

An investigation of the characteristics  
and motives of RAGBRAI participants

by

Racquel Alyce Miller

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## INTRODUCTION

During the past decade, involvement in physical activity and sport has greatly increased. Forty-six percent of all Americans exercise regularly. One hundred million swim weekly, seventy million bicycle, and thirty million run regularly, while increased thousands are engaged in a variety of sports and aerobic dancing (Eitzen & Sage, 1982). In a recent report, America was characterized as a nation of sports participants (Miller Brewing Company, 1983). This report showed that 42% of the respondents indicated a high interest in sports participation and engaged in at least one athletic activity almost every day. Seventy-one percent stated that they engaged in sport or physical activity at least once a week (Miller Brewing Company, 1983).

U.S. News and World Report (1980) reported a 66.7 million increase in adult participation in sports during the six year period from 1973 to 1979. The size of the increases by sport are shown in Table I.

Not only have the numbers of participants increased, but the type of people involved has changed. Participation is no longer the preserve of high school and college age males, but also of girls, women, and adults of all ages. According to the Women's Sports Foundation (1983), in 1977 only 10% of interscholastic high school athletes were girls. By 1981 that figure had increased to 35% (1.85 million). There were no women's national championship competitions at the intercollegiate level in 1971, but by 1981 there were 77 (Terp, 1981). Coakley (1982) suggests that from 1970 to 1979 there was a dramatic (700%) increase in participation among

Table I

Changes in Numbers of Participants in Selected Physical Activities From 1973 to 1979 (in millions)

Activity	1973	1979	Change
Swimming	107.2	105.4	-1.8
Bicycling	65.6	69.8	+4.2
Camping	54.4	60.3	+5.9
Fishing	61.2	59.3	-1.9
Bowling	38.2	43.3	+5.1
Boating	32.6	37.9	+5.3
Jogging	not listed	35.7	+35.7
Tennis	20.2	32.3	+12.1
Softball	26.4	28.5	+2.1

girls and women in organized sport programs. A similar pattern has been observed in recreational sports and activities. The 1982 Sports Census Report (Women's Sports Foundation, 1983), which lists the ten most popular activities participated in by men and women, showed somewhat similar participation patterns for both sexes. Although more men continue to participate and in a greater variety of sports, women's participation is increasing.

Teenagers (14 - 18 year olds) most frequently participate in sports (66%). Adult Americans, although fewer in numbers, also are quite involved. According to the President's Council on Physical Fitness and Sport, 55% of American adults (18 years and over) participate regularly in exercise and sport (President's Council on Physical Fitness and Sports

Newsletter, 1979). Although the level of involvement decreases with age, there are active participants in every age group. Older Americans also are increasingly more involved in active lifestyles. Recent data on senior citizens show that 21% of those 65 and older claim a high interest in sport participation (Miller Brewing Company, 1983). In recent years, slow-break basketball leagues, master's sports events and Senior Olympics have been established (Spreitzer & Snyder, 1983). Many nursing homes and senior citizens centers offer exercise classes, walking programs, and swimming.

In addition to the variety of sports in which people participate, the type of sport participation seems to be changing. In 1970, the first New York City Marathon drew 176 runners; in 1979, 11,533 men and women started the race (Summers, Machin, & Sargent, 1983). Not only are competitive sports such as racewalking, marathon running, and triathalons growing, but relatively obscure and/or non-competitive sports such as frisbee golf, hot-air ballooning, wind-surfing, orienteering, skydiving, and New Games have increased in popularity. Recreational activities such as bicycling, canoeing, camping, hang-gliding, and mountain-climbing also have attracted more participants.

It is interesting to note that people of all ages, both sexes and varying abilities are participating to a greater degree in physical activity and sports. A basic and intriguing question is why has this occurred? Why are people so interested in sport participation? What attracts people to physical activity? What motivates their involvement?

The increased participation in physical activity and sport seems

related to a number of factors. One factor is an increase in leisure time. As American society has become more automated, the amount of time available to devote to leisure pursuits has increased. Americans have taken advantage of this leisure time and devoted portions of it to sport (Kelly, 1983). Another factor is people's increased awareness and commitment to physical fitness. Daniel Yankelovich reports that "Americans are focusing on physical well-being and healthy lifestyles" (Harris, 1984, p. 55). This concern with personal health is illustrated by people seeking fitness as a goal of recreational activities, the initiation by corporations of employee health and fitness programs, and the increased visibility of fitness in the mass media (Eitzen & Sage, 1982). There also seems to be an increased public awareness of wellness and healthy living. Recent data on American participation (Miller Brewing Company, 1983) show that more than half of the Americans sampled say that enjoyment (57%) and improving their health (50%) are among the most important reasons they participate in athletic activities.

In addition to physical fitness, mental well-being has often been cited as a reason for involvement in physical activity (Spreitzer & Snyder, 1983). Physical activity and sport have been credited with relieving tension and improving mental alertness (Miller Brewing Company, 1983; Morgan, 1976)

Social reasons have also been cited as motives for participation in sport. Enjoyment of the companionship of others as co-participants or spectators at a sporting event has been noted as a salient reason for participation by adults (Bouet, 1966; Kelly, 1983). Be it increased leisure,

the pursuit of physical or mental well-being, or social interaction, it appears that people's reasons for involvement in physical activity and sport are multi-dimensional.

Historically, people's involvement in sport has been examined from various perspectives. Some studies have documented participation patterns (Eitzen & Sage, 1982; Kelly, 1983; Kenyon, 1968a) and analyzed them in terms of the dimensions of gender, race, socio-economic status and culture. Such studies have found differences between groups in participation levels and types of sports participation (Eitzen & Sage, 1982; Snyder & Spreitzer, 1983).

Another perspective has been to analyze the relationship between physical activity and physical and mental well-being. Several studies have documented positive correlations between these measures (Boyer & Kasch, 1970; Morgan, 1974; Morgan, Roberts, Brand, & Feinerman, 1970; Snyder & Kivlin, 1975; Snyder & Spreitzer 1974a). Dodder, Fromme, & Holland (1982, p. 143) observed that "sport is perceived as being functional psychologically as a catharsis for the individual."

Social aspects of participation in physical activity and sport also have been examined. Researchers have examined the social and psychological factors associated with participation in sport and physical activity. The study of socialization through sport, has focused on the consequences of involvement in physical activity and the social and psychological effects of participation. Researchers have examined the relationship between involvement in sport and personality characteristics (Kroll, 1970; Morgan, 1974), emotional development (Folkins & Sime, 1981,

Layman, 1972), and social adjustment (Buhrmann, 1977; Schaefer, 1969)

The predominance of research on sport participation has focused on the characteristics of participants (age, sex, social-economic status, etc.), and the derived outcomes of physical activity participation (improved physical parameters, mental well-being, socialization experiences) (Dodder et al., 1982). There has been relatively little research, however, on why people are attracted to sport and physical activity. Little is known about motivation for involvement.

One of the earliest attempts to systematically examine people's attitude's towards participation in physical activity was the work of Kenyon (1968a). He attempted to identify why people participate in physical activity and conceptualized six major dimensions associated with participation. He theorized that people participate in physical activity for social experience, health and fitness, pursuit of vertigo, aesthetic experience, catharsis, and ascetic experience. He found that the motives people gave for participation varied by sex, age, and culture. Research by Apgar (1977), Kidd and Woodman (1975), and Webb (1969) extended Kenyon's work and suggested additional dimensions associated with attraction to physical activity (pursuit of victory, involvement in competition, and demonstration of ability).

Recently, investigators have begun to study adult participants' motives for sport involvement in unique sports such as marathon running, sky-diving, hang-gliding, mountain climbing, etc. (Altheide & Pfuhl, 1980, Carmack & Martens, 1979; Feidler & Beach, 1982; Freishlag, 1981; Renfrow & Bolton, 1979). Researchers have asked whether participants in

unique sports have motives for participation and goals that are specific to that event or activity and perhaps different from the motives of participants in the more traditional sports.

A unique population of participants that has greatly increased, but been studied to a limited degree, is competitive and recreational cyclists. There are currently an estimated seventy-five million cyclists in the United States, half of whom are adults. Ten million report that they ride regularly (once per week). Currently, forty thousand adults are involved in organized bicycle racing (Bicycle Federation, 1984). Despite the increased number of participants and the popularity of cycling, little work has been done on motives for participation in this sport.

A unique cycling event that attracts many cyclists of varying skill levels is RAGBRAI. The "Register's Annual Great Bicycle Ride Across Iowa" is sponsored by the state's major newspaper, the Des Moines Register and is the largest bicycling event of over one day in the United States. The week long trip which takes a different route every year, covers approximately 500 miles, from the western border of the state to the eastern border. The first ride was held in 1973 and attracted approximately 300 people. In 1974, that number had grown to 2,700 riders, and in 1983 there were over 7,000 officially registered riders. According to Don Benson of the Des Moines Register (in a personal interview Oct. 1983), many potential participants were not granted passes to ride because the logistics of such a venture required limiting the number of riders.

Participation in RAGBRAI is a physically demanding undertaking. The

daily mileage varies from approximately 45 to 100 miles. There is always a one hundred mile day, the century ride. Held the last week in July, riders must cope with hot and humid weather. The terrain, contrary to people's stereotype of Iowa, is not flat, but often hilly.

RAGBRAI also is a social phenomenon, and has been referred to as a "folk fest," a "city on wheels" (Dannen, 1984; Hamblin, 1982). It is for many, a way of meeting people, experiencing small-town Iowa, and enjoying the beauty and serenity of the Iowa countryside.

RAGBRAI is not identified as a race in the sense that times are not recorded and there is no recognition for speed. It is a bicycle ride, beginning each day whenever the individual participants start out, and ending whenever the last riders arrive in the next overnight town. There are no prizes, or recognition, other than the RAGBRAI patches and T-shirts people may purchase enroute, signifying their participation.

The most striking, observable feature of the ride is the large number of participants and the diversity of riders and bicycles. Senior citizens, middle-age people, young adults, teenagers, children of all ages, even babies toted behind parents in a "buddy" are participants. Cyclists ride balloon-tired one speed bicycles, tandems, a variety of multi-speed bicycles and sleek racers. Some even ride quite unconventional cycles of their own design and invention.

While research has been conducted on some unique sporting events such as marathon running and sky-diving, no one has examined the motives underlying people's involvement in RAGBRAI. What kind of people participate? Why do they participate? What do they hope to gain from

their experience?

### Statement of the Problem

Involvement in physical activity is generally accepted as an important part of a healthy lifestyle. The growth of involvement in physical activity and sport by adults, has been dramatic. Researchers have studied the patterns of people's sport participation and identified benefits of involvement in physical activity. People's motives for participation in physical activity, however, have received little attention. Researchers have identified some possible motives for participation (Apgar, 1977; Kenyon, 1968a; Kidd & Woodman, 1975; Sage, 1980), but such work, which preceded the current fitness boom, focused primarily on children and college students who participated in traditional sports.

The paucity of contemporary research concerning people's attraction to physical activity in general, and to unique sports events such as RAGBRAI suggests the need to explore individuals' attitudes and motivations regarding their sport involvement. There are three major questions this study will seek to answer. The first general question is who participates in RAGBRAI? What are the characteristics of this population? Is this group of people representative of the broad spectrum of the Iowa populace, or is this a very specific, unique group?

The second general question is why do people participate in this event? Are RAGBRAI participants' motives for participation similar to people's motives for participation in sports in general, or are there other

dimensions of attraction to physical activity that have not previously been identified which explain people's commitment to this event?

The third general question is what is the relationship between people's reasons for participation and the benefits they derive from the experience? Do people gain from the experience what they thought they would?

## REVIEW OF LITERATURE

### Introduction

Since the intent of this study was to examine the characteristics of RAGBRAI participants, their motives for participation, and their perceptions of the benefits derived from participation, the review of literature will be divided into several sections. Initially, information on the sociological and demographic characteristics of people who participate in sports and physical activity will be presented. Next, theories pertaining to peoples' attraction to and involvement in physical activity will be reviewed. Motive categories from the research will be defined. Research on peoples' attraction to physical activity will then be presented. Since RAGBRAI is a unique sporting event, the last section of the review will focus on the literature concerning unique sports participation.

### Characteristics of Participants

#### Introduction

Sport and physical activity have become an integral part of American life. The prevalence of sport in modern society can be seen in the amount of media coverage given sporting events, the financial expenditures for new commercial and recreational facilities, and the growth in the numbers of professional and amateur participants and spectators. Recent research suggests that a majority of Americans consider sports an essential component of their daily lives (Miller Brewing Company, 1983).

The numbers of participants in the various sports have been

documented by various sources (Miller Brewing Company, 1983, U.S. News and World Report, 1980, President's Council on Physical Fitness Newsletter, 1979). Two prominent approaches to examining participation in sport have been studying the characteristics and backgrounds of sport participants and the process of socialization into sport roles. Most of the research on participation patterns has examined the experiences of youths, particularly in organized competitive athletics (McPherson, 1984). In recent years, researchers have begun to examine a wider range of factors that influence participation such as sex, age, social status, education, and race. In addition, besides studying traditional and competitive sports, a wider variety of activities including leisure sports and activities have been examined (McPherson, 1984). Much of the impetus for this research has been provided by the expanding field of leisure research and a growing interest in gerontology (Harootyan, 1982; Kelly, 1983), as well as increased public recognition of the number of middle-aged and elderly participants in various physical activities (McPherson, 1984). The women's movement, Title IX, and the changing role of women in American society has focused research attention on female sport participation.

Theberge (1984) provides a review of the literature regarding characteristics and backgrounds of sport participants which includes a wide variety of factors associated with participation (birth order, birth place, body type, personality characteristics, attitudinal characteristics, educational and occupational aspiration and attainment). A recent review of available information on leisure time physical activity patterns of adults in the United States (Lupton, Ostrove, & Bozzo, 1984) provides

information indicating differences in participation related to age, sex, education, income, marital status, etc. The growing literature on social stratification and sport also documents variations in sport participation on the basis of age, sex, race, education, and social class (Eitzen & Sage, 1982; Hobart, 1975, Kenyon, 1966; Snyder & Spreitzer, 1983; Theberge, 1984)

### Age of participants

Kenyon (1966) has shown that age is inversely related to the frequency of participation in sport for both sexes. There appears to be a universal pattern of smaller proportions of people involved in sport and physical activity as age increases (McPherson, 1984; Snyder & Spreitzer, 1984; Spreitzer & Snyder, 1983). The most active sports participants (66%) are teenagers (age 14-17). Sixteen percent of those 18-24, 29% of those 25-34, 12% of those 35-49, 6% of those 50-64, and 2% of those 65 and over characterize themselves as active sports participants (Miller Brewing Company, 1983). In a review of studies on sport participation, Spreitzer & Snyder (1983) conclude that there is a general pattern of less sport participation in older age groups. Only a small minority of older adults report being involved in some form of physical activity (Curtis & White, 1984; Harootyan, 1982; McPherson, 1984), and there are differences in the kinds of activities in which they participate. Of those involved, few older adults regularly participate in individual sports, still fewer in team sports, or strenuous activity (Harootyan, 1982). A National Council on the Aging (NCOA, 1975) poll of 4,254 people age 18 and over, showed that one

fourth of those age 65 and over regularly participated in walking or recreational activities, while only 3% regularly participated in more physically demanding activities or sports. Harootyan (1982) suggests the need for more comprehensive research on the elderly whose participation patterns may be changing. In spite of the previous studies reported, a majority of the research in sport participation has focused on the experiences of youth, particularly high school and college athletes. Little work has been conducted on adult participation in the middle years or across the age span. Thus, age emerges as a possible salient factor in sports participation that needs further study.

#### Sex of participants

Past research has shown that women of all ages do not participate in sport as much as do men. Women are underrepresented at all levels and in all types of sports (Hobart, 1975). A recent report illustrates the differential, showing 37% of American females and 58% of males age 14 and over, indicating that they participate regularly in sports (Miller Brewing Company, 1983). According to the Women's Sports Foundation (1983), in 1981, 35% of high school interscholastic athletes were girls and 65% were boys. The Association for Intercollegiate Athletics for Women (AIAW, 1980) estimated in 1980, that 120,000 women took part in intercollegiate sports as compared to 180,000 men. This greater participation by males is also seen in adults. The 1980 Virginia Slims American Women's Opinion Poll (The Roper Organization, Inc., 1980) of adults 18 and older, showed that 20% of the women and 30% of the men

sampled claimed to be very active participants in some form of physical exercise. Unkel (1981) examined participation patterns of adults in physical recreation activities and found lower participation rates of females, particularly in team sports and outdoor activities.

In spite of the fact that men's participation exceeds women's, dramatic changes have been observed in women's participation in sport (Hobart, 1975). The number of women participating in sports has been growing rapidly. According to the Women's Sports Foundation (1983), in 1977 only 10% of high school intercollegiate athletes were girls. By 1981, that figure had grown to 35%. The 1981 National Federation of High School Association's Sports Participation Survey shows that in 1970-71, there were 294,000 girls participating in high school sports. By 1978-79, the number had increased to 2,083,040, a staggering 600% increase (Snyder & Spreitzer, 1983).

Comparable gains have been made in college athletics for women. The AIAW sponsored seven national championships in 1972-73; in 1980-81, thirty-nine national championships in seventeen sports were held (Snyder & Spreitzer, 1983). It might be presumed that with the increase in sports involvement of females at the high school and college level, that more women would be active participants after the school years. However, little research has been done on the involvement of women in sport after the college years.

### Education of participants

The level of educational attainment appears to be consistently related to the degree of participation of adults in sports and physical activity. In a recent study, 57% of the high school graduates and 63% of the college graduates considered themselves moderately active, while 13% of the high school graduates and 15% of the college graduates described themselves as "very active" (Miller Brewing Company, 1983). A 1974 national study done for the President's Council on Physical Fitness showed that the higher the educational level of the men surveyed, the higher their rate of participation in swimming, bicycling, calisthenics, jogging and weight training (Eitzen & Sage, 1982). Purdy (1980) notes in his study of adult softball players, that participation rates are generally less for persons with lower levels of education and income. McPherson (1984) observed in his review of adult participation, that the pattern of reduced numbers and percentages of participants as age increases, tends to be more pronounced among the less educated. Harootyan (1982) and Lupton et al. (1984) too, found a strong association between activity level and educational background.

The relationship between participation in sports and educational level appears stronger for women than for men (Table 2). The Virginia Slims Women's Opinion Poll (The Roper Organization, Inc., 1980) showed that women with college degrees tend more frequently to describe themselves as "active" (71%) than high school graduates (63%). Only 47% of women who did not graduate from high school, indicated involvement in physical activity

Interestingly, there also appears to be a relationship between education and the value placed on sport. Spreitzer and Snyder (1975) studied 510 urban residents via a questionnaire survey. They solicited opinions concerning the social function of sport in American society. Only 25% of the high school graduates, in contrast to 61% of the college graduates indicated that sport had high social value.

It appears, therefore, that sport may be less attractive to those with less education. The limited research available indicates that individuals with a higher level of education are more positively disposed toward active sport, and more involved as participants in sport and physical activity.

#### Social status of participants

A positive linear relationship between socio-economic status and involvement in active sports has been observed by several researchers (Anderson & Stone, 1979; Hobart, 1975; McPherson, 1984; Snyder & Spreitzer, 1974b). After reviewing the literature on the subject, Harold Hodges Jr. observed that "the higher an American's social class position, the likelier he is to be a sports 'doer' than a sports 'viewer'" (Eitzen & Sage, 1982, p. 266). Anderson and Stone (1979) examined the relationship between social strata and sport participation. In a 1975 study, they asked 397 metropolitan residents about the meaning of sport in their lives. Lower strata persons were most likely to name a spectator sport as a favorite, while upper strata persons more often named a participant sport. They concluded that the data clearly showed that active sports

participation is associated with a more privileged social background. Data from a national study conducted by the President's Council on Physical Fitness and Sports Newsletter (1979) showed that higher status individuals are more likely to engage in certain physical fitness activities than are lower strata persons (Table 2).

Table 2

Adult Male Participation in Exercise Activities by Socioeconomic Status  
(Eitzen & Sage, 1982, p. 267)

Variable	Walk %	Swim %	Cycle %	Calisthenics %	Jog %	Weight training %
<b>Education</b>						
Less than H.S.	36	7	9	6	3	2
High school	34	16	15	11	8	5
Some college	47	30	28	23	16	10
<b>Occupation</b>						
Manual	31	12	13	8	5	8
Craftsmen	27	18	15	13	6	8
Managerial	38	24	23	19	6	9
Professional	53	33	30	25	12	18
<b>Income</b>						
Under \$5,000	46	7	5	4	4	
\$7 - 9,999	30	16	14	11	7	5
\$15,000 & over	44	27	29	19	13	6

Another study by Rabel Burdge (1969) compared occupational prestige

levels with participation in 82 forms of leisure activity. Burdige found that persons in the highest prestige levels were the most involved in playing sports, while those in the lowest categories played little or no sports. This study also identified differences by type of sport involvement. Persons in the highest socio-economic categories participated predominantly in individual sports such as golf and tennis, whereas persons in the lower prestige categories were most likely to participate in team sports such as softball and basketball. Other researchers have examined the relationship between social strata and type of game or sports in which persons participate. Luschen (1969) found a distinct hierarchy in sport disciplines such as sailing, riding, tennis and golf attracting upper-middle and upper strata members, while such sports as boxing, cycling, and softball were mainly activities of lower strata members. Eitzen and Sage (1982) in their review of sports participation, concluded that the research has shown consistent preferences for types of sports according to socio-economic status. The upper strata participates more in individual sports, while the lower strata are more likely to participate in team sports, contact sports, and sports emphasizing physical strength and toughness. It appears that socio-economic status is consistently related to participation levels and the type of sports in which an individual participates.

#### Race of participants

Race is closely linked to socio-economic status in America, and participation patterns exhibit similar differences. Whites are more likely

to participate in more elite, individual sports and activities. Blacks participate more in team sports and sports that require strength and power. A greater number of blacks than whites participate in sports as a career and in sports such as boxing, football, basketball, track etc. In 1980, more than 70% of all professional basketball players were black, 45% of all professional football players, and 21% of major league baseball players (Eitzen & Sage, 1982). Although little or no specific research has been conducted on the relationship between race and adult sports participation, it might be expected, as observed in research on socio-economic status, that in general, whites would be more active participants than blacks (except for professional sports).

### Summary

This section of the review of literature has examined the available research on characteristics of adult participants. The studies reviewed, while limited in number, show that people differ in the amount and type of physical activity in which they participate. These differences seem due in part to participants' age, sex, education, and socio-economic status.

Age is inversely related to the frequency of participation. Universal patterns of smaller proportions of persons involved in sport and physical activity are found as age increases. The type of sports involvement also changes with increased age, where a marked decrease in team sports and strenuous activities are observed.

Men continue to participate in greater numbers and in a greater variety of activities than women, but the participation patterns seem to

be changing. The numbers of females participating in sport and physical activity has increased dramatically in recent years. Additionally, women appear to be expanding the range of activities in which they participate, and they seem to be participating longer over the life span.

Education appears to be positively correlated with sport participation. Individuals with higher levels of education are more active sports participants, and continue participation for a longer period over the life span than those who are less well educated.

The higher an American's social status (occupational status and/or income), the more likely the individual will be involved in sports or physical activity. Persons with higher socio-economic status also are more likely to participate in individual or elite sports, whereas lower class persons are more likely to participate in team sports or those activities demonstrating strength or power.

Race also is closely aligned with social economic status. Higher participation levels in leisure sports are found for whites than blacks. There is also a difference in kinds of sports participated in by blacks and whites, with whites participating more in individual or elite sports, and blacks participating more in team sports and those activities demonstrating strength or power.

The limited research that has been done on adult participation and characteristics of adult participants suggests that more work needs to be done in this area.

## Attraction to Physical Activity

### Theoretical perspectives

The second question this study addressed was "Why do people participate in RAGBRAI?" Little concrete information exists on why people participate in sport and physical activity. Various theoretical perspectives have been proposed by philosophers, physical educators, psychologists, sports writers, and athletes to explain people's motives for participation. These theories suggest that participation is probably influenced by the individual's needs and desires, personality, and socio-cultural backgrounds.

One of the difficulties in reviewing and understanding the various theories regarding sport participation is that each theorist reflects a different perspective. Some look at involvement from a cultural perspective, some from a behavioral or learning theory perspective, some from a sociological perspective. Play, motivation, and developmental theories are all approaches that have been used to attempt to define why people participate in sport and physical activity.

Snyder and Spreitzer (1983) suggest that lifelong adult participation in leisure sports is influenced by elements of commitment such as fun and pleasure, pride, social approval, health, extrinsic rewards, fellowship, and maintenance of a favorable self-concept. VanderZwagg (1972) enumerates twelve theories purporting to explain why people are attracted to sport. These include cultural demand, sociability, an outlet for aggression,

surplus energy, physical development, surrogate competence, pursuit of excellence, recreational stimulation, activity, concreteness, challenge, and competition. He concludes that no one theory satisfactorily explains why individuals are attracted to sport, and suggests that attraction is probably due to a complex of factors, including activity, concreteness, challenge, and competition.

Ibrahim (1976), approaching the question from a motivational theorist's perspective, identifies various factors associated with people's motivation for sport participation. These include psychoanalytical, psychological, sociological, and developmental needs approaches. The common theme of these theories is that they are all based on internal needs or drives, which are influenced by social interaction.

Related to the motivational theories is the perspective of incentive. Alderman and Wood (1976) identify seven major incentive systems for sport. These are: affiliation, aggression, excellence, independence, power, stress/excitement, and success.

Another perspective is that sport provides an opportunity for social participation, an opportunity to belong, and to form close social bonds (Eitzen & Sage, 1982). The sociological theories used to explain reasons for involvement in sport have two major thrusts. One approach is to study socialization into sport, or the process of learning sport roles and becoming committed to them. The second approach is the examination of socialization through sport, or the possible influences of outcomes or consequences of sport participation on peoples' reasons for participation (Sage, 1980).

The developmental needs approach to understanding people's motives for participation relies on the theories of Maslow and Piaget, and is based on needs of the developing person (Ibrahim, 1976; Iso-Ahola, 1980). Witt and Bishop (1970), in examining participation in leisure activities, distilled these needs into five need theories: surplus energy, relaxation, catharsis, compensation, and task generalization.

Fun or play is basic to any discussion of attraction to physical activity. There have been many proposed play theories arising out of the child development literature and leisure studies research. These theories attempt to explain the motives for play, and may assist in explaining participation in sport and physical activity. The classical play theories are based on the concepts of surplus energy, instinct, preparation, recapitulation, and relaxation (Ellis, 1981). The more recent play theories suggest generalization and compensation, catharsis, psychoanalytic, and developmental bases for play motivation. Ellis (1981) proposes that two modern theories of play are most applicable and deserving of scientific attention. The first is play as information seeking, which suggests that play is a form of arousal-seeking, stemming from a human need to interact with the environment in order to achieve an optimal level of stimulation and interest. The second theory is play as competence motivation. The human propensity for curiosity, challenge, and investigation, the need to produce effects in the environment, and to demonstrate competency, is the basis of this theory. According to Csikszentmihalyi (1975), the process of being instrumental and creatively dealing with the flow of information in the environment leads to

enjoyment and a sense of fun. Snyder and Spreitzer (1983) conclude that the theories of play as competence motivation and information seeking seem to apply well to adult involvement in sport and physical activity.

In reviewing these various theoretical perspectives, despite the varying, and at times seemingly contradictory perspectives, some common themes emerge that suggest the following basic categories of reasons for peoples' involvement in sport and physical activity: fun or play, extrinsic rewards, competition, health and fitness, psychological-emotional, stimulation, festival, mastery, social interaction, and identity. These categories are interrelated and share some common components, which supports the observation that no one theory can explain an individual's involvement in physical activity, but a complex of factors are probably involved.

#### Motivation for participation

In order to study the reasons why people participate in physical activity, it is helpful to define the concepts of motivation and motives. Motivation is a complex and abstract concept, which is commonly viewed as the study of the causes of human behavior. There appears to be no uniform theory of human motivation. Donnelly and Birrell (1978) define motivation as "a complex of forces which initiate, direct, and sustain behavior toward a goal" (p. 4). Motivation refers to the arousal of an internal state in relationship to a particular situation, and so considers external as well as internal factors. In discussing motivation in sport, Singer (1977) suggests that motivation is responsible for:

1. Selection of and preference for some activity.
2. Persistence at the activity (duration of training).
3. Intensity and vigor of performance (effort).
4. Adequacy of performance relative to standards" (p. 40).

He further suggests that a variety of personal variables such as aspiration level, need achievement, need for social approval, extrinsic and intrinsic motivation, identity (self-image), and future goals all influence motivation. Motive is considered as the internalized, stable dimension, or as Iso-Ahola (1980) defines, " an internal factor that arouses, directs, and integrates a person's behavior" (p. 230). Donnelly and Birrell (1978) support this notion and view motives as "significant instigators of goal-seeking or purposive behavior" (p. 4), that determine the type of activity in which an individual chooses to participate and the quality of performance. Thus, in order to study the reasons why people participate in sport or physical activity, it is necessary to identify and define categories of motives. The following section of this review will define and support the categories derived from the theoretical literature.

### Motive categories

People participate in sport and physical activity for fun or enjoyment, because "I like it" (Kelly, 1976). This fun or play motive reflects intrinsic enjoyment, the pleasure received from participation in the activity itself or because it feels good (Snyder & Spreitzer, 1984)

In contrast, for some the intrinsic values are not as satisfying, and extrinsic rewards are more important. Recognition, letters, trophies,

money, etc., are powerful motivators for some peoples' involvement. For many, involvement is based on the fact that they excel and enjoy the extrinsic satisfaction of their competence (Snyder & Spreitzer, 1984).

Extrinsic rewards are most often a result of competition or contest. To compete is to contend in rivalry, to "strive ... for an objective (as position, profit, or a prize)" (Webster's Ninth New Collegiate Dictionary, 1985, p. 268). Sport offers both competition and challenge, which are related, but not necessarily the same concepts. Competition usually offers challenge, and challenges frequently result in competition. VanderZwagg (1972) suggests that competition is a variety of aggression, and that sport offers a socially acceptable medium to display or work off aggression. The competitive element in sport is highly visible, and "there is a tremendous emphasis in American sport on competitive success" (Eitzen & Sage, 1982). Not all individuals have the same desire to compete, and in fact, Spreitzer and Snyder (1975) suggest that when the emphasis is on high-level competition and winning, there may be lower rates of participation. For some persons though, competition and winning may be a primary motivation.

Health and fitness is an important motivation for involvement in sport. Weight control, physical appearance, staying healthy, and promoting fitness is a primary consideration in peoples' decisions about involvement in physical activity and sport today. Health and fitness is consistently cited as a basis for participation (Harris & Gurin, 1985; Miller Brewing Company, 1983; Lupton et al., 1984; Snyder & Spreitzer, 1983; VanderZwagg, 1972)

A related concept is that of psychological-emotional health. People participate in physical activity to mediate stress and anxiety, to reduce tension, and to relax. Catharsis theory refers to participation initiated by a need to release emotional tension and anxiety (Iso-Ahola, 1980), as an escape from the cares of life. Catharsis is often seen as an aggression release mechanism, and VanderZwagg's aggression theory suggests that sport offers a socially acceptable medium to display or work off aggression. The surplus energy theory views sport as an opportunity to "let off steam" and provide a physical-emotional release of tension. These theories although reflecting somewhat different perspectives seem reasonably subsumed under the heading of psychological-emotional health.

The desire to participate in sport for stimulation finds meaning in work on arousal seeking, the search for excitement and stimulus. VanderZwagg's (1972) stimulation theory suggests that sport arouses the senses, provides vivid experiences and challenges, and thus is satisfying. Ellis (1981) and Elias and Dunning (1970) propose that modern man does not need a release of tension, but rather a restoration of tension and excitement in an unexciting society. The pursuit of vertigo, the "temporary and therefore pleasant disturbance of perception and equilibrium" (Caillois, 1961, p.169), can be viewed as arousal seeking and therefore considered part of the motive of stimulation.

Sport at times has been likened to festival. It has been proposed that some people participate in sport to have new, unique, ritualistic experiences. Snyder and Spreitzer (1983) cite the "sense of exhilaration, pagentry, drama, festivity, ritual, and ceremony" (p.286) as a primary

motivation for involvement of some people. Cox defines festivity as the "capacity for genuine revelry and joyous celebration" (cited in Snyder & Spreitzer, 1983, p. 286) and asserts that festivity and fantasy are essential ingredients of human experience. It appears that this need may be met through involvement in sport.

The opportunity to develop and exhibit competence, to demonstrate ability, to test oneself, is a motive category defined as mastery. Spreitzer and Snyder (1983) observe that "people seek out challenging situations such as sport, which involve objective performance, as a means of affirming one's competence and self-determination" (p. 30). Pursuit of excellence (VanderZwagg, 1972), mastering a skill, overcoming challenges (Iso-Ahola, 1980), and competition all place a high value on demonstration of competence, and are powerful motivators for some people.

Social relationships provide another category of motives for participation. Sport offers an opportunity to belong, to form close social bonds (Eitzen & Sage, 1982; Ibrahim, 1976). Involvement in physical activity and sport can be a way to spend time with family and friends, or a way to meet new people (Kenyon, 1968a). The social theory of VanderZwagg (1972) indicates that individuals seek sport involvement due to a natural desire to be with others, and to be part of a group. The opportunity to belong and to seek affectional relationships with other people may be an important motivation for many. Snyder and Spreitzer (1979a; 1984) suggest that one of the principal reasons for commitment to physical activity among adults is the feeling of sociability and companionship.

In today's world of automation and industrialization, which has generated a sense of impersonality, people seek new ways to define themselves and to establish their identity. Glasser (1976) observes that people seek out roles that provide them an identity and a sense of self-worth. Increasingly, people are beginning to define themselves through their sport identities or their leisure selves. Snyder and Spreitzer (1974a, 1983) suggest that for some people participation in sport may be the primary means by which they sustain their identities. Concurrently, participation in sport is also a function of one's identity. The perception that individuals hold regarding their athletic ability may have an influence on their identity as an athlete. Snyder and Spreitzer (1983) conclude that the extent of involvement in physical fitness activities is related to the degree of identity invested in such activities, and that active physical participation is a powerful source of identity.

In summary, there has been much speculation from a variety of theoretical perspectives about why people participate in sport and physical activity, but limited concrete information. From the variety of perspectives that physical activity and sport have been examined, several major motives for participation have been identified. Fun or play, extrinsic rewards, competition, health and fitness, psychological-emotional, stimulation, festival, mastery, social, and identity motives all appear to be salient reasons for adult participation. The available research on those motives that have been studied from a research perspective will be presented in the following section.

### Traditional research perspectives

One approach that has been taken in studying involvement in physical activity has been to examine attitudes towards physical activity or to assess attraction to physical activity. Early research focused on attitudes towards physical education and on developing instruments for measuring these attitudes.

Wear (1951) developed a 40 item Likert scale instrument to assess attitudes towards physical education which he administered to male college students. He identified four components of physical activity: physiological, mental-emotional, social, and general categories. The focus of Wear's research was primarily on the development of the instrument. He later (1955) designed two equivalent forms of this physical education attitude scale.

Richardson (1960) attempted to measure college students' attitudes towards physical fitness and exercise. He developed two interchangeable scales containing 38 opinion statements to which the subjects responded. This work tended to be unidimensional and general.

Edgington (1968) developed a 66 item scale to measure high school students' attitudes towards physical education. Based on an analysis of responses of high school students, he found that this population held favorable attitudes towards physical education.

Neale, Sonstroem, and Metz (1969) studied the relationships among attitudes towards physical activity, physical fitness levels, and general self-esteem. The inventory developed asked male high school students to

indicate their attraction to vigorous physical activities, and to estimate their ability. Fitness levels were measured using the AAHPER Youth Fitness Test. The data showed that boys who scored higher on the physical fitness measures had higher estimates of their abilities and were more attracted to physical activities than the low fitness boys. High and low fitness boys, however, did not significantly differ in self-esteem or the amount of participation in physical activity.

A somewhat broader perspective was taken by Kenyon (1968a). He proposed examining attitudes towards physical activity rather than physical education. Expanding on previous work, and recognizing the need for a more multidimensional approach, Kenyon developed the Attitude Towards Physical Activity Inventory (ATPA). Based on a theoretical model of perceived instrumentality, he defined six subdomains of physical activity: physical health, mind-body dichotomy, cooperation-competition, mental health, social intercourse, and patriotism (Kenyon, 1968a). In his initial study, Kenyon asked 765 adults and 100 college students to indicate what they valued in physical activity. The findings of this study showed that these original six dimensions of physical activity were not significantly independent, and were not useful in explaining involvement in physical activity. He then proposed six new categories: social experience, health and fitness, pursuit of vertigo, aesthetic experience, recreational experience, and competitive experience (Kenyon, 1968a). After two further studies using college students as subjects, Kenyon again refined the instrument replacing the dimensions of recreational experience and competitive experience with catharsis (release of tension) and ascetic

experience (prolonged and strenuous training) A further revision was done to make the instrument more practical and gender independent. The final form of the ATPA contained a seven step Likert scale applied to eight pairs of bi-polar adjectives for each domain. The six domains of physical activity were defined as follows:

1. Physical activity as social experience. Activities whose primary purpose is to meet new people and continue personal friendships.
2. Physical activity for health and fitness. Physical activity has the capacity to improve health and fitness.
3. Physical activity as pursuit of vertigo. Activities that provide the thrill and excitement associated with fast movement, sudden changes of direction and exposure to dangerous situations.
4. Physical activity as aesthetic experience. Activities that demonstrate beauty in artistic qualities associated with the movement.
5. Physical activity as catharsis. Activities that provide a release of tension caused by frustration.
6. Physical activity as an ascetic experience. Activities that provide long, hard, and strenuous training.

Kenyon utilized this final instrument to gather data from nearly 4,000 high school students from four countries (Australia, Canada, England and the United States). His findings indicated that attitudes towards physical activity were a function of perceived instrumental value, sex, culture, age, involvement, and behavioral dispositions (Kenyon, 1968c). Males showed a preference for social experience as the most important motive for

participation, followed by health and fitness, catharsis, aesthetic, pursuit of vertigo, and ascetic. Females ranked aesthetic experience first, followed by social experience, health and fitness, catharsis, vertigo, and ascetic. Older students were more positive about physical activity as an ascetic experience and as catharsis, than younger students. Strength of attitudes towards physical activity varied with level of students' involvement in physical activity.

Kenyon's development of the ATPA was a significant contribution to research in physical education. His research instrument (ATPA) has been widely utilized in measuring attitudes towards physical activity. The research studies employing Kenyon's model have examined a number of variables and have shown that attitudes towards physical activity vary by sex, age, race, skill, grade, class, academic achievement, involvement in sport, and sport role (Smoll & Schultz, 1980). The findings do not however, produce a clear picture of the relationships between the variables studied (Albinson, 1975).

Alderman (1970) studied 136 Olympic athletes, representing ten sports. Using Kenyon's ATPA scale, he found that both men and women rated aesthetic experience as the most important element in physical activity, followed by social experience and catharsis. Health and fitness, pursuit of vertigo and ascetic experience were least important. Alderman concluded that male and female athletes are generally similar in their ratings of the dimensions of physical activity.

Cunningham (1970) administered Kenyon's instrument to 2,667 college students enrolled in required physical education classes. She

found some differences on the basis of sex, with female students rating health and fitness as the most important factor for participation, while males rated pursuit of vertigo as most important.

Hergert (1969) studied 1418 college students enrolled in 24 activity classes. She found no significant differences in rankings based on sex or type of activity.

Simpson (1970) utilized the ATPA to examine the attitudes of 75 male college athletes who participated in a variety of sports. These athletes rated ascetic experience and catharsis equally as most important, followed by health and fitness, and social experience. These data also showed no differences in athletes' motives for participation based on the type of sport in which they participated.

Kenyon's model has been widely used, but appeared to some researchers to be limited because of the omission of certain dimensions such as pursuit of victory, demonstration of ability, and involvement in competition (Apgar, 1977; Kidd & Woodman, 1975; Webb, 1969). Apgar (1977) modified the ATPA by adding "pursuit of victory" as a dimension of physical activity. He defined this dimension as "participation in activities with a primary purpose of demonstrating mastery or superiority over others as evidenced by a winning score" (p. 255). In a study of 341 male high school students, he found that athletes valued winning more highly than non-athletes, but that these high school students did not emphasize victory over other dimensions. He also concluded that winning is a salient factor in sport participation.

Webb (1969) investigated third through twelfth grade boys' and girls'

orientation toward sport and whether students' perspective varied with the background characteristics of age and sex. He developed a forced choice scale, and asked 1274 subjects to rank order three dimensions of sport participation: to play fairly, to play as well as you can, and to beat your opponent. Webb found that as age increases, the importance of victory and demonstrating ability increases and the importance of fairness decreases. He described this phenomenon as the development of professionalized attitudes towards play. In addition, Webb found that males were more professionalized than females in their attitudes towards play. Webb's work also suggests that success and skill may be important elements of attraction to sport and physical activity.

Other studies have corroborated Webb's conclusions. Maloney and Petrie (1972) studied Canadian youth in grades 8-12, and found males and participants in organized athletics more likely to be oriented toward skill and victory than females and non-participants. Loy, Birrell, and Rose (1976) extended this research to college students and adults. Their findings, also showed that males and athletes were more likely to embrace a "professional" orientation towards sport than females and non-athletes.

Kidd and Woodman (1975) studied reasons for participation in sports activities. They modified Webb's scale by substituting "to have fun" for "to play fairly." This was an important distinction, since "to have fun" is indicative of an intrinsic, expressive aspect of sport, while "to play fairly" is representative of a normative dimension. Kidd and Woodman asked 435 college students to rank in order of importance, "play for fun," "play well," "play to win." Subjects most frequently selected "playing

well" as the basis for participation. Winning was least frequently chosen. Kidd and Woodman's work supported "to have fun," an intrinsic motive for participation. Additionally, they suggested that demonstration of ability rather than winning may be a major factor as a basis for participation.

Snyder and Spreitzer (1979b) analyzed reasons people participate in sport. They compared Webb's professionalization of play scale with Kidd and Woodman's three item scale, and examined the Kidd and Woodman scale in relationship to gender, athletic status, and selected personality characteristics. Using 384 college students as subjects, they found that "to have fun" was most important to non-athletes, both male and female, indicating an intrinsic orientation towards sport. Athletes rated "to play well" most highly, valuing a skill orientation. Male athletes rated "to win" as the most important dimension. Snyder and Spreitzer concluded that skill, winning, and competitiveness are significant factors for participation in sport, and their findings document clear differences among undergraduate students' orientations toward sport as a function of participation in organized athletics, gender, and self-described personality characteristics.

Various studies have attempted to identify the dimensions of attraction to physical activity. Kenyon's work is the most comprehensive to date, and a basis for further research. His identified categories are: social, health and fitness, pursuit of vertigo, aesthetic experience, catharsis, ascetic experiences. Other researchers have expanded upon Kenyon's work, and suggested that dimensions other than those identified by Kenyon may be important for participation in physical activity. The

dimensions of winning, demonstration of ability, and involvement in competition appear also to be salient reasons for attraction to physical activity. Additionally, an intrinsic motivation "to have fun" has been identified. The research that has been done regarding attraction to physical activity has examined different population groups, and different perspectives have been taken. No clear conclusions have been drawn, but some general patterns seem to emerge. The research suggests that attitudes towards physical activity may vary by age, sex, grade, skill, sport participation, culture, primary and secondary involvement, type of school, race, socio-economic level, athletic achievement, etc.

#### Current research perspectives

A more recent approach to the study of involvement in physical activity has been to ask adult subjects to identify and/or rank the reasons that they participate. In some studies, people are asked why they participate in sport generally, while in other studies, people respond to questions in which specific sports are identified.

In the Miller Lite Report (Miller Brewing Company, 1983), fourteen possible reasons for engaging in physical activity were listed and 1139 adults age 18 and over were asked to indicate the level of importance of each on a scale of 1 to 10. "Enjoyment of the game" was rated as most important by 57% of the respondents, followed by "improved health" (56%), "release of tension" (45%), "sense of accomplishment" (36%), "improved mental alertness" (33%), "time spent with family members" (30%), "time spent with close friends" (30%). In this same study, when the open-ended

question was asked, "What would you say is the number one reason you play sports?," improved health was cited first, followed by enjoyment, relaxation, competition, friends, well-being, and being outdoors

A recent poll by the Gallup Organization (Harris & Gurin, 1985), based on data collected by phone interviews of 1,019 adults representing a national cross-section of Americans, asked subjects to list the two or three most important reasons for exercising. Health was the number one reason cited (49%). The second most frequently selected reason was to stay in shape (34%), followed by weight control (24%), to feel good (23%), and fun/enjoyment (13%). When the data were analyzed on the basis of sex, it showed that men's and women's reasons for exercising were quite similar, although weight loss was more important to women (30%) than to men (19%).

Snyder and Spreitzer (1984) attempted to identify factors that affect initial and continued participation by adults in physical fitness activities. They studied 144 adults who had voluntarily taken a fitness stress test with subsequent recommendations for an exercise program. Using a variety of measures in a correlation matrix, they found that the strongest predictors of hours of weekly exercise were an orientation toward sport as relaxation, perceived athletic ability, and an intrinsic orientation toward sport (fun/enjoyment). Snyder and Spreitzer concluded from this study that most people do not exercise because it is good for them, but because it feels good.

In another study, Spreitzer and Snyder (1983) attempted to identify variables that predispose adults to an active lifestyle. They surveyed 316

runners, 201 racquetball players, and 122 adults randomly chosen from the general populace, and asked these subjects to respond to items regarding attitudes toward sport. Their findings indicated that the social dimension of sport ranked first across all three groups. The racquetball players ranked competition next, followed by catharsis and aesthetic values. The runners and the control group were similar in ranking aesthetics second, followed by catharsis and competition. Spreitzer and Snyder concluded that adult participants are likely to have feelings of pride, competence, and satisfaction from their participation in physical activity.

#### Leisure research perspectives

Leisure studies researchers also have examined why people participate in various activities. Typically, subjects have been given a series of motivational statements (reasons) and asked to evaluate the importance of each reason for their participation in various activities. Witt and Bishop (1970) examined leisure choices in relationship to need theories. College students were given a list of thirteen activities and asked to rate the degree to which they would feel like participating in each activity after having been in ten different situations. The situations were based on five need theories: surplus energy, relaxation, catharsis, compensation, and task generalization. The data showed that surplus energy, catharsis, and compensation were most useful in explaining subsequent leisure participation. Witt and Bishop concluded that leisure provides an important way of gratifying the fundamental need for optimal stimulation and arousal.

Kelly (1976) designed a study to investigate perceived reasons for participation in leisure activities. He asked 255 adults to select from 1171 leisure activities, the 75 sport activities in which they would most like to participate. He then asked them to rank order a list of ten reasons for engaging in those sport activities. The first reason identified for participation in 90% of sport activities was an intrinsic reason, "I like it." The second reason identified was social interaction, and the third reason was health and fitness. Kelly reported that enjoying companions, health, excitement, mastery, and relaxation were the most frequently cited reasons. He also noted that the ranking of reasons varied with the type of sport. Tennis players ranked active exercise and skill mastery the highest. Team sport participants chose exercise and companions, while swimmers chose exercise, health and relaxation as the most important reasons for participation.

London, Crandall, and Fitzgibbons (1977) examined leisure activities and the needs they satisfy for 83 male college students. The needs that leisure activities fulfilled for students fell into three categories: providing feedback about one's competence, the degree of one's liking to do an activity, and having positive interpersonal involvements.

In a somewhat different vein, Copp (1975) asked hunters why they liked to hunt. The common theme among the responses was escape ("diversionary- relaxation"). Hunter's secondary reasons related to mastery and overcoming a challenge.

In another study of an outdoor leisure activity, Hollender (1977) reported that various forms of escape were the primary motivations to go

camping, with skill-building and demonstration of competence as secondary reasons.

Wilson (1977) investigated the primary motivations of wilderness sports participants. He found that escape from the technology and urbanization of modern living, and a desire to achieve greater self-awareness were primary to involvement in wilderness activities. Wilson concluded that attraction to wilderness sports may be "part of a wider search for emotional and spiritual contentment" (p.371).

Social interaction is often cited as a reason for participation in leisure activities (London et al., 1977; Kelly, 1976). Grubb's (1975) study of 237 assembly line workers revealed that 76% chose the reason, "it allows me to be with people I like" as the most important reason for their participation in their favorite leisure activity. Similarly, Neulinger and Raps (1972) conducted a study in which 335 adult subjects ranked affiliation ("the chance to be with others" and "meet new people") as the most important reasons for leisure involvement.

The leisure studies research has attempted to examine reasons for involvement in physical activities as leisure pursuits. A variety of motives have been identified including stimulation, fun, social, health and fitness, mastery, relaxation, and escape. These have not been studied in a systematic and comprehensive way, but the leisure studies research does suggest similar motives for participation as have been found in the physical education research.

### Unique sports research

In addition to research on motives for participation in physical education and leisure studies, unique sports have also stimulated researchers' interest. Unique sports may be defined as those sports not traditionally taught in schools, which may or may not be competitive. The research regarding motives for participation in these sports has often been open-ended. Respondents have been asked to name the most important reason or reasons for participation and to provide demographic information about themselves.

People's increased interest in running of all types (jogging, racing, marathon running, triathalons) in recent years has stimulated a variety of research. Carmack and Martens (1979) studied 250 male and 65 female runners, ages 13-60 (mean age 28.8), of various levels of ability, in order to obtain descriptive information concerning various aspects of their running. The subjects responded to a questionnaire requesting information regarding demographic information, reasons for running, mental states during a run, and perceived outcomes of running. Included in the questionnaire was a 12-item scale designed to measure Commitment to Running (CR). Reacting to the items on a 5-point scale, subjects indicated the degree to which each statement described the runner's feelings about running. The total scores were used to subdivide the sample into a high CR group and a low CR group.

In addition, the subjects were asked to give three reasons for why they began running and why they presently run. The reasons given were grouped into eight general categories: physical health (physical fitness,

weight loss, muscle tone), psychological health (mental fitness, enjoyment, self-respect), affiliation (companionship, meeting people, belonging to a team), goal achievement (meeting a challenge, reaching one's potential, success in competition), tangible rewards, others' influence (physician's advice, peer pressure, parental influence), availability (something to do, means of exercise), and miscellaneous reasons. For the total sample, physical health items were identified most often as reasons for beginning to run, followed by psychological health, goal achievement, availability, affiliation, others' influence, and tangible rewards. When the results were compared by high and low CR groups, slight differences were noted. Goal achievement was the second most frequently identified reason for the high CR runners. A comparison of reasons for beginning to run and continuing to run were similar. The groups however, differed in relation to the importance they assigned to motives for continuing to run. The low CR runners cited physical health first as the reason to continue running, followed by psychological health, goal achievement, affiliation, availability, others' influence, and tangible rewards. In contrast, psychological health was identified most frequently by the high CR runners, followed by physical health, goal achievement, affiliation and availability.

The researchers also asked the runners to respond to a list of forty possible benefits or outcomes of running. They were asked to check "yes" or "no" for each benefit indicating whether they derived the stated outcome from their running. The forty benefits were further classified into five general categories: physical health, psychological uplift,

self-image, affiliation, and achievement. All five categories were responded to positively by at least 50% of all the runners, indicating that they derived those benefits from running. In comparing high and low CR runners, Carmack and Martens found that the high CR group responded "yes" to significantly more items in all five categories than did the low CR group. Some differences were noted in the order of importance; high CR subjects responded most frequently to psychological health as a benefit, followed by affiliation, achievement, self-image, and physical health. Low CR subjects rated physical health most positively followed by self-image, psychological health, achievement, and affiliation.

Summers et al. (1983), in a study designed to examine some of the psychosocial factors underlying marathoning and to validate Carmack and Martens Commitment to Running (CR) Scale, administered pre- and post-race questionnaires to a stratified random sample of 348 male and 111 female marathoners. The mean age of the subjects was 31.7 and the range was 14-61 years. This group appeared to be a largely middle class with 49.6% in professional or managerial occupations and 17.2% in clerical or sales positions. Subjects were asked to give three reasons why they began running. Thirty-six specific responses were reported, which were then categorized. Physical health (maintain/improve fitness and lose weight) was the most frequently identified reason for involvement (53.5%). Psychological health (18.5%) was second and goal achievement (12.6%) was third. The authors found similar responses for males and females, and also reported that health reasons were more frequently identified by older participants. Subjects also were asked to respond yes

or no to a list of 40 possible benefits that could be derived from running. The highest percentage of people indicated that goal achievement was a benefit derived. Physical health was the next most frequently selected, followed by psychological health, self-image and affiliation. Differences were noted in the responses of males and females. A higher percentage of females responded positively to items in the affiliation category. No significant differences were noted in derived benefits across age groups. Finally, the authors asked subjects to identify reasons for running a marathon. Achievement was identified as the most important reason, followed by test of personal worth, physical health, influence of others, curiosity, and enjoyment.

Altheide and Pfuhl (1980) examined motives for running, by asking subjects to indicate the top three reasons they began to run as well as the benefits derived from running. A 30 item questionnaire was administered to 369 members of the Arizona Road Racers Club and 42 structured interviews were conducted. The sample was predominantly male (75%) with a mean age of 35.7. The group was well-educated and generally employed in professional and high prestige occupations. Analysis of the top three reasons given for the decision to begin running showed that physical health was identified as the most important reason by 86% of the subjects. Psychological health (59%) and a variety of personal motives were the next most frequently listed. Analyses of responses on the benefits of running showed that physical health, psychological health, positive identity and self-image were the most often cited. Interestingly, the subjects did not identify social relationships as important reasons or

benefits. It may be that since running is a somewhat solitary activity and since these runners belonged to a racing club, they may have been motivated by achievement or personal motives more than social ones

Other groups that have been studied with regard to motives for participation are those involved in specialized sports such as mountain climbing, hang-gliding, skydiving. Several researchers have been intrigued by those involved in high risk or sensation-seeking sports (Dulthie & Salter, 1981; Hymbaugh & Garrett, 1974; Ogilvie, 1973), and have observed that stimulation is an important motive category in these sports

Brannigan and McDougall (1983) in a study of 50 hang-gliders, found that excitement, demonstration of ability, identity, and social interactions were the most frequently identified motives of subjects who participated in this sport.

Dulthie and Salter (1981) studied 10 beginning and 9 experienced skydivers and found differences in their motives for participation. Beginners identified "new experience" as most important, followed by stimulation seeking, and accomplishment. Experienced skydivers identified excitement and thrill as their primary motive, followed by mastery and "the total involvement" of the experience.

In a broader based study, Bratton, Kinnear, and Koroluk (1979) attempted to gain insight into motives for mountain climbing. The responses of 266 members of a mountain climbing club were studied. The mean age was 37 and 80% of the climbers were male. Sixty-eight percent of the climbers were married, and the education and income levels were high, with a majority of subjects employed in white collar and

professional occupations. The mountain climbers were given a list of 22 possible reasons for climbing and asked to indicate (on a scale from 0 to 5) how important each reason was personally as a reason for climbing. Climbers also indicated the three reasons that were most important to them. The data showed that "enjoying the wilderness and being out of doors" was most important to the climbers. The second ranked response was exercise, followed by relaxation and achievement. These findings did not easily fit into Kenyon's (1968a) earlier conceptual model. The researchers suggested that the categories of social experience and health and fitness seemed valid and applicable. They noted however, that the pursuit of vertigo category seemed to imply only one kind of thrill experience, and perhaps should be re-identified as "excitement." Similarly, aesthetic experience (beauty or artistic expression) seemed limiting, and should be relabeled "expressive." The authors felt that "catharsis" connotes extreme emotional release and that "relaxation" would be a more appropriate label. Ascetic experience appeared to these authors to be composed of two categories of achievement and should be identified more appropriately as competitive achievement and non-competitive achievement (striving to meet a goal). Finally, they suggested the addition of a new category entitled "love of nature." These related and new categories of motives suggested by Bratton et al were based on the specific activity of mountain climbing. This work suggests that perhaps motives for participation are strongly related to the qualities inherent in the specific activity

The growth of unique sports in recent years has stimulated some

research interest. This primarily open-ended research regarding reasons for and benefits of participation has identified a variety of motives similar to those previously cited in the physical education research and leisure studies research. The addition of "love of nature," "new experience," and "total involvement" from the unique sports literature suggests that motives for participation are perhaps related to the specific activity, and also supports the notion that motives for participation are multi-dimensional. Additionally, motives for participation and benefits of participation appear to be quite similar.

## METHODOLOGY

### Introduction

The method used to select the sample and to develop the research instrument will be described in this chapter. In addition, the procedures utilized to collect and analyze the data will be presented.

### Subjects

The subjects used in this study were participants in RAGBRAI XI, 1983. They were obtained by contacting Don Benson of the Des Moines Register who provided the letters written to the newspaper by 7,000 people who requested and received participant passes. The letters, which included the names, addresses, and ages of the people who received passes, were in random order. Every sixteenth name was selected to form the subject pool. Individuals whose addresses were incomplete or who were under age 18 were discarded. The final subject pool consisted of 404 subjects who represented approximately 5.8% of the total number of RAGBRAI participants.

The Iowa State University Committee on the Use of Human Subjects in Research reviewed this project and concluded that the rights and welfare of the human subjects were adequately protected, that risks were outweighed by the potential benefits and expected value of the knowledge sought, that confidentiality of data was assured, and that the informed consent was obtained by appropriate procedures.

## Measuring Instrument

A seven page, 40 item questionnaire (Appendix A) was developed for this study to investigate the characteristics of participants in RAGBRAI, as well as their reasons for participation, and the benefits they derived from the experience.

The general social characteristics of the subjects were measured by 15 demographic items which pertained to age, sex, marital status, religion, education, politics, socio-economic status (occupation, and income) home town population size and location. General activity characteristics of participants were measured by five items regarding past and present involvement in sport and physical activity. Specific information regarding cycling involvement was elicited by five items related to current and past cycling activity patterns. Fourteen items regarding participation in RAGBRAI were asked. These items solicited information regarding motives and benefits of RAGBRAI participation as well as social characteristics of the activity. In addition, information regarding the affective and achievement aspects of the experience was collected.

In order to examine why people participate in RAGBRAI, a scale of statements regarding motives for participation was developed. This scale was based on the theories and research regarding involvement in physical activity, leisure and unique sports participation, as well as popular literature on RAGBRAI (Bicycling, Reader's Digest, Saturday Evening Post, Smithsonian). Additionally, interviews with previous participants and the

researcher's personal experiences on RAGBRAI aided in defining the items. The 19 items represented eight conceptual categories of reasons for participation in physical activity. These categories were: health and fitness, social interaction, mastery (achievement, demonstration of ability), fun or play (including stimulation), extrinsic rewards, psychological/emotional health (including stress reduction), identity, and festival (unique experience). The categories were selected that seemed most representative of the unique characteristics of the RAGBRAI experience. The conceptual categories of extrinsic rewards, psychological/emotional health, festival, social and identity were each represented by 2 reason statements. Health and fitness, fun, and mastery were each represented by 3 items.

Subjects were asked to respond to this scale in two different manners. First, they rank ordered from high (1) to low(5), the five most important reasons for participation. Next, they rated the importance of each of the 19 motives as reasons for participation on a 7 point Likert scale. The scale was anchored at the extremes by not at all important (1) and very important (7).

Additionally, in order to examine the benefits of participation, a second scale was provided which consisted of the same 19 items, randomly ordered and rewritten as perceived benefits of participation. Once again, subjects responded to this scale by ranking the five most important benefits of the experience, and then rating each of the 19 items on the Likert scale. This scale also was anchored at the extremes by a little benefit (1) and a great deal of benefit (7)

### Administration of the Instrument

A questionnaire (Appendix A) was mailed to each of the identified subjects. A cover letter (Appendix B) which explained the purpose of the study and the confidentiality of responses accompanied each questionnaire, along with a postage paid return envelope. RAGBRAI participants were informed of the importance of their input and encouraged to return the questionnaire. A follow-up postcard (Appendix C) was mailed to each of the potential subjects thanking them for their cooperation and reminding them to return the questionnaire if they had not already done so.

Two hundred-twenty five subjects completed and returned questionnaires (56%). Nine questionnaires (2%) were returned as undeliverable. Nineteen questionnaires (4.7%) were returned but discarded because the subjects had not participated in RAGBRAI 1983. The final sample therefore, consisted of 206 subjects and represented 51% of the original subject pool.

### Analyses of Data

Data were analyzed using the Statistical Package for the Social Sciences (SPSSX, 1983). The social background and demographic characteristics were described on the basis of simple frequencies and percentages. RAGBRAI demographic information was compared with data provided by the Des Moines Register regarding the characteristics of the

newspaper's readers, and with U.S. Census data for Iowa and for the United States. The open-ended questions were coded by categories, tallied, and described on the basis of simple frequencies and percentages. The 19 item scales designed to assess motives for participation and the benefits of participation were initially analyzed in terms of general frequencies, percentages, and rankings. Further analyses employed a principal component factoring method with varimax rotation to measure the degree of association among the scales, and to identify any patterns or relationships that existed in the data. Five independent factors which accounted for 57% of the variance were identified for the motives scale and 59% for the benefits scale. The factor loadings and conceptual consistency of the items were considered on both scales in determination of the factors. The reliability of items on the scales was computed using the standardized item alpha procedure. Independence of the factors was examined by Pearson correlations. Using the five independent factors for each scale, multiple regression analyses were conducted to determine if the characteristics of age, sex, in-state residency, or frequency of participation were associated with the factor scores.

In order to examine the relationship between the motives and benefits scales, the Pearson Product-Moment correlation procedure was calculated for both scales by individual items and by factors. The ranked scores were examined in relation to the rated scores, by use of Spearman's correlation

## RESULTS AND DISCUSSION

### Characteristics of Participants

#### Introduction

In order to better understand the nature of the people who participate in RAGBRAI, analyses of the demographic and activity characteristics of the sample will be presented. These analyses will provide information about RAGBRAI participants that can be compared with census information on people in Iowa and the United States (U.S. Department of Commerce, Bureau of the Census, 1983; 1984), and information on subscribers to the Des Moines Register (provided by the Des Moines Register research department).

#### Sex of participants

The data collected showed that considerably more men (68%) than women (32%) participated in RAGBRAI XI. This finding contrasts with census data which showed a more equal distribution of the sexes in the population in the United States (48% male, 52% female) and Iowa (49% male, 51% female), as well as the Des Moines Register's readership (49% male, 51% female). The RAGBRAI data however, are similar to that reported in the Miller Lite Report (Miller Brewing Company, 1983). This study showed higher participation by males (58%) as compared to females (37%). These results also are supportive of data collected on runners which showed that male participants outnumbered women three to one (Altheide & Pfuhl, 1980; Summers et al., 1983).

### Age of participants

Analysis of the data by age showed that the sample ranged in age from 18-77, with a mean age of 37.1 and a mode age of 38 years. In contrast to earlier studies which have shown smaller proportions of adult involvement with increases in age (Kenyon, 1966; McPherson, 1984; Snyder & Spreitzer, 1984; Spreitzer & Snyder, 1983), the RAGBRAI data showed that middle aged (35-44) people were the largest group of participants (Figure 1). A higher percentage of RAGBRAI participants fell in the middle-aged category than were found in the United States or Iowa Census or Des Moines Register data. The percentage of RAGBRAI participants in the middle age group also was higher than that reported by the Miller Lite Report (12%), which found that the largest group of participants were 18-24 year olds (39%) (Miller Brewing Company, 1983). The mean age of RAGBRAI participants, however, was similar to information collected on runners (mean age 35.7; Altheide & Pfuhl, 1980) and marathoners (mean age 31.7; Summers et al., 1983). The RAGBRAI data tend to support the observed decline in numbers of active participants in the later years (>44). Although 18% of participants were 45-54 years of age, fewer participants were aged 55-64, and still fewer were 65 or older. It appears nonetheless, that this unique activity appeals more to middle aged and older people, than it does to those younger individuals.

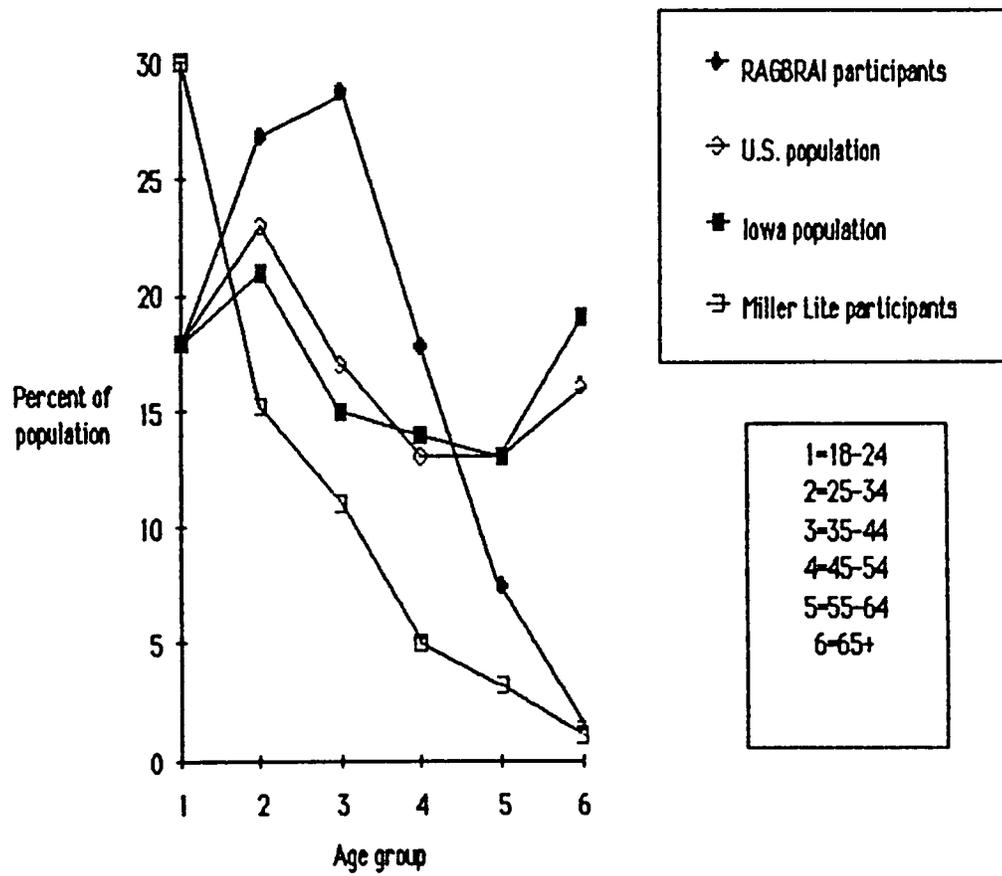


Figure 1. Age of United States and Iowa populations, RAGBRAI, and Miller Lite participants

Marital status of participants

The data collected showed that 60% of participants were married, 31% single and 9% divorced, widowed, or separated. The percentage of married RAGBRAI participants was similar to the Iowa population and lower than the nation and Register readers (Table 3). However, a higher percentage of RAGBRAI participants were single than was found in the United States and Iowa Census data, and the Des Moines Register readership. The finding that RAGBRAI appears to have attracted more single than married people supports the observation of Lupton et al. (1984) that single adults are more involved in active participation in physical activity.

Table 3

Marital Status of RAGBRAI Participants, U.S. and Iowa populations, and Des Moines Register Readership

Marital status	RAGBRAI %	U.S. %	Iowa %	Register readers %
Married	59.9	64.7	61	71
Single	30.7	15.1	25	18
Divorced/widowed/ or separated	9.4	20.1	14	11
Totals	100%	99.9%	101%	100%

### Race of participants

The data showed that 99% of participants were white and less than 1% black. This finding is consistent with the Des Moines Register figures on the racial characteristics of its readership (99% white, 1% black), and Iowa census figures (98% white, 1% black and 1% other). The smaller number of black participants contrasts more markedly with United States Census figures, which show that 83% of the population is white, 12% black, and 5% other races. Thus, it appears that the racial mix of RAGBRAI participants is fairly representative of Iowa, but not of the United States.

### Education of participants

Analyses of the data indicated that RAGBRAI participants were reasonably well-educated (Table 4). A quarter of the sample had completed an undergraduate degree, and almost as many had some college education. More than a third had completed some post graduate work. More than half of the RAGBRAI participants indicated that they had completed a college education or more, while small proportions of the United States and Iowa population, and the Register readership had achieved that level of education. A very small percentage of the RAGBRAI sample completed only grade school or did not complete grade school. High school graduates comprised slightly more of the sample, as did those completing some technical or other training. These findings support the observation that a higher level of educational attainment is related to a higher degree of participation of adults in physical activity (Eitzen & Sage, 1982; Lupton et al., 1984; Miller Brewing Company, 1983; Presidents'

Council on Physical Fitness Newsletter, 1974 ).

Table 4

Education of RAGBRAI Participants, U.S. and Iowa Populations, and Des Moines Register Readership

Education level	RAGBRAI		U.S.		Iowa		Register	
	%	Cum. %	%	Cum.%	%	Cum.%	%	Cum.%
Some grade school	.5	.5	2	2				
Completed grade school	1.0	1.5	8	10	}17	17	}15	15
Completed high school	6.4	7.9	42	52	55	72	42	57
High school and other	8.4	16.3	---	52	---	72	---	57
Some college	21.8	38.1	32	84	15	87	22	79
Completed college	25.2	63.3						
Some graduate school	9.9	73.2						
Master's degree	12.9	86.1	}16		}13		}21	
Doctorate	4.0	90.1						
Other	9.9	100.0		100		100		100
Total		100		100		100		100

Occupation of participants

The data collected showed that 66% of the participants were engaged in professional or managerial occupations (Table 5). This finding

contrasts with United States Census (30%), and information on the Register readership (26%) which showed fewer people involved in professional and managerial occupations. Only five percent of the RAGBRAI subjects were involved in clerical and sales, 14% in craft/kindred and service occupations, and 1% in farming. Retirees made up 4% of the sample and 2% were homemakers. These data support Burdge's findings that people at higher occupational prestige levels were most involved in sport. It appears that this is particularly true for a unique event such as RAGBRAI. Altheide and Pfuhl (1980) and Summers et al. (1983) similarly found that the subjects in their studies on running were predominantly (>50%) in professional and managerial occupational groups. Support also is provided for Eitzen and Sage's (1982) observation that socio-economic status is related to preference for type of sport chosen, and that upper class persons are more likely to participate in individual or elite sports.

#### Income of participants

A part of socio-economic status is income level. Analysis of the data indicated that the income level of RAGBRAI participants was higher than that of the general populace (Table 6). The greatest percentage of RAGBRAI participants were in the \$20,000- 39,000 range, in contrast to the United States census data which showed 12% less of the populace in this income group. The smallest percentage of the RAGBRAI participants indicated they earned less than \$10,000. This small number differs from the United States Census data where five times as many people were

found, or the Register data in which twice as many were represented in this income category. In the highest income group (over \$50,000), 11% more RAGBRAI participants were found than in the United States Census population data. These findings support previous work that has shown that the higher peoples' income and socio-economic status, the more involved they are likely to be as sports participants (Burdge, 1969; Eitzen & Sage, 1983; and Lupton et al., 1984).

Table 5

Occupations of RAGBRAI Participants, U.S. and Iowa populations, and Des Moines Register Readership

Occupation	RAGBRAI %	U.S. %	Iowa %	Des Moines Register %
Professional/managerial	66.4	30	30	26
Clerical/sales	5	25	10	12
Craft/kindred/service	14	42.3	28	13
Farm/Fishing/forestry	1	2.7	7	7
Other	13.4	---	25	42
Total	99.8	100	100	100

Table 6

Income Level of RAGBRAI Participants, U.S. Population, and the Des Moines Register Readership

Income group	RAGBRAI		U.S.		Register	
	%	cumulative %	%	cumulative %	%	cumulative %
less than \$10,000	4.7	4.7	25	25	11	11
\$10,000-19,000	11.6	16.3	27	52	27	38
\$20,000-29,000	20.1	36.5	11	63	16	54
\$30,000-39,000	20.1	56.7	17	80	24	78
\$40,000-49,000	14.3	71.0	12	92		
Over \$50,000	28	99	7	99	22	100
Total		99		99		100

City size

The data collected showed in contrast to what might be expected because of the rural nature of Iowa, that a smaller percentage of RAGBRAI participants came from rural areas, than are represented in the United States or Iowa data (Table 7). The highest percentage of RAGBRAI

participants were from metropolitan areas (over 50,000) rather than rural areas. The number of people from metropolitan areas differed from United States, Iowa, or Register readership representation figures. The greater number of RAGBRAI participants from larger cities may be due to peoples' desire to escape to the country or to be outdoors. This may suggest that the unique country atmosphere of the experience is an important attraction for participants. The smaller number of rural participants may be due to the time of year, or it may be that rural people have less need to participate in physical activities due to the physical nature of their work.

#### Residency of participants

Slightly more than half of the participants in RAGBRAI were Iowa residents (52%) and slightly less than half (48%) were from out of state. The distance people traveled from their residence to participate varied a great deal and ranged from less than 50 miles to more than 2000 miles. The average distance traveled was 400-500 miles, and the median and modal distances both fell in the 200-400 mile category. It was surprising to find that people would travel such great distances to participate in RAGBRAI. This finding again supports the notion that there is something unique about this experience that can draw participants from long distances.

Table 7

City of Residency for RAGBRAI Participants, U.S. and Iowa populations  
and Des Moines Register Readership

City Size	RAGBRAI %	U.S. %	Iowa %	Des Moines Register %
Rural	2	21	33	15
Town <2,500	12.4	11	8.9	20
Small city 2,500-5,000	15.3	4.1	9.8	7
City 5,000-50,000	24.8	29.3	23.2	22
Metropolitan area over 50,000	45.5	34.1	25.1	36
Total	100	100	100	100 %

Religious preference of participants

The data showed that a majority of the participants indicated that their religious affiliation was Protestant (Table 8). Catholic and Jewish faiths were next most frequently identified. The finding that most participants were Protestant paralleled Census and Register data which similarly show that of those reporting, the most frequently identified religious affiliation is Protestant. An interesting finding was the sizeable number of RAGBRAI participants who claimed no religious affiliation. The higher percentage of RAGBRAI participants, in contrast to United States and Iowa citizens surveyed, who were not affiliated with

organized religion suggests that this sample was not strongly religious. To examine this issue further, RAGBRAI participants were asked to describe their religious orientation. A sizeable number (39%) indicated that they were traditional or liberal (30%) in their religious orientation. However, only a small percentage (7%) indicated that they were fundamentalist. In contrast, nearly a quarter of the sample claimed no religious orientation (agnostic 11%, atheist 3%, no religious orientation 10%). It appeared that a fair number of RAGBRAI participants did not strongly identify with organized religion, or perhaps were more independent in their attitudes towards religion.

Table 8

Religious Preference of RAGBRAI Participants, U. S. Population, and Des Moines Register Readership

Religion	RAGBRAI %	RAGBRAI Adjusted	U.S. %	Des Moines Register %
Protestant	50.5	(61.1)	55	71
Catholic	21.9	(26.5)	37	22
Jewish	3.1	(3.8)	4	---
None	17.4	---	---	---
Other	7.1	(7.1)	4	7
Total	100	100	100	100

## Politics

The political affiliation of this group of participants showed that they more frequently identified themselves as Democrats than Republicans. The general pattern of political affiliation was similar to the Des Moines Register's readership. Thirty percent of participants indicated that they were affiliated with the Republican party, 37% with the Democratic party, 28% Independent, and 5% other. The Register's figures showed that the readership was composed of 28% Republican, 33% Democrat, and 39% Independent. The RAGBRAI sample also appeared to be about evenly divided in political orientation: conservative (32%), moderate (38%), and liberal (28%). They also appeared to be relatively involved in various political activities. A sizeable number of RAGBRAI participants reported that they voted in elections (94%), made financial contributions (40%), and wrote to their congresspersons (31%).

## Activity orientation and involvement

Information was solicited regarding high school and college athletic participation, as well as current recreational and competitive involvement. Nearly half (47%) of the participants indicated that they had participated in high school sports, with a high concentration in team sports (Table 9). A decrease in involvement was observed in collegiate participation. This may be due to the more restrictive criteria for involvement at this level. Of those who participated at the college level (15%), there appeared to be a greater involvement in individual than team sports.

Analyses of the data on current involvement showed that RAGBRAI participants appeared to be more active and involved in a wide variety of activities than people in previous studies. Thirty-five percent of the RAGBRAI participants indicated that they participated in competitive activities, and 90% in recreational activities. In contrast, the Miller Lite Report (Miller Brewing Company, 1983) data showed that 70% of Americans participated in sport or physical exercise at least once a week. Lupton et al. (1984) found that the number of people who say they participate in sport ranged from 36-59%. It appears, therefore, that RAGBRAI participants appeared to be generally more active than those surveyed in previous studies.

### Summary

In examining the characteristics of the RAGBRAI population, some interesting results were found. In general, twice as many men as women participated. More middle-age and older than younger persons participated. Married persons made up a majority of the population, although a high number of single people were involved. RAGBRAI participants were predominantly white, well-educated, engaged in professional and managerial occupations, and had high incomes. They were most frequently city dwellers, and as likely to be from out of state as from Iowa. They were fairly evenly split in political party identification, and were politically active. They were active and involved in a wide variety of recreational activities and sports, particularly lifetime and unique sports.

Table 9

Percentage of RAGBRAI Participants Indicating Historical and Current Involvement in Sport and Physical Activity

Activity	High school %	College %	Current competitive %	Current recreational %
Aerobics	-	-	-	13.5%
Baseball	9.4	2.5	-	-
Basketball	20.6	2.5	4.0	5.0
Bowl	-	-	5.0	1.0
Cross-country	6.5	2.5	-	-
Fishing	-	-	-	13.4%
Football	18.6	-	-	-
Golf	5.0	.5	2.5	7.4
Gymnastics	3.0	1.0	-	-
Hockey	-	1.0	-	-
Martial arts	-	.5	2.5	7.4
Powerlift/wtlift	-	.5	.5	16.9
Racquetball	-	-	6.9	12.9
Rugby	-	2.5	-	-
Run	-	-	7.4	41.0
Ski	-	-	1.0	11.8
Soccer	2.5	2.5	2.0	1.0
Softball	2.5	2.5	11.4	4.0
Swim	2.5	-	-	13.9
Tennis	6.5	3.5	2.5	16.3
Track	25.0	7.0	-	-
Volleyball	-	3.5	6.4	5.4
Wrestling	7.0	4.4	-	-
Other	9.0	4.0	5.0	29.2

### Bicycling Characteristics

In order to more fully characterize this population, information also was collected on participants' bicycling history and involvement. Are RAGBRAI participants primarily serious cyclists, or does this event attract a wide variety of people? One indication of the extent of peoples' commitment to cycling may be reflected by the characteristics of the bicycles they ride. The type of bike, its cost, and age may indicate something about participants involvement in cycling.

An extremely wide variety of bikes were ridden on RAGBRAI. In order to facilitate analyses of the data, categories were established by consultation with a knowledgeable local bike shop manager. The kind of bicycle most often (44 %) ridden by participants was the casual, recreational, 10-speed bike (general purpose, \$190-\$450; e.g., Schwinn Le Tour, Raleigh Grand Prix). The next most frequently (17%) identified category of cycle was the club or sport bike (designed for a long day ride, performance oriented, \$320-\$950; e.g., Raleigh Competition, Motobecane Grand Record, Peugeot PX10), followed by (16%) the basic, introductory 10 speed bike (a first "real" bike, \$150-\$190; e.g., Schwinn Varsity, Raleigh Record), and the mass merchandiser (8%) (private label, inexpensive; e.g., Huffy, Sears). Also identified by some participants were special touring bikes (7%) (designed for long distance touring, \$280-800; e.g., Fuji Tour, Trek 720), high performance bikes (3%) (deluxe, finest quality equipment \$800-2,000), and exclusive, elite machines (3%) (hand built to individual

needs, \$800–3,500; signed by the builder). Tandems too, were ridden by a few participants (1%).

A great deal of variety also was observed in the age and cost of bikes. Cycles ranged in age from new (8%), to over ten years old (5%), with an average age of 3.5 years (median 3 years, mode 2 years). The finding that most cycles were relatively new may indicate the more recent popularity of 10 speed bikes. The newness of the bikes also may indicate that participants studied were fairly new to cycling, or that they had recently upgraded their equipment. The cost of bikes ridden varied from less than \$50 to more than \$1000, with an average cost of approximately \$280. Nearly half of the participants (46%) rode medium priced cycles (\$200–400). Thus, the analyses of the data showed that a majority of participants rode some variation of medium priced, multispeed, touring or sport bikes, of various ages, indicating perhaps that these participants were primarily recreational rather than elite or serious cyclists.

Another way of characterizing this group of participants was to examine their cycling history and involvement. Analyses of the data indicated that the participants appeared to be fairly recent cycling devotees. Cyclists had a history of regular riding that ranged from less than 1 to more than 20 years, with almost half (44%) indicating they had cycled for from 2–5 years, and 31% indicating cycling histories of from 6–10 years. Only a small number of participants (5%) reported that they did not consider themselves to be regular riders. When participants were asked to describe themselves as “occasional,” “dedicated,” or “competitive” cyclists, approximately half (44%) rated themselves occasional cyclists or

dedicated (53%) cyclists. Few (3%) considered themselves competitive cyclists. The competitive cyclists indicated that their racing history ranged from 1-6 years, with an average of 2.9 years (median 3, mode 3).

The average number of miles ridden per week during cycling season, varied greatly, from less than 10 to more than 500. On the average, participants in RAGBRAI tended to cycle approximately 87 miles per week. A third of the participants indicated that they rode 51-100 miles per week, and 22% indicated that they rode 26-50 miles per week. Ten percent rode 10-25 miles and 10% rode fewer than 10 miles per week. Nearly 15% rode 100-200 miles per week. Even among those who indicated they were dedicated cyclists, few (3%) rode more than 300 miles per week. It appeared that there was great variety in the amount of recreational cycling RAGBRAI participants did. A majority however, seemed to have ridden regularly, and some trained for this event.

Another factor that may be useful in characterizing this population, is individuals' affiliations with cycling clubs. Many cyclists who were club members participated in RAGBRAI as a group, as evidenced by their wearing club t-shirts and emblems. Slightly more than a third of the participants (38%) indicated that they belonged to a cycle club, and of those, only 5% were purely competitive clubs. A great majority (68%) belonged to recreational clubs, and 26% of the participants indicated that their club consisted of both competitive and recreational cyclists. It seemed that RAGBRAI participants were not competitive, but recreational cyclists.

Analyses of the data showed a great deal of diversity in RAGBRAI

participants cycling history, involvement, and commitment to cycling. Some general trends, however, were noted. Bicycles tended to be medium priced (M=\$280), multispeed touring or sport bikes, that had been purchased within the last 3-4 years. A majority of participants appeared to have ridden regularly, and rode an average of 87 miles weekly, indicating that they were somewhat committed to cycling. A majority had been cycling regularly for less than 5 years. Half of the participants described themselves as dedicated cyclists. Few had competed or were affiliated with a cycling club. Thus, it appeared that RAGBRAI participants were not elite or competitive cyclists, but committed to cycling as a hobby, recreation, or fitness activity.

#### Specific Aspects of the RAGBRAI Experience

In order to better understand people's attraction to RAGBRAI, a variety of information, both factual and subjective, was solicited on specific aspects of peoples' involvement in the RAGBRAI experience.

One aspect that may indicate peoples' commitment to RAGBRAI and may suggest motives for participation, is how much of the ride they actually completed. A large majority of participants (77%) rode the entire 7 days of RAGBRAI 1983 and the entire distance (492 miles). Only 2% rode less than 150 miles, 10% rode less than 300, and 11% rode more than 300, but less than the entire 492 miles. The fact that so many participants completed the ride suggests that this achievement is valued.

Another indicator of commitment to RAGBRAI may be the number of

times people have participated. A majority of the participants (55%) indicated that they had participated once or twice, while 44% indicated that they had participated from 3-11 times. Less than 1% of the participants indicated that they had ridden all eleven years of RAGBRAI's existence, while 37% were first-timers. Analyses of the data regarding the years in which cyclists participated showed a steady increase in repeated participation. Of those who participated in RAGBRAI 1983, 2% had participated in 1973 (RAGBRAI I), while 30% had participated in 1980, and 49% had participated in 1982. This increase may be due in part to the growth of RAGBRAI. In 1973, only 300 people participated, while in 1983 over 7,000 participated. The numbers of repeat participants suggests that people become committed to the RAGBRAI experience. Another indication of peoples' commitment to participation was the finding that a large majority (88%) indicated that they intended to participate again. Few (10%) indicated that they probably would not ride in RAGBRAI again.

Another aspect of peoples' commitment to RAGBRAI appears to be the social aspects of the experience. Meeting new people, spending time with family and friends, or having an opportunity to belong to a group appear to be quite important to participants. The data showed a wide diversity in participants' experiences in meeting new people. The average number of new people with whom participants became "well-acquainted" was 6-8 (11%). Another 11% indicated that they had come to know more than 20 new people. However, 15% of participants indicated that they had not become well-acquainted with any new people. This may be due to the fact that some people participated in RAGBRAI with a group of family or

friends and tended to interact most frequently with them. This is shown in part by analysis of the data on who accompanied the participants.

Many people participated in RAGBRAI with family members; spouse (21%), children (25%), and other family members (19%). In their narrative remarks, participants often mentioned that spending time with family members was an important dimension of the experience for them. A majority of participants (56%) indicated that they attended with friends, while fewer indicated that they attended with coworkers (8%), or others (13%). Only 13% of the participants indicated that they had gone on RAGBRAI alone.

The affective aspects of the RAGBRAI experience also may be important in understanding people's motives for participation. In order to better understand some of these aspects, participants were asked to identify their feelings as they completed the ride. People identified a wide variety of feelings, and often listed several. The most frequently identified feelings (23%) were those that might be characterized as happiness (elation, excitement, or "being on a high"), and satisfaction (23%). Interestingly, the next most frequent category of feelings cited was more negative (sadness or a let down, 22%). Other feelings indicated by participants were relief ("I made it," "it's over" 14%), and physiological sensations (hot, tired, hungry, thirsty, 9%). Some participants (5%) were looking forward to next year. A few (1%) indicated that they were worried (about finding their ride home, returning to work, and adjusting to the "real world"), or that they felt relaxed (<1%).

In a further effort to gather affective information on the RAGBRAI

experience, participants were asked to describe a "highlight experience," one that was especially remembered as being important. Although some participants (31%) indicated that they could not identify a highlight experience, others reported a wide range of experiences and emotions. The hospitality of people was the highlight most frequently mentioned (10%), followed by the summer thunderstorm in Grundy Center (7%). The 100 mile day was a highlight for some (6%), as was meeting new people (6%), and being cheered at the finish (5%) by townspeople and spectators. Some participants identified shared experiences (4%), partying along the way (3%), connecting with old friends (2%), and the helpfulness of others enroute (2%). Dipping bike wheels in the Mississippi River, a tradition signifying completion of RAGBRAI, was identified by a few participants (1%). Eating and enjoying the food along the trip was cited by some (1%) as a highlight. Recalling food as a highlight may be due to the fact that food was prepared enroute by various community groups, and was representative of the best in Iowa home cooking as well as various ethnic groups that have settled in Iowa. The great variety of highlights identified suggests that RAGBRAI is a multi-dimensional experience that appeals to a wide variety of individuals, and provides highly individual experiences.

RAGBRAI has grown in participation and in popularity. In attempting to more fully understand peoples' attraction to this activity, information was solicited on why people feel that RAGBRAI has become so popular. Analyses of the open-ended responses to this question yielded a variety of responses. Many people (37%) indicated that the uniqueness of the

experience had made RAGBRAI so popular. The publicity, planning and organization of RAGBRAI by the Des Moines Register was cited by some participants (14%) as important in popularizing the event. Fun (10%), the fitness explosion (7%), belonging (7%), being with other cyclists (7%), escape and relaxation (4%), and meeting new people (3%) were also cited by participants as contributing to the interest in RAGBRAI. Seeing Iowa and having a cheap vacation were also mentioned by a few participants (<1%). It appears that people perceived diverse factors for RAGBRAI's popularity, which again may be reflective of its wide appeal.

### Motives for Participation

#### Introduction

In order to examine motives for participation in RAGBRAI, analyses of the level of importance assigned to possible reasons for participation will be presented. Additionally, analyses of the relationships between the motive factors and participant characteristics of age, sex, residency, and frequency of participation will be presented. To examine the motives more fully, the ranked reasons for participation also will be discussed, as well as the responses to the open-ended questions regarding reasons for participation.

### Analyses of rated values

Participants were asked to assign a value from not very important to very important (1-7) to each of 19 items on the motives scale. Five major motive factors which accounted for 57% of the variance were identified by a varimax factor analysis with iteration (Table 10). Factor loadings and conceptual consistency of the items were considered in determining the factors. Factor labels were selected from the predominant items or common characteristics shared by items in the group. Factor 1 was labeled Escape since it was loaded with items associated with being free from responsibility and the cares of everyday life. Factor 2, labeled Extrinsic was loaded with items associated with opportunities for extrinsic, visible rewards of participation such as getting a RAGBRAI T-shirt or patch. Factor 3, labeled Unique was loaded heavily with items pertaining to the unique aspects of the RAGBRAI experience. Factor 4, labeled Fitness contained items relating to physical fitness and health. Factor 5, labeled Social contained items related to opportunities for social interaction, meeting new people and spending time with significant others. The five interpretable factors were composed of differing numbers of items (Unique=3, Social=3, Escape=4, Fitness=3, Extrinsic=4). Two items ("comparing my skills with others" and "seeing Iowa") failed to load high on any factor, and were not utilized in further analyses. Reliability of the factors was obtained by computing standardized alphas. All factors except Social (.41), demonstrated reasonably acceptable reliability (Unique = .66, Escape = .79, Fitness = .57, Extrinsic = .72). Correlations also were computed between the factors and

found to be relatively low ( $r = < .30$ ,  $p < .001$ , Table 11), suggesting that the factors appeared to be relatively independent.

Table 10

Varimax Rotated Factor Matrix of Motives for Participation in RAGBRAI

Motive Statements	Factor 1	2	3	4	5
<u>Escape Motive</u>					
Being free from the responsibilities of everyday life	.850 <sup>†</sup>	.036	-.020	-.064	.099
Escaping from daily routine	.705 <sup>†</sup>	-.042	.107	.004	.135
Being carefree	.640 <sup>†</sup>	.000	.062	-.013	.283
Reducing stress/tension	.620 <sup>†</sup>	.069	-.142	.208	-.075
<u>Extrinsic Motive</u>					
Getting a RAGBRAI T-shirt	.037	.812 <sup>†</sup>	-.020	.050	.123
Getting a RAGBRAI patch	-.081	.730 <sup>†</sup>	.126	-.148	-.141
Getting newspaper and TV publicity	.104	.694 <sup>†</sup>	-.126	.055	-.145
Belonging to a clearly identified group (RAGBRAI-ers)	.241	.334 <sup>†</sup>	.332	.162	.022
<u>Unique Motive</u>					
Trying something I never did before (new experience)	-.068	-.085	.660 <sup>†</sup>	-.015	.051
Seeing if I could complete RAGBRAI	.038	.133	.625 <sup>†</sup>	.224	-.076
Being part of a unique event	.048	-.069	.594 <sup>†</sup>	-.069	.084
<u>Fitness Motive</u>					
Improving cardiovascular fitness	.064	.017	.237	.599 <sup>†</sup>	-.260
Getting physically in shape	-.027	-.187	.451	.518 <sup>†</sup>	-.184
Losing weight	-.043	.198	.005	.489 <sup>†</sup>	-.063
<u>Social Motive</u>					
Being with my friends and/or family	.116	-.122	-.164	.417	.244 <sup>†</sup>
Having a good time	.137	-.190	.160	.075	.698 <sup>†</sup>
Meeting new people	.119	.037	-.045	-.105	.414 <sup>†</sup>

<sup>†</sup>Items loading on that factor.

Table 10 (continued)

Motive statements	1	2	3	4	5
<u>Excluded</u>					
Comparing my skills with others	-.054	.182	.254	.114	-.214
Observing the beauty of Iowa	.004	-.176	.042	.201	.058
Percent of Variance	14.9	14.0	13.0	8.8	6.4
Total Variance	57.18				

Table 11

Correlation Matrix for Motive Factors

Motives	Unique	Social	Escape	Fitness	Extrinsic
Unique	1.000				
Social	-.050	1.000			
Escape	.019	.229	1.000		
Fitness	.292	-.039	-.015	1.000	
Extrinsic	.074	-.092	.110	.099	1.00

Having reduced the 19 items to 5 interpretable factors, mean scores were obtained for each factor (Table 11). These composite factor scores were used for further statistical analyses. Means and standard deviations for the total sample showed that RAGBRAI participants in general rated the Unique motive most important, followed by Social, and Escape motives which were scored above average in importance (Table 12). The Fitness factor was rated average, and the Extrinsic factor, below average in importance as a motive for participation.

Further analyses were based on multiple regressions of the five identified factors on sex, age, residency, and frequency of participation. The overall F-test of the Unique factor was significant ( $F(4,171) = 6.12$ ,  $p < .0001$ ), and 13% of the variance was explained by the independent variables. Subsequent T-tests showed significant differences by sex ( $t = 2.666$ ,  $p < .008$ ) and number of times a person participated in RAGBRAI ( $t = 4.033$ ,  $p < .0001$ ). Women rated the uniqueness of the RAGBRAI experience significantly higher in importance than did men. First-time participants also valued the unique aspects of the experience significantly more than repeat participants. No significant differences were found by age or residency in relation to the Unique factor. No significant sex-age interaction effects were obtained.

The Extrinsic factor was significant ( $F(5,170) = 2.77$ ,  $p < .0195$ ) and 8% of the variance was explained by the independent variables. Significant sex differences ( $t = 2.481$ ,  $p < .0141$ ) and sex-age interactions ( $t = -2.237$ ,  $p < .0266$ ) were found. The age and sex interaction showed that younger women rated the extrinsic factor significantly higher in importance than

Table 12

Means and Standardized Deviations of Motives for Participation by Factors and Items

Motive factor	Factor mean	S.D.	Motive items	Item mean	S.D.
Unique	5.42	1.4	Unique	5.54	1.6
			New experience	5.51	1.9
			Completing	5.13	2.0
Social	5.18	1.2	Good time	5.82	1.4
			Friends/family	4.91	2.1
			Meet new people	4.76	1.8
Escape	4.51	1.5	Escape daily life	4.89	1.9
			Free of responsibility	4.87	2.0
			Being carefree	4.65	1.8
			Stress reduction	3.73	2.0
Fitness	4.20	1.4	Getting in shape	5.09	1.8
			Cardio-vascular fitness	4.67	1.9
			Lose weight	2.77	1.9
Extrinsic	2.39	1.2	Belong to this group	3.27	1.9
			Getting RAGBRAI t-shirt	2.34	1.6
			Getting RAGBRAI patch	2.25	1.6
			News/TV publicity	1.71	1.4
Excluded			Compare my skills	2.65	1.7
			Seeing Iowa	4.85	1.7

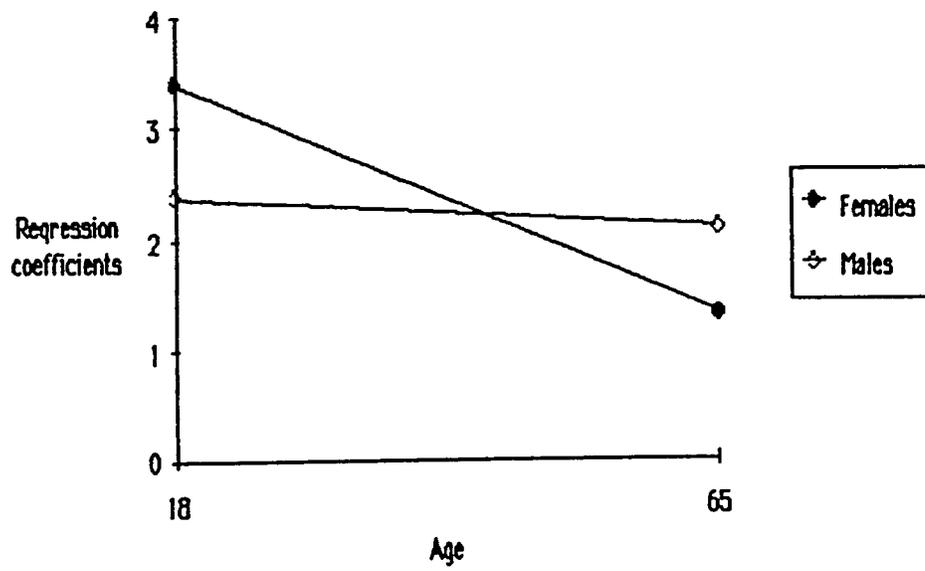


Figure 2. Sex-age interactions of Extrinsic motive scores

older women. Older women rated the extrinsic factor quite low. Men rated the extrinsic factor similarly at all ages. Men's ratings were significantly lower than young women's and higher than older women's ratings (Figure 2). No significant differences in the extrinsic motive ratings were found for residency and frequency of RAGBRAI participation.

Regression analyses of the Fitness, Social, and Escape factors yielded no significant differences in subjects' responses to these motives by sex, age, residency, or frequency of participation (Table 13).

Regression analyses demonstrated significant relationships for the Unique and Extrinsic factors and age, sex, and frequency of participation. (An examination of the residuals did not reveal any significant violations in the assumptions of regression.) The small amount of variance in the regression analyses suggests that there are few predictable patterns in the importance assigned to the five identified factors. Additionally, the finding that only slightly more than half the variance (57%) was explained by the five identified factors suggests that perhaps people participate in RAGBRAI for reasons other than the ones identified in this study.

#### Analyses of ranked value

In order to more fully examine reasons for involvement in RAGBRAI, participants not only rated the importance of the 19 identified motives, but also ranked from most to least important (1-5) their top five motives for participation. Analyses of the data on the ranked motives showed that "seeing if I could complete RAGBRAI" most often was ranked first in importance followed by "having a good time," "having a new experience,"



Table 13

Standardized Slope and T-Values for Regression of Motive Factors on Age, Sex, Frequency of Participation, and Residency of Participants

Independent variables	Unique Motive		Social Motive	
	Beta	T-value	Beta	T-value
Age	.057	.785	-.078	-1.0
Sex	.194	2.67**	8.73E-04	.011
Frequency of participation	-.298	-4.03***	.063	.801
Residency	.074	1.01	-.108	-1.39
Age X sex interaction	.147	.804	.031	.162
R Square	.126		.02	
F-value	6.19***		.787	
Degrees of freedom	(4, 171)		(4, 171)	

\*  $p \leq .05$     \*\*  $p \leq .01$     \*\*\*  $p < .001$ .

Escape motive		Fitness motive		Extrinsic motive	
Beta	T-value	Beta	T-value	Beta	T-value
-.051	-.655	.090	1.17	-.065	-.723
-9.57E-03	.124	.024	.308	.474	2.48**
.116	1.47	-.107	-1.37	-.018	-.240
-8.69E-03	-.112	.147	1.91	.106	1.4
-.016	-.080	-.292	-1.53	-.421	-2.24*
.014		.033		.076	
.616 (4, 171)		1.45 (4, 171)		2.77** (5, 170)	



"being part of a unique event," and "getting in shape" (Table 14).

In order to compare ranked values with scores assigned previously, an average rank score was derived, for each motive for participation. This was done by computing the frequency with which each motive was ranked one through five. For example, "having a new experience" was ranked first 14.4%, second 16.0%, third 7.3%, fourth 11.2% and fifth 9.6% of the time. These percentages were averaged (11.2%), producing an average rank of one. These average ranks were utilized for further analyses (Table 14).

In comparing the individual items with the previous ranked items, it can be noted that the average rank and rated mean scores were very similar. As was reported earlier, "Having a good time" (M=5.82) had the highest mean score, followed by "being part of a unique event (M=5.54), "having a new experience" (M=5.51), "seeing if I could complete RAGBRAI" (M=5.13), and "getting in shape" (M=5.09). The ranked values followed a similar pattern. The same items were in the group of the five most important motives for participation. Statistical analyses confirmed this observation. A Spearman's correlation (Bohrnstedt & Knoke, 1982) computed between the ranked and rated values showed that they were highly correlated ( $r = .97, p < .001$ ).

In order to make a more direct comparison, the 19 ranked items also were grouped into the five categories identified by the factor analysis. The Unique factor had the highest ranking, followed by Social, Escape, Fitness, and Extrinsic motives. The ranked order of importance were identical to the order of importance of the rated mean values (Table 15). In fact, the correlation between these two was  $r = 1.0$ . This correlation

suggests that people responded similarly when asked to assign a value or to rank the motives from 1-5.

Table 15

Comparison of Order of Importance of Motive Factors by Rated Value, Rank, and Open-ended Responses

	Rate (mean)		Rank (average %)		Open-ended (%)
1. Unique	5.42	Unique	11.35	Unique	31.9
2. Social	5.18	Social	8.41	Social	11.3
3. Escape	4.51	Escape	4.46	Fitness	10.5
4. Fitness	4.20	Fitness	4.34		
5. Extrinsic	2.39	Extrinsic	.48		

Analysis of open-ended responses

Because RAGBRAI is such a unique experience, and motives for participation in this event have not been previously examined, participants also were asked to give three reasons for their decision to participate. Examination of these open-ended responses showed that the motives for participation identified by the participants were very similar to the motives identified by the researcher, and the conceptual categories reported in the literature. Analyses of the motives participants cited indicated that "seeing if I could complete RAGBRAI," or "challenging myself" were the most frequently identified (12.6%) motives. Although

these motives were initially conceived as achievement or mastery motives, the factor analysis indicated that these items loaded with the factor labeled Unique. Being with family or friends, a social motive, was the second most frequently identified motive (11.3%), followed by fitness (10.5%), like to bike (9.9%), and fun (9.4%). The latter two reasons seemed associated with enjoyment and related to the motive category Unique experience.

RAGBRAI participants reasons for involvement were examined from several perspectives (factor analysis, regression, rated values, ranks, and open-ended responses) with similar results. Although differences were found in the individual item responses, the Unique experience of RAGBRAI appeared to be the most salient reason for participants' involvement, followed by Social, Escape, Fitness, and Extrinsic motives.

#### Discussion of motives for participation results

In general, the motives for participation in RAGBRAI indicated as important by the participants in this study were similar to motives for participation in sport and physical activity identified throughout the literature. One motive category not specifically defined in the literature was "unique experience", which was consistently identified by RAGBRAI participants as the most important reason for their involvement. This finding is supportive of Bratton et al.'s (1979) observation that motives for participation seem to be strongly related to the qualities inherent in the specific activity, i.e. the uniqueness of the experience. Kelly (1976) and Snyder and Spreitzer (1984) found that participants' ranking of

reasons for involvement varied with the type of sport. For instance, mountain climbers' primary motive for participation was enjoying the wilderness (Bratton et al., 1979), while runners identified health as their most important reason (Altheide & Pfuhl, 1980; Carmack & Martens, 1979), and hang-gliders and skydivers were attracted by the excitement and stimulation of the activity (Brannigan & McDougall, 1983).

The results of this study indicate that the uniqueness of RAGBRAI appears to be the most salient to participants, and is a multi-dimensional motive. Factor analysis indicated that Unique consisted of these items: "trying something I never did before," "seeing if I could complete RAGBRAI," and "being part of a unique event." These items represent several motive theories. "Trying something I never did before" is related to the theory of stimulation. Seeking new experience, something out of the ordinary, is stimulation seeking, an essential part of motivation (Elias & Dunning, 1970; Ellis, 1981; VanderZwagg, 1972). "Seeing if I could complete RAGBRAI" provides challenge and a sense of accomplishment which Iso-Ahola (1980) identified as an important facet of motivation for participation. Competition is relatively unimportant to RAGBRAI participants as evidenced by the low score given to "comparing my skills with others" (rank 15,  $M=2.65$ ), and the fact that this motive was not identified in the open-ended responses. RAGBRAI is not designed to be competitive, and this may well be one of the attractive features of the event, and contribute to its uniqueness. In their narrative remarks, several people indicated that being able to test their own abilities and to ride at their own pace were important to them in their enjoyment of

RAGBRAI. "Being part of a unique event" seems related to the motive categories of festival, and social involvement. RAGBRAI provides an opportunity for "festivity, ritual, and ceremony" (Snyder & Spreitzer, 1983, p. 286), for "genuine revelry and joyous celebration" (Cox cited in Snyder & Spreitzer, 1983, p. 286) as well as an opportunity to belong and to form social bonds. Thus, it appears that unique experience draws upon several theoretical bases, and the complexity of the unique motive supports VanderZwagg's suggestion that attraction to physical activity is most likely due to a complex of factors.

The observed sex differences in the importance assigned to the unique motive may be due to the different roles of women and men in sport. The finding that women valued the Unique factor significantly more than did men may be due to the fact that in general, women are less enfranchised in the traditional sports world than men, and therefore, women may more highly value the uniqueness of this physically demanding recreational activity. Trying and completing RAGBRAI may provide a unique achievement orientation for women who have not previously had the opportunity to participate in sports, particularly given the age group of women who participated in this study. This possibility also was reported in the written comments of women in the open-ended questions.

The importance of the Unique experience motive also varied significantly with peoples' frequency of participation. It seems logical that first time participants valued the uniqueness of the experience more than did repeaters. Although the route changes each year, many of the characteristics of the ride are similar to people who have previously

participated.

The Social motive was the second most important reason people gave for participation in RAGBRAI. Having fun, meeting new people, and spending time with significant persons were all part of the social motive. The results of this study were supportive of others' findings. Kenyon (1968c) found that the social motive was most important to high school age boys and second most important to high school age girls as a motive for participation in physical activity. Snyder and Spreitzer (1984) concluded that sociability and companionship were primary to adults' involvement in physical activity and sport. Social involvement also was the most frequently named reason for involvement in research on leisure activities (Grubb, 1975; Kelly, 1976; London et al., 1977; Neulinger & Raps, 1972). The importance of the social motive to RAGBRAI participants however, contrasts with research on runners (Carmack & Martens, 1979), swimmers, and tennis players (Kelly, 1976). This work has shown that social involvement is not very important as a reason for participation. In addition, some unique sports participants (hang-gliders, skydivers, mountain climbers) also have not highly valued social involvement as a motive for participation (Brannigan & McDougall, 1983; Bratton et al., 1979; Duthie & Salter, 1981). The unique sports of hang-gliding, skydiving, and mountain climbing, however, are perhaps ultimately more solitary experiences than cycling in a group for several days. No significant differences in the importance of the social motive were found in terms of age, sex, residency, or frequency of participation. This finding is consistent with previous work (Alderman, 1970; Hergert, 1969; Snyder

& Spreitzer, 1979b; 1984), but varies from Kenyon (1968c) who found that high school age males valued the social experience of physical activity more than did females. The RAGBRAI results suggest that social experience was equally valuable to men and women.

The Escape factor was the third most important reason for participation by RAGBRAI participants. No significant differences were found in the importance of this motive by age, sex, residency, or frequency of participation. The items (escape from daily life, being free from responsibility, being carefree, and reducing stress and tension) are similar to catharsis theories (release tension and anxiety, and escape from the cares of life) of Kenyon (1968a) and Iso-Ahola (1983), and might also be subsumed under the heading of psychological/emotional health. This finding that the escape/release factor was somewhat important as a reason for participation ( $M = 4.51$ , rank = 3), but not the most or least important, is consistent with previous research. Alderman (1970), Kenyon (1968c), and the Miller Lite Report (Miller Brewing Co., 1983) all found catharsis or release of tension rated third out of seven in importance as reasons for involvement in physical activity. The value of this motive, however, does vary at times with the nature of the sport. Runners generally have rated this reason second most important as a reason for involvement (Carmack & Martens, 1979; Summers et al., 1983). Wilderness sports enthusiasts such as hunters, campers, and mountain climbers rated escape the most important motive (Copp, 1975; Hollender, 1977; Wilson, 1977). The RAGBRAI data and various studies support the notion that attraction to physical activity and sport appears to be based on the

qualities inherent in the specific activity.

The Fitness factor (getting physically in shape, improving cardio-vascular fitness and losing weight) was fourth most important to participants as a motive for participation. These results differ from the majority of other studies which found health and fitness first or second in importance (Harris, 1984; Kenyon, 1968c; Miller Brewing Co., 1983; Spreitzer & Snyder, 1983). However, the Fitness factor mean score (4.20) was influenced by low scores (2.77) assigned the "lose weight" item. The Fitness factor mean without this item would have been much higher (M=4.88) and would have resulted in the Fitness motive scoring third in importance. In response to the lose weight item, a number of participants commented, "Are you kidding?" and mentioned the good food prepared by many Iowans across the state, which is part of the attraction to RAGBRAI. Although participants may be concerned about health and losing weight, RAGBRAI appears generally to be seen as an opportunity to indulge. The item "getting in shape" was evaluated as important (M=5.09, rank=5). This suggests that fitness appears to be as important a motive for RAGBRAI participants, as it is to adults participating in other activities (tennis, swimming, racquetball) (Kelly, 1976; Miller Brewing Co., 1983; Spreitzer & Snyder, 1983), although it is not the primary motivator for participation.

No significant differences in fitness scores were found based on participants' sex, age, residency, or frequency of participation. These results are supportive of the Gallup Poll (Harris, 1984) findings which have shown that men's and women's reasons for exercising were similar.

Also, these data support Summers et al.'s (1983) findings that male and female runners' reasons for running were similar. Sex differences in the value assigned fitness that have been found are associated with high school age populations (Kenyon, 1968c; Cunningham, 1970). It may be that the greater interest of young males than females in fitness, changes with age. Men may be less and women more concerned with fitness as age increases.

The least important motive for participation in RAGBRAI was the Extrinsic factor (getting a RAGBRAI T-shirt or patch, getting TV and newspaper publicity). This factor and each of these items were rated consistently low and never mentioned in the open-ended responses. Tangible rewards also have been found to be least important as a motive for participation by Carmack and Martens (1979). Snyder and Spreitzer (1983) have suggested that extrinsic rewards in fact, may be a detriment to adult participation, especially when associated with competition. Interestingly, significant sex differences and sex-age interaction differences were found in relation to this extrinsic motive. The finding that younger women valued extrinsic rewards much more than any other group, and older women valued extrinsic rewards least of any group was somewhat unexpected. For younger women, perhaps T-shirts and patches represent belonging to a group, and is a reflection of the value women place on affiliation. Or perhaps young women associate these symbols with achievement and therefore value them. Conversely, older women have possibly established their sense of belonging and have fulfilled their achievement needs in other areas of their lives, perhaps in families and/or

careers. Men of all ages, however, rated the extrinsic motive as slightly important. Perhaps males have so many other opportunities to receive recognition and rewards for physical activity pursuits that RAGBRAI T-shirts and patches don't carry that much value. Or the non-competitive structure of RAGBRAI may operate to reduce the value of the extrinsic rewards, particularly for men.

### Benefits of Participation

#### Introduction

Much of the previous work examining motives for participation actually has been based on the benefits of participation. It has been suggested however, that motives also should be examined from an antecedent perspective ( Spreitzer & Snyder, 1983). Thus, this study sought to examine peoples' reasons for participation as well as the benefits they derived from their involvement in RAGBRAI.

The 19 item benefits scale was constructed as a parallel scale to the motives scale. The content of these items was similar, the primary difference being in the readers' perspective. The statistical analyses of the benefits also was similar to that of the motives scale. Factor analysis between the items were computed as well as standardized alphas and regression analysis. Correlations were computed for the rated and the ranked data. In addition, responses to the open-ended questions were examined.

### Analyses of rated values

Factor analysis of the benefits scale, produced the same five major factors as found in the motives scale. These benefits factors accounted for 59% of the variance (Table 16). Factor 1, labeled (B)Escape consisted of items pertaining to benefits of escaping from day to day responsibilities. Factor 2, (B)Extrinsic consisted of items associated with extrinsic, visible rewards of RAGBRAI participation. Factor 3, (B)Fitness was composed of items regarding physical fitness benefits. Factor 4 was labeled (B)Unique, since the items loading pertained to the uniqueness of the RAGBRAI experience. Factor 5, (B)Social, was composed of items relating to social benefits of participation. The five factors were composed of differing numbers of items (Escape=4, Extrinsic=4, Fitness=3, Unique=3, Social=3). In this second scale, as in the motives scale, two items, ("compared my skills with others" and "saw Iowa") failed to load high on any factor and were not utilized in further analyses. Reliability of the factors was obtained by computing a standardized alpha which showed that all factors except Social (.49), demonstrated reasonably acceptable reliability (Unique .69, Escape .78, Fitness .72, Extrinsic .76). Correlations computed between the factors ( $r < .37$ , Table 17), indicated that the factors appeared to be relatively independent. Means and standard deviations also were obtained for each factor (Table 18) and used in further statistical analyses. Means and standard deviations for the total sample showed that RAGBRAI participants in general rated the Social benefit most important, followed by the Unique, and Escape benefits which scored above average in importance. The

Fitness factor was rated average, and the Extrinsic factor, below average in importance as benefits of participation.

The analysis procedure was based on multiple regressions of the five identified factors on the independent variables of sex, age, residency, and frequency of participation. The overall F-test of the unique factor was significant ( $F(11,45) = 9.48, p < .0000$ ) and explained 22% of the variance. Subsequent T-tests showed significant differences by sex ( $t = 3.072, p < .0025$ ), residency ( $t = 1.951, p < .0527$ ), and frequency of participation ( $t = -5.859, p < .0000$ ). Women rated the uniqueness of the experience as a benefit of participation significantly higher than did men. Out-of-state residents valued the unique aspects of RAGBRAI more than Iowa residents, and first time participants valued the experience more highly than repeat participants. No significant differences were found by age, nor was there a significant sex-age interaction effect.

The extrinsic factor also was significant ( $F(5,166) = 5.032, p < .0003$ ) and explained 13% of the variance. Significant sex differences ( $t = 3.637, p < .0004$ ) and sex-age interactions ( $t = -3.315, p < .0011$ ) were found. Extrinsic benefits were rated significantly higher by younger women and significantly lower by older women than by men at any age (figure 3). No significant differences were found by age, residency, or frequency of participation.

Regression analyses of the Fitness, Social, and Escape factors yielded no significant differences in subjects' responses to these benefits by age, sex, residency, or frequency of participation (Table 19).

Table 16

Varimax Rotated Factor Matrix of Benefits of Participation in RAGBRAI

Benefit items	Factor 1	2	3	4	5
<u>Escape Benefit</u>					
Escaped my daily routine	.838 <sup>†</sup>	-.062	-.035	.087	-.024
Was free from responsibilities of everyday life	.761 <sup>†</sup>	.071	-.054	-.048	.112
Was carefree	.670 <sup>†</sup>	.058	.195	-.003	.244
Reduced stress/tension	.413 <sup>†</sup>	-.139	.127	-.120	.189
<u>Extrinsic Benefit</u>					
Got a RAGBRAI t-shirt	-.058	.742 <sup>†</sup>	.103	.065	.180
Got a RAGBRAI patch	-.128	.685 <sup>†</sup>	-.005	.109	.030
Got newspaper and TV publicity	.061	.666 <sup>†</sup>	.015	.070	-.019
Belonged to a clearly identified group (RAGBRAI-ers)	.052	.563 <sup>†</sup>	.096	.239	-.105
<u>Fitness Benefit</u>					
Got physically in shape	.193	.0059	.887 <sup>†</sup>	.219	-.008
Improved C-Y fitness	-.027	.041	.769 <sup>†</sup>	.205	.115
Lost weight	.019	.167	.337 <sup>†</sup>	.089	.190
<u>Unique Benefit</u>					
Tried something I never did before (new experience)	-.095	.102	.100	.747 <sup>†</sup>	.100
Discovered how much of RAGBRAI I could complete	-.027	.117	.246	.685 <sup>†</sup>	.023
Was part of unique event	.037	.249	.175	.431 <sup>†</sup>	-.002
<u>Social Benefit</u>					
Had a good time	.317	.003	.132	.048	.629 <sup>†</sup>
Met new people	.184	.168	-.073	.087	.442 <sup>†</sup>
Spent time with family/friends	-.014	-.034	.095	-.212	.347 <sup>†</sup>

<sup>†</sup> items loading on that factor.

Table 16 (continued)

Benefit items	Factor	1	2	3	4	5
<u>Excluded</u>						
Compared my skills with others		.040	.317	.146	.367	-.258
Saw Iowa		.079	-.077	.230	.143	.347
Percent of variance		19.2	15.3	10.1	8.0	6.2
Total variance		58.7%				

Table 17

Correlation Matrix for Benefits Factors

Motives	(B)Unique	(B)Social	(B)Escape	(B)Fitness	(B)Extrinsic
(B)Unique	1.000				
(B)Social	-.037	1.000			
(B)Escape	-.038	.253	1.000		
(B)Fitness	.364	.133	.157	1.000	
(B)Extrinsic	.306	.062	-.036	.191	1.00

Table 18

Means and Standard Deviations of Benefits of Participation by Factors and Items

Benefit factor	Factor mean	S.D.	Benefit item	Item mean	S.D.
B-Social	5.54	1.2	Had a good time	6.24	1.2
			Met new people	5.21	1.8
			Friends/family	5.12	2.1
B-Unique	5.12	1.5	Was part of unique event	5.61	1.5
			Had new experience	5.01	2.2
			Completing the ride	4.68	2.2
B-Escape	5.12	1.3	Escaped daily routine	5.48	1.5
			Free of responsibility	5.18	1.8
			Was carefree	5.00	1.7
			Stress reduction	4.66	1.8
B-Fitness	4.39	1.4	Got in shape	5.31	1.7
			C-V fitness	5.01	1.9
			Lost weight	2.78	1.9
B-Extrinsic	2.62	1.3	Belonging	3.70	1.9
			Got RAGBRAI t-shirt	2.65	1.7
			Got RAGBRAI patch	2.42	1.7
			News/TV publicity	1.80	1.4
Excluded			Compared skills with others	3.31	1.9
			Saw Iowa	5.45	1.6

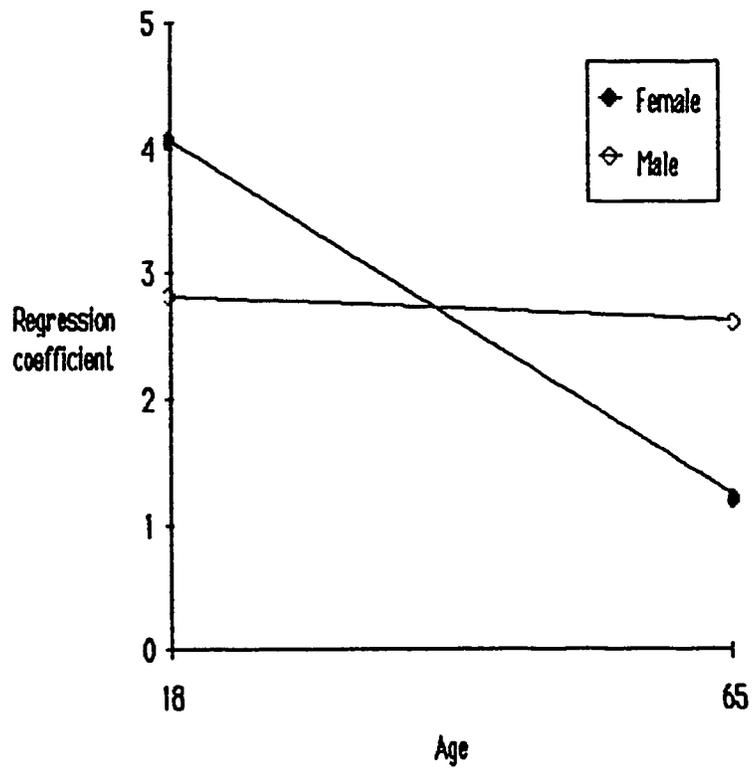


Figure 3. Sex-age interactions of Extrinsic benefit scores



Table 19

Standardized Slope and T-Values for Regression of Benefit Factors on Age, Sex, Frequency of Participation, and Residency of Participants

Independent variables	Social benefit		Unique benefit	
	Beta	T-value	Beta	T-value
Age	.024	.299	.107	1.51
Sex	.108	1.38	.216	3.07**
Frequency of participation	.102	1.29	-.414	-5.86***
Residency	-.055	-.700	.137	1.95*
Age X sex interaction	6.210E-04	.003	-.212	-1.20
R Square		.022		.215
F-value		.93		11.45***
Degrees of freedom		(4, 167)		(4, 167)

\*  $p \leq .05$     \*\*  $p \leq .005$     \*\*\*  $p \leq .001$ .

Escape benefit		Fitness benefit		Extrinsic benefit	
Beta	T-value	Beta	T-value	Beta	T-value
.013	.167	.106	1.14	-.03	-.34
.081	1.04	.423	2.13	.692	3.64***
.132	1.67	-.089	-1.15	-.09	-1.21
.047	.600	.159	2.05	.09	1.21
.064	.325	-.307	-1.58	-.619	-3.32***
.027		.055		.132	
1.15 (4, 167)		1.92 (5, 166)		5.03*** (4, 167)	

Regression analyses demonstrated significant differences in subjects reactions to the Unique and Extrinsic, but not Fitness, Social, or Escape factors. The analyses suggest that the unique and extrinsic rewards of the RAGBRAI experience differed in importance for people based on age, sex, residency, and frequency of participation. (An examination of the residuals did not reveal any significant violations in the assumptions of regression.) The small amount of variance in the regression analyses suggests that there are few predictable patterns in the importance assigned to the five identified factors. Additionally, the finding that little more than half of the variance (59%) was explained by the five identified factors suggests that people may derive other benefits from their participation than the ones identified in this study.

#### Analyses of ranked values

Again, in order to more fully examine the benefits derived from RAGBRAI participation, participants not only rated the importance of the 19 identified benefits, but also rank-ordered from most important to least important (1-5), their top five benefits of participation. Analyses of the ranked data showed that "being with friends and family" was most often ranked first in importance, followed by "had a good time," "had a unique experience," "met new people," and "saw Iowa" (Table 20).

In order to compare ranked values with the scores previously assigned, as discussed earlier, an average rank score was derived for each benefit of participation. These average ranks were utilized for further analyses.

In comparing the individual items, it can be noted that the average rank and rated mean scores were very similar. As was previously reported, "Had a good time" ( $M = 6.24$ ) had the highest mean score, followed by "was part of a unique event" ( $M = 5.61$ ), "escaped daily routine" ( $M = 5.48$ ), "saw Iowa" ( $M = 5.45$ ), and "got in shape" ( $M = 5.31$ ). The ranked values followed a similar pattern. A Spearman's correlation (Bohrstedt & Knoke, 1982) computed between the ranked and rated values for the 19 items was found to be quite high ( $r = .90$ ,  $p < .001$ ).

As was done previously, the 19 ranked items also were grouped into the five factors. When the rankings of benefits were examined by factor, the Social factor had the highest ranked value, followed by Unique, Escape, Fitness, and Extrinsic benefit factors. The ranked order of importance were identical to the order of importance of the rated mean values (Table 21). In fact, the correlation between these two was ( $r = 1.0$ ,  $p < .001$ ). This correlation suggests that people responded similarly when asked to assign a value or to rank the motives 1-5.

#### Analyses of open-ended responses

Additionally, participants also were asked to give three benefits associated with their participation in RAGBRAI. Examination of these open-ended responses showed that the benefits of participation identified by the participants were very similar to the benefits identified by the researcher, and the conceptual categories reported in the literature. Analyses of the benefits of participation cited social benefits ("met new people," 15% and "spent time with family and friends," 6%) most

Table 20

Average Ranked Values of Benefit Items

Motive	1	2	3	4	5	Average %	Average Rank
Had a good time	16.7%	<b>15.5%</b>	12.0%	9.4%	8	12.42	<b>1</b>
Met new people	6.3	8.3	11.5	10.5	11.1	9.54	<b>2</b>
Friends/family	<b>17.2</b>	10.9	4.2	4.7	9.0	9.2	<b>3</b>
Saw Iowa	3.1	6.7	<b>13.0</b>	9.4	12.7	8.98	<b>4</b>
Had unique experience	6.8	6.2	4.7	<b>12.0</b>	<b>13.2</b>	8.58	<b>5</b>
Got in shape	9.4	9.3	9.4	6.8	6.9	8.36	<b>6</b>
New experience	13.5	7.3	6.8	5.8	6.9	8.06	<b>7</b>
Escaped	4.7	3.6	10.9	9.9	4.8	6.78	<b>8</b>
Free of responsibility	6.8	7.3	5.7	7.3	5.3	6.48	<b>9</b>
Completing	7.3	6.7	7.3	2.6	3.7	5.52	<b>10</b>
Was carefree	.5	3.6	3.6	6.3	6.3	4.06	<b>11</b>
Stress reduction	1.6	4.1	3.1	6.3	6.3	3.34	<b>12</b>
C-V fitness	2.1	5.2	4.2	1.6	3.2	3.26	<b>13</b>
Compared my skills	.5	.5	2.6	3.7	2.6	1.98	<b>14</b>
Belonging	2.6	2.1	----	1.0	3.2	1.78	<b>15</b>
Lost weight	.5	----	.5	1.6	.5	.62	<b>16</b>
News/TV publicity	.5	----	----	1.0	----	.30	<b>17</b>
Got RAGBRAI t-shirt	----	----	.5	----	.1	.12	<b>18</b>
Got RAGBRAI patch	----	----	----	----	.5	.10	<b>19</b>

frequently, followed by fitness benefits (20%), and responses such as "proving that I could do it," "challenging myself," and "testing my abilities" (16%). These benefits seem to fall into an achievement or mastery category, however the factor analysis loaded these items with the Unique factor. A few participants cited unusual benefits that did not easily fall into the conceptual categories identified in the motives/benefits scales ("spiritual renewal" (3%), "memories" (2%), "spent a week outdoors" (2%), and "cheap vacation" (<1%).

Benefits of RAGBRAI participation were examined from several perspectives (factor analysis, regression, rated values, ranks, and open-ended responses). Although differences were found in the individual item responses, the Social benefits of RAGBRAI appeared to be the most important benefit derived from participants' involvement, followed by Unique, Escape, Fitness, and Extrinsic benefits.

Table 21

Comparison of Order of Importance of Benefit Factors by Rate, Rank, and Open-ended Responses

Rate	(Mean)	Rank	(Average %)	Open-ended (%)
1. Social	5.54	Social	10.39	Social 20.23
2. Unique	5.13	Unique	7.39	Fitness 20.1
3. Escape	5.12	Escape	5.17	Unique 19.33
4. Fitness	4.39	Fitness	4.08	
5. Extrinsic	2.62	Extrinsic	.58	

### Discussion of benefits of participation results

Much of the literature on motives for participation has actually been based on the benefits or "psychophysical consequences" of participation (Spreitzer & Snyder, 1983, p. 28), and as William Morgan (1974, p. 235) concludes, "the physical and psychological benefits of involvement in vigorous physical activity are well documented." However, little research has been conducted regarding participants' satisfactions or perceived benefits of their involvement (Lupton et al., 1984). Still fewer studies have compared the motives and benefits of participation (Altheide & Pfuhl, 1980; Carmack & Martens, 1979; Summers et al., 1983). Therefore, the lack of a data base in this area makes a discussion of RAGBRAI participants' benefits difficult.

In general, the benefits that participants derived from RAGBRAI were similar to those observed in other studies (Altheide & Pfuhl, 1980; Carmack & Martens, 1979; Lupton et al., 1984; Summers et al., 1983). Analyses from the various perspectives suggest that social relationships were perceived by RAGBRAI participants to be the most important benefit gained from participation. These results differ from previous work which has identified fitness and health (physical and psychological) as the most important benefits of participation in physical activity and sport (Altheide & Pfuhl, 1980; Carmack & Martens, 1979; Lupton et al., 1984; Spreitzer & Snyder, 1983; Summers et al., 1983). As noted earlier, part of the difference in the RAGBRAI data may be accounted for by the fact that the Fitness benefit scores were influenced downward by the "lose weight"

item. However, even if the "lose weight" item were dropped, Social benefits would still be most important to RAGBRAI participants. The earlier studies which found fitness to be the most important benefit, also found that few social benefits were perceived to be associated with participation. The RAGBRAI data, interestingly, differs from these results. Despite its physical demands, RAGBRAI is not valued primarily as a fitness activity, but for its social aspects. RAGBRAI offers many opportunities for social interaction. Spending a week with 7,000 other people, eating, sleeping, showering and cycling together leads to many opportunities to meet new people. Additionally, people in towns along the route come out to meet RAGBRAI, to cheer participants on, to feed them, to watch and be part of the spectacle. In their written comments on a highlight experience of RAGBRAI, participants indicated the hospitality and helpfulness of people to be most memorable. Additionally, the item "had a good time," which was a part of the social benefit, was the most highly ranked and rated item.

No differences were noted in the social benefit based on age, sex, residency, or frequency of participation. This finding differs from Carmack and Martens (1979) who found sex differences in outcomes or benefits derived from running. They noted that significantly more women than men responded "yes" to items in the affiliation category. In contrast to this, it appears that both men and women find that the RAGBRAI experience affords important social benefits. Since RAGBRAI is structured as a non-competitive week-long event, the value of the benefits of the experiences as an achievement activity or fitness activity

are diminished, and the social aspects take on more significance. This may be particularly true for men whose previous experience has likely been in more competitive activities.

The second most important benefit of participation was the Unique benefit, which included "was part of a unique event," "had a new experience," and "discovered how much of the ride I could complete." This unique experience benefit was not identified in the literature, and appears to be multi-dimensional. As discussed earlier regarding motives, the unique benefit represents several theoretical categories of experience, including stimulation, mastery, and festival. It appears that participants perceived testing their own abilities or challenging themselves, trying something new, and being part of something unique to be important benefits of their participation. This importance may be due to the fact that adults may tend to have fewer opportunities for these kinds of experiences, especially in physical activities. Therefore, when the opportunity to do something unique occurs, its' value is enhanced.

Significant differences in derived benefits were noted by sex, residency, and frequency of participation. The observed sex differences may again be due to the different roles of women and men in sport. The finding that women valued the unique benefit significantly more than men may be related to women having had fewer opportunities to participate in sport and physical activity. Women, particularly considering the age group of this sample, may have less opportunity than men to try novel, physical, and challenging activities, or it may be that men may have had more opportunities to engage in such types of activities as a part of childhood

or adult experiences. Again, the non-competitive structure of RAGBRAI perhaps enhances the value of the unique benefit for women.

It seems logical that out-of-state residents valued the unique benefit more than did in-state residents. In state residents have had greater exposure to RAGBRAI through the media and are more familiar with it. In contrast, people from greater distances perhaps have heard less about it and have been less likely to experience it vicariously through friends or acquaintances.

First-time participants also logically valued the uniqueness more than repeaters. Although the route changes each year, many of the characteristics of the ride are similar to people who previously participated. Having a new experience or discovering how much of the ride could actually be completed are probably more important as initial experiences, and less valued when the experience is repeated.

The third most important benefit was identified as Escape. This finding is similar to earlier studies on runners which have shown that escape, tension release, and psychological health were important benefits derived from participation (Altheide & Pfuhl, 1980; Carmack & Martens, 1979; Summers et al., 1983). It appears that physical activity is a primary means of achieving this benefit.

No differences were noted in the importance of the Escape benefit by age, sex, residency, or frequency of participation. This lack of sex differences suggests that Escape is equally important to men and women.

Fitness was the fourth most important benefit of participation identified by RAGBRAI participants. No differences were noted in response

to this item by age, sex, residency or frequency of participation. As with the motives for participation, one item scored very low ("lost weight"  $M=2.78$ , rank 16), which somewhat distorted the results. If this item were dropped, the fitness factor would score higher ( $M=5.16$ ), making it the second most important benefit factor. Since "got in shape" ranked sixth, it appears that the fitness benefit was perhaps more important than the mean score for the fitness factor showed. As noted earlier, the results of this study differ from others in that the fitness benefit was not valued as most important.

Least important was the Extrinsic benefit factor, which was not scored as very important overall. These results are consistent with others which have failed to find extrinsic benefits mentioned as a benefit of sport involvement (Altheide & Pfuhl, 1980; Carmack & Martens, 1979; Lupton et al., 1984; Summers et al., 1983).

The significant sex differences in the importance assigned the Extrinsic benefit may be due as noted earlier, to differences in peoples' sport experiences. Younger women rated the extrinsic benefits much higher than any other group, and older women rated it much lower than any other group. As was mentioned earlier, young women may value the extrinsic rewards because they are viewed as symbols of achievement or affiliation. Young women may have not only less opportunities to achieve such rewards, but fewer rewards of this kind. Older women, on the other hand, have perhaps established their sense of belonging, and fulfilled their achievement needs in other areas of their lives. They may not, therefore, value such visible symbols of their participation. Men of all

ages, however, rated the extrinsic benefit as only slightly important. It may be that males have many other opportunities to receive recognition and rewards for physical activity pursuits, or due to the non-competitive nature of RAGBRAI, T-shirts and patches hold little value for them.

### Comparison of Motives and Benefits

In order to examine the possible relationship between motives and benefits of participation, correlations were computed. For the rated mean data, Pearson product moment correlations were computed between the 19 parallel motives and benefits items. The correlations were found to be relatively high. It appeared that people responded similarly to motives for participation and benefits of participation items.

Examination of the motives and benefits when the items were grouped into categories by the factor analysis, produced similar results. It appeared that the reasons that people gave for initial involvement were very similar to what they indicated they had derived from RAGBRAI participation.

To examine the ranked data, Spearman correlations were computed between the motives and benefits items and found to be high ( $r = .85, p < .001$ ). The correlation of the motives and benefits factors using the ranked data also was high ( $r = .8, p < .001$ ). The order of importance was the same as for the mean rated values, indicating consistency of responses, and suggesting that people appeared to get out of their participation what they thought they would.

The results of this study were similar to previous work done in similar areas (Altheide & Pfuhl, 1980; Carmack & Martens, 1979; Summers et al., 1983). Previous studies have shown that reasons for participation and perceived benefits of participation were very similar, suggesting that either people got out of their participation what they thought they would, or that reasons for participation are essentially what people perceive as expected benefits of their participation.

The RAGBRAI data showed a slight difference between the importance of the motives and benefits. The Unique motive was found to be most important, followed by the Social motive, while the Social benefit was most important, followed by the Unique benefit. It seems that participants were most attracted by the uniqueness of RAGBRAI and felt that the most important benefit of their participation was the social interaction. Perhaps once the experience is completed, the uniqueness of the event diminishes. RAGBRAI may move from being something new, to being more familiar. Or, once it is completed, RAGBRAI may not be as unique as the person originally thought it would be. In contrast, the increased value of the social benefit may be due to the fact that the opportunities and affiliations are greater than anticipated, or perhaps more memorable than other aspects of the experience. In general, these data suggest that motives for participation appear to parallel the derived benefits.

## CONCLUSIONS

Bicycling has grown tremendously in popularity and in numbers of participants in recent years. RAGBRAI (the Register's Annual Great Bicycle Ride Across Iowa) is the largest bicycling event of over one day in the United States. This unique Iowa phenomenon attracts thousands of cyclists from great distances each year, yet this population has not previously been studied. Therefore, this study sought to examine the characteristics and motives of adult participants in this popular and physically demanding event.

Questionnaires were sent to 400 adult participants in RAGBRAI XI (1983). Information was solicited on demographic characteristics of participants, their motives, the benefits they derived from their involvement, as well as factual and affective dimensions of the RAGBRAI experience itself. The data were analyzed from several perspectives.

Analyses of the data on demographic characteristics of RAGBRAI participants showed that a typical RAGBRAI participant was likely to be a white, married, male, 37 years old, well-educated, engaged in a professional or managerial occupation, and physically active in a wide variety of sports and activities. He had a high income, lived in a metropolitan area, was as likely to be from out of state as from Iowa, and traveled 400-500 miles in order to participate. The typical participant also tended to be politically involved, and was as likely to be an Independent as a Democrat or Republican. These findings are similar to previous work on adult participants, especially runners and other unique

sports participants. An especially interesting aspect of these results is the fact that so many middle-aged and older people were participants in this physically demanding activity.

RAGBRAI participants generally were not elite or competitive cyclists, but committed to cycling as a hobby, recreation, or fitness activity. The typical participant rode a medium priced (\$280), 10-speed bicycle which was about 3 years old. Cyclists had a history of regular riding and cycled approximately 87 miles per week. A large majority of the participants rode the entire distance (492 miles) of the ride, and indicated that completing the ride was an important achievement for them.

The data showed that the unique experience of RAGBRAI was the most important reason for peoples' participation. This unique experience motive, which is multi-dimensional, has not been previously identified in the research literature. This finding supports earlier theorists who observed that attraction to physical activity is very complex, and strongly related to the qualities inherent in the specific activity. Those qualities of RAGBRAI included having fun, challenging oneself, and being part of an event that is special and unusual, new and different. RAGBRAI 's uniqueness appears to be a special blend of many things: having fun, enjoying good food, meeting new people, interacting with new acquaintances, family, and old friends. partaking of the beauty of the Iowa countryside, seeing large numbers of bicycles take over highways usually used by automobiles, and being a part of a large, colorful parade that winds its way across the state. The importance of the unique aspect of RAGBRAI to participants is understood from several theoretical

perspectives. It appears that the concept of mastery (challenging oneself) and competition may be especially important in understanding adult involvement in physical activity and sport. RAGBRAI participants seemed drawn by a desire to challenge themselves in a personal, rather than competitive setting.

In addition to the unique aspects of RAGBRAI, participants also strongly valued social interaction as a motive and benefit of involvement. Although previous work has shown that the importance of social motives vary with the type of sport or activity, sex, and age, for RAGBRAI participants the social dimension of the experience was very salient. Many people participated with family members and indicated that sharing this experience with family was quite important to them. A majority of participants attended with friends, and many indicated that meeting new people, both other riders and people in towns along the route was a source of great satisfaction to them.

The escape motive also was important to RAGBRAI participants. "Getting away from it all," or having an opportunity to be free from responsibility or day to day routine was valued by many participants and seemed to contribute to the uniqueness of RAGBRAI. As one participant stated, "I don't have to BE anybody for a whole week. Life is reduced to the basics of eating, sleeping, showering, pedaling, and having fun."

Like escape, fitness was important as both a motive and a benefit for participants. Although RAGBRAI clearly places physical demands on participants, fitness was not as primary a motive as uniqueness, social interaction, or escape. This finding differed from previous studies which

found fitness most important to adult participants, and is perhaps due to the uniqueness of RAGBRAI.

The finding that the extrinsic factor was least valued as a motive or benefit of RAGBRAI was not unexpected and interesting. Apparently, extrinsic rewards have less value in a context such as RAGBRAI, which is structured primarily as a non-competitive event.

A comparison of motives and benefits of participation by sex showed somewhat surprisingly that women and men were more similar than different. Similar comparisons by age also showed that the age of participants had very little to do with how important participants found certain motives and benefits. This contrasts with earlier work which has found differences in peoples' motives for physical activity based on age and sex. RAGBRAI apparently is so unique and multi-dimensional that its' wide appeal seems to cut across boundaries of sex and age.

When the reasons people gave for participating in RAGBRAI were compared with the benefits they derived from the experience, it was found that the motives and benefits were very similar. This finding suggests that perhaps people choose to become involved in RAGBRAI because of what the benefits they see associated with participation. That is, their motives were based on perceived benefits. Their satisfaction with the experience is therefore dependent upon how well the activity fits the expected benefits. Or since the data was all collected post hoc, it may be that participants weren't able to clearly differentiate in their minds what attracted them to RAGBRAI from what they gained from the experience. This finding is similar to other research which has shown that motives

and benefits are often very similar. To more accurately assess whether reasons and benefits are essentially the same, it would be necessary to collect information from participants in a pre- and post- activity setting.

Results of this research both support previous findings, and suggest new directions for future research. It appears that adults' reasons for involvement are complex. The five factors identified in this study all appeared to have contributed to the uniqueness of the RAGBRAI experience. Only slightly more than half of the variance, however, was explained by the five identified factors. This suggests that perhaps people participated in RAGBRAI for reasons other than the ones identified in this study.

What attracts people initially to RAGBRAI and keeps bringing them back seems to be the uniqueness of this Iowa experience. Although there are other similar bicycle rides organized in other states, none has the popularity or numbers of people involved of RAGBRAI. These findings suggest that the nature of the event may dictate the motives and benefits of participation. The tenability of this notion, however, requires further study of other independent sport activities. .

In investigating the characteristics and motives of adults participating in RAGBRAI, a variety of information has been collected. In the process of analyzing this data, various questions have been raised and suggestions made for further research. It is hoped that this study not only provides a data base for understanding the phenomenon of RAGBRAI, but will also stimulate continued study of adult participation in physical activity and sport.

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APPENDIX A: COVER LETTER

March 26, 1984

Dear 1983 RAGBRAI Participant:

As a graduate student at Iowa State University, I am studying the unique Iowa event, RAGBRAI, the Register's Annual Great Bicycle Ride Across Iowa. People participate in RAGBRAI for a variety of reasons. One of RAGBRAI 1983's T-shirts stated the question, "Why am I doing this?" The "Why" of physical activity and sport participation is intriguing to me. The purpose of my work is to study the reasons why people participate in RAGBRAI.

You are one of 400 people randomly chosen from among the 7,000 who participated in RAGBRAI 1983, who are being asked to assist with this project. To participate in this study, please complete the enclosed short questionnaire. You may be assured complete confidentiality of your responses. Please do not sign your name. Your completion and return of the questionnaire in the enclosed, self-addressed envelope will indicate your willingness to participate in the study.

The success of this study depends on your willingness to complete and return the questionnaire. RAGBRAI is such an interesting phenomenon. I hope you will help me by sharing information about your experiences with it.

Your time and cooperation are very much appreciated.

Sincerely,  
Signature redacted for privacy

Racquel Miller

APPENDIX B: QUESTIONNAIRE

*Why People  
Participate in  
RAGBRAI:  
A Study of  
a Unique Iowa Event*



*Racquel Miller  
Department of  
Physical Education/  
Leisure Studies  
Iowa State University  
Ames, Iowa 50011*



1. Why do you feel RAGBRAI has become so popular?

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2. Did you participate in RAGBRAI XI (1983)?

yes...GO TO QUESTION 3  
 no ...GO TO QUESTION 17

3. Why did you decide to participate in RAGBRAI XI? Please give at least three reasons for your participation.

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4. People gain different things from participation. As you look back, what did you most value from your participation in RAGBRAI XI? Please give at least three benefits you gained from participating.

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5. How many times have you participated in RAGBRAI? \_\_\_\_\_  
List the years that you have participated \_\_\_\_\_

6. Do you plan to participate in RAGBRAI again? yes no

If yes, why?

If no, why?

7. If you participated in RAGBRAI more than once, have your reasons for participation changed since the first time you participated? yes no

If yes, how have your reasons changed?

8. With whom did you attend RAGBRAI XI? Please check.

<input type="checkbox"/> alone	<input type="checkbox"/> with coworkers
<input type="checkbox"/> with spouse	<input type="checkbox"/> with friends
<input type="checkbox"/> with own children	<input type="checkbox"/> other (specify) _____
<input type="checkbox"/> with other family (parents, siblings, etc.)	

9. What type and make of bicycle did you ride in RAGBRAI XI? \_\_\_\_\_  
 How old is it? \_\_\_\_\_  
 About how much did it cost? \_\_\_\_\_

10. How far did you travel (miles) from your residence to participate in RAGBRAI XI? \_\_\_\_\_

11. Did you ride the entire distance (492 mi.) of RAGBRAI XI? yes no  
 If no, how many days did you ride? \_\_\_\_\_  
 Approximately how many miles did you ride? \_\_\_\_\_

12. How many new people did you become well-acquainted with while participating on RAGBRAI XI? \_\_\_\_\_

13. Was there one major highlight of RAGBRAI XI for you? yes no  
 If yes, please explain or describe.

14. What were some of your feelings as you were riding that last mile?





In order to better understand your answers and analyze items in the survey, please answer the following background questions about yourself. Your responses are strictly confidential.

17. How old are you? \_\_\_\_\_
18. What is your sex? \_\_\_female \_\_\_male
19. What is your marital status?  
 \_\_\_single \_\_\_married \_\_\_divorced \_\_\_widowed \_\_\_separated
20. What is your racial background?  
 \_\_\_White (Caucasian) \_\_\_\_\_ Native American Indian  
 \_\_\_Asian \_\_\_\_\_ Mexican American  
 \_\_\_Black (Afro American) \_\_\_\_\_ other (specify)\_\_\_\_\_
21. Please check the highest level of education you have completed.  
 \_\_\_some grade school  
 \_\_\_completed grade school  
 \_\_\_completed high school  
 \_\_\_high school and had other training, but not college, e.g., technical  
 \_\_\_some college  
 \_\_\_completed college  
 \_\_\_some graduate work  
 \_\_\_graduate degree \_\_\_MS \_\_\_MA \_\_\_PhD \_\_\_other (specify)\_\_\_\_\_
22. What is your occupation? \_\_\_\_\_  
 What is your exact job title? \_\_\_\_\_  
 Are you self-employed? \_\_\_yes \_\_\_no
23. If married, please check the highest level of education your spouse completed.  
 \_\_\_some grade school  
 \_\_\_completed grade school  
 \_\_\_completed high school  
 \_\_\_high school and had other training, but not college, e.g., technical  
 \_\_\_some college  
 \_\_\_completed college  
 \_\_\_some graduate work  
 \_\_\_graduate degree \_\_\_MS \_\_\_MA \_\_\_PhD \_\_\_other (specify)\_\_\_\_\_
24. If married, what is your spouse's occupation? \_\_\_\_\_  
 What is your spouse's exact job title? \_\_\_\_\_  
 Is your spouse self-employed? \_\_\_yes \_\_\_no
25. What is your approximate yearly family income? (Please check appropriate category)  
 \_\_\_less than \$5,000 \_\_\_\_\_ \$30,000 to \$39,999  
 \_\_\_\$5,000 to \$9,999 \_\_\_\_\_ \$40,000 to \$49,999  
 \_\_\_\$10,000 to \$19,999 \_\_\_\_\_ more than \$50,000  
 \_\_\_\$20,000 to \$29,999 \_\_\_\_\_

26. How many days paid vacation do you have per year? \_\_\_\_\_  
 Do you get other time off work or school, (e.g., compensatory time, etc.)  
 \_\_\_yes \_\_\_no  
 If yes, how much? \_\_\_\_\_
27. Did you participate on any varsity high school athletic teams?  
 \_\_\_yes \_\_\_no  
 If yes, please indicate sport(s) and number of years you participated.
28. Did you participate on any college varsity sports teams? \_\_\_yes \_\_\_no  
 If yes, please indicate sport(s) and number of years you participated.
29. In what sports/physical activities do you currently participate on a regular basis recreationally (non-competitively)? (e.g., jogging, weight lifting, fishing, tennis, aerobic dancing, etc.)
30. In what sports/physical activities do you current participate on a regular basis competitively (organized competition)? (e.g., softball league, bowling league, racquetball league, etc.)
31. How would you describe your current level of participation in physical activity generally? (Please circle the appropriate number on the scale.)
- |   |             |   |   |   |   |        |
|---|-------------|---|---|---|---|--------|
| 1 | 2           | 3 | 4 | 5 | 6 | 7      |
|   | not         |   |   |   |   | very   |
|   | very active |   |   |   |   | active |
32. During a typical summer month, approximately how many miles per week do you cycle? \_\_\_\_\_
33. As an adult, for approximately how many years have you been cycling regularly? \_\_\_\_\_  
 Do you consider yourself an \_\_\_occasional cyclist  
   \_\_\_dedicated cyclist  
   \_\_\_competitive cyclist  
 If competitive, for how many years have you been competing? \_\_\_\_\_
34. Are you a member of a cycling club? \_\_\_yes \_\_\_no  
 Is this club a competitive club? \_\_\_yes \_\_\_no  
 Is this club a recreational club? \_\_\_yes \_\_\_no

35. What is the size of the town/city in which you lived when you participated in RAGBRAI? (Please check the appropriate category)

- |                                      |  |
|--------------------------------------|--|
| <input type="checkbox"/> under 150   | <input type="checkbox"/> 10,000-19,999   |
| <input type="checkbox"/> 150-499     | <input type="checkbox"/> 20,000-49,999   |
| <input type="checkbox"/> 500-999     | <input type="checkbox"/> 50,000-499,999  |
| <input type="checkbox"/> 1,000-2,499 | <input type="checkbox"/> 500,000 or more |
| <input type="checkbox"/> 2,500-9,999 |  |

36. What is your political affiliation? Please check the appropriate category.

- Republican     Democrat     Independent     Other (specify) \_\_\_\_\_

37. What is your political orientation? Please check the appropriate category

- Conservative                       Liberal  
 Moderate                               Other (specify) \_\_\_\_\_

38. How active politically would you describe yourself? (Include your activity on non-party issues, e.g., environmental concerns, civil rights, etc.) Please check all appropriate categories.

- |   |  |
|---|--|
| <input type="checkbox"/> don't vote                   | <input type="checkbox"/> campaign for candidates           |
| <input type="checkbox"/> vote                         | <input type="checkbox"/> run for public office             |
| <input type="checkbox"/> make financial contributions | <input type="checkbox"/> write letters to Congress persons |

39. What is your religious preference? Please check appropriate category

- |                                     |                                |
|-------------------------------------|--------------------------------|
| <input type="checkbox"/> Catholic   | <input type="checkbox"/> none  |
| <input type="checkbox"/> Protestant | <input type="checkbox"/> other |
| <input type="checkbox"/> Jewish     |                                |

40. How would you describe yourself in terms of religious orientation? Please check the appropriate category

- |                                      |  |
|--------------------------------------|--|
| <input type="checkbox"/> Traditional | <input type="checkbox"/> Agnostic          |
| <input type="checkbox"/> Liberal     | <input type="checkbox"/> Atheist           |
| <input type="checkbox"/> Fundamental | <input type="checkbox"/> None of the above |

Your contribution to this effort is greatly appreciated.

APPENDIX C: FOLLOW-UP POSTCARD

May 17, 1984

Hello!

A few weeks ago you received in the mail a questionnaire regarding RAGBRAI. If you have already returned your completed questionnaire, thank you very much for your time and assistance with this project.

If you have not yet completed and returned the questionnaire, would you please take a few minutes and do so? Your help is very much needed and appreciated.

HAPPY RIDING!

Thanks again,

Racquel Miller  
Iowa State University  
Ames, Iowa 50010