participants and a financial allocation of \$1,700.00.
- men's bowling had 24 teams with 144 participants and a financial allocation of \$3,000.00.
- women's bowling had 8 teams with 60 participants and a financial allocation of \$1,200.00.

Individual Sports

- men's golf had 500 participants with a financial allocation of \$2,000.00.

- racquetball had 20 participants with a financial allocation of \$500.00. All activities were conducted at off site areas in local racquetball clubs.

Club Sports

- trap shooting club had 30 members that met from May until November at an off site shooting area. The financial allocation was \$200.00.

Special Events

- the Christmas party was conducted for the employees' children 12 years and younger. Each child received a gift; refreshments and entertainment were provided. The attendance was 800 youngsters at a cost of \$8,000.00.
- the Association conducted an outing to Great America. One hundred and fifty tickets were available on a "first come" basis. This activity had a financial allocation of \$1,800.00.
- each year the Recreation Association conducted a special trip to the zoo for the children of the employees. There were 100 participants with a financial allocation of \$600.00.
- the Association conducted bingo games once a month for its members. The average participation was 200 members per month with an allocation of \$6,000.00.
- the Association conducted a trip to the ice show in Chicago; 100 tickets were available on a "first come" basis with an allocation of \$2,000.00.
- card parties were sponsored by the Association. Approximately 100 members attended. This program had a financial allocation of \$600.00.
- travel to Spain for members and their spouses was offered in 1981. A group of 25 people participated in this self-supporting program.
- the Association conducted two separate sporting events (trips) each year: one for football and one for baseball. One hundred tickets were made available on a "first come" basis for each event. This program had a financial allocation of \$2,000.00.

- the Association sponsored a semi-formal dance for employees and their spouses. This event was attended by 200 people and had a financial allocation of \$1,200.00.

Memberships

Membership in the Recreation Association was open to all employees and required a payment of \$1.00 monthly dues. These dues were paid through payroll deduction. The membership in Mill "C" was voluntary. Mill "C" had a membership of 8,000 non-management employees, or 40% of the total work force. The management group of Mill "C" had 500 members, or 18% of the management personnel. They also paid \$1.00 monthly dues.

Governance

Mill "C" had a constitution and by-laws for its Employee Recreation Association. The employee recreation membership was open to all employees who paid monthly dues. The board of directors for the Association consisted of departmental representatives. These representatives were elected by their peers. The board of directors had the responsibility of conducting the business of the Association, and approving all requests for funds, programs, and activities.

The duties of the board of directors included policy making, preparation of budgets, allocation of funds, and planning programs. All membership dues were regulated by the board of directors on an annual basis. The board used Roberts Rules of Order at all meetings of the Association or board of directors. Members of the board met weekly and were given release time from their respective departments.

Publicity

The Association publicized recreation programs through various media methods. They were:

- bulletin boards
- flyers
- newsletters

Company Contribution

The company supplied both direct and indirect support to the Recreation Association. The estimated contribution was \$76,204 per year or \$3.46 per employee.

Absenteeism

Mill "C" employs 22,000 workers. Employees work for an average hourly wage of \$23.00 per hour, which includes benefits. Mill "C" reported a yearly total of 20,155 employees absent for 1981. This computed to 0.9% days per year per employee absence. The average number of absences per day was 86.1 employees. Total costs for Mill "C" during the year of 1981 was \$1,854,260.00 or \$7,921.20 per day for absences. Each absence cost the industry \$23.00 base rate plus \$11.50 per hour for time and a half. This added \$92.00 per day for an eight hour shift. If an employee did not report for work during a scheduled shift, another employee was substituted in that shift slot.

Accidents

Accidents were recorded when an employee visited the medical

offices of the mill or an accident report was submitted by the employee's department. Mill "C" had 1,750 accidents reported for the year of 1981 or 0.09% accidents per employee per year. The average number of accidents per day was 7.5 for Mill "C".

Case Study Mill "D"

Recreation Programs

Mill "D" did not sponsor any employee recreation programs or special events in 1981. Furthermore, it did not have an Employee Recreation Association.

Absenteeism

Mill "D" employed 8,700 workers. Employees work for an average hourly wage of \$23.00 per hour, which included benefits. Mill "D" reported a yearly total of 20,440 employees absent per year for 1981. This computed to 2.37% days per year per employee absence. The average number of absences per day was 87.4 employees. Total costs for Mill "D" during the year of 1981 was \$1,880,480.00 or \$8,036.24 per day for absences. Each absence cost the industry \$23.00 base rate plus \$11.50 per hour for time and a half. This added \$92.00 per day for an eight hour shift. If an employee did not report for work during a scheduled shift, another employee was substituted in that shift slot.

Accidents

Accidents were recorded when an employee visited the medical

offices of the mill or an accident report was submitted and filed by the employee's department. Mill "D" had 2,081 accidents reported for the year of 1981, or 0.24% accidents per employee per year. The average number of accidents per day was 8.9 for Mill "D".

Table I summarizes the information gathered from personal interviews conducted with company representatives, and identifies the four steel mills used in this survey. An inspection of the table will reveal the various differences found.

Discussion

The information collected indicated that the steel mills with recreation programs had many strengths; however, some weaknesses were also identified. The strengths were reported in the findings as: employee participation, programs, and company support. The weaknesses reported were: the program offerings, which suggest the need for program reevaluation of activities, budget, and personnel.

Since Mill "A" had the largest number of employees in 1981, (25,900) and also had the largest number of employee participants in its recreation program (17,717), it is reasonable to assume that the programs were popular. Additionally, the board of directors were evidently representing the employees from their respective departments with the types of programs that were provided.

Mill "A" contributed the most in financial support for their company's recreation program. The contribution by the company of \$142,262.00 per year or \$5.49 per employee was a demonstration of its willingness to assist in the support of employee recreation programs. When interviewed, the company representative said that management

TABLE I
SUMMARY OF INFORMATION FROM THE FOUR
CASE STUDIES

	A	B	C	D
Number of employees	25,900	10,000	22,000	8,700
Total participation	17,717	7,447	5,113	0
Percentage of total employee participation	.68%	.74%	.23%	0
Total financial contribution to the recreation program	142,262	91,204	76,204	0
Company financial contribution per employee	5.49	9.12	3.46	0
Days absent per year	23,000	14,198	20,155	20,440
Percentage of days absent per employee	0.88%	1.4%	0.9%	2.37%
Percentage of accidents per employee per year	0.10%	0.20%	0.7%	0.23%
Accidents per day	11.1	8.7	7.5	8.9
Accidents per year	2,514	2,054	1,750	2,081
Cost per day for absences	9,043	5,882	7,921	8,036
Cost per year for absences	2,116,000	1,306,216	1,854,260	1,880,480

highly endorsed this program as a morale builder which gave the employees pride in themselves and the company. It was further mentioned that the program served as a catalyst in fostering positive relationships between management and non-management.

Absenteeism was .88% per day per employee, which cost the company \$2,116,000.00 in 1981. The accident rates were .10% per employee.

Based on the information derived, Mill "B" had the highest percentage of employee participation in the recreation program (74%). This figure can be interpreted as an indication that the activities were well attended, and that the membership seems to be satisfied with the programming. The membership in Mill "B" supported the majority of the financial obligations of the recreation program through its dues of \$1.00 per month. It should also be noted that management does support the program with \$91,204.00 per year, or \$9.12 per employee. This amount demonstrates the company's commitment as a partner in this venture. According to a representative from this mill, the recreation program has become a vehicle in developing better employee-employer relationships.

Absenteeism was 1.4% per day per employee, which cost the company \$1,306,216.00 in 1981. The accident rates were .20% per employee.

The information gathered from Mill "C" suggested potential weaknesses in programming. Even though management allocated \$76,204.00 toward the financial support of the recreation program, which computes to \$3.46 per employee per year, only 23% of the employees were involved in the activities being provided. This seems to suggest that the recreation program was not meeting the needs and interest of the employees. Mill "C" does have a board of directors that represents

each department. It would appear that this board should do a total reevaluation of the activities being provided.

However, it should be noted that the percentage of days absent per employee was only .9%, but cost the company \$1,854,260.00 in 1981. The accident rate per employee per year was .07%. Of the four mills studied, Mill "C" had the lowest accident rate.

Mill "D" did not have a recreation program; however, the company did share information about the industry's absenteeism and accident rates. Absenteeism was 2.37% per day per employee, which cost the company \$1,880,480.00 in 1981. The accident rate was .23% per employee. Absenteeism and accident rates were higher in Mill "D", which had no recreation program, than in Mills "A", "B", and "C", which provided recreation programs.

CHAPTER V

SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

Summary

The purpose of this descriptive study was to survey the steel mills of northwestern Indiana and record significant aspects of the recreation programs available. A secondary purpose of the study was to collect data relevant to absenteeism and accident rates of the employees. The investigator, utilizing a validated survey instrument, had personal interviews with the representatives from each mill. The information was presented in a case study format.

As previously noted in the review of literature, fitness and recreation programs have assisted industry in the reduction of absenteeism and accident rates, saving steel mills great expense and increasing productivity. While few, if any, of the mills are directly opposed to industrial recreation or fitness, industry has difficulty in designing and implementing programs during work hours. Many companies have discovered that employee fitness programs have reduced absenteeism, accident rates, health care and disability costs, and have increased the productivity, energy, enthusiasm and morale of their workers as well. Since the advent of mass production techniques and the sales promotions of warranties and guarantees, the American public has become conditioned to an economic legend of a "satisfaction

or your money back" type of slogan. Performance and accountability within the industrial structure creates an awareness that the employees' health and fitness are important elements in production ("Commercial Recreation and Physical Fitness Centers Meeting a Need," 1981; English, 1982; Hitchings, 1978; McCann, 1981; "Nation's First Employee Fitness Day," 1982; Wilson et al., 1979).

Conclusions

The results of this study indicated to the researcher that there were differences in the recreation programs. These differences were found in the types of programs conducted, cost per individual membership, company contribution, and the type of governance.

Mill "A" had the largest number of employees (25,900); the largest amount of employee participation (17,717); the highest financial contribution by management (\$142,161.00); and the lowest absenteeism rate per employee (.88%), which cost the company \$9,042.73 per day.

Although Mill "B" had only 10,000 employees, .74% participated in the recreation program. Management contributed \$91,204.00 in 1981, or \$9.12 per employee per year, which was more financial support per employee than provided by Mills "A" and "C". Mill "B" had the second highest absenteeism rate per employee (1.4%), which cost the company \$5,882.12 per day. Mill "B" also had the second highest accident rate per employee (.20%).

Mill "C" had the second largest number of employees (22,000); only .23% participated in the recreation program. Management contributed \$76,204.00 in 1981, or \$3.46 per employee per year, which was the lowest financial support of the three steel mills with recreation

programs. The absentee rate in Mill "C" was .9%, which cost the company \$7,921.10 per day in 1981. The accident rate per employee was the lowest of the four mills (.07%).

Mill "D" had 8,700 employees and provided no recreation program. Absenteeism per employee was 2.37% in 1981, which cost the company \$8,036.48 per day. The accident rate per employee was .23% per year. Both absenteeism and the accident rate were the highest of the four steel mills.

Finally, the study indicated that absenteeism was costly to the steel industry.

Recommendations for Future Research

Further study of recreation programs in the steel mills should be pursued to determine if recreational activities produce a positive effect on production. This study could be conducted over an extended period of time using one mill.

Research could be conducted to determine if the provision of recreation programs for employees by business and industry reduces absenteeism and accidents.

Also, research could be conducted on the effect that employee physical fitness has on health insurance claims. This study could be extended over a period of several years using one company.

Replication of this study could be conducted to determine the significant changes which have occurred since 1981 in the recreation programs in the steel mills of northwestern Indiana.

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APPENDIXES

APPENDIX A

INSTRUMENT

Interview Survey of Industrial Recreational
Programs in the steel mills of Northwest Indiana

I. General Information:

1. Identification of Firm A _____ B _____ C _____ D _____
2. Geographic Location _____
3. Title of the individual _____

II. Employee Information:

1. Number of individuals employed by firm in 1981 (Give total numbers)
- A. Management employees: _____
- B. Non-Management employees: _____
2. What is the average hourly rate per employee including fringe Benefits? _____
3. How many paid holidays does each employee receive per year?

4. How many weeks paid vacation does the average employee receive per year? _____
5. Do all non-management employees work shifts Yes ___ No _____
6. If Yes check the shifts worked:
7-3 _____ 8-4 _____
3-11 _____ 4-12 _____
11-7 _____ 12-8 _____

7. What is the frequency of rotation of each shift in work weeks

1 week _____

2 weeks _____

3 weeks _____

4 weeks (month) _____

Other _____

III. Non-Management

1. Did your firm offer a recreation program for its employees in 1981
(Check either yes or no)

A. For Management employees: Yes _____ No _____

B. For Non-Management employees: Yes _____ No _____

2. How many employees participated in the recreation program (Give
total numbers)

A. Management employees: _____

B. Non-Management employees: _____

3. Which of the following types of recreation programs does your firm
offer for its employees (Check appropriate responses)

A. Same recreational programs for all employees: _____

B. Recreation programs for management employees only: _____

C. Recreation programs for non-management employees only: _____

4. Does your company provide special recreation programs for men
that work shift work Yes _____ No _____

5. If Yes please explain the program

6. Does your company provide incentives for employees with better
physical fitness Yes _____ No _____

7. If Yes please explain

8. What type activities does your company offer its non-management personnel:

A. Do you sponsor club type programs: Yes _____ No _____

B. If yes, what type of clubs No. of participants Cost per club During wk. hrs. Non-wk. hrs. Approx. time AM-PM

C. Do you sponsor any athletic teams: Yes _____ No _____

D. If yes, what kind of teams No. of Participants No. of teams Cost per team

E. Do you have any non-athletic teams

Kind of teams No of participants No of teams Cost per team

F. Do you sponsor any Special Events: Yes _____ No _____

G. If yes, what were the kinds
of special events No. of participants Cost

H. Do you sponsor Social Events: Yes _____ No _____

I. If yes, what were the kinds
of social events: No. of participants Cost

J. Do you sponsor any other types of programs Yes _____ No _____

K. What are the other types
of programs. No. of participants Cost

IV. Program Costs (Finances)

1. Do your employees pay a membership fee for the recreation programs? yes _____ no _____
2. If yes, how much? _____
3. Do they pay by payroll deduction yes _____ no _____
 - _____ monthly amount _____
 - _____ yearly amount _____
 - _____ other amount _____
4. If not by payroll deduction how? _____
5. How much money did your company allocate annually for employees recreation programs in 1981? _____
6. Does the amount above include indirect costs? yes _____ no _____
7. What is the estimated total indirect cost for your recreation program? _____
8. What items are included in what your company absorbs as indirect costs?
 - _____ Secretary Full time _____ Part time _____
 - _____ phone
 - _____ printing
 - _____ computer time
 - _____ payroll deductions
 - _____ office supplies
 - _____ office space
 - _____ typewriter
 - _____ equipment
 - _____ others

V. Organization and Administration

1. How is your employee recreation program organized?

_____ By the company
 _____ By the union
 _____ By the employees
 _____ Other

2. Does your company employ a director of recreation?

_____ full time
 _____ half time
 _____ part time
 _____ other
 _____ none

3. If your company employs a recreation director, indicate number of persons.

sex: _____ male _____ female

4. If your company does not employ a recreation director, who is assigned the responsibility for the program?

_____ Personnel Director
 _____ Industrial Relations Director
 _____ Health Services Director
 _____ Other

VI. Publicity

1. What methods are used to publicize employee recreation programs?

_____ Bulletin Boards
 _____ Employee Newspaper
 _____ Flyers
 _____ Mailings(special)
 _____ Others

VII. GOVERNANCE

1. Does your company have an employee recreation board of directors:

yes _____ no _____

2. Board of director members are representatives of non-management and management employees from:

_____ Departments

_____ Clubs

_____ Special interest groups

_____ Teams

_____ Others

_____ Union

3. If your company recreation program has a board of directors, check the duties and responsibilities of the board below:

_____ Developing policy

_____ Prepare budgets

_____ Plan programs

_____ Allocate funds

_____ Other

VIII. ABSENTEES AND ACCIDENTS

1. What were the total numbers of days absent in 1981, that employees called off from scheduled working days:

2. What were the total number of accidents reported to the company during the year of 1981:

APPENDIX B
CORRESPONDENCE

To whom it may concern,

As per our telephone conversation, I am confirming our appointment date on the 10th day of June, 1982 at 10:00 A.M.

Would you please have the needed data on absenteeism, accident rates, and your recreation program available.

Our meeting will not take more than an hour to discuss the needed information. If you have any questions please feel free to contact me after 4:00 P.M. at my home, the phone number is 980-0726.

Sincerely,

George T. Stroia

APPENDIX C

EMPLOYEE RAW DATA

TABLE II
EMPLOYEE RAW DATA

Company	Absenteeism	Accidents	No. of Employees Non-Management	No. of Manage- ment Employees
A	23,000	2,614	23,000	2,900
B	14,198	2,054	8,600	1,400
D	20,155	1,750	20,000	2,000
D	20,440	2,081	7,200	1,500

APPENDIX D

EMPLOYEE RECREATIONAL ACTIVITIES

TABLE III
 EMPLOYEE RECREATION PROGRAMS: TEAM
 SPORTS ACTIVITIES

Company	No. of Teams	Activities	No. of Participants	Cost for Team Events
A	81	15	3,212	\$23,100
B	82	6	652	\$7,100
C	55	4	382	\$8,300
D	0	0	0	0

TABLE IV
EMPLOYEE RECREATION PROGRAMS: INDIVIDUAL
SPORTS ACTIVITIES

Company	Activities	No. of Participants	Cost of Activity
A	6	195	\$3,500
B	1	150	\$2,000
C	1	150	\$2,000
D	0	0	0

TABLE V
EMPLOYEE RECREATION PROGRAMS: SPECIAL
EVENTS ACTIVITIES

Company	Special Events Activities	No. of Participants	Cost of Special Events
A	11	10,100	\$85,700
B	9	6,400	\$34,900
C	6	1,450	\$18,000
D	0	0	0

APPENDIX E
VALIDATION COMMITTEE

Validation Committee

Dr. Anthony A. Annarino
Author, Professor of Health, Physical Education,
and Recreation
Purdue University

Dr. Patric L. Cavanaugh
Chairperson, Health, Physical Education, and
Recreation
Eastern Michigan University

Dr. William Douglas
Dean, Health, Physical Education, and
Recreation
West Virginia University

VITA²

George T. Stroia

Candidate for the Degree of

Doctor of Education

Thesis: INDUSTRIAL RECREATION PROGRAMS IN THE STEEL MILLS OF
NORTHWEST INDIANA: CASE STUDY REPORTS

Major Field: Higher Education

Minor Field: Health, Physical Education, and Recreation

Biographical:

Personal Data: Born in East Chicago, Indiana, July 26, 1931.
Married to Rose Katlaroff; father of three children: Mary,
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Education: Graduated from Froebel High School, Gary, Indiana, in
1950; received Bachelor of Science in Education degree from
Indiana University in 1958; received Master of Science in
Education degree from Indiana University in 1960; completed
requirements for the Doctor of Education degree from Okla-
homa State University in December, 1983.

Professional Experience: Elementary school, junior high school,
high school, and college teacher; Director of Health, Physi-
cal Education, Recreation, and Athletics for the Gary Public
Schools, Gary, Indiana, from 1962-71; Coordinator of Under-
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tion at the Chicago State University, Chicago, Illinois at
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