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PROMOTING PHYSICAL ACTIVITY IN THE UNITED STATES: CHALLENGE
TO PHYSICAL EDUCATION

The University of North Carolina at Greensboro

Ed.D. 1985

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PROMOTING PHYSICAL ACTIVITY IN THE UNITED STATES:
CHALLENGE TO PHYSICAL EDUCATION

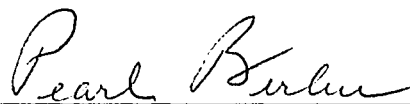
by

Christine M. Brooks

A Dissertation Submitted to
the Faculty of the Graduate School at
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of the Requirements for the Degree
Doctor of Education

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1985

Approved by



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APPROVAL PAGE

This dissertation has been approved by the following committee of the Faculty of the Graduate School at The University of North Carolina at Greensboro.

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BROOKS, CHRISTINE M., Ed.D. Promoting Physical Activity in the United States: Challenge to Physical Education. (1985) Directed by Dr. Pearl Berlin. 333 pp.

The status of adult physical activity participation was examined to determine the status quo of involvement and to suggest strategies for encouraging adults to increase their physical activity. Data from seven selected surveys, 1961-1982, provided the information for the secondary analyses. National and regional data were studied from several perspectives, i.e., geographically, demographically, with respect to lifestyle, and from a leisure point of view.

Findings suggested that (a) although 33.5% of the adult population undertook a physical fitness program in 1982, less than 5% swam, weight lifted, biked or jogged in each activity at least once a week; (b) less than 35% of individuals owning jogging shoes, lifting equipment or bicycles used their equipment regularly; (c) between 1982 and 1983, the 35-44 year age category increased ownership of jogging shoes and jogging participation; blue collar workers increased participation in weight lifting; there were no changes in swimming or bicycling; (d) lifestyle influences both the type and the amount of physical activity undertaken; (e) inactive individuals are undirected in their leisure and show little interest in physical activity; (f) psychosocial factors associated with leisure pursuits appear to be related to the type of physical activity undertaken; (g) although time was mentioned as the most frequent barrier to increasing

participation in physical activity, the actual barrier appears to be related to one's attitude toward life and priority order of activities; (h) research to date calls attention to "individual fault" to the exclusion of "system fault" as the blame for an inactive society.

The study proposed that the profession of physical education adopt and emphasize a change agent posture toward physical activity in place of the physiological and medical orientation that directed its past association with fitness. The Diffusion of Innovation Model and the application of marketing and communication theory were suggested as tools for analyzing and improving the physical activity status of our society.

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Throughout the three years it took to research and write this study many individuals have had a significant impact. But first, I must express my sincerest appreciation to my son, Aaron, who showed patience and understanding beyond his years in allowing me the long hours of uninterrupted time I needed to put this project together. Without his help the task would have been a longer and more arduous one. I feel very lucky to have a son such as he.

The original impetus for this project developed after numerous hours of discussion with Dr. Pearl Berlin, chair of my committee. Her ability to stimulate ideas, thoughts, and pursuit of excellence in her doctoral students is a true gift. It is not often one can reflect back and say "that person made a significant difference to my life." Dr. Berlin is one of those rarities. Her dedication to this manuscript and to the many hours of editing it required far exceeded what any student could expect from an adviser. I feel privileged to have been one of Dr. Berlin's final students prior to her retirement.

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TABLE OF CONTENTS

	Page
APPROVAL PAGE	ii
ACKNOWLEDGMENTS	iii
LIST OF TABLES	ix
LIST OF FIGURES	xi
CHAPTER	
I. INTRODUCTION	1
Problem Statement	10
Definition of Terms	12
Scope of the Study	13
Research Assumptions	13
Significance of the Study	14
The Broad Research Plan	15
II. PHYSICAL ACTIVITY PROMOTION--THREE NATIONAL CAMPAIGNS	18
The United States	19
Objectives of the PCPFS	19
Campaign Evaluation	26
Canada	32
Objectives of PARTICIPaction	32
PARTICIPaction Saskatoon	35
Campaign Evaluation	36
Australia	39
Results of the Attitude Survey	41
Objectives of "Life. Be in it"	42
Campaign Evaluation	46
Critical Analysis	48
Similarities/Differences	48
Mass Communication	50
III. MARKETING	57
Philosophical Orientation	57
Concepts	57
Appropriateness for Promoting Physical Activity	63
Summary	70

CHAPTER	Page
IV. NATIONAL PARTICIPATION ANALYSIS 1972-1982 . . .	74
Data Sources	75
Limitations to the Studies	77
Selected Activity Analysis	86
Relevance to Promotion of Physical Activity	90
V. SECONDARY ANALYSIS OF ADULT PHYSICAL ACTIVITY	94
The Decade from 1972 to 1982	95
Regional Analysis	95
Regional Participation in Selected Activities	97
Regional Participation and Ownership in 1982	99
Participation and Community Size	102
Participation and Sex	105
Participation and Age	109
Participation and Income	113
Participation and Occupation	116
Participation and Education	118
A One-Year Comparison Between 1982 and 1983	120
Physical Fitness Program	121
Swimming	123
Weight Lifting	125
Jogging	125
Bicycling	128
Relevance to Physical Activity Promotion . .	130
Regional Considerations	130
Past Experience and Age	131
Education	136
Equipment Ownership	140
VI. PHYSICAL ACTIVITY IN THE CONTEXT OF LIFESTYLE	147
The VALS Typology	149
Lifestyle and Physical Activity	175
VII: PHYSICAL ACTIVITY IN THE CONTEXT OF LESIURE .	182
Leisure Participation Research	182
Other Leisure Interests	191
Relevance to Physical Activity Promotion . .	204

CHAPTER	Page
VIII. STRENGTH OF DESIRE TO INCREASE PHYSICAL ACTIVITY PARTICIPATION	207
Desire to Increase Participation	209
Historical Consideration of Activity Participation and Strength of Desire to Increase Participation	212
Relationship Between Strength of Desire and Activity During the Prior 12 Months .	214
Demographics	217
Relevance to Physical Activity Promotion .	226
IX. ANALYSIS OF PHYSICAL ACTIVITY BEHAVIOR: BARRIERS, DROPPING OUT, AND SATISFACTIONS DERIVED FROM PHYSICAL ACTIVITY	230
Research about Barriers to Physical Activity.	230
Most Frequent Barriers to Increasing Participation in Sports and Exercise . .	233
Barriers to Activity Considering Past Physical Activity Patterns	236
Barriers to Activity Considering Sports and and Exercise Participation During the Prior 12 Months	241
Barriers to Activity Considering Demographics	243
Relevance of Barrier Data to Physical Activity Promotion	246
Dropping out of Exercise	247
Relevance to Physical Activity Promotion .	257
Satisfactions Derived from Physical Activity.	262
X. THE CHALLENGE TO PHYSICAL EDUCATION	271
Diffusion of Innovations	274
Innovation Characteristics	277
Communication Characteristics	280
Individual Characteristics	283
The Innovation Decision Process	286
Knowledge Stage	286
Persuasion Stage	289
Decision Stage	290
Implementation Stage	292
Change Agency/Agent Characteristics	296
Implications	302
BIBLIOGRAPHY	306

	Page
APPENDIX A. LETTER OF PERMISSION	318
APPENDIX B. RAW DATA	321
APPENDIX C. DEFINITIONS OF REGION AND COMMUNITY SIZES	332

LIST OF TABLES

Table	Page
1. Publications of President's Council on Physical Fitness and Sports Advertisements in Selected Popular Magazines, 1970 to 1980	29
2. Questions Generating Participation Data	79
3. Comparison of Previous Participation in Sports and Physical Exercise on Physical Activity Participation as an Adult	133
4. Summary of Occasional and Regular Use of Jogging, Bicycling, and Weight Lifting Equipment	142
5. Selected Summary Characteristics of the Survivor Lifestyle	153
6. Selected Summary Characteristics of the Sustainer Lifestyle	155
7. Selected Summary Characteristics of the Belonger Lifestyle	158
8. Selected Summary Characteristics of the Emulator Lifestyle	161
9. Selected Summary Characteristics of the Achiever Lifestyle	163
10. Selected Summary of Characteristics of the I-Am-Me Lifestyle	167
11. Selected Summary Characteristics of the Experiential Lifestyle	170
12. Selected Summary Characteristics of the Socially Conscious Lifestyle	172
13. Demographic Summary: VALS Typology	176
14. Physical Activity Summary: VALS Typology	177
15. Selected Leisure Pursuit Groups and Activities for Women	186
16. Selected Leisure Pursuit Groups and Activities for Men	188

Table	Page
17. Leisure Pursuit Clusters and Activities	192
18. Most Frequent Barriers to Increasing Participation in Sports and Exercise	234
19. Barriers to Activity Considering Past Physical Activity Patterns	237
20. Barriers to Activity Considering Sports and Exercise Participation During the Prior 12 Months	242
21. Most Frequent Barriers to Activity Considering Demographics	244
22. Groupings of Related Leisure Satisfactions	265

LIST OF FIGURES

Figure	Page
1. Selected illustrations of The President's Council on Physical Fitness and sports advertisements	11
2. Norm, the all round Australian sportsman . . .	47
3. A flow chart for decision sequence analysis for marketing communication	65
4. Composite picture of participation in physical activity according to seven selected surveys: 1961, 1982	78
5. Comparison of regular participation among three surveys for swimming, jogging, lifting, and bicycling	84
6. Participation trends in selected activities . .	87
7. Comparison of degree of participation for 1972 and 1982	89
8. Ownership of equipment, participation, and regular participation in selected activities, 1982	91
9. Regional adult participation in general physical activity	96
10. Regional participation in selected physical activity by region and year, 1972-1982	98
11. Selected activity analysis considering ownership, participation, and regular participation according to region	101
12. Selected activity analysis considering ownership, participation, and regular participation according to community size . . .	104
13. General physical activity participation according to sex, 1972-1982	106
14. Selected activity analysis considering ownership, participation, and regular participation according to sex	107

Figure	Page
15. General participation in a physical fitness program according to age and sex	110
16. Selected activity analysis considering ownership, participation, and regular participation according to age	111
17. General participation in a physical fitness program according to income	114
18. Selected activity analysis considering ownership, participation, and regular participation according to income	115
19. Selected activity and physical fitness program analysis considering ownership, participation, and regular participation according to occupation and sex	117
20. Selected activity and physical fitness program analysis considering ownership, participation, and regular participation according to education and sex	119
21. Participation in a physical fitness program, 1982-1983	122
22. Swimming participation, 1982-1983	124
23. Weight lifting participation, 1982-1983	126
24. Jogging participation, 1982-1983	127
25. Bicycling participation, 1982-1983	129
26. Comparison of previous participation in sports and physical exercise on physical activity participation as an adult according to age	135
27. The VALS lifestyle double hierarchy	151
28. Leisure participation clusters	184
29. Leisure participation clusters according to community size	195
30. Leisure participation clusters according to age	196

Figure	Page
31. Leisure participation clusters according to education	198
32. Leisure participation clusters according to income	201
33. Leisure participation clusters according to occupation	203
34. Strength of desire to increase participation in sports and exercise	210
35. Prior activity and strength of desire to increase participation	213
36. Degree of activity during the previous 12 months and strength of desire to increase participation	215
37. Strength of desire to increase participation according to community size	219
38. Strength of desire to increase participation according to age	220
39. Strength of desire to increase participation according to income	223
40. Strength of desire to increase participation according to education	225
41. Strength of desire to increase participation according to occupation	227
42. A model of stages in the innovation-decision process	287
43. Linkage between change agents, change agency, and client system	297

CHAPTER I
INTRODUCTION

This is a study about strategies for encouraging American adults to become lifelong, robust, and vigorous participants of physical activity. The goal appears simple. Yet, despite more than 20 years of government promotion and thousands of participants in the Boston and New York marathons who give the appearance of a "fitness boom" in this country, regular participation in physical activity has not excited most American adults. Exactly how to generate that excitement has been as elusive as the task seems simple. Why do physical educators, physical fitness directors, or other agency personnel involved in the promotion of physical activity bother to keep looking for a solution to adult inactivity? If an individual prefers to relax in front of a television screen instead of taking a jaunt in the park or relax in the sun instead of swimming a few laps in a pool, who are we to question that decision? Does it matter if people elect not to be physically active?

The reason for our concern is two-pronged, stemming from one common root. First, there is the issue of national health in a world of sedentary living, over-consumption of alcohol and drugs, and excessive food. Second, there is the issue of individual alienation in a modern world of assembly

lines, robots, and routine jobs. The reasons are different in that the first is physiological in nature and the second, psychological. The common root, alluded to above, lies in economics. Poor health and alienation are ultimately a financial burden, directly or indirectly, to the individual, to business, and to society in general.

Both issues, therefore, are concerns facing governmental officials requiring an immediate solution. In the case of national health, a special urgency exists as health care costs have ballooned to over \$287 billion a year, or 9.8% of the Gross National Product (GNP) (Public Health Reports, 1982). The rise became most apparent between 1966 and 1975 when expenditures for health care almost tripled from \$42.1 billion to \$118.5 billion. This represented a jump from 5.9% to 8.5% of the Gross National Product (Council of Wage and Price Stability, 1976). In 1979, health care costs again soared to \$212.2 billion, by 1980 it was \$223 billion, and by 1981, \$287 billion (Public Health Reports, 1982). The 15.1% increase in health spending from 1980 to 1981 far outstripped the 11.4% increase in the GNP. Simply put, health care costs have escalated out of control.

Rather ironically, though, the health of Americans today cannot be improved to any great extent through further increases in spending on medical care. The byproducts of a modern, affluent society--environmental factors and personal behavior such as diet, smoking, lack of exercise, automobile driving, and other "lifestyle" type activities--are major contributors

to poor health (Fuchs, 1974). Unlike the vaccines eliminating the epidemics that struck down our grandparents and great-grandparents, there is no easy medical solution to modern lifestyle diseases.

Yet the problem is of epidemic proportions. Lifestyle disability has invaded all aspects of daily living and has had a particular impact upon business and industry. Each week approximately 6.4% of the total full time work force are absent. Paid sick leave and lost production resulting from machines run by less skilled replacement personnel has pushed the bill to industry for absent employees to over \$7 billion or \$116/employee/year (Taylor, 1979).

The consequence of this is evident in the rising cost of health care insurance. What started out as a truly insignificant employee fringe benefit has become next to energy, the biggest and most rapidly growing uncontrollable cost of doing business. The steel industry, for example, estimated the cost of health benefits to represent 45% of the total industry's profits (Simmons, 1982). At Eastern Airlines, Inc, employee health insurance rose from \$438 per employee in 1973, to \$850 in 1976. The health insurance bill at the General Motors' Michigan Plant in 1976 totalled \$825 million--a bill larger than the cost of GM steel (Council on Wage and Price Stability, 1976).

The employee is equally affected by high cost health insurance since it has recently begun to bear upon wage increases. According to William J. Gormley, Secretary-Treasurer

of Teamster Local 470 in Philadelphia:

When we negotiate the package deal, 70-75% invariably winds up going into health and welfare because of inflation, and it's pretty tough when a guy needs it in the envelope. (Council on Wage and Price Stability, 1976, p. 3)

Health insurance is often a disputed issue in labor/management contract negotiations. Business would like to make health care a responsibility of the employee while the employee is trying not to lose the benefit. It is an issue of such importance to labor that Ford Motor Company was struck in the 1970s when management wanted to transfer all future increases in the cost of health care to the UAW members (Council on Wage and Price Stability, 1976).

It is in the interest of everyone, then, that some method for containing health care costs be found quickly. One immediate practical method is to educate the American about how to prevent the onset of lifestyle disease. If living patterns were modified it is believed the requirements for health care would be reduced. Prevention, rather than cure, is potentially a way out of a serious economic health care problem.

Encouraging and promoting vigorous daily physical activity, both nationally and within the employee population, has become one avenue in this effort to use "prevention" as a tool in health care cost containment. It is a viable avenue simply because of its potential preventive role in the leading cause of death, and the second leading cause of disability

in the U.S.--cardiovascular related disease (U.S. Department of Health and Human Services, 1982). Within the workplace, heart disease accounts for 52 million lost workdays alone and is the second highest cause of days off from work behind chronic back conditions.

The most significant factor in the use of physical activity as prevention lies in the fact that of the almost one million deaths from heart disease, approximately 550,000 people die from ischemic heart disease (U.S. Department of Commerce, 1983). It is significant because ischemic heart disease is a lifestyle disease. Too much food, alcohol, and sedentary living appear to be some of the contributing factors. Although there is, as yet, hardly any direct scientific evidence that physical activity helps an individual avoid cardiovascular disease, there is, indirect evidence that it is a major factor (Paffenbarger, Wing, & Hyde, 1978). There also exists a general agreement that being physically active adds to the quality of the life of the years lived (Morgan, 1976).

That brings up the second reason for encouraging Americans to become more physically active--that of helping people feel a sense of satisfaction from life. Although this is more abstract than health care, it is no less important. A special task force of HEW on work in America (1973) concluded:

Our Nation is being challenged by a set of new issues having to do, in one way or another, with the quality of life. This theme emerges from the alienation and disenchantment of blue-collar

workers, from the demands of minorities for equitable participation in "the system," from the search by women for a new identity and by the quest of the aged for a respected and useful social role, from the youth who seek a voice in their society, and from almost everyone who suffers from the frustrations of life in a mass society. (Richardson, 1973, p. xv)

To understand why quality of life has become a point of concern, we need to recognize that one feature distinguishing human beings from other animals is occupational work. Most people in the United States work 40 or more years in a lifetime. It plays such an important role in the psychological, social, and economic aspect of our lives, it has been called the basic or central institution (Richardson, 1973). People take on an identity directly associated with the type of work they do. Unfortunately, dull, repetitive, seemingly meaningless work offers little challenge or autonomy to most workers. Resulting dissatisfaction has had a serious psychological impact on the nonwork hours. According to the Task Force, the reason for the dissatisfaction is not because the nature of work has changed significantly. Indeed that is one of the problems. The nature of work has not changed fast enough to keep up with

the rapid and widespread changes in worker attitudes, aspirations and values. A general increase in their educational and economic status has placed many American workers in a position of having an interesting job is now as important as having a job that pays well. (Richardson, 1973, p. xv)

According to the HEW Task Force report, a direct consequence of work alienation is low productivity, high absenteeism and turnover, a decline in physical and mental health, and an increase in drug and alcohol addiction.

Recognizing the problems pertaining to the health of workers, some employers have attempted to promote the atmosphere of "we care about our employees" by providing several extras. Some of these extras include gymnasiums, physical fitness programs, and wellness programs. The expectation is that by improving the health of its employees, business can help individuals feel better about themselves and their jobs, feel more productive, have more energy, and be more satisfied with life (Kaplan, 1980; Norris, 1980).

Overall, then, it is because of the potentially powerful link between physical activity, health, and individual well-being that the physical activity status of society has become an issue of increasing importance. This is so not only in this country but in many industrialized nations throughout the world (Council of Europe, 1970, 1977). In the U.S., after every Presidential election the newly elected President rubber stamps an order continuing the existence of The President's Council on Physical Fitness and Sports (PCPFS), a governmental agency charged with the responsibility of upgrading the status of physical activity in American society. When President Reagan signed the order in 1982 (Executive Order 12345) he followed a 28-year tradition of U.S. government efforts in upgrading national physical fitness. The assumption is, of course, that something can be done to encourage people to become more physically active.

Historically, central administration involvement in the promotion of physical fitness stems from a 1953 study

indicating that 56% of American school children could not pass at least 1 of 6 tests for muscular strength and flexibility compared with 9% of their European peers (Kraus & Hirschland, 1953). Prior to 1953, government had only briefly and sporadically approached the topic although cries of despair about the overweight, unfit American were heard in the early 19th century (Johnson, 1920). The traditional edict of "no federal control" (Zingale, 1977) squashed all prior governmental efforts to investigate methods for improving physical activity levels in the American lifestyle. The results of the Kraus and Hirschland study, however, so "shocked" President Eisenhower (Boyle, 1955) he established the President's Council on Youth Fitness (Executive Order No. 10673) to act as a catalyst in moving the nation towards a more physically active lifestyle.

Eisenhower side-stepped the "no federal control" issue by placing the ultimate solution to inactive lifestyles on the home and local community. The role of government was merely one of assisting those already dealing with the problem. Involvement could be justified because

national policies will be no more than words if our people are not healthy of body, as well as of mind, putting dynamism and leadership into the carrying out of major decisions. Our young people must be physically as well as mentally and spiritually prepared for American citizenship. ("Dwight D. Eisenhower," 1956, p. 578)

Since 1956 Americans have been encouraged to become more physically active.

It is only recently, however, that any effort has been made to establish objectives for guiding and directing the effort. The goal is to accomplish the following by 1990: (a) improve upon health status; (b) reduce cardiovascular heart disease (CHD) risk factors; (c) increase public and professional awareness; (d) improve services; and (e) improve surveillance and evaluation systems for monitoring physical fitness (USDHEW, 1980). It is important to note that these objectives focus on interventions and support systems primarily for well people; they are, therefore, prevention oriented.

Confusion exists about how to meet the national fitness objectives. There is no clear and concise understanding of what the inactive adult feels about physical activity. Business and industry are continually persuaded to add physical activity programs for employees without much assistance as to how to establish cost-efficient programs. Nor is there direction about how to motivate nonactive employees to participate in a physical activity program. Nor has any attempt been made to analyze physical activity needs from the perspective of the people. Past promotional efforts, in terms of mistakes, appear to have been ignored. Those responsible for such promotion--e.g., the PCPFS and the corporate fitness director--therefore attempt to promote physical activity in the absence of crucial information, factual awareness, and understandings of logical reasons for

the particular direction of the campaign. No time has ever been set aside to evaluate whether the set course is the most effective one. The mass media messages such as those in Figure 1, for example, have never been verified with respect to their effectiveness (Nicholson, 1983, personal communication). Yet, every year the PCPFS develops and distributes similar media campaigns.

In an effort to fill the void of incomplete evaluation of ongoing physical activity promotional strategies, the present study examines the current status of American participation in exercise and sports. The emerging understanding of where we are today is then utilized to provide a basis for suggested future directions. The study is particularly concerned with the role the physical education profession might assume in making a contribution to fitness in America by changing its traditional stance.

Problem Statement

The purpose of the study is to examine the available English language historical, survey, and other research reports about adult physical activity that reveal the general status of participation in the USA. Three broad categories of information are studied: (a) geographic and demographic information, (b) lifestyle and leisure time information, and (c) evaluation of the barriers to physical activity participation. On the basis of the analyses of all the data, the report addresses how the physical education

Run for your life



A regular program of vigorous exercise probably will do more to keep you young, sitting than anything else. Especially when the going gets tough. A steady diet of exercise and sports will help your body build reserves of strength that will stand you in good stead. Your muscles, your heart, your lungs, your bones—and you, it turns better, look better, and probably accomplish more than you ever imagined possible.

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We seem to have become a nation of sports spectators instead of sports participants. And therein lies the danger. The fact is, if you're overweight, inactive or out of shape you can get a better workout just sitting there.

Your heart needs exercise to stay healthy and function best. Like other muscles in your body it improves with use. And a regular program of physical fitness—30 minutes a day—can help you feel better, keep you more mentally alert, and help you live longer.

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49,000,000 adult Americans never exercise at all—not even walking.

That's what the first National Adult Physical Fitness Survey tells us. And quite frankly, the results are frightening. It seems we stop participating as we get older and start watching others. We don't walk. We watch. Don't play. We cheer, and don't take part.

This sedentary way of life can lead directly to overweight, hypertension, heart attacks and other assorted ills. Fact is, your body needs regular exercise to stay in shape. And you need it to stay mentally and physically healthy. Physical fitness doesn't have to be as sweat and hard work it can be fun. And games. And sports. And family togetherness. Do ing without it, think what you miss. Sit back, relax and take it easy is some of the worst advice you ever got.

Figures don't lie.

FOR A FREE CATALOGUE, CONTACT THE PRESIDENT'S COUNCIL ON PHYSICAL FITNESS & SPORTS, 1115 SULLY ROAD, WASHINGTON, D.C. 20540
The President's Council on Physical Fitness & Sports
 WASHINGTON, D.C. 20540



PRESIDENT'S COUNCIL ON PHYSICAL FITNESS & SPORTS CAMPAIGN
 MAGAZINE AD NO. PCFF-1125-72-P-118 (118 Serves)

Figure 1. Selected illustrations of The President's Council on Physical Fitness and Sports advertisements.

profession can meet the challenge for promoting adult physical activity in the future?

Definition of Terms

For interpretation in the text, the following meanings are assigned to frequently used words and phrases.

Physical activity. Any level of gross bodily movement over and above that required for normal daily living which is intentionally undertaken. For example, walking from the car to the office would not be considered as physical activity unless the car was intentionally parked a distance from the office so that some extra exercise could be achieved. Undertaking an exercise program or participation in sports would also be considered physical activity.

Levels and degrees of physical activity vary considerably. Where feasible the intensity of the described activity is discussed within the text.

Exercise. Any physical activity intentionally undertaken on an individual basis. For example, jogging, calisthenics, weight lifting, bicycling, and swimming are regarded as exercise.

Sports. Any physical activity requiring more than one individual in order to participate are regarded as sports.

Fitness. Fitness is the by-product of physical activity. It is a level of cardiovascular functioning resulting from being physically active. Levels of fitness vary.

General participation. Varying amounts and intensity of involvement regardless of regularity.

Occasional participation. Involvement in physical activity that is infrequent and erratic.

Regular participation. Involvement in physical activity on a systematic basis. Degree of regularity varies. An individual may be regularly active from once a week, to once a day. Where necessary, degree of regularity has been explained in the text that follows.

Scope of the Study

Only English language literature is used in the study. The analysis of the status of physical activity in the United States is limited to (a) the role of government, (b) efforts of industry with respect to physical activity, and (c) available research relative to adult physical activity. The future role of physical education is addressed only from the perspective of the principal investigator. With respect to the latter, all illustrations, texts, and graphics of physical activity are limited by the data bases utilized. Further, the interpretations of the data are a function of their specificity.

Research Assumptions

In the sense that research assumptions are facts or procedures taken for granted and not investigated as a fundamental part of the inquiry, the present study makes no assumptions. However, the descriptive nature of the research and responsibility for valid interpretations of the data rely heavily upon the scholarly integrity of the principal investigator.

Significance of the Study

Although national fitness has been a topic of concern for more than a quarter century, the issue of increasing adult physical activity has not yet been studied in breadth or depth so as to permit any understanding of its complex relationship with personal and societal factors. The reason for this may lie in the fact that the information needed is so scattered that to gather it for analysis would be far too time-consuming and expensive for the PCPFS, fitness directors in business and industry, or other physical activity promotional agencies. Consequently, available knowledge has had little or no impact on present trends or current methods of encouraging Americans to become more physically active.

A systematic accounting of the current status of physical activity in the United States could contribute to the understanding essential to accomplishing the national fitness objectives and to establishing and maintaining ongoing adult physical activity programs. This study represents an effort in such a direction. It synthesizes research that has relevance to the promotion of physical activity both nationally and within the smaller settings of business fitness programs, health clubs, and fitness programs designed to attract adults. The data are presented in a manner that, hopefully, allows immediate application to present physical activity promotional efforts while, at the same time, points to the need for further inquiry.

An anticipated outcome of the study is the indication of how the physical education profession can substantially impact on the national health and fitness goals of 1990 and the years beyond. We live in a period of societal change and, as a profession, physical educators have the choice of sitting back and following trends established by others or undertaking a leadership role to bring about actions based upon scientific inquiry. This is important in light of the fact that of the six research grants awarded by The Association of Fitness in Business for 1983-84 research projects on employee fitness programs, not a single grant was won by a physical education department or individual affiliated with physical education (AFB, 1983). Further, just 37% of the scientific studies on adult physical activity behavior analyzed for this report were conducted by physical educators. Medical scientists conducted 29% of the studies and the remaining 34% were distributed among psychologists, business, sociologists, geographers, economists, and public health department personnel. As the "experts" in the subject matter, physical educators should be in front, leading the campaign for research and changed exercise behaviors since one of the main objectives of physical education is the promotion of life-long participation in physical activity.

The Broad Research Plan

This investigation may be characterized as an interpretative review. Four broad steps were followed in carrying out the

study:

1. Justifying marketing as a tool for physical activity promotion
2. Collecting data pertaining to the present status of adult physical activity in the U.S.
3. Interpreting and integrating the data amassed in 2 above, with respect to requirements for marketing
4. Suggesting directions for physical education.

A further comment about the conduct of the study seems warranted. In accomplishing the task of formulating a specific research strategy and implementing it, the philosophy of "Ready, Fire, Aim" has been followed (Peters & Waterman, 1984). While the location and organization of the data led the author down many blind alleys, this was unavoidable if a new perspective on the problem of physical activity was to be found. It was initially impossible to lay down some neat, ordered, and logical plan of studying adult physical activity. That would merely have led to a "review of the literature" format and contributed little to a research direction necessary to generating new knowledge.

The ultimate format for presenting the data was arrived at by continually going back to one basic question: What do these data have to do with the physical activity needs of the individual? The only way to answer that was to take all the available research, analyze the content and then

aim the results, where possible, toward a new direction for understanding the individual's relationship to physical activity. On occasion, this approach led to some speculations since much of the data for the present report was extracted from studies not strictly intended for physical activity analysis and not initially collected with concern for the mechanical. The findings from the group data were, however, for the author, and it is hoped for the reader, an exciting unveiling of a different angle from which to view the total picture of adult physical activity behavior.

CHAPTER II
PHYSICAL ACTIVITY PROMOTION--
THREE NATIONAL CAMPAIGNS

This chapter presents three different national programs for promoting physical activity. The rationale behind examining national programs is twofold. First, the promotional philosophies pervading the national level tend to filter down to smaller settings such as those found in business and industry. Second, the problems encountered in encouraging millions to become more physically active are really no different from those encountered when encouraging a mere handful to become physically active.

Ultimately, the solution to how masses of individuals can be motivated to exercise lies in understanding how a single individual can be so motivated. Only when the latter question is answered can factors common to groups of individuals be generalized and used in economically efficient promotional efforts in the larger settings. In other words, to fully comprehend the "macro" it is necessary to study the "micro." However, the complexity of physical activity promotion is such that it is necessary to begin with an analysis of the whole picture before the scattered jigsaw pieces of data making up that picture begin to make sense.

The United States, Canada, and Australia present different approaches to promoting physical activity. Each program is

first described briefly. Following is a discussion of the degree of success of the campaign.

The United States

The President's Council on Physical Fitness and Sports (PCPFS) has not changed its promotional strategy since its inception in 1956. The PCPFS methods become evident by examining how the staff views its role in reaching the 1990 fitness objectives for the nation established by the Department of Public Health (USDHHS, 1980). There are 11 objectives relating directly to physical fitness and 11 actions that have been taken, or will be taken, by the PCPFS. These are presented verbatim from the U.S. Department of Health and Human Services paper entitled "Promoting Health-Preventing Disease. Exercise and Physical Fitness, 1990 Objectives for the Nation" (February, 1983). The statement was procured by the author from the PCPFS staff in response to an inquiry regarding the promotional goals of the PCPFS. Although not all of the objectives and actions are relevant to adults, they are presented so that a complete understanding of the PCPFS promotional status can be obtained. The non-edited text also allows the reader to make his/her own evaluation of the appropriateness of the objectives and the actions proposed.

Objectives of the PCPFS

OBJECTIVE A:

By 1990, the proportion of children and adolescents ages 10 to 17 participating regularly

in appropriate physical activities, particularly cardiorespiratory fitness programs which can be carried into adulthood, should be greater than 90 percent. (Baseline data unavailable.)

ACTIONS BY THE PCPFS:

During February '83 a letter explaining the three National Objectives Pertaining exclusively to youth (10-17) was distributed to 109,000 schools, organizations and agencies throughout the USA that have responsibilities for youth physical activities and programs.

The numbers of school age youth taking the PCPFS test each year has for the past ten years remained relatively constant, between 18 and 19 million per year. During the 1981-82 school year a little over 500,000 youths won the coveted PCPFS fitness award. This trend is down-ward. Back in '78-'79 a little over 700,000 won the award. Attention needs to be directed towards the causes of this unfavorable trend and remedial actions initiated.

The 1981-82 Champion school fitness testing programs, co-sponsored by PCPFS and AAHPERD, mailed information to 102,000 schools throughout the USA, its territories and possessions. A total of 491 schools elected to participate. They represented all 50 States and Puerto Rico.

The percentage of eligible students in award winning schools, who passed the test and qualified for awards, ranged from a high of 100% to a low of 4%. Most schools qualified between 30-50% of their students.

Award winning schools in each State, received a plaque. And each student at each of these schools, who qualified, received a distinctive patch, designating them as State Champions, Presidential Physical Fitness Award. A total of 12,803 students won this award during the 1981-82 school year.

OBJECTIVE B:

By 1990, the proportion of children and adolescents ages 10-17 participating in daily school physical education programs should be greater than 60 percent. (In 1974-75, the share was 33 percent.)

ACTIONS BY PCPFS:

Second week in February 1983 a mailing went out to 109,000 schools, YMCAs, YWCAs, Scouts, Camp Fire Girls, CYOs, etc. Enclosed was a one page letter outlining and explaining those three National Objectives for 1990 that are exclusively applicable to youth ages 10-17.

Detailed information of the 1983 State Champion program was mailed to 109,000 addresses.

Each year approximately 25 states participate in the State Demonstration Center Program. These schools display the highest quality of physical education in the state. The schools fly a demonstration center pennant, receive a White House letter and a certificate suitable for framing. The purpose of this program is to assist the State Department of Education increase the quality of school physical education in their state.

Since 1962 PCPFS has distributed more than 1 million copies of the ever popular booklet "Youth Fitness" and 50,000 copies of the physical education checklist. The booklet continues to be distributed in large numbers and a second 50,000 copies of the checklist has just recently been received from the printer.

Other printed materials are distributed to fitness leaders attending PCPFS Regional Clinics and single copies are available upon receipt of written requests. Bulk sales of all publications are available through the Government Printing Office.

OBJECTIVE C:

By 1990, the proportion of adults 18 to 65 participating regularly in vigorous physical exercise should be greater than 60 percent. (In 1978, the proportion who regularly exercise was estimated at over 35 percent.)

ACTION BY PCPFS:

PCPFS has access to a mailing list of 109,000 schools and youth serving agencies. In addition, it has access to mailing lists totaling 19,000 centers and agencies dealing with the elderly. Information on the 1990 objectives has already been mailed to all of these groups.

Since 1962 the Council has conducted three national public information campaigns each year: 1) direct mail, 2) youth oriented and 3) adult oriented. On February 1, 1983 the Council launched its latest campaign directed at school/youth groups and adults. Pertinent information packets were shipped to 750 TV stations, 3000 magazines and 6,000 radio stations.

The month of May 1983 has been declared Physical Fitness and Sports Month by the PCPFS. Some 7,500 promotional kits and posters have been sent to Governors' Councils on Physical Fitness and Sports, State Recreation Departments, YMCAs, employee fitness groups, schools, health clubs and sport groups.

More than 2.5 million people participated during fitness month last year and that number is expected to double during May 1983.

This will be the third National Physical Fitness and Sports Month sponsored by the PCPFS.

OBJECTIVE D:

By 1990, 50 percent of adults 65 years and older should be engaging in appropriate physical activity, e.g., regular walking, swimming or other aerobic activity. (In 1975, about 36 percent took regular walks.)

ACTIONS BY PCPFS:

PCPFS sponsored in cooperation with General Foods Corporation, the September 10-11, 1981, National Conference on Fitness and Aging in Washington, D.C. Thirty-one national agencies and organizations participated in making this the most prestigious event of its type ever held in our country.

Subsequently, a printed synopsis of the National Conference was mailed by General Foods to 15,000 Senior Citizen Centers throughout our nation. In addition, PCPFS mailed out 3,500 copies to individuals responsible for the planning and/or administration of fitness programs for the elderly.

As a result of these actions, PCPFS now has access to a mailing list of some 19,000.

Five Regional Clinics on Physical Fitness are being planned for February 1983. At each, several

sessions will be devoted to the training of fitness professional in the latest methods and techniques regarding fitness programs for the elderly. By the end of this year an estimated 5,000 professionals will have received training. Also, the Presidential Fitness and Sports Award Programs are explained at each clinic and the professionals are urged to encourage the elderly in their programs to strive to win these awards.

More than 90,000 booklets on walking have been distributed during the past 18 months. Currently, plans are being made for a large reprinting of this popular booklet.

OBJECTIVE E:

By 1990, the proportion of adults who can accurately identify the variety and duration of exercise thought to promote most effectively cardiovascular fitness should be greater than 70 percent. (Baseline data unavailable.)

ACTIONS BY PCPFS:

For 21 years the Council has been conducting a continuing campaign to explain in laymen's terms the components of physical fitness which includes cardiorespiratory fitness. This will again be featured in our '83 public information campaign in our clinics, in our publications and in speeches.

A Council position paper on cardiorespiratory fitness was developed some years ago. That paper plus later updated papers have been widely distributed by the Council in the form of Digests.

Simplified language has always been employed in the Council's Regional Clinics, publications, briefings, etc. in an effort to promote more widespread understanding of cardiorespiratory fitness.

OBJECTIVE F:

By 1990, the proportion of primary care physicians who include a careful exercise history as part of their initial examination of new patients should be greater than 50 percent. (Baseline data unavailable.)

ACTIONS BY PCPFS:

In February 1983 the Council mailed to the American Medical Association's Panel on Exercise and Fitness

and all of the 50 State Medical Societies detailed information on our National Exercise and Fitness Objectives for 1990. All were urged to utilize their magazines, newsletters, symposia and all other available means of communication to bring these objective to the attention of their colleagues and enlist their support in attainment of these objectives. Additional copies of that issue of the Council's Newsletter devoted to the exercise and fitness objectives for 1990 was offered to those groups wishing to make distribution to their city and county medical groups.

OBJECTIVE G:

By 1990, the proportion of employees of companies and institutions with more than 500 employees offering employer-sponsored fitness programs should be greater than 25 percent. (In 1979, about 2.5 percent of companies had formally organized fitness programs.)

ACTIONS BY PCPFS:

PCPFS initiative resulted in the creation in 1974 of the American Association of Fitness Directors in Business and Industry (AAFDBI). Presently, each state has an official contact person. Membership is in excess of 3,000. The goals of AAFDBI are development of quality fitness programs in business and industry and establishment of professional standards for Fitness Directors.

The continuing education and up-dating of fitness directors is achieved through the Council's Regional Clinics, conferences and sports medicine efforts, and through representation on their Executive Board.

The Association has stimulated research effort in a number of directions. However, it is too early for the collection and analysis of sufficient data to prove what has long been believed, i.e. good employee fitness programs reduce absenteeism due to illness and increase productivity.

In 1980, under the Provision of Executive Order #12399, an Interagency Fitness Committee was launched in Washington, D.C. More than 50 Federal Departments and Agencies now belong. Regional offices are now asking to join. Meetings are held quarterly. A "Task Force" is currently working on a permanent charter, funding and staffing.

OBJECTIVE H:

By 1990, a methodology for systematically assessing the physical fitness of children should be established, with at least 70 percent of children and adolescents ages 10-17 participating in such an assessment.

ACTIONS BY PCPFS:

PCPFS has called a meeting to be held in March 1983 for the purpose of establishing an Interagency Physical Fitness Surveillance and Evaluation Committee. The output of this committee should provide, later in this decade, an improved methodology for systematically assessing the physical fitness of children.

OBJECTIVE I:

By 1990, data should be available with which to evaluate the short and long term health effects of participation in programs of appropriate physical activity.

ACTIONS BY PCPFS:

None.

OBJECTIVE J:

By 1990, data should be available to evaluate the effects of participation in programs of physical fitness on job performance and health care costs.

ACTIONS BY PCPFS:

PCPFS and the National Center for Health Statistics (NCHS) have agreed to meet with representatives from AAFDBI to design a format for data collection from companies sponsoring employee health/fitness programs.

OBJECTIVE K:

By 1990, data should be available for regular monitoring of national trends and patterns of participation in physical activity, including participation in public recreation programs in community facilities.

ACTIONS BY PCPFS:

None.

(U.S. Department of Health and Human Services, Public Health Service, 1983, the document pages were not numbered)

Campaign Evaluation

The most immediate observation upon reading this document is heightened awareness of the volume of material leaving the Council's office. The cost, including the various program sponsorships, and staff salaries, etc., was estimated in 1978 to be approximately 32 million dollars (Conrad, 1978).

Answers to several questions are appropriate with respect to evaluating the benefits from such an expenditure. For example, there is a serious question as to whether mass distribution of promotional and informational material of the kind used by the PCPFS has any impact on encouraging people to become physically active. Who is using the material and how much of it is discarded without consideration? Is there waste in effort, time, money and resources with a mass instructional campaign?

Scientific evaluations of the relative success, or lack of success, of the PCPFS approach presented as actions in the Health and Human Services document is non-existent. For example, the public information advertising campaign mentioned as an action for Objective C utilized a popular NFL football coach, George Allen, in the 1984 T.V. campaign. The 30-second commercial depicted people of various shapes and ages running

up and down football stadium steps. No one in the Council office could give any scientific basis for promoting this type of physical activity. Football coaches are known for their training of huge, atypical individuals, not at all representative of the majority of the population. Why show a football coach ordering people to exercise, and especially directing them to run stadium steps?

Similarly, there has been no research to justify the message tone and format of the print media campaigns over the years. Also lacking is evidence that those participating in the special programs, such as the 1983 May Fitness Week, were, in fact, individuals who were not already exercising. And although it may seem logical to assume the carry-over effect of lifetime activities (Objective H) and, therefore, to encourage these kinds of activities in the school system, there has been no research to suggest that this has any affect on adult physical activity status. Does enjoyment or social contact of the activity play a more important role in carry-over than the "lifetime" quality? It appears that the schools have been encouraged to jump onto the lifetime sports bandwagon as the solution to all inactivity woes without research facts as to the effectiveness of such activities in accomplishing the desired goal.

Perhaps more important, upon what evidence is money spent for "prestigious" awards (Objectives A, B, and D) that purportedly encourage people to become and remain active?

When such incentives were used within corporate programs, only those individuals who were already avid proponents of physical activity participated (Le Roux, 1981). The PCPFS itself commented in Objective A that the attainment of their awards was in a downward spiral.

One of the most worrisome features of the PCPFS campaign, however, is that the staff never attempted to determine how many of the 750 T.V. stations, 3,000 magazines, and 6,000 radio stations use the material sent to them each year. A survey of seven popular magazines over a 10-year period from 1970 to 1980 indicated that the material is not widely used (Brooks, 1983). Only 11 PCPFS ads directed toward adults were printed over the entire period. This is summarized in Table 1. Does the production, printing, and mailing costs of this material justify the returns in free advertising?

It should perhaps come as no surprise that the PCPFS has twice been the target of criticism. Only two years after its inception the Council staff was accused of providing "disappointingly little specific guidance and less leadership toward direct action" (Stull, 1958, p. 37). Twenty years later the Council once again came under attack when Senator Proxmire included the PCPFS in a bill designed to abolish several government agencies that had outlived their effectiveness (Proxmire, 1975). Accusing the Council of being merely a "ceremonial" agency, Proxmire contended that although the idea of Council was a "good one . . . if there

Table 1

Publications of President's Council on Physical Fitness and Sports Advertisements in Selected Popular Magazines, 1970 to 1980

Name of Magazine	Circulation and Purpose	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980
Sports Illustrated	Published weekly. Reports and interprets the world of sport. Circulation 2,325,000	0 ^a	0	1 ^b	0 ^a	0 ^a	1	1	0	3	2	0
Popular Mechanics	Published monthly. Full service magazine for the man who can make things work. Circulation 1,600,000	No PCPFS advertisements were found										
Time	Published weekly. Designed to keep readers of both sexes informed in the world news. Circulation 4,500,000	0	0	0	0	0	0	2	0	0	0	0
Readers Digest	Published monthly. General interest, nonfiction for family. Circulation 17,750,000	No PCPFS physical fitness advertisements were found										

Table 1 (cont'd.)

Name of Magazine	Circulation and Purpose	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980
Ladies Home Journal	Published monthly. Edited for today's woman. Circulation 5,000,000											
		No PCPFS advertisements were found										
T.V. Guide Philadelphia Issue	Published weekly. Covers the world of television. Circulation 17,000,000	0	0	0	0	0 ^a	0	0	0 ^a	0	0	0
Better Homes and Gardens	Published semi-annually. Edited for husbands and wives who have an interest in home and family. Circulation 8,000,000											
		No PCPFS advertisements were found										

^aAdvertisements directed towards youth were found. (1970 = 5 ads, 1973 = 1 ad, 1974 = 2 ads, 1975 = 1 ad, 1976 = 1 ad)

^bThis advertisement featured Dinah Shore and appeared to be directed towards women.

were ever functions which are private rather than governmental they are physical fitness and sports" (Proxmire, 1975, p. 26537).

Despite the criticism, not only has the PCPFS survived, but the polls proclaim the United States to be in the midst of a "fitness boom." Whereas in 1961, for example, it was reported that 24% of the adult population were regularly physically active (Gallup Poll, 1961), by 1972, a figure of 55% was given (PCPFS, 1973, 1974). Other polls have claimed 49% (U.S. Department of HEW, 1978), 57% (Perrier, 1979), and 46% (Gallup Poll, 1980). The most recent report indicates that approximately 36% of all adults participate in a physical fitness program (Simmons, 1983).

There are suspicions, however, that the fitness boom is not as vast as it appears. The accuracy of most of these physical activity participation surveys has been questioned (McCarthy, 1979; Ryan, 1983; USDHHS, 1980). Data notwithstanding, the Public Health Department believes that only 35% of the adult population meet the minimum requirements for physical fitness (DHEW, 1980). In addition it is believed that after more than a quarter-century of promotion awareness of the health benefits of regular physical activity, participation among the majority of the population remains limited (USDHHS, 1980). There are also those who contend that individuals who have become more physically active over the past decade have done so, not as a result of government's promotional efforts, or of business and

industry, but as a part of a national preoccupation with the search for the meaning of one's own existence (Kisbey, 1983).

In sum then, although there is no hard evidence that the approach used by the PCPFS has not been effective, there are indications that it has not had much impact on the national thrust for increased adult physical activity. As well, lack of promotional evaluation has not permitted any improvement in strategies to attract nonactives to physical activity.

Canada

In 1971, Sports Participation Canada, more commonly known as PARTICIPaction, was incorporated as a private, nonprofit company to promote physical fitness in Canada. The public relations firm of Break, Pain and Watt, Ltd. was hired to help formulate the promotional plans. They recommended that the company be a communications business run by businessmen employing modern marketing techniques (Baka, 1975). Physical activity was viewed as a product which could be marketed.

Objectives of PARTICIPaction

PARTICIPaction had three major promotional objectives. First, the campaign organizers wanted to point out that physical activity was fun and not the dull, laborious, lengthy, and difficult undertaking people perceived it to be. Second, they wanted to get Canadians to realize that they were not as fit as they could be. And, third, they wanted to educate and convince Canadians as to the benefits of physical activity. The PARTICIPaction organizers arrived

at four benefits of physical activity that were to be promoted: (a) fun, relaxation, and recreational benefits; (b) togetherness benefits, i.e., the enhancement of family life, the pleasure of group activities, and the joy of participating in a nationwide activity and being a part of Canada's growing sense of nationalism; (c) physical benefits such as the sense of well-being, increased energy, more vitality; and (d) mental attitude and mental health benefits such as a healthier and more optimistic outlook on life (Baka, 1975).

After consulting with various leaders in physical education, medicine and recreation and with the assistance of media personnel, a four-stage strategy to "peddle the product--fitness" to Canadians was developed (Baka, 1975).

Stage one: the education stage. First, Canadians were informed about their low level of fitness. Here four approaches were planned: (a) quoting statistics from available research studies, (b) using personal testimonials from the nation's well-known doctors and physical educators, (c) using testimonials from well-known politicians, and (d) using slices of life commercials presenting people in various sedentary activities.

Stage two: the motivational stage. The next phase of the program was intended to stimulate the population to become more active. An emphasis was placed on the fun aspects of physical activity and all the positive benefits (solving weight problems, reducing CHD risk factors, providing a social

outlet, etc.). The company wanted to steer away from the sweaty, painful characteristics often associated with physical activity. The product had to be made enjoyable and the benefits attainable if it were to be acceptable to the population.

Stage three: the solution stage. The solution phase would direct motivated individuals into a more physically active lifestyle. However, PARTICIPaction was careful to define its role as one of promoting physical activity in general and not a specific type of activity. The individual would have to decide how to increase activity and in what form.

Stage four: the reminder stage. People would be encouraged to keep up the good work and if they hadn't started to exercise yet, to get started. Kisbey, one of the Presidents of PARTICIPaction explained the strategy as one that would:

build awareness, work on attitude change, motivate action, provide information and reinforce positive steps. The overall effect is to present fitness and activity in a brand new light and to establish a new and improved climate for fitness. (Burgess, 1981, p. 311)

To prove such an approach could work, PARTICIPaction chose a test city, Saskatoon, to run its first promotional campaign. According to a PARTICIPaction survey only 5% of the population of Saskatoon participated in physical activity twice a week prior to the campaign (Baka, 1975).

PARTICIPaction Saskatoon

In January, 1973, PARTICIPaction Saskatoon was launched. Saskatoonians were told they would be "the first in Canada to begin the new year jogging, jumping, and running in the spirit of 'goya' (Star-Phoenix, November 11, 1972, reported in Jackson, 1978, p. 87). "Goya," they were told meant "get off your ass." Following this introduction a 13-week ad blitz over radio, T.V., and newspapers spread the word about Saskatoonian lack of physical fitness. They were purportedly in such terrible shape the average 70-year-old-Swede was in better physical condition than the average 30-year-old Canadian. It was time to change the statistics! On February 5th the first community action project for Saskatoonians to demonstrate their awakened interest in physical activity was organized--a community walk. In the days preceding the walk the local newspaper devoted eight pages to PARTICIPaction and the upcoming walk. On February 5th, itself, a message from the Mayor appeared in the local newspaper encouraging Saskatoonians to walk with their neighbors around the block (Jackson, 1975).

At 7:30 p.m. church bells rang, whistles blew and sirens howled, signalling an expected 80 percent of Saskatoon's population to turn on their porch lights . . . and start walking. (Star-Phoenix, February 6, 1973, reported in Jackson, 1975, p. 88)

The block walk was deemed a success as an estimated 80% of all available Saskatoonians participated (Baka, 1975).

During the following months a series of community events were organized. Each was extensively publicized in the mass media. To create feelings of community solidarity, significant community leaders were involved (Burgess, 1981). Each succeeding event also attempted to commit the population to larger and larger amounts of activity. One of the final projects for example, called for a mass three-day walking competition with the citizens of a city similar in size to Saskatoon--Umea, Sweden (Baka, 1975).

Throughout the community action events, PARTICIPaction Saskatoon supplied a steady flow of information to the public via the mass media, billboards, milk cartons, buttons, bumper stickers, etc., increasing in intensity immediately prior to the event. After the event was over, PARTICIPaction reported and stimulated reaction and continued to produce fitness items for the news media.

Campaign Evaluation

The campaign in Saskatoon ran for almost two years. Unfortunately, with the exception of one study, that of Jackson (1975) there was no objective evaluation of whether the campaign changed the physical activity behavior of the citizens (Burgess, 1981). The campaign received outstanding reviews from PARTICIPaction Canada, the media, and from other cities, which, after seeing the national attention focused upon Saskatoon throughout the campaign, clamoured to be the next test city (Baka, 1975). According to Jackson (1975), it was the most intensive mass media campaign of

its type in the country and possibly the world.

There is no doubt that the project achieved high participation levels during each of the community activities. Burgess (1981), however, questioned two aspects of the program. First he wondered if a community activation process such as that used by PARTICIPAction Saskatoon produced the physical activity behavior change desired. And, if it did, for how long? Second, but somewhat related to the first, Burgess questioned whether a community activation process actually encouraged people to be more physically active or if it merely elicited an incidental or temporary behavior change which passed when the activation stimulus was withdrawn?

The idea behind the community activation process was to give the public an exposure to the fitness idea, i.e., to let people try some aspect of the physical activity if only briefly. Was the assumption correct that this could lead to permanent behavior change? To answer this question, Jackson (1975) randomly selected 400 individuals from the city of Saskatoon to find out if, in fact, the campaign had succeeded in promoting long term behavior changes. His results indicated that at least 90% of the population were aware of the campaign. Awareness, though, declined with age after 45 and sharply after 65. Approximately 73% of the population did not change their exercise or sports behavior as a result of the campaign. Of those who did increase their physical activity, 38% returned to an inactive lifestyle

after a while. It may be generalized that PARTICIPaction Saskatoon influenced approximately 17% of the total population to be more physically active.

Jackson's results were not very well received by the PARTICIPaction organizers (Burgess, 1981). Their own surveys had indicated that more than 40% of the population were more active. However, Jackson disputed these claims on the grounds that the survey conducted by PARTICIPaction Saskatoon was not scientifically sound. He contended his results appeared closer to reality.

Burgess (1981) agreed with Jackson (1975). It would have been impossible for 40% of the population to be more active without a noticeable strain on existing facilities and a noticeable increase in the number of people using the jogging trails, parks, swimming pools, etc. No such observations were made. Both Burgess (1981) and Jackson (1975) concluded that PARTICIPaction Saskatoon had done an excellent job in getting the community out for a one-shot try, but failed to change exercise behavior.

Jackson (1979) reported similar results in another city where a PARTICIPaction campaign was conducted. In Oak Bay, Victoria, only 10% of the citizens became more active (at least once a week) as a result of the campaign, although 72% were aware of the campaign. Like the PCPFS physical activity promotional methods in the United States, the question can be raised as to whether the cost justified the results.

Australia

In 1975, the Department of Youth, Sport and Recreation (Dept. YSR) in Victoria, Australia, began to consider its community fitness program planning. Task Quantum Consultants Pty, Ltd., was hired to conduct an attitudinal study in Victoria on the subject of fitness and recreation. The research objectives were the following:

1. to better understand the factors which motivate and demotivate people regarding physical recreation,
 2. to isolate target groups as a basis for effective communication,
 3. to provide a basis for assessing how to move the community toward higher participation rate.
- (Dept. of YSR, Victoria, 1978, p. 7)

Focus group studies conducted prior to the attitudinal study warned against promoting the concept of fitness. It was suggested that such a strategy would be out of tune with consumer viewpoints. Whereas the recreation department might want to sell fitness, it would be unlikely that the community would want to buy it. It was, therefore, predicted that a hard line campaign based on jogging and exercise was doomed to early failure (Dept. YSR, Victoria, 1978).

The next step involved a household survey that differed somewhat from the usual socio-demographic analysis although such data were collected. The population was analyzed according to psychographic and lifestyle patterns. The intent was to group people according to psychological make-up and motivations toward physical activity (Dept. YSR, 1978).

The results of the household survey indicated:

*Whereas favourable attitudes towards activity existed, action based on such attitudes was a scarcer commodity.

*It was quite possible for people to understand all the arguments in favour of physical activity but nevertheless remain relatively inactive.

*Around 60% of the sample were unconvinced of the need to engage in physical activity.

*Another 20% of the sample had tuned-out to physical activity.

*Thus 80% of the sample viewed physical activity as a non-issue, to at least some degree.

*The remaining 20% of the population were tuned in to physical activity, but to varying degrees and with different motivations.

*A high level of support was evident for the concept of improved health through physical activity. However, this was quite different from acceptance of the need for physical exercise as a basis for health.

*Emphasis on "keeping fit" had led to stereotype narrow image of the need for such activities as exercise and jogging.

*The emphasis on "working" to be fit clashed with the much wider concept of "physical activity" held by many.

*Keeping fit was generally seen to be boring, slow, tedious and hard work.

*The concept of enjoyment pervaded viewpoints on active recreation. Even those who took activity for granted were doubtful of the virtues of doing things in the absence of enjoying activities.

*Actual and/or potential feelings of embarrassment and/or feelings of incompetence were significant factors in causing people to "tune out" to physical activity. This was not particularly true of those who did not regard themselves as having the "necessary skills" to keep fit. (Dept. YSR, Victoria, 1978, p. 18)

Results of the Attitude Survey

The psychographic data suggested five groups of individuals (Dept. YSR, Victoria, 1978):

Group 1. The Drifters. Drifters consisted of 60% of the population. To them, fitness was a non-issue. They were turned off by the traditional stereotypes of working hard to keep fit and would rather listen to music or go out to dinner. They were basically individualistic persons seeking enjoyment and although they understood the benefits of activity, they did not participate.

Group 2. The Tuned-Out. The tuned-out consisted of 19% of the population and contained many who learned they were a "failure" at school as far as physical activity was concerned. The tuned-out had strong feelings of incompetence and embarrassment and still thought in terms of the school fitness program they rejected.

Group 3. The Tuned-In--Self-Improvers. This group consisted of 11% of the population and were a relatively active group. They gave strong support to getting fit and tended to be motivated into being physically active because of a desire to look good. They still had lingering doubts about physical activity.

Group 4. The Tuned-In--Self-Convinced. These individuals consisted of 6% of the population and were likened to a "ball of human energy." They were the major claimants of societal awards for "fitness fanatics" and were most vocal about support of all groups for fitness and physical activity.

Given half a chance, they related information on how to go about being fit.

Group 5. The Super Tuned-In Young Lions. Unconsciously active and typically found in the younger age groups, these persons made up 5% of the population.

Based upon the psychographic information, the Drifters were selected as the prime target group. The needs and wants of the group were studied and a communication strategy developed. The major goal was to heighten the level of interest in activity. Attitudes showed that Drifters were disinterested rather than tuned out and were likely to be motivated by enjoyment. A promotional campaign entitled "Life. Be in it" was to demonstrate that physical activity could heighten enjoyment of life. Thus, it was feasible the Drifter population might be persuaded to do a little, feel the benefits, and then progressively become more active.

Objectives of "Life. Be in it"

The "Life. Be in it" public promotion campaign attempted to accomplish the following:

1. to emphasize activity rather than fitness,
2. to adopt an indirect approach rather than a frontal attack on lethargy,
3. to associate activity with fun and enjoyment rather than directly with health and fitness,
4. to broaden the concept of activity needed and to link it with opportunities for the family unit to recreate together,

5. to demonstrate how the many forms of low key activities could be built into everyday life and all life styles (Dept. YSR, Victoria, 1978).

With the above stated goals in mind the project team attacked the problem in three main ways. First, people were encouraged to be outside to do active things even if it meant just cleaning up the backyard. Activities requiring no special facilities, equipment, or organized structure such as walking, biking, or playing with the kids were stressed. Second, the project team stressed involvement in "where you're at" activities. The idea was to bring activity to places where people tended to congregate naturally, i.e., parks, beaches, or picnic areas. Third, the project team encouraged "learn to" activities. That meant providing an opportunity for people to receive instruction in activities they might wish to learn. For example, beginners programs were provided for those wanting to learn new skills, or wanting to try out a range of activities. "Brush up" programs were offered to those wanting to up-date or get some guidance on techniques they never received in the past.

Advertising rationale. The selection of the advertising agency depended solely upon its ability to translate the psychographic research results in a stimulating and nonthreatening communication program. Philip Adams, of Maonaham, Dyman, and Adams, the selected advertising agency, described the rationale in the following manner:

It is one thing for Chairman Mao to require his six hundred million acolytes to indulge in daily exercise. It is quite another for a government in our laconic, ironic society to attempt the same thing. The Chinese are very willing to sublimate their egos in a national effort. The Australian has a strong anti-authoritarian streak and far prefers to offer irreverent advice from the outer rather than participate in physical activity.

This suggests that a sense of humour is an important ingredient in any attempt to communicate with your fellow citizens. It also facilitates genuine communication. A good-humoured approach to the problem breaks down hostilities, prejudice, intellectualised resistance. A government programme postulated on good humour is hard to brand as authoritarian. Therefore, the approach, although very serious in intent, does not express itself in an over-serious tone of voice. It doesn't lecture or sermonise or harangue. It attempts to make its point with charm, even wit.

The second assumption involves asking a lot of people to do a little rather than a few people to do a lot. In other words, it is more realistic to try to get hosts of Australians to slightly modify their lifestyle than to turn a small sub-group into physical fitness zealots.

Any attempt to get Australians doing push-ups en masse is foredoomed to failure whereas a reasonable percentage of them may be persuaded to push themselves away from the dinner table, to cut their intake of carbohydrates. They could also be asked to get off the tram a block earlier than they normally do--or simply to enjoy living rather than lapsing into the comatose. And if the commercials are made in an engaging, humorous way, the campaign will have a very good chance of capturing the public's imagination.

The campaign will encourage people to see some of their state on foot, to suggest that they should get out of the car on that Sunday drive and take a stroll. Instead of seeing Australia through a windshield (which is little better than seeing it on television) they should walk a mile or two and enjoy the delights of internal tourism and the benefits of exercise.

Few people will run ten miles. But they might stroll half a mile. Few people will join a gymnasium. But they might begin to run up one or two flights of stairs instead of taking a lift. People will not, by and large, take up track and field events. But they could be persuaded to throw a frisbee around the back lawn.

In other words, the campaign will try to persuade people of the joys of living, of participating, or walking, breathing, feeling, seeing, smelling. Instead of driving to the shops, why not walk to them once in a while? Instead of using the intercom, why not take a brisk walk through the office to deliver the message?

The programme will offer people useful but amusing suggestions as to how they can escape from their self-imposed restrictions. We will offer them life instead of mere existence. Show them that life can be a little more enjoyable and suggest that they can in fact "Be in it." (Dept. YSR, 1978, pp. 55-57)

Norm-al man. The Australian sensitivity to criticism, especially if it was perceived to be coming from a governmental source, provided the first hurdle. Some method had to be found for presenting the physical activity message to the average Australian without alienating him or her. It was decided the best approach would be to create an animated character with whom the sedentary Australian could identify without feeling offended by the message. With this in mind, Norm was created as an animated character for the "Life. Be in it" promotional campaign. Norm was designed to represent the "Norm-al" man and to reflect the problem of inactivity, obesity, and lethargy. He was designed to be a credible character and to act as the conscience of Australians who saw a Norm in themselves.

According to the 1978 Victorian Recreation Department survey reports, Norm quickly gained popularity. The success was attributed to the humorous treatment of his behavior. Market research on the Norm commercials produced some of the following reactions from people: (a) he's just like me

wasting his life sitting back, (b) I saw myself, (c) it more or less said get off your bottom and (d) that chap reminded me of the typical Australian today.

Norm attempted to portray the new all-around Australian sportsman: the armchair variety, an expert on any sport on "the telly." His personality is illustrated in the commercial layout in Figure 2. Norm is depicted as a man who has lost all his mates. It also gives an idea of the angle the campaign organizers used to point out inactivity to the average Aussie.

Campaign Evaluation

There have been no independent studies done on the Australian campaign. According to the Victorian Recreation Department surveys, after one year there was a 97% awareness of the need for physical activity. A 1977 evaluation indicated that 47% of the Victorian population responded positively to the question "Has the 'Life. Be in it' message caused you to think more about how you could be more active?" Of those 47%, 38% reported that they exercised more, 18% participated in more sport, 8% got out of the house more and 10% said they walked to the shops more instead of taking the car.

However, taking into consideration those who exercised prior to the campaign, only 15% of the total Victorian population--not just those who had been stimulated to think more about how to be more active--had become more active

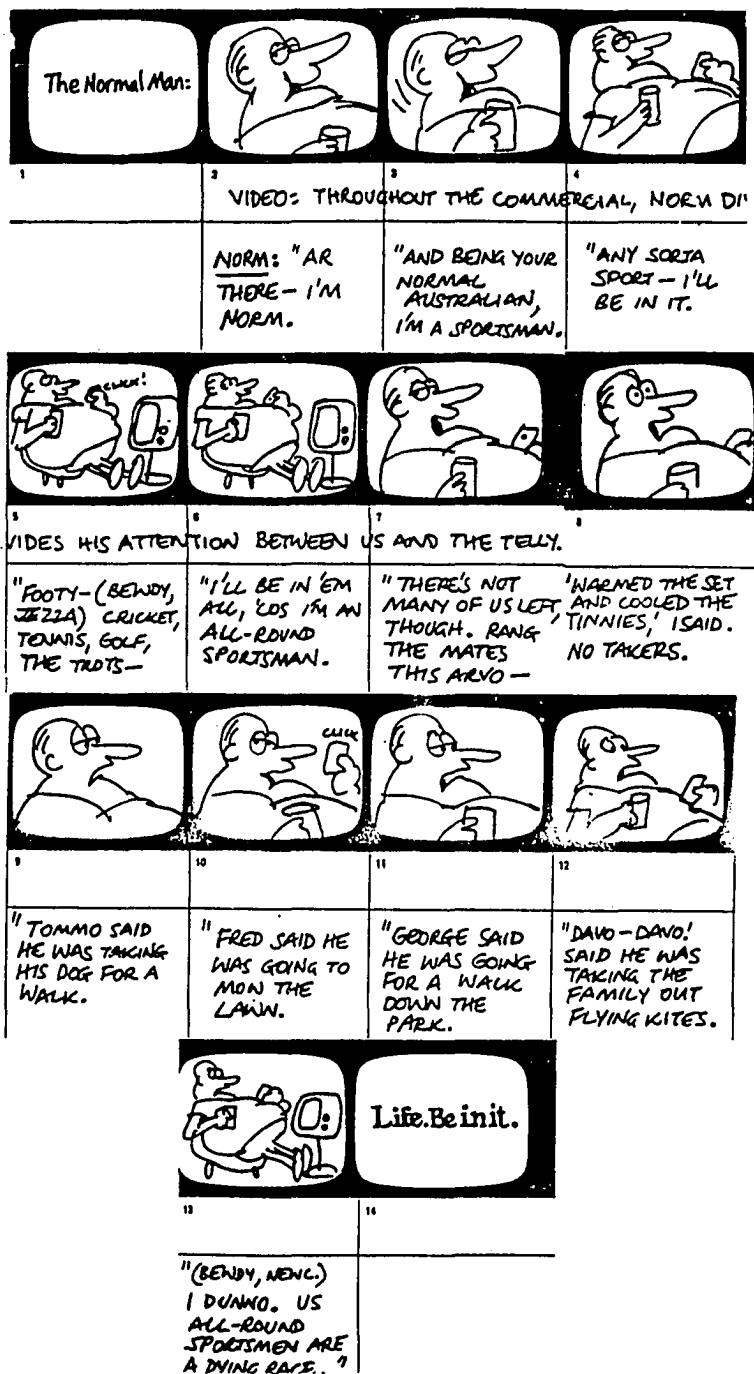


Figure 2. Norm, the all round Australian sportsman. From The Hoover Award for Marketing Dept., YSR, Victoria, 1978, p. 58.

in sport and recreation. Obviously, there was a long way to go after the conclusion of the project.

Critical Analysis

Similarities/Differences

The three campaigns discussed in this chapter were different in appearance, style, and structure. There were also similarities among them: (a) all utilized the mass media, (b) all had the objective of encouraging people to become more physically active, and (c) to date, none appears to have been effective in changing long-term physical activity behavior of a large percentage of the population.

Two basic differences should be noted among the three campaigns. The first lay within the organizers' view of their task. PCPFS leadership, for instance, saw the campaign as one of information dissemination. PARTICIPaction organizers considered physical activity to be something people did not want to do; therefore, their task was predominantly one of selling. Organizers of "Life. Be in it" saw their task as one of first isolating a group of individuals who had similar attitudes toward physical activity. Then, they packaged physical activity according to what would be acceptable to the target group of individuals.

The second difference among the three campaign approaches was concerned with the orientation of the campaign organizers. The PCPFS and PARTICIPaction programs took physical activity to the public en masse based upon the campaign organizers'

view of its worth. The Australians were more concerned with what qualities of physical activity the public perceived to be important. They ignored for a time what they ultimately wanted to accomplish--large numbers of Australians undertaking vigorous physical activity--and settled for promoting a milder form of physical activity.

Public perception of a product has, for some time, been recognized as one of the keys to success in the business world (Peters & Waterman, 1984). An example is the achievements of Lanier, a small company in direct competition with IBM, Xerox, and Wang. Lanier outsold all of the larger companies in the stand-alone word processor. While the large companies called these sophisticated typewriters, "the word processor," Lanier labeled them as the "No Problem Typewriter." The average secretary, threatened and put off by the term "word processor," understood the concept of a typewriter. Lanier successfully moved the secretary into the office of the future at a faster rate by simply recognizing the importance of user perception in the adoption of the product (Peters & Waterman, 1984).

This is similar to what the "Life. Be in it" organizers attempted to do when they surveyed the attitude of the public toward physical activity. PARTICIPaction organizers, on the other hand, merely guessed at the public perception of physical activity. Whereas they spent considerable time asking the opinions of the experts about what people should be doing,

they never bothered to ask potential consumers for their opinion. Likewise, the PCPFS did not appear to give any real consideration to the perception issue. This was particularly evident in the 1984 T.V. campaign featuring George Allen.

The difference between the three campaign orientations was, therefore, enormous. The PCPFS and PARTICIPaction each utilized a form of mass communication. "Life. Be in it" attempted to apply marketing theory.

Mass Communication

The apparent success of commercial advertising attracted social cause groups, such as the PCPFS, to using mass communication for changing public attitudes, educating, and changing social behavior (Kotler & Zaltman, 1971). It was presumed that if people could be "told" about the social problem just as a commercial advertiser "told" potential buyers about products they would see the logic in changing their behavior. Unfortunately, even the most highly organized mass communication campaigns are hardly ever effective. As early as 1949 one researcher of mass communication application to social issues concluded:

Despite the great reliance placed upon (mass persuasion) campaigns by organizations of all types, it is none the less evident that campaigns do not necessarily succeed in inducing desired behavior among any substantial proportion of the population. As research techniques have become available to evaluate the actual effects of campaigns, it has become a rather common experience

for organizations and agencies to spend substantial sums of money on such activities only to find from objective appraisals that little perceptible effect was accomplished. It is not yet possible on the basis of research to state exactly how large a campaign of what kind is required to produce a given amount of influence on mass behavior, but evidence is accumulating to indicate that significant changes in behavior as a result of campaigns are rather the exception than the rule. (Cartwright, 1949, p. 254)

According to Cartwright three steps were necessary for a mass communication campaign to be successful. He contended that it was difficult for a social cause agency to fulfill all three adequately. Step one involved educating the public about the issue. Most social mass communication campaigns, he argued, managed to overcome many communication problems to be generally successful in the education stage. Step two was less evident in social campaigns. The public had to be motivated to consider doing something about the issue. Step three was to stimulate that motivation into action. The individual had to be told exactly what type of behavior change was necessary and how to change present behavior. This, argued Cartwright, was usually non-existent in most social cause campaigns.

Cartwright concluded that the overall problem lay in the efforts of social cause groups to communicate one single message to the entire population. Herein lies part of the problem with using the mass communication process. There are so many biases among individuals that every person becomes what McClelland (1975) referred to as:

a prisoner of his own age . . . a prisoner within the confines of his knowledge, beliefs and past experiences . . . and that no two people share exactly the same cage follows from the realization that no two people can be expected to have exactly the same knowledge, beliefs, and past experiences. (McClelland, 1975, p. 69)

Mass communicators attempt to avoid conflict with individual biases by encouraging behavior change in general terms. A specific statement of what to do, how to do it, and when to do it could not realistically apply to all individuals and is, therefore, easily ignored. On the other hand, a specific statement can be easily rejected although the content of the message is acceptable. For example, perhaps the message does not fit into the individual's life pattern, or possibly the kind of physical activity suggested does not appeal to the individual's concept of what is worthwhile.

So, although the PARTICIPaction campaign was educational in that it told Canadians that they were in terrible shape, provided motivation for Canadians to do something by appealing to the emerging sense of Canadian nationalism, and told them what to do, walk, and when to do it, during the community action projects, the project ultimately did not succeed in overcoming the "prisoner" syndrome. Thus, PARTICIPaction failed to change Canadian long-term exercise behavior.

In recognition of the idea that a problem existed in changing long-term behavior because of the fixation of attitudes and beliefs, Lazarsfeld and Merton (1949) contended

that the behavior of society could be influenced only if three conditions existed: (a) monopolization, (b) canalization and (c) supplementation. Monopolization existed when there was little or no opposition to the information presented. In fact, the success of PARTICIPAction's community action projects has been attributed to the tremendous media and community support it received (Jackson, 1975). It was probably as close to monopolization as a campaign could come in a democratic society.

Consider the competition the PCPFS has in its mass media exercise promotion campaigns. Messages of the Milk Marketing Board were intended to lead us to believe that milk is "fitness you can drink." The Kellogg Company suggested that one can "eat yourself fit." The stress of success, Alka Seltzer explained, can be taken care of by "Plop, plop, fizz, fizz." Also, take into account persuasion messages to drive the latest sports car, to be a sports spectator, smoke longer cigarettes, drink finer bourbon. One can readily see how difficult monopolization is to achieve.

The second problem identified by Lazarsfeld and Merton is potentially more difficult to overcome, that of the stability of pre-existing individual attitudes making us "prisoners of our age." Using the example of a toothbrush, Lazarsfeld and Merton pointed out that once Americans were socialized to its use, it really made little difference to most people what brand of brush to use. It was not a matter

of reshaping attitude but one of merely directing the individual toward a product that could accomplish an already acceptable behavior.

Social campaigns, however, typically seek to reshape, rather than canalize (direct) behavior--a much more difficult task. Whereas it was, perhaps, exciting for the average Saskatoonian to be a part of the community action projects, regular physical activity behavior remained unchanged. Walking a block once with friends was not a major change in an established behavior pattern. Walking on a daily basis and, thus, changing a whole pattern of lifestyle was a different matter entirely.

PARTICIPAction also failed to accomplish the third requirement of Lazarsfeld and Merton for campaign success, supplementation, or the follow-up to the mass communication campaign. Perhaps if community exercise groups had been organized for those motivated to take some action and the message was reinforced, there would have been a higher percentage of the population who remained more active. Such a system of follow-up requires tremendous staff support and was recognized by PARTICIPAction as expensive and difficult to organize. They determined it was not one of their responsibilities (Burgess, 1981).

The idea of pre-existing attitudes and the difficulty in changing them was also advanced by Weibe (1952). In analyzing the question: "Why can't you sell brotherhood like

you sell soap?" Weibe suggested that the force of the motivation was so dependent upon the individual's predisposition toward the behavior prior to the radio or television message, that it was difficult to predict how one single message, so typical of the mass communication approach, would affect the motivation of various individuals.

Weibe also recognized that perception barriers, both psychological and real, had to be realistic in relation to the reward for performing the behavior. In social cause campaigns, perception barriers are sometimes so intangible that it is difficult to counteract them with any single specific message. For example, what type of message would successfully counteract the perceived barrier of "lack of time?" This is a particularly difficult problem if reasons for the perception vary among individuals according to education and lifestyle.

In summary, mass communication of one single message is wrought with so many logistical problems that to use the technique in physical activity promotion is likely to waste valuable resources. The most well conceptualized and organized mass communication campaign is unlikely to be successful when long term behavior change, such as exercise behavior, is sought. The Stanford Heart Disease Prevention research (Maccoby & Alexander, 1979) is testimony to this. After two years of conducting a scientifically developed mass communication campaign in three California communities

the physical activity behavior of the test communities was not changed although there was success in changing diet behavior (Maccoby & Alexander, 1979). The Children's Television Workshop, after considerable research, was unable to change exercise behavior of viewers of the "Feeling Good" health series, although again, diet behavior did change to some degree (Mielke & Swinehard, 1976).

Promoting physical activity, quite obviously, is no easy task. If mass communication techniques have not proved effective, then it is time to try a potentially more efficient approach--the marketing approach. This differs from the mass communication concept discussed above in that different fields of experience of individuals are recognized. Instead of taking physical activity to the public en masse, the marketing approach attempts to group individuals according to some common element and package the product according to group wants, not only in life, but also from leisure. Marketers are not only interested in the question, "What would I want if I were in that situation?", but also in the qualifier, "If I were that kind of person." Perhaps if the question were answered physical activity could be repackaged to fit perceived individual needs and wants and consequently make a major breakthrough in changing society's physical activity behavior.

CHAPTER III

MARKETING

Philosophical Orientations

In the previous chapter, three approaches to promoting physical activity were presented. The mass communication process was also discussed in an effort to indicate why the PCPFS approach is not the most effective one. In this chapter the concept of marketing is introduced and reasons why it is potentially the most cost-efficient promotional strategy are discussed. First, it is important to establish what is accepted as marketing in this report and what is not. The meaning of the word, marketing, is misinterpreted by many people. Kotler (1980) presents five alternative philosophical orientations in promoting an idea or product. Four of them are relevant to physical activity promotion. These are discussed in terms of their present use in promoting physical activity and are adapted directly from Kotler's work (1980, pp. 27-29).

Concepts

Production. This orientation assumes people favor the method of physical activity that could produce the desired level of fitness in as little time as possible. Therefore, the major task of physical activity promoters is to provide a quick, efficient method for people to "get into shape."

The production concept further assumes the following:

1. Individuals are primarily interested in the form of physical activity that will get them "fit" in minimal time.
2. Individuals know the time cost of other methods of obtaining fitness and the health cost of sedentary lifestyle.
3. Individuals do not attach much importance to other aspects of physical activity such as enjoyment, variety, social intercourse, etc.
4. The physical activity director's task is one of calculating the exact exercise heart rate required for each individual in the program so that the cardiovascular system is trained at the optimal level. The exact time an individual begins and ends the exercise program is carefully calculated so as to minimize time costs.

This approach can be seen in many corporate fitness programs. The employees are given an "exercise prescription" consisting of a circuit of activities. Heart rate is monitored periodically to ensure that the prescribed level of activity is maintained. Enjoyment of physical activity is not considered; neither is the possibility that physical activity is an aspect of wellness, not necessarily a prescription for illness. Therefore, selection of physical activity based upon employee psychological make-up is just not taken into account.

Product. This concept implies that individuals favor a physically active lifestyle because it offers the most in terms of health for the price, i.e., time and effort versus hospital expenses and lost time. Therefore, energy is devoted to educating the public on the benefits of physical activity and pointing out that improved fitness can be obtained at very little cost.

The product concept has the following implicit premises:

1. Individuals buy "products" rather than solutions to needs. That is, they undertake a physical activity program simply for the fitness benefits rather than as a solution to a basic need for recreation, good health, fun, enjoyment, relaxation, or some other form of need.
2. Individuals are primarily interested in the most efficient method of overcoming heart disease, stress, overweight, etc.
3. Individuals know and understand the differences between exercise and other methods of solving lifestyle problems, i.e., medicines, pills, alcohol, etc.
4. Individuals choose among alternatives on the basis of obtaining the most quality for the cost.
5. The education of individuals about the benefits of physical activity is important in order to attract and hold them to an active lifestyle.

The mass communication approach utilized by the PCPFS is an example of a product orientation promotional approach. The massive informational dissemination program has the intent to educate and inform the public about the quality of this product called "fitness." The assumption is that all that must or perhaps can be done is to make the public aware of the need for physical activity and they will flock to undertake a program of physical activity.

Obviously the intentions have not been realized and the exasperation of the PCPFS staff is evident in comments made by Casey Conrad, Executive Director of the PCPFS. To the question, "Why don't people exercise?", Conrad responded:

All you can do is try to get the word out, give them the truth, hammer away at them through the media. If people don't want to accept it, well, in our way of life they can be as fat and as out of shape as they want." (Shapiro & Sussman, 1978, p. D4)

In 1980, Conrad again lamented:

One of the biggest problems the Council appears to be having is overcoming people's doubts. It's difficult for them to believe that something as available, inexpensive and simple as exercise can be so rewarding and valuable. (Conrad, 1980, p. 2)

Selling. This concept assumes that individuals do not exercise or exercise enough unless a substantial effort is made to stimulate their interest. That is, fitness and good health are "sold," not "bought."

The implicit premises are as follow:

1. Individuals have a normal tendency to resist any non-essential physical activity.

2. Individuals can be induced into physical activity through various stimulating devices.
3. The promoter's task is to have a strong sales orientation as the key to attracting and holding people to physical activity.

Health spas operate under the premise that people must be "sold" on fitness. Spa employees spend over 90% of their training in learning sales techniques and very little training in physical activity ("Health Spas," 1978). Consequently, interested consumers are told just about anything that might help "seal the sale." For example, exercise eliminates hypertension; the steam room eliminates all the toxins from the body; diet is not necessary to lose weight (FTC, 1979); vibrating machines break down fatty deposits (Lichtenstein, 1972). The sales pitch is for one purpose, namely, to get the individual to sign a noncancellable membership contract. Individual satisfaction with the activity program offered is considered secondary to making the sale.

Although not as blatant and deceiving, the PARTICIPaction campaign is an example of the selling concept. Keith McKerracher, President of PARTICIPaction Canada during the Saskatoon campaigns, stated:

PARTICIPaction is trying to sell fitness the way it should be sold--with style and humour. You can sell fitness the same way you sell beer and soft drinks. . . . How else but through the art of advertising are you going to make sweating popular. (Baka, 1975, p. 133)

McKerracher believed that people really did not want to be physically active. They had to be "sold" on the idea and

induced into giving it a try. Appealing to the nationalistic emotions of Canadians was an apparently effective way to motivate them to try physical activity. Unlike the Australian campaign, PARTICIPAction never considered what people would like to do, how they could be taught to really enjoy exercise and sports for their own sake, and how physical activity could satisfy a need.

Marketing. Unlike the selling concept where the product, physical activity is sold, the marketing concept recognizes individual differences. Therefore, knowledge of individual needs and wants is essential information. Once these have been determined, the task of the promoter is to find solutions to those needs and wants and for the solutions to be more attractive than alternative behaviors.

The marketing concept has these underlying premises:

1. Individuals can be grouped (segmented) according to their needs and wants.
2. Individuals in any segment could favor physical activity if it comes closer to satisfying their needs and wants than other activities. People will not adopt exercise and sports unless it is perceived as fulfilling needs better than some other product, alcohol for example.
3. The task is to research and choose target groups and to develop effective physical activity promotional techniques.

Marketing differs from the production, product, and selling concepts in that it is totally client-oriented, whereas the others are not. The concept most often confused with marketing is selling. Frequently, when promoters such as the PARTICIPAction organizers talk in terms of marketing, they are really referring to the selling concept. The differences between the two are summed up by Drucker in the following way:

Indeed selling and marketing are antithetical rather than synonymous or even complementary. There will always, one can assume, be need for some selling. But the aim of marketing is to make selling superfluous. The aim of marketing is to know and understand the customer so well that the product or service fits him and sells itself. Ideally, marketing should result in a customer who is ready to buy. All that should be needed then is to make the product or service available, i.e., logistics rather than salesmanship, and statistical distribution rather than promotion. (Drucker, 1973, pp. 64-65)

Appropriateness for Promoting Physical Activity

If marketing, as suggested above, is the most efficient strategy for promoting physical activity, why was the Australian campaign not more successful? There are several reasons, the first of which is that marketing, as a technique to promote social causes, is relatively recent. Consequently, there are still many problems to be sorted out. In fact, Kotler and Zaltman (1971) contended that "social marketing" is sufficiently distinct from "business marketing" to require fresh thinking and new approaches.

The second reason is that marketing by its very nature of asking "What does the individual want?" faces an

exceptionally difficult problem, one of understanding the behavior patterns of the target segments. In this respect, it can be argued that the approach is no better than that of mass communication techniques. The words of Kotler and Zaltman (1971) resemble those of Cartwright (1949), Larzarsfeld and Merton (1949), and Weibe (1952):

Social marketing has to deal with the market's core beliefs and values, whereas business marketing often deals with superficial preferences and opinions. Social marketing must search harder for meaningful quid pro quos to gain acceptance or adoption of its products. (Kotler & Zaltman, 1971, p. 11)

The basic problem of how to change lifestyle behavior is once again the single most important piece of necessary information that needs to be determined. Unfortunately, the two concerns, what the individual wants and how to change lifestyle behavior, are just part of the total problem. Conducting a truly effective marketing campaign requires an extensive set of answers to a series of questions before the decisional sequence of what to do can be followed. Ray's (1982) Decision Sequence model presented in Figure 3 lists no less than 11 levels of information. Each requires answers before the next level can be approached. In this respect, Bloom and Norvelli (1981), two individuals who have worked extensively with social cause agencies, contend that in carrying out such a decisional sequence analysis, eight problem areas are encountered when a social cause agency attempts to apply marketing theory to the promotion of social issues. These are explained below:

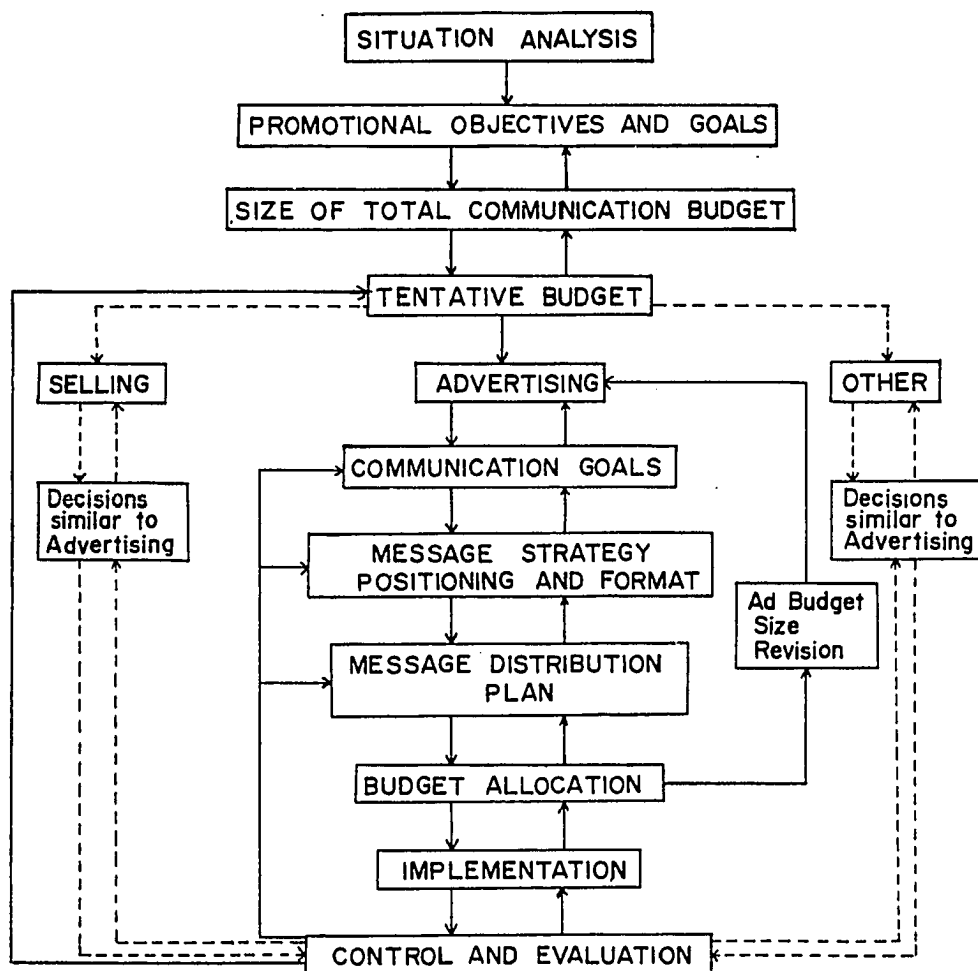


Figure 3. A flow chart for decision sequence analysis for marketing communication. Adapted from *Advertising and Communication Management* (p. 1) by M. Ray, 1982, Englewood Cliffs, NJ: Prentice Hall, Inc.

The market analysis. The market is difficult to analyze. Unlike commercial marketers, social marketers do not have easily accessible, inexpensive data from previous consumer studies. Academic research reports that are available tend to be so narrowly focused that they contain information of little practical value. Consequently, any attempt to sort out elements influencing behavior is virtually impossible.

Market segmentation. There is little accurate behavioral data available for identifying population segments. In fact, aside from the Australian data, how populations can be segmented when it comes to promoting physical activity is still uncertain. The psychographic profiles used by the Australians was the first attempt at identifying physical activity behavioral groups. But it is going to require considerable research to determine if the behavioral characteristics used in the "Life. Be in it" campaign and the broadness of the target group of Drifters were appropriate.

Product strategy. Formulating a product strategy for a complex behavior change is difficult. As is the case with physical activity, the behavior may have to be repeated many times before it becomes habitual. Moreover, the motivation required to begin the physical activity program may not be the motivation required to encourage participants to persist with exercise or sports. It, therefore, becomes difficult to position physical activity so that its

message is effective with individuals with differing motivational needs.

Another problem is being certain that the messages get enough media exposure to be effective. According to Bloom and Norvelli (1981), because a social campaign often used Public Service Announcements it is not aired or printed often enough to have any significant effect. There is already evidence that this is a problem with the PCPFS campaign.

Pricing strategies. Pricing strategies are usually limited to reducing psychic costs, energy and/or time costs, or other barriers that might be preventing individuals from being physically active. There exists only scant research on the relative strengths of perceived costs associated with physical activity behavior. Usually, all that can be done is to attempt to make sure the various costs associated with the new behavior are not inflated. It may be possible to eliminate or reduce some of the barriers. Providing showers and changing facilities at the worksite so employees can participate in physical activity during the lunch hour is an example of reducing barriers.

Channels of distribution. It is difficult to utilize and control methods for distributing the new behavior. PARTICIPAction found this to be a problem. The time constraints on the staff in running the Saskatoon campaign were more than that considered to be economically feasible

(Baka, 1975). However, when they attempted to package the techniques for other cities to utilize, the campaigns were generally less successful, even in the community activation projects (Baka, 1975). Distributing an idea such as engaging in physical activity, rather than a tangible product, requires a different set of solutions than those faced by commercial marketers.

The PCPFS also ran into channel distribution problems. They attempted to establish a nationwide system of State Fitness Councils. However, personal communication with many of the individuals in charge of the councils indicates that they either have very low budgets or must raise their own funds. As well, they are so dependent upon the attitudes and beliefs of the incoming governors every 4 years and the state of the economy that their effectiveness is limited (Brooks, 1983, personal communication).

Communication mix. A complex social behavior requires that large amounts of information be transmitted in one message. It is not always possible to convey all aspects of the message at one time. It is not always obvious what benefits there are to the new behavior or how and when to implement the behavior change. For this reason the old standby is used, "For more information, please call or write . . ."

Organization. Cause organizations are not generally familiar with modern marketing practices. They often equate

marketing with communications or promotion. In the case of the PCPFS, marketing is associated with public information. We must suspect that a similar problem exists within most business employee physical activity programs. Rather than organizing a program based upon the employee needs, the physical activity director goes into the job with a preconceived idea of what the employees should be doing. In fact, it is likely that the director is hired because of skills in exercise physiology rather than knowledge of human behavior.

There follows from this the problem of responsibility. Employees of governmental organizations do not lose their jobs or gain promotion based on how well the organization does. What if, for example, the 1990 national fitness goals are not met? Who will be held responsible and how? On the other hand, in the business world there is such a scramble to prove that physical fitness programs actually reduce health care costs, improve worker productivity, or reduce absenteeism that the research coming out of these settings is both misleading and misquoted.

Evaluation. According to Bloom and Norvelli (1981), evaluation is a difficult problem. Deciding whether a program is designed to create awareness of an issue, or change behavior, or whatever it is supposed to accomplish, is difficult. Both PARTICIPAction and "Life. Be in it" defend their campaigns by stating that they are really still creating awareness of the need for physical activity.

Consequently, their actual success cannot yet be measured in terms of behavior. However, any well organized mass communication campaign can create awareness. It is the behavioral change that has been elusive and the main reason for exploring the use of marketing as a promotional technique. The reluctance of the Canadians and Australians to claim they are in the behavioral change phase may be attributed to the fact that this is a big step into the unknown and one in which all physical activity promotional campaigns to date have failed.

Summary

Although the marketing approach may appear at present to be a step in the right direction, the road will be a rocky one. Bloom and Norvelli concluded that:

The relationship between social marketing and more conventional commercial marketing may be somewhat like the relationship between football and rugby. The two marketing games have much in common and require similar training, but each has its own set of rules, constraints, and required skills. The good player of one game may not necessarily be a good player of the other.

While success in the battles over market share may call for equal or even greater stamina and perseverance, success in the social marketing arena requires greater ingenuity and imagination. In spite of this social marketing efforts can succeed particularly if the problems are dealt with in a creative and logical manner. (Bloom & Norvelli, 1981, p. 87)

It is unrealistic, then, to expect immediate success from the marketing approach. Jackson's (1975) results indicated that the selling concept used by PARTICIPAction in Saskatoon was just as effective as the marketing strategies

used by the Australians. However, manpower requirements for the Australian campaign were much less. The PARTICIPaction organizers recognized this as a flaw in their approach (Baka, 1975). The cost per person regularly activated in Australia was estimated to be approximately 6 cents. PARTICIPaction evaluated its economic success on the cost of the campaign to the government versus the money and services donated by the private sector. For example, the city of Saskatoon provided the PARTICIPaction committee with a \$7,665 grant to run the physical activity promotional campaign. This was considered insignificant compared with the estimated value of corporate donated advertising amounting to \$250,000 (Burgess, 1981). No cost was calculated on a per person activation basis.

The PCPFS spends in excess of 30 million dollars a year, one million of which comes from taxes and the remainder from donations. The time has arrived when an accounting for the total dollar amount is necessary. Sponsors cannot be expected to continue contributions to a campaign that is potentially inefficient and uneconomical without a justification of the promotional methods used.

Physical activity directors in business and industry are already aware of the need to find better methods for encouraging those not physically active to participate in an exercise or sports program. They cannot continue to justify physical activity programs and facilities if only those

who would participate anyway are using the facilities. Ultimately, the success of a promotional campaign must come down to the question of economics. What is the method that encourages the most people to become regularly active for the least amount of money?

There is the haunting prospect that nothing will encourage large quantities of people to become more physically active. That is to say, regardless of the techniques used less than 20% will actually adopt an active lifestyle. Only time will tell if this is so. For the present, very little in the way of scientific research has gone into most exercise promotional efforts; until this is done, the readiness of society to change a habitual, sedentary lifestyle will be uncertain.

The first step in any marketing research is an analysis of the present situation (Ray, 1982). We must search for clues about the who, what, why, and how of physical activity. That is, who is exercising, what are they doing, why have they selected that particular activity, and how has it been fitted into their lifestyle. Then we must study the who, what, why, and how of those not exercising in an effort to gain some insight into the field of experience of those individuals. None of the other decisional steps in the marketing model proposed by Ray (1982) can be successfully accomplished without information in the present status of physical activity. In fact, failure to answer all the

questions at each stage is to reduce the promotional efforts to pure guesswork. The following chapters of this text not only provide an overview of the physical activity situation but also offer a stopgap measure in solving the first problem alluded to by Bloom and Norvelli (1981), the lack of easily accessible, useful consumer data for use in promotional efforts. The data exemplify what is necessary for any group involved in any aspect of promoting physical activity whether on the national level, state level, within business and industry, or in health clubs. It is the writer's hope that the following discussion will also stimulate more interest in the utilization of marketing theory in physical activity promotion.

CHAPTER IV

NATIONAL PARTICIPATION ANALYSIS 1972-1982

This chapter analyzes geographic and demographic data pertaining to physically active individuals in the United States. It is important first to sort out who is not physically active before the more complex question of why not can be approached. This also seems an appropriate step for the PCPFS to take. Consider for a minute, Objective C, established for the U.S. adult population:

By 1990, the proportion of adults 18-65 participating in vigorous physical exercise should be greater than 60 percent. (USDHHS, 1980)

Immediately two questions come to mind: (a) how realistic is this objective, and (b) is the present trend toward or away from a physically active lifestyle? In order to achieve Objective C, one must know the magnitude of the task being undertaken. At present the percentage of the adult population who are physically active is not known. It is believed to be in the vicinity of 35% (USDHEW, 1980). The first task, therefore, is to analyze the present status of physical activity in the United States. The text that follows examines six data sources, discusses their limitations and relates the data to the issue of promoting physical activity.

Data Sources

The ideal way to arrive at an indication of the present status of physical activity participation in the U.S. is to analyze the national scene objectively. A subjective, and perhaps somewhat biased eye of those declaring the U.S. to be in the midst of a fitness boom, does not offer acceptable information. An objective analysis requires data from national population samples over a period of years. Unfortunately, no one single organization has followed adult exercise or sports participation in this country to any great length. However, several national survey organizations, although unrelated to a particular physical activity promotional agency, have occasionally included questions about adult exercise participation as part of a larger survey. While there are limitations to using these data, for the time being they are the best available. The analysis of adult exercise participation trends in the present study are derived from the following surveys.

President's Council on Physical Fitness and Sports Survey, 1972

This was a part of two consecutive surveys conducted by the Opinion Research Corporation in 1972. Interviews were held in the homes of 1939 men and 1936 women (PCPFS, 1974).

U.S. Health Department Survey, 1975

The 1975 Health Interview Survey questionnaire included a supplement questionnaire on exercise and sports

participation. The survey consisted of in-person interviews of 12,000 individuals 20 years of age and over (USDHEW, 1978).

The Perrier Survey: Fitness in America, 1979

This survey was conducted by Louis Harris and Associates, Inc., in 1978 and consisted of in-person interviews of 1,510 individuals throughout the United States (Perrier, 1979).

Gallup Poll Surveys: 1961, 1977, and 1980

In the years 1961, 1977, and 1980, the Gallup Poll survey included a question on exercise participation. In-person interviews were conducted on approximately 1,500 people nationally.

Human Resources Research Organization Survey, 1980

This self-administered mail survey was commissioned by the Council on the Arts. The purpose was to determine the arts-related leisure behavior of adults living in 13 southern states (Alabama, Arkansas, Florida, Georgia, Kentucky, Louisiana, Mississippi, North Carolina, South Carolina, Tennessee, Texas, Virginia, and West Virginia). Data from one of the leisure choices, exercise behavior, have been utilized by this writer to help explain physical activity behavioral patterns of adults. These data have been particularly valuable in discussing physical activity behavior in the context of total leisure behavior (Orend, 1980).

Simmons Study of Media and Markets: 1982, 1983

In-person interviews of approximately 19,000 adults 18 years of age and older were conducted by the Simmons Market

Research Bureau in 1982 and 1983. Data on sports and leisure were collected as a part of an extensive analysis of the U.S. Market and included participation in 18 different sports and physical activities. The results of the four most relevant to improving physical fitness, i.e., swimming, bicycling, jogging, and weight lifting, have been selected from these surveys for consideration in the present study. Information as to whether or not individuals participated in a physical fitness program during the year was also obtained (Simmons, 1982, 1983). Where appropriate, these data have also been utilized.

Limitations to the Studies

Figure 4 provides a composite picture of the national participation in activity for adults from 1961 to 1982 according to the studies above. The picture is one of fluctuation where 24% of the population purportedly undertook a physical fitness program in 1961; 55% in 1972; 48.4% in 1977; 59% in 1978; 46% in 1980; and 33.5% in 1982. However, the data must be considered with a great deal of caution. Any secondary analysis accepts the integrity of the original data. The possibility that imperfect sampling techniques may have occurred in the original studies leaves the preciseness of this report open to question. For an accurate accounting of adult participation trends in exercise, it is also necessary to ask the same very specific question in each of the separate surveys. Table 2 indicates the questions asked in each of the studies that generated the data. Lack of consistency should be noted. There are also numerous biases built into the questions that warrant recognition.

Figure 4. Composite picture of participation in physical activity according to seven selected surveys: 1961-1982.

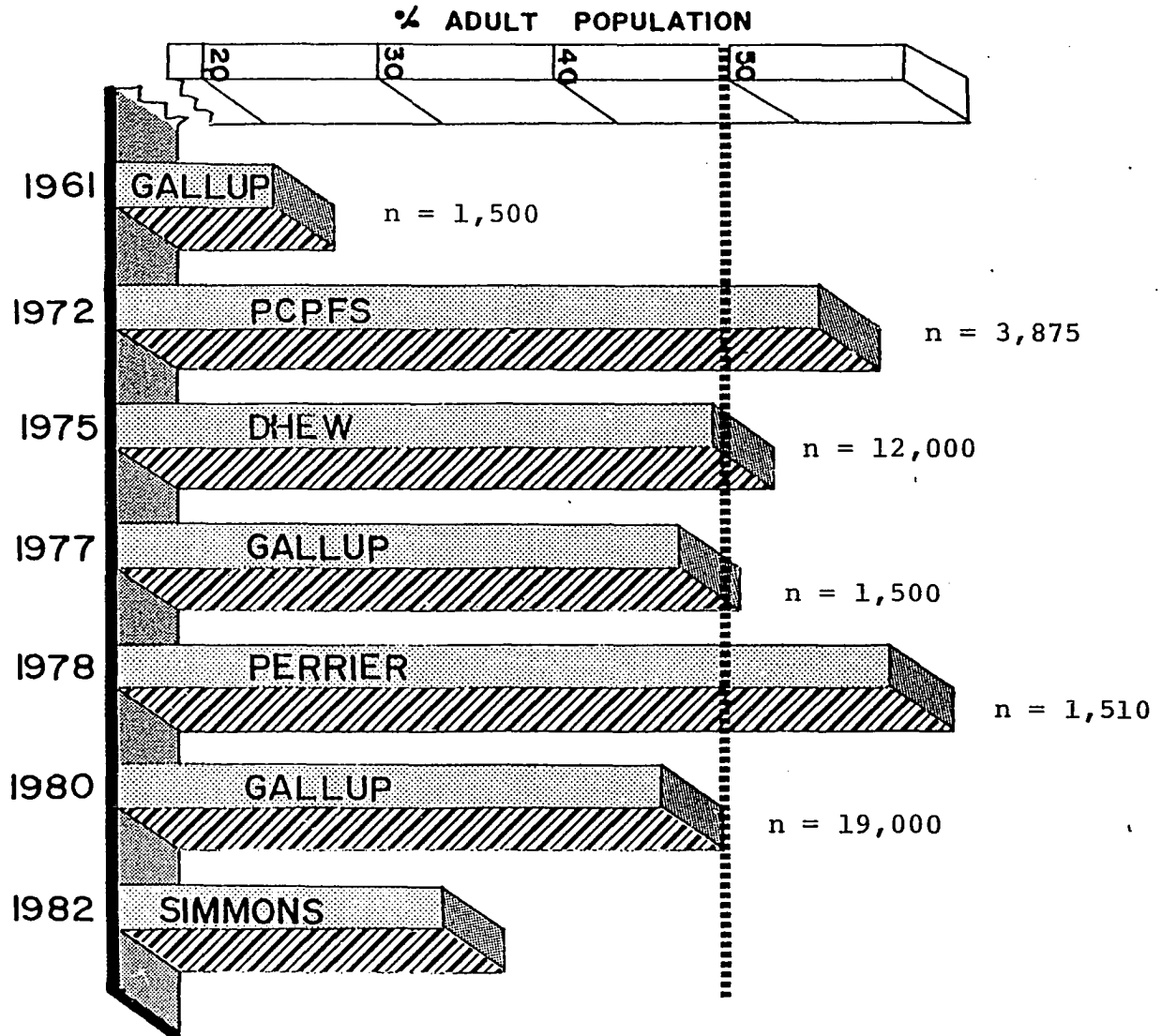


Table 2

Questions Generating Participation Data

Survey	Question
1961 Gallup Poll	"Aside from any work you do here or at home, or at a job, do you do anything regularly--that is, on a daily basis--that helps you keep physically fit?"
1972 PCPFS Survey	"Which, if any of these exercises are you now doing?" (A series of activities were shown to the respondent.) "How often do you do these activities?"
1975 U.S. DHEW Survey	"What exercises have you done on a regular basis?" (A series of activities were shown to the respondent.)
1977 Gallup Poll	Same question as 1961.
1978 Perrier Survey	"Please tell me which of these activities you personally participated in on a regular basis at any time during the past year?" "On average, how many times per week did you participate in (activity)?" "On average, approximately how much time would you say you actually spent participating in (activity) each time you do it?"
1980 Gallup Poll	Same question as 1961.
1982 Simmons Market Research Survey	"Have you yourself engaged in prescribed (by yourself or someone else) physical fitness programs at an outside establishment or in your own home in the last 12 months?"

The first bias relates to the now apparently wide acceptance of the benefits of exercise to health. This contributes to people's reluctance to state their honest beliefs when questioned about exercise. They tend to give what they perceive as being a socially acceptable response. Researchers for the Children's Television Workshop (Mielke & Swinehart, 1976) noticed this when conducting research for a new trial health program, "Feeling Good." They concluded that:

Exercise is an area where fundamental information and advocated attitudes are either widely known and accepted and are so prone to social acceptability pressures that the responses given to questions on exercise are what people feel are desirable or expected. (Mielke & Swinehart, 1976, p. 213)

Most people agreed that exercise was either "very important" or "somewhat important." It has been suggested that these responses are the result of generalizing what has been heard in physical activity promotional campaigns, not from a belief in the message that was portrayed (Telama, Vuolle, & Laakso, 1980).

The second bias relates to word usage. Terms such as "physically fit," "physical fitness program," and "regular participation," are not specifically defined in any of the questions. They are, therefore, open to differing interpretations. The first problem relating to interpretation is that although people may be aware of the benefits of exercise, there is evidence that they are generally uncertain about the type and amount of exercise required to become and

stay fit (Perrier, 1978). For example, 35% of the public in 1978 believed that bowling provided enough exertion for fitness and 57% believed the same for baseball (Perrier, 1978). Thus, any question using terminology like "physically fit" or "physical fitness," probably does not yield valid data if the physical activity criterion is cardiovascular functioning. Consider, for example, the Gallup Poll results to the question:

Aside from any work you do here at home, or at a job, do you do any thing regularly--that is on a daily basis--that helps you keep physically fit?

Forty-six percent of the adult population answered positively in 1980. In the 1982 Simmons survey, the respondents were asked:

Have you yourself engaged in prescribed (by yourself or someone else) physical fitness programs at an outside establishment or in your own home in the last 12 months?

The latter question did not state "on a daily basis." Yet, only 33.5% of the population answered positively.

It must be recognized that both of these questions pose interpretation problems that render the data uninterpretable. Possibly, people had (a) a better understanding of what it took to be physically fit in 1982, or (b) they perceived a physical fitness program differently than the term "physically fit", or (c) the population as a whole was much less active in 1982 than in 1980.

How respondents interpret "regular" is also important since this interpretation has a direct impact upon data

analysis. In fact, exactly how the DHEW defines "regular" in Objective C is far more critical. According to the Department of Health and Human Services:

appropriate physical activity refers to exercise which involves large muscle groups in dynamic movement for periods of 20 minutes or longer, three or more days per week, and which is performed at an intensity requiring 60 percent or greater of an individual's cardiorespiratory capacity. (1980, p. 155)

The American College of Sports Medicine (1978) contend that the quantity and quality of training for developing and maintaining cardiorespiratory fitness and body composition in healthy adults involves the following:

1. Frequency of training of 3 to 5 days a week.
 2. Intensity of training of 60% to 90% of maximum heart rate or 50% to 80% of maximum oxygen uptake.
 3. Duration of training of 15 to 60 minutes of continuous aerobic activity.
 4. Type of activity should include any that can be maintained continuously such as jogging, swimming, bicycling, etc.
- (American College of Sports Medicine, 1978, p. vii)

Have the selected studies reported what the DHEW or the College of Sports Medicine recognizes as "regular?" Or, to complicate matters, have they described what the general public perceives as "regular"?

Without actually having asked interviewees "how regular was regular?" in their responses to the exercise questions, it is impossible to understand the meaning conveyed. The only way to arrive at some indication of the interpretation is to compare the Simmons (1982) data, where physical activity

frequency was accounted for, with the results obtained in the DHEW (1975) and Perrier (1978) surveys. In these studies duration of participation was not taken into account.

Figure 5 presents such a comparison graphically. The DHEW data were based on those individuals claiming to be "regularly active" in 1975. These results suggested that 11.8% of the population swam on a regular basis, 4.8% jogged, 3.4% lifted, and 10.9% biked. The Perrier data were based on those claiming to be "regularly active" in 1978. The results indicated that 17% swam, 11% jogged, 3% lifted and 13% biked. To obtain some idea of how many days a year respondents may have meant by regular, the 1982 Simmons data have been superimposed over the Perrier and DHEW results. Simmons included information on frequency of participation ranging from "participated in at least once during the year" to "participated in for at least 60 days of the year." That is still not twice a week but it is somewhat revealing.

The fact that these data are from three different time periods further limits the feasibility of drawing conclusions. Nonetheless, some interesting observations from Figure 5 are worthy of comment. Either there was a large increase in the number of "regular" participants in swimming and jogging from 1975 to 1978, or people had a more liberal interpretation of "regular" in 1978. Based on the Simmons (1982) frequency data in 1975, for example, the DHEW sample

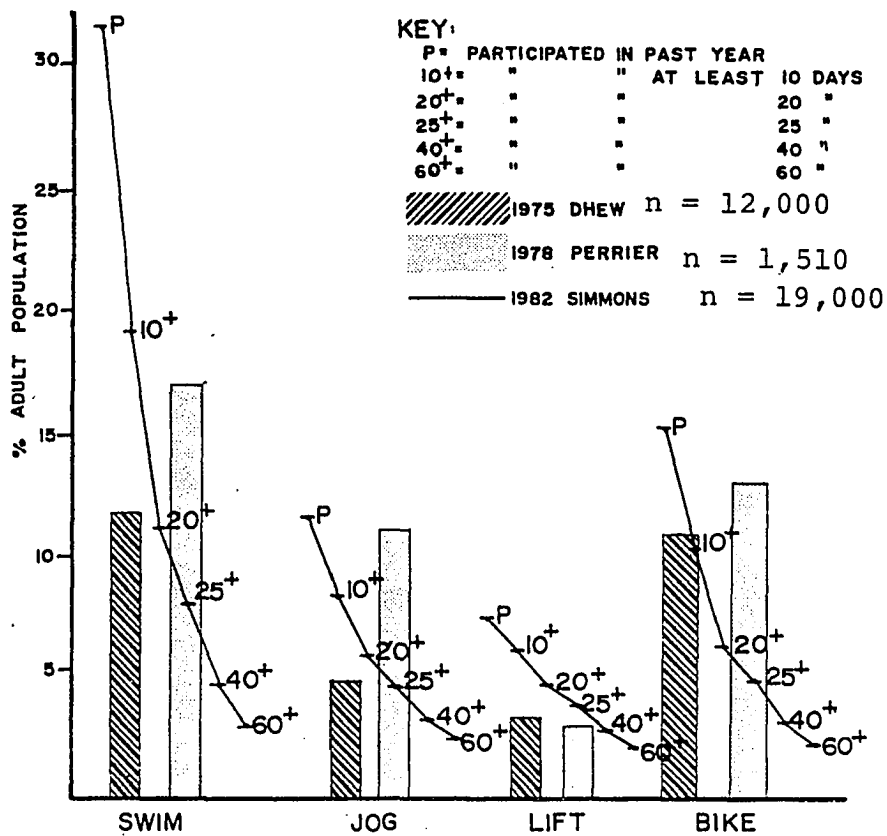


Figure 5. Comparison of regular participation among three surveys for swimming, jogging, lifting, and bicycling.

interpreted "regular swimming" as participation for approximately 20 days a year. The Perrier "regular" participants in 1978, however, only swam slightly more than 10 days a year. The Perrier data for jogging seem to have included all those who said they jogged, regardless of participation rate.

Based upon the differences between the Simmons frequency data and the other two sources, it appears that individuals interpret "regular" as being less frequent for swimming and bicycling, and more frequent for lifting and jogging. In other words, it appears that the term "regular" may be activity specific. The public may view activities with a recreational component such as swimming and bicycling and perhaps walking differently than the more commonly publicized "physical fitness" related activities such as jogging and weight lifting. This speculation is offered to further illustrate the complexity of interpreting the data about fitness.

Certainly, it can be argued that individual perception of "regular" in 1982 may be different from that of 1975 and 1978. If such is the case, it merely points to another reason why questions about exercise participation need to be more specific. If the perception of "regular" has changed over time, the actual trend in the status of adult physical activity is obviously not known. However, these data are the best nationally generalizable data available. They, therefore, were utilized despite all the flaws mentioned.

Selected Activity Analysis

There are not many activities an individual can perform on a regular basis to work the heart and lungs sufficiently to improve their functioning. Jogging, swimming, cycling, aerobic calisthenics, or on a more limited basis, brisk walking, and weight lifting are some such activities. According to Figure 6, three of these, walking, swimming, and bicycling are on the decline.

In 1972, for instance, data indicated that 40% of the population walked on a regular basis. In 1975 the percentage dropped to 33.8% and in 1978 it dropped further to 22%. Except for the 1978 data where 17% of the population indicated they swam, swimming has also shown a similar downward trend falling from 15% in 1972, to 11.8% in 1975, to 8% in 1982. Bicycling participation has moved from a high of 17% in 1972, to 10.9% in 1975, to a slight increase of 13% in 1978, to a low of 5% in 1982. Calisthenics has increased slightly where 13% participated in 1972, 13.5% in 1975, and 14% in 1978. There are no data available for the 1982 calisthenic participation. (There is a question, of course, as to the kind of activity the public perceived calisthenics to involve.) Weight lifting has been relatively constant over the decade. Three percent of the population lifted weights in 1972, 3.4% in 1975, 3% in 1978, and 4% in 1982. The Perrier data for jogging is so different from the other surveys that accuracy must be questioned. Whereas 7% of the population jogged

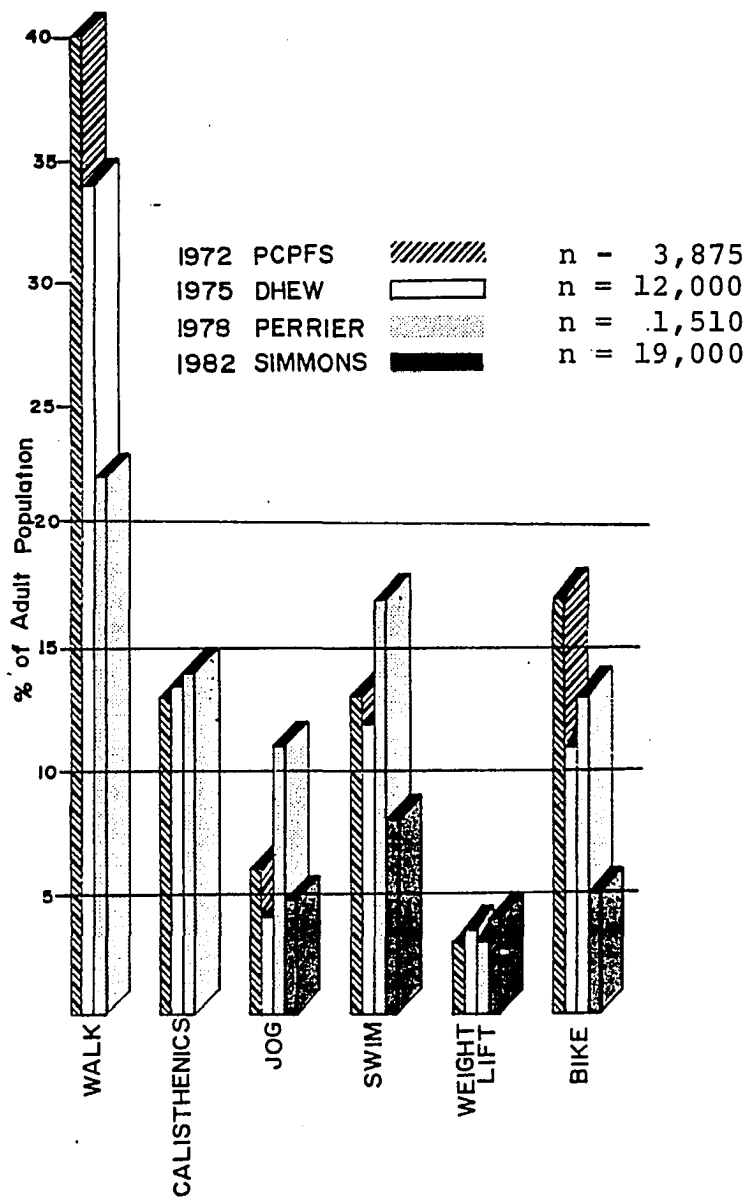


Figure 6. Participation trends in selected activities.

regularly in 1972, 4% in 1975, and 4.8% in 1982, the Perrier data showed that 11% of the population jogged in 1978.

Figure 6 may be an indication of any of the following: (a) a trend in perception, (b) a matter of interpretation, (c) a changing public perception of "regular," or (d) the actual activity status, and (e) any combination of the aforementioned. It is impossible to offer a judgment. Examination of the data from two of the surveys that measured participation at least once a week, PCPFS and Simmons, reveals a decline in participation suggesting, perhaps, that the actual activity status had been measured. This is graphically presented in Figure 7. Whereas 11% of the population claimed to have biked at least once a month in 1972, in 1982, 2.7% did so. Eight percent biked less than once a month, 4% 1-2 times a month, and 2.7% 2-3 times a month. Weight lifting regularity has remained similar with 3% lifting at least once a week in 1972, and 2.5% in 1982. Four percent of the population jogged at least once a week in 1972 and 3% did so in 1982. Swimming dropped from 8% participating at least once a week in 1972, to 4% in 1982.

Overall, then, the data do not offer a promising picture of adult physical activity status. Less than 5% of the population jogged, biked, swam, or weight lifted more than once a week, a frequency less than is recommended for cardiovascular improvement. The writer speculates that most of the individuals claiming to exercise are either responding

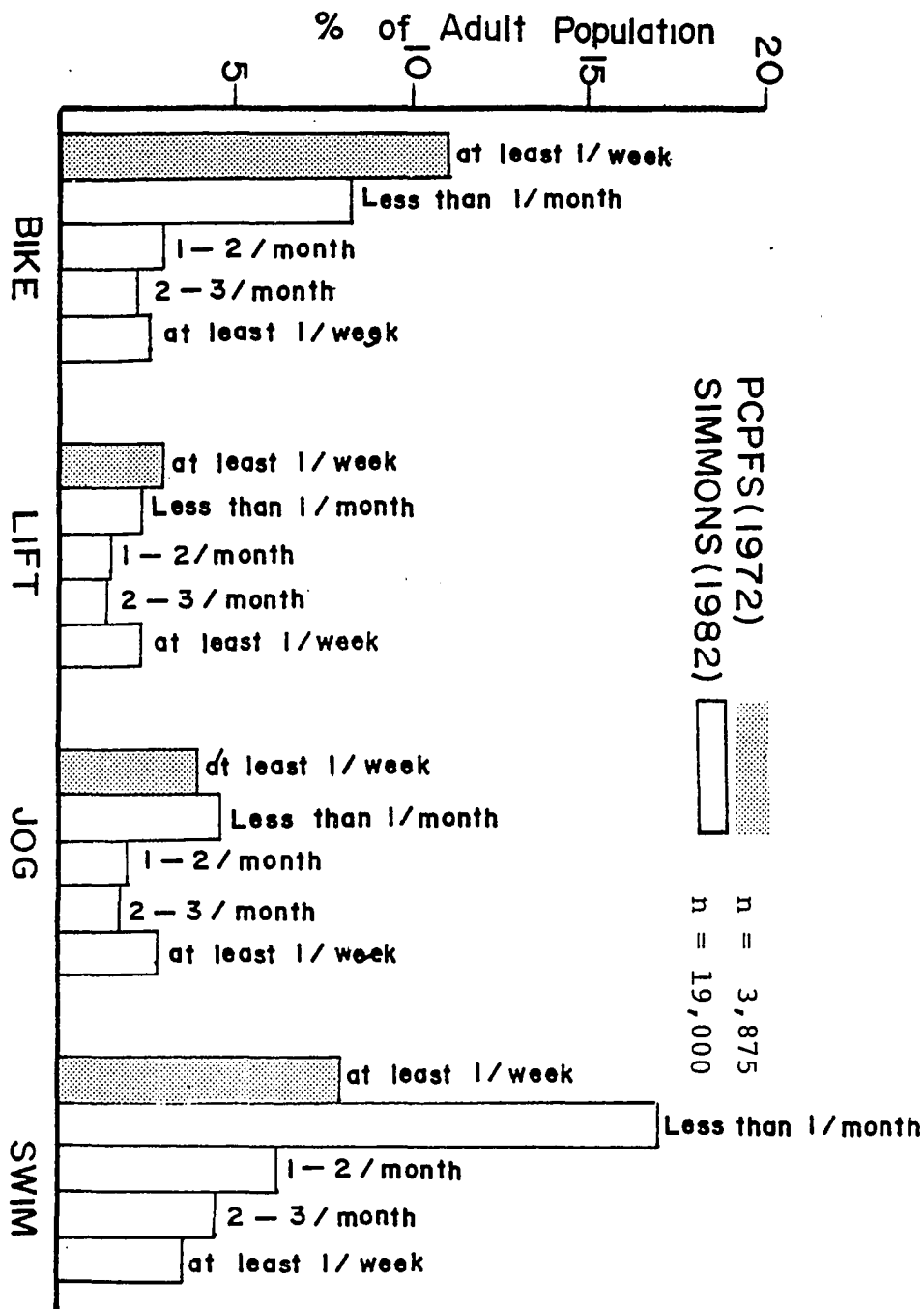


Figure 7. Comparison of degree of participation for 1972 and 1982.

positively in order to appear socially acceptable or they are walking. This may be good exercise, but it is doubtful that participation in this activity is often enough, or strenuous enough, to have significant health benefits for the majority of participants. Other studies have substantiated this. Brown (1981), for example, found that 82.9% of the employees of a manufacturing firm had never exercised vigorously enough to become out of breath. The only aerobic activity in which a large percentage of these employees engaged was a "brisk walk" in good weather.

Relevance to Promotion of Physical Activity

The information contained in the above analysis brings claims of the popularity of fitness into a sobering perspective. The evidence, albeit somewhat limited, suggests that despite reports of 100 million swimmers, 75 million bicyclers, 75 million who do calisthenics, and 37 million joggers, and a \$12 billion a year athletic equipment industry ("Corporate Fitness," 1983), regular adult exercise participation is quite low. In 1982, a picture existed not of a fitness boom, but of a confusing abstract with as many interpretations as onlookers.

Twelve billion dollars of athletic equipment sales is a clearly misleading statistic. In 1982, individuals owning equipment for a specific activity was no indication of the numbers actually participating in the activity or of those participating on a regular basis. Figure 8 illustrates the

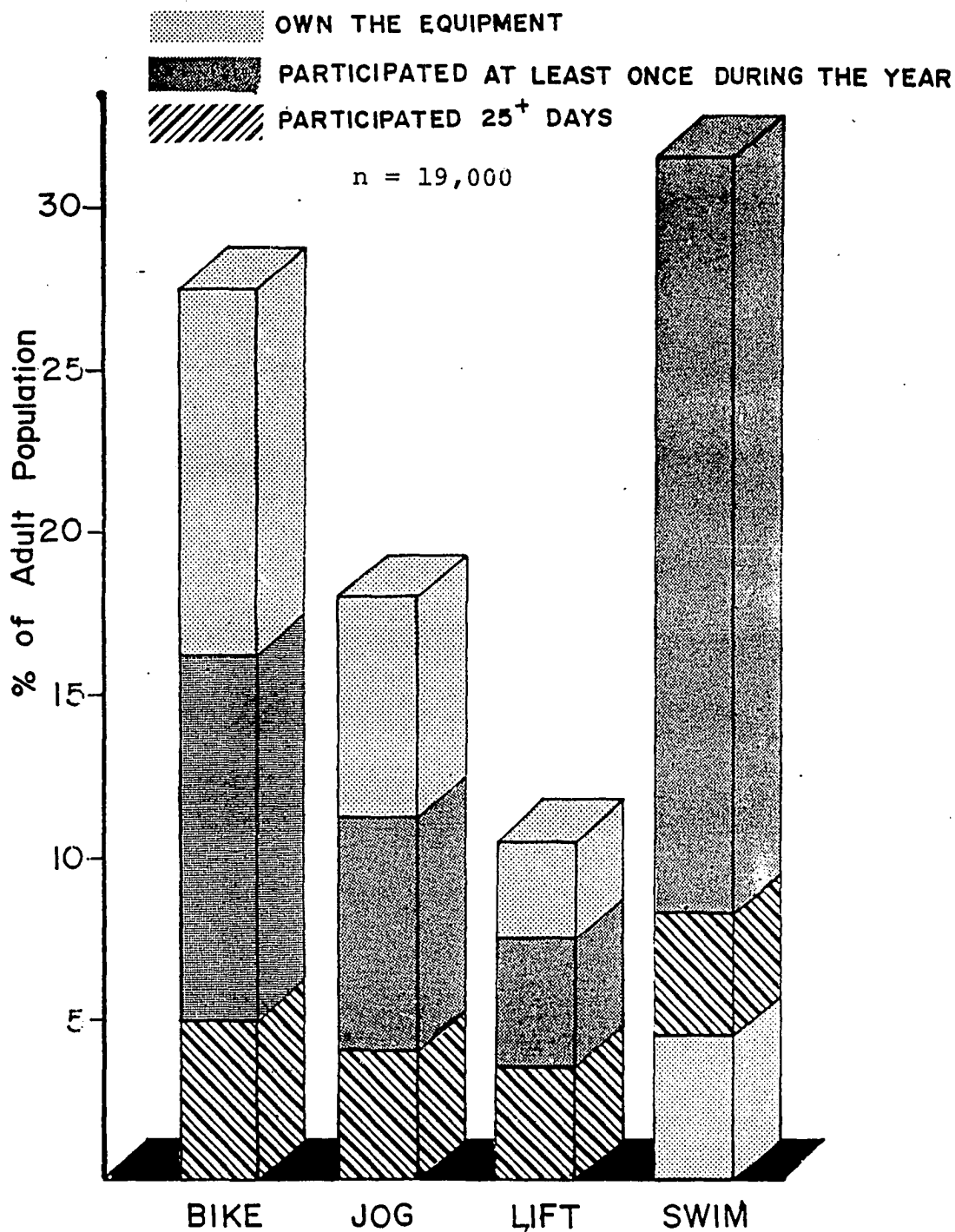


Figure 8. Ownership of equipment, participation, and regular participation in selected activities, 1982. From "Simmons Study of Media and Markets: Sports and Leisure, 1982" by Simmons Market Research Bureau, Inc, 1982. Adapted by permission.

point according to the Simmons 1982 data. Adults who participate in the four activities consist of less than one third of the population who own the equipment. As already noted, "participation" is unrelated to "regularity."

Considering the definition in the present study of "regular" meaning "at least 25 days a year" (except for jogging where "regular participation" is 30 days a year), only 31% of those who had bicycled in 1982 did so regularly, 36% of the total number of joggers jogged regularly, 51% of the total number of weight lifters lifted regularly, and only 25% of all those who had gone swimming did so on a regular basis. In other words, only a small portion of those who "sample" "do" on a regular basis.

Such an interpretation of the national status of adult physical activity is consistent with the realization that the number of employees using highly publicized multimillion dollar gymnasium facilities provided by some companies is low. For example, the 2,400 square foot exercise facility located at the Exxon Headquarters in Manhattan, staffed with three professionals, initially attracted 73% of the 422 executives eligible to use it. Only 231 of those remained active after one year (Yarvote, McDonagh, Goldman, & Zuckerman, 1974). Even this number is deceiving. Only 25 executives (11%) used the facilities the recommended 3 days a week (Yarvote et al., 1974). Needless to say, such figures are seldom considered in popular reports about the fitness boom.

It is the writer's contention that promoters of physical activity, physical educators, for example, are facing a situation quite different from that of a fitness boom. Although present-day participation in physical activity might be an improvement over the past, it is essential that it be kept in perspective. If the American College of Sports Medicine or the DHEW guidelines are to be the goal for the adult population of the country, individuals need to be active at least two or three days a week. Only a very small percentage engage in that kind of exercise regularly. There is much work to be done to reach the desired objectives.

CHAPTER V
SECONDARY ANALYSIS OF ADULT
PHYSICAL ACTIVITY

In spite of the limitations of the studies described in the previous chapter, geographic and demographic analysis of these data gives some helpful information regarding individuals who (a) are not physically active, (b) participate occasionally, and (c) participate on a regular basis. In order to market physical activity participation to such persons answers are needed to many questions about them. For example, where do they live, what is their work, what are their ages, their income, their education?

In this chapter, data identified above are examined with respect to two time periods. The first period is the decade of 1972 to 1982. Selected demographic and geographic information with respect to bicycling, jogging, weight lifting, swimming, and equipment ownership is considered. The second time period compares the 1982 situation with respect to ownership, participation at least once during the year, and regular participation, i.e., participation for at least 25 days, to data collected in 1983.

The reason for this approach is threefold. First, although data over the 10-year period are incomplete, to the

author's knowledge, any attempt to longitudinal analysis of physical activity from multiple data sets has never been reported. Consequently, valuable information that could aid in understanding the present situation has not been utilized. Second, adult physical activity participation has not been considered in terms of the relationships among ownership, occasional participation, and regular participation. Again, information has been overlooked. And thirdly, for the first time, there exist data for one year that can be compared directly with a subsequent year.

The objective of this chapter, then, is to examine who engages in physical activity from every possible geographic and demographic perspective. Thus, the situational analysis, indicated by Ray as a cornerstone of the Decision Sequence Model for marketing communication, is begun in the text that follows.

The Decade from 1972 to 1982

Regional Analysis

The regional picture of adult participation for 1975 and 1982 are presented in Figure 9.¹ In 1975, 50.4% of the population of the Northeast were physically active while 49.6% of those living in the North Central region, 42% of the Southern region, and 55.8% of the Western region claimed to be physically active. (A listing of the states included

¹In some cases data are missing from the surveys and therefore do not appear in the discussion.

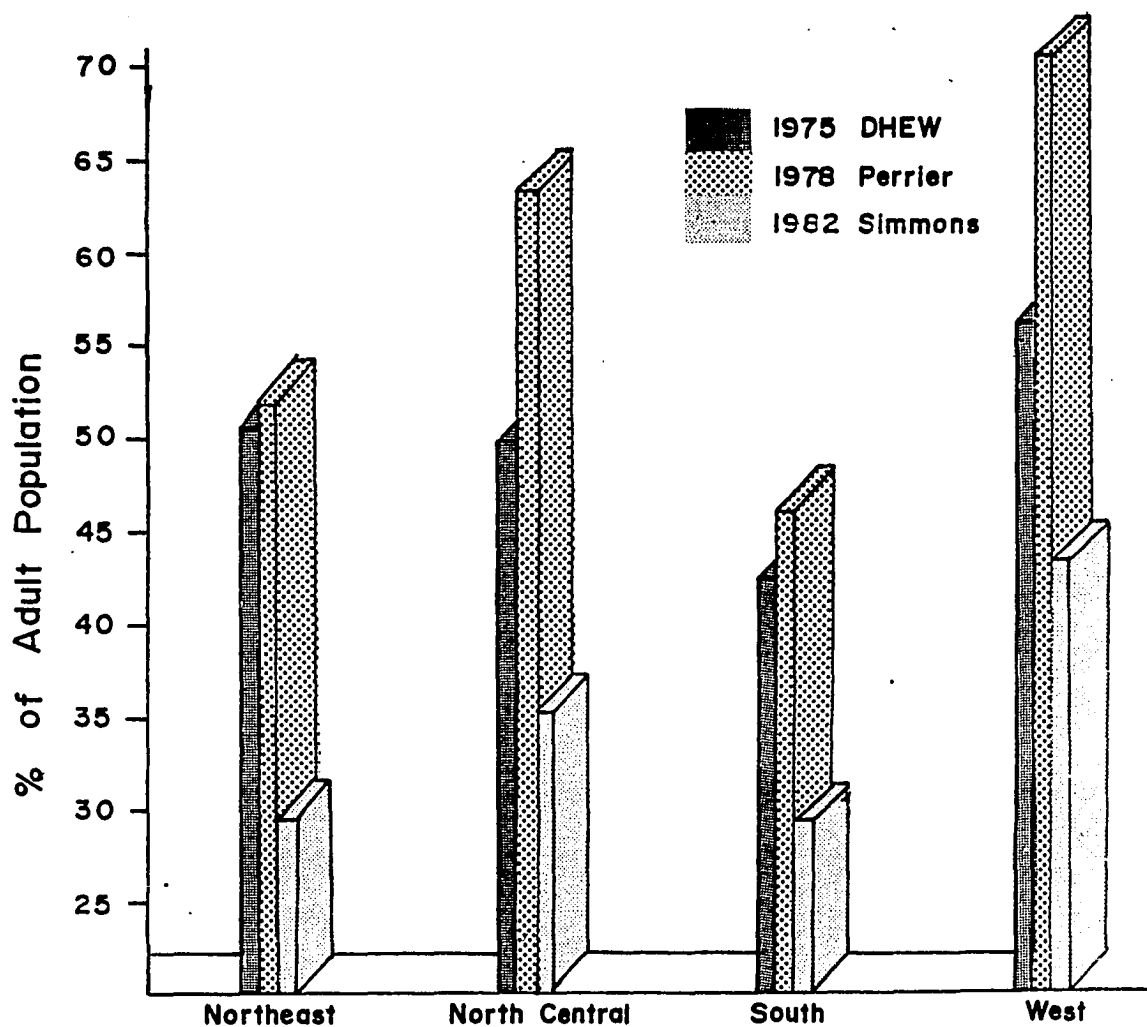


Figure 9. Regional adult participation in general physical activity. Note: 1975, n = 12,000; 1978, n = 1,510; 1982, n = 19,000.

within each region is presented in Appendix B). In 1982, participation dropped in all regions. Of the population living in the Northeast, 29.5% were physically active, 35.5% were active in the North Central, 29.3% in the South, and 43% in the West. In all three data sets, physical activity participation was lowest in the South and highest in the West. In 1982, Northeast participation was almost identical to that of the Southerners, 29.5% to 29.3%, respectively.

Regional Participation in Selected Activities

Further analysis by activity indicates Westerners were more regularly active than the population living in any of the other regions for all activities except swimming. Figure 10 depicts graphically the regional participation percentages for five activities. Whereas 43.6% of the Western population claim to have undertaken a physical fitness program in 1982, they cannot be totally accounted for in the 5.7% of regular weight lifters, 10.8% of regular swimmers, 5.6% of regular joggers or the 6.0% of regular bicyclers. Westerners apparently do some kind of activity they consider to be fitness-related other than those analyzed in the study.

Examination of Figure 10 also reveals that over the decade (a) the number of regular weight lifters has remained relatively constant in the Northeast and North Central, increased 1% in the South, and increased 1.2% in the West; (b) the number of regular walkers dropped 8% in

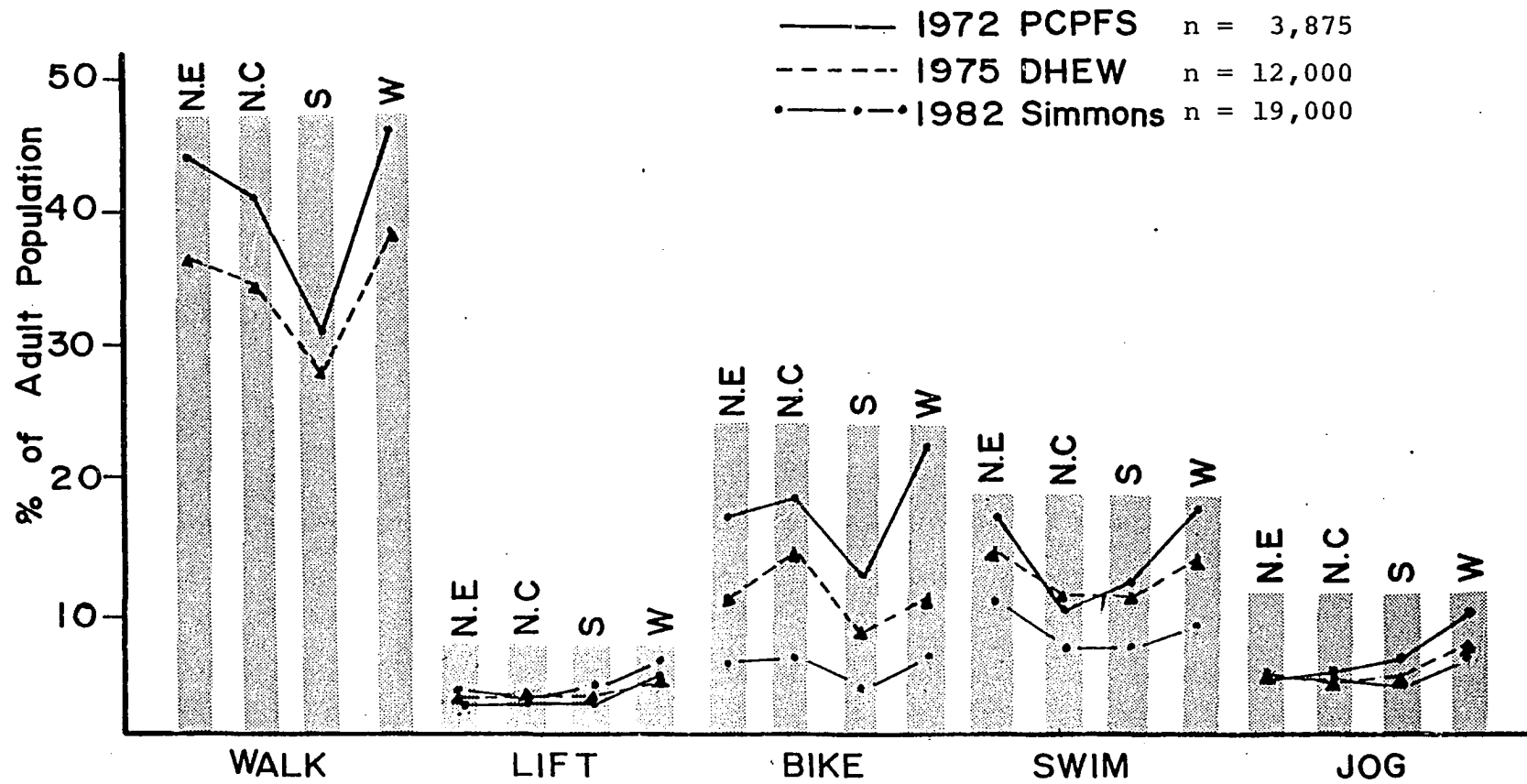


Figure 10. Regional participation in selected physical activity by region and year, 1972-1982.

the Northeast, 5.6% in the North Central, 3.4% in the South, and 8.1% in the West; (c) the number of bicyclers dropped 11% in the Northeast, 13.2% in the North Central, 8.7% in the South, and 16.2% in the West; (d) the number of swimmers dropped 5.6% in the Northeast, 5.8% in the North Central, 5.7% in the South, and 8.2% in the West; (e) the number of regular joggers remained relatively constant at a little over 4% in the Northeast and North Central and dropped 2.4% in the South and 3.4% in the West.

Figure 10 also reveals that swimming was the most popular form of regular exercise in all regions. The remaining activities show different rates of popularity according to regions. In the Northeast, swimming was the most popular with 10.1% of the population participating regularly, followed by bicycling, 5.5%; jogging, 4.4%; and lifting, 2.8%. Data for the North Central region show swimming was again the most popular form of regular activity, 6.7% of the population, followed by bicycling, 5.8%; jogging, 4.1%; and lifting, 3.3%. In the South regular participation in order of popularity was swimming, 6.6%; lifting, 3.5%; bicycling, 3.3%, and jogging, 3.1%. Finally regular participation for the West in order of popularity were swimming, 10.7%; bicycling, 6.0%; lifting, 5.7%; and jogging, 5.6%.

Regional Participation and Ownership in 1982

In regions where ownership of equipment was high, both participation and regular participation were also high. For

example, as Figure 11 indicates, 35.2% of the population in the North Central states and 33% of the Western states owned bicycles. The number of people bicycling at least once during the year was highest in those two regions, 21.4% in the North Central and 19.4% in the West. However, when the Simmons (1982) data for the proportion of those participating during the year regardless of regularity, and those regularly participating, i.e., at least 25 days, are compared to the Simmons data for ownership a different picture emerges. The proportion of those participating occasionally in weight lifting to ownership of the equipment, was 74% in the Northeast, 62% in the North Central, 66% in the South, and 80% in the West. The proportion of those regularly participating to ownership, on the other hand, dropped substantially to 30% of those in the Northeast, 27% in the North Central, 36% in the South, and 48% in the West. These data are summarized in Table 4.

Further consideration of the Simmons ownership/participation data by activity is revealing. For biking, the proportions of those participating to ownership were Northeast, 61%; North Central, 61%; South, 57%; and West, 59%. Regular use of the equipment were Northeast, 21%; North Central, 16.5%; South, 17%; West, 18%. With respect to jogging, the proportion of those participating to ownership were Northeast, 64%; North Central, 62%; South, 67%; and West, 61%. Participants using their jogging shoes regularly were 27% of those in the Northeast, 21% in the North Central, 20%

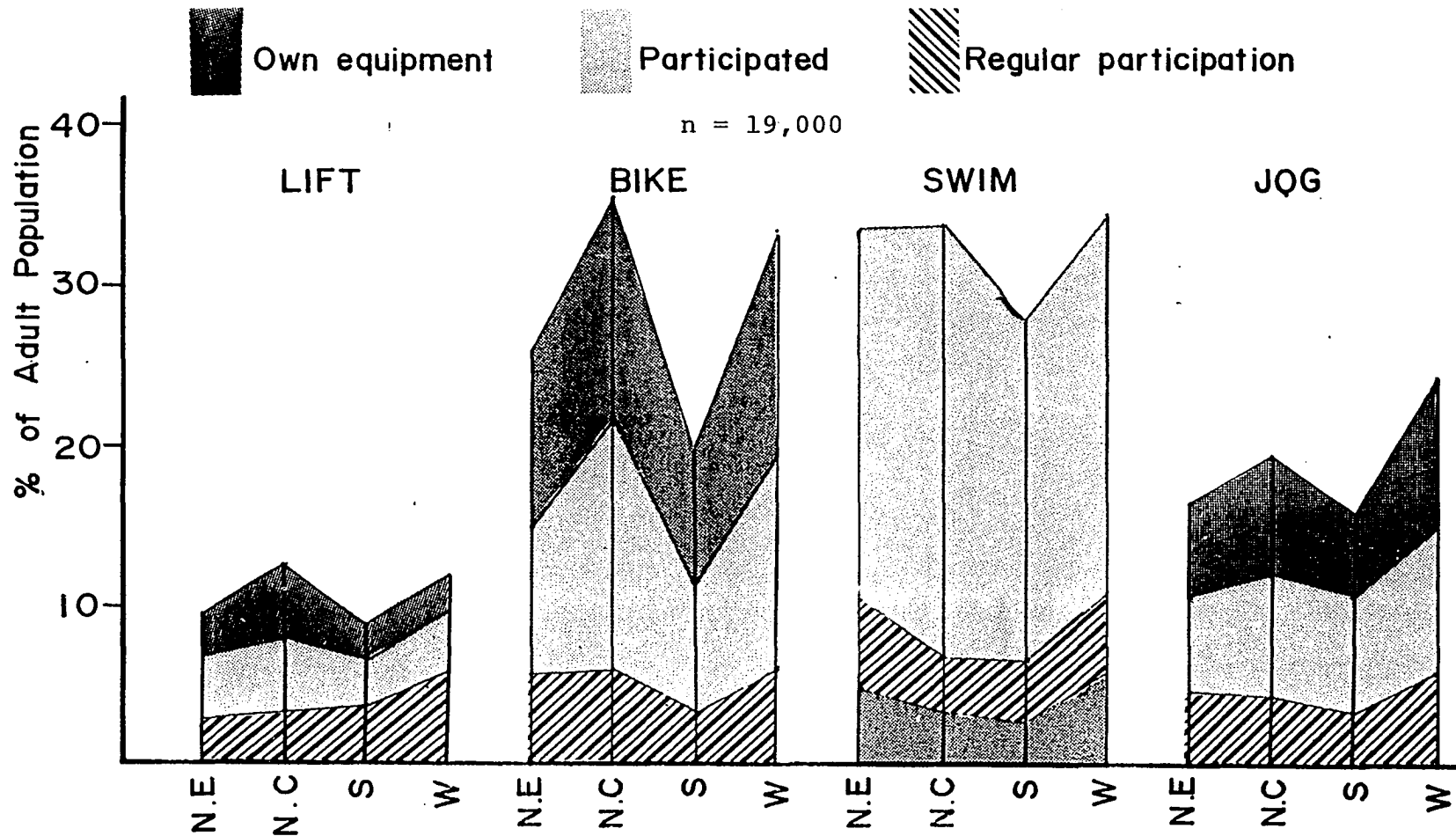


Figure 11. Selected activity analysis considering ownership, participation, and regular participation according to region. From Simmons Study of Media and Markets: Sports and Leisure, 1982, by Simmons Market Research Bureau, Inc, 1982. Adapted by permission.

in the South, and 23% in the West.

The above percentage analysis suggests that although participation and regular participation appear to be related to ownership, i.e., the higher the ownership of equipment in a region the higher the participation and regular participation, a similar proportion of participation and regular participation to ownership exists across all geographic regions of the country. Approximately 60% of those owning a bike, for example, and 60-65% of those owning jogging shoes participated occasionally in those activities during the year. Approximately 20% of those owning bicycles and 20-25% of those owning jogging shoes participated regularly throughout the year.

Participation and Community Size

Generally, a smaller proportion of individuals living in small and nonmetropolitan communities claimed to have undertaken a physical fitness program in 1982 (see Appendix for a description of the community size categories). In community size A (population base of over 1,000,000), 35.7% undertook a physical fitness program of some type; 34.7% did so in community size B; 34.7% in size C, and 23.4% in size D (population base of under 25,000). Based on the speculation that participation in physical activity may partly be a function of proximity to a city, community data are also presented in relation to metropolitan and non-metropolitan areas. Comparison of metropolitan and non-metropolitan areas indicate that 36% of those in the metro-city

classification undertook a physical fitness program, 36.6% of those in the metro-suburb and only 24.6% in the non-metro areas (see Figure 12). People living in the larger communities have a higher ownership of bikes, jogging shoes, and lifting equipment. Once again, though, an analysis of occasional participation and regular participation to ownership reveals that approximately 64% of those owning jogging shoes across all community sizes actually used them at all for jogging during the year and approximately 22% used them regularly. An analysis of the use of bicycles reveals similar proportions across all community sizes. Approximately 55-60% of those owning bicycles used them occasionally and approximately 20% used them regularly. In community size D and the nonmetro communities, however, a lower regular use is indicated than the other communities. Only 11% of those owning bicycles used them regularly in community size D while 14% of those owning a bike in the nonmetro areas used them on a regular basis.

Weight lifting participation fluctuated with community size. Although ownership of equipment was highest in community size C, 13% of the population, the highest proportion of ownership to those participating occasionally occurred in community size B with 86%. The highest regular use of equipment occurred in community size B and the metro city at 41%.

Overall, swimming was the most popular regular community activity. With the exception of weight lifting, the other

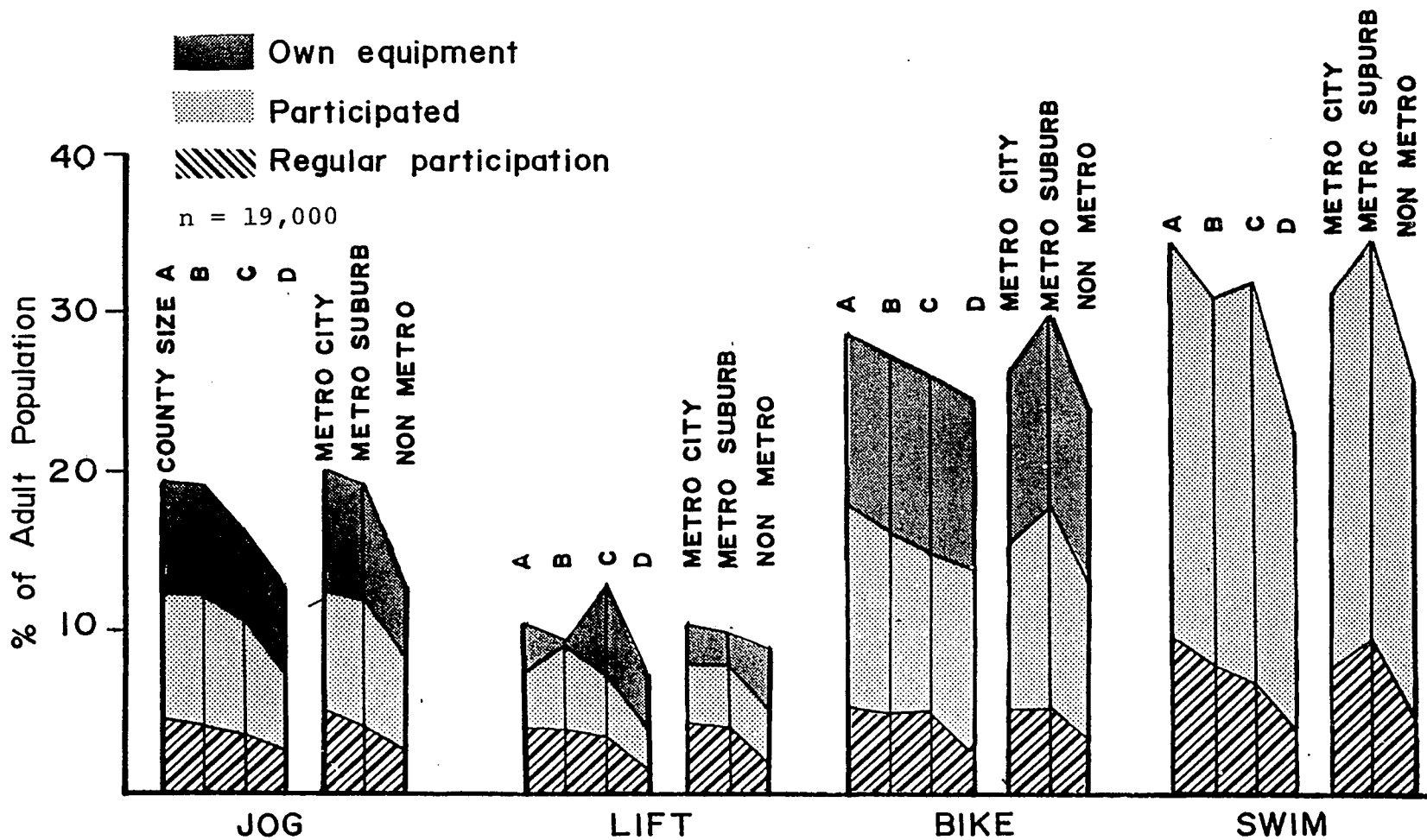


Figure 12. Selected activity analysis considering ownership, participation, and regular participation according to community size. From Simmons Study of Media and Markets: Sports and Leisure, 1982, by Simmons Market Research Bureau, Inc, 1982. Adapted by permission.

activities have fairly similar popularity. The smaller communities, i.e., in community size D and the nonmetro areas, 1.4% and 2.0% regular participation rate, respectively, in weight lifting was found. In all communities, biking ranked second in popularity as a regular activity followed by jogging and weight lifting.

Participation and Sex

Figure 13 indicates that until 1980, men were more physically active than women. The highest percentages for male regular participation was reported at 62% in 1978. However, according to the Simmons 1982 data, 36.8% of the female population compared with 29.6% of the male population claimed to have participated in a physical fitness program. The activity analysis of regular participation in Figure 14, however, does not substantiate the overall picture of more women exercising in 1982 than men. There were no data available about aerobic dance participation and these may have explained the discrepancies.

The data over the decade indicate that women have walked and biked more than men. In 1972, for example, 38% of the men and 41% of the women walked for exercise. In 1975 those participation percentages dropped to 32.5% of the men and 35% of the women. No data on walking participation were available in 1982. Biking participation of women was also higher than that of the men although the differences were negligible. In 1972, 16% of the men and 17% of the

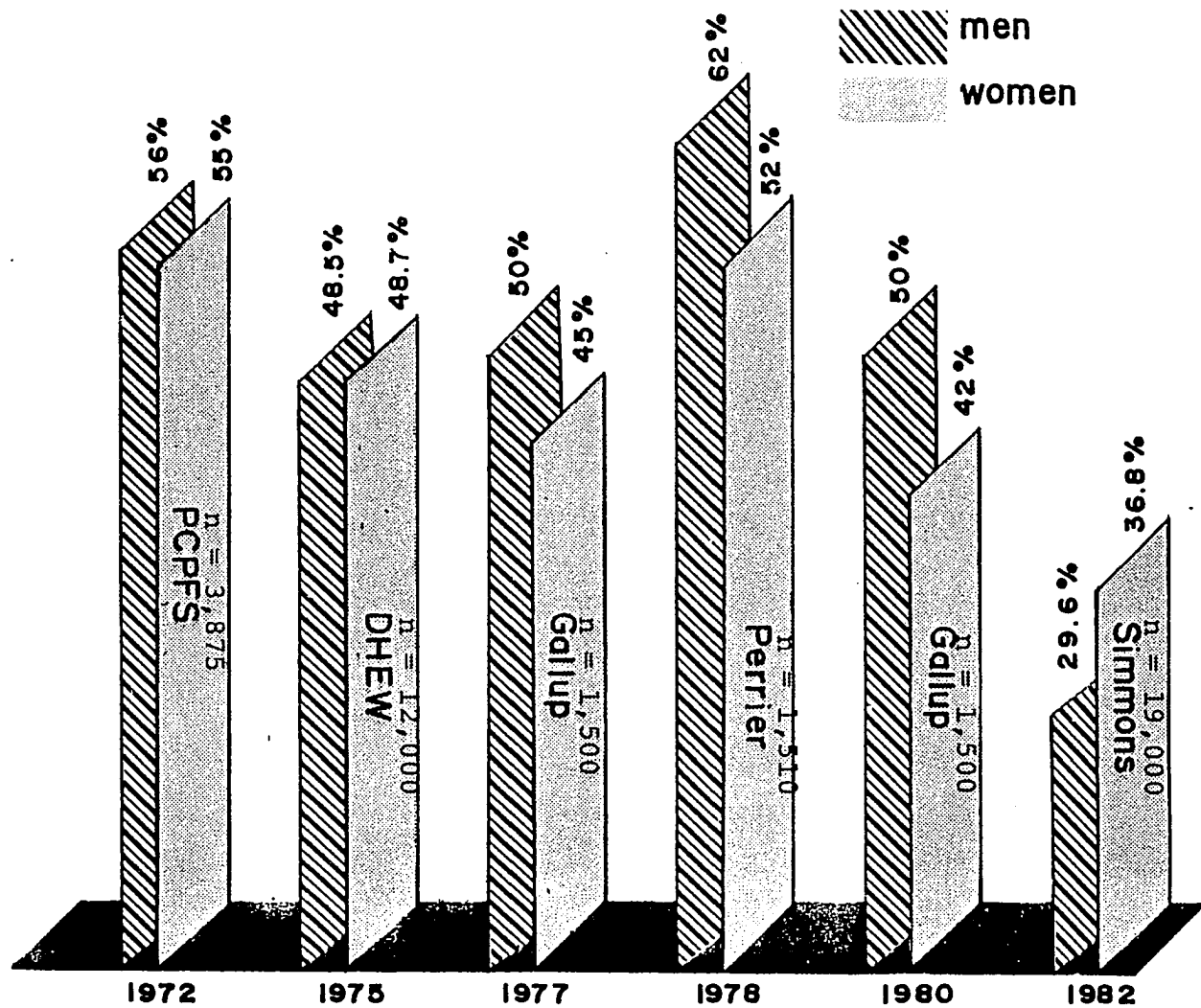


Figure 13. General physical activity participation according to sex, 1972-1982.

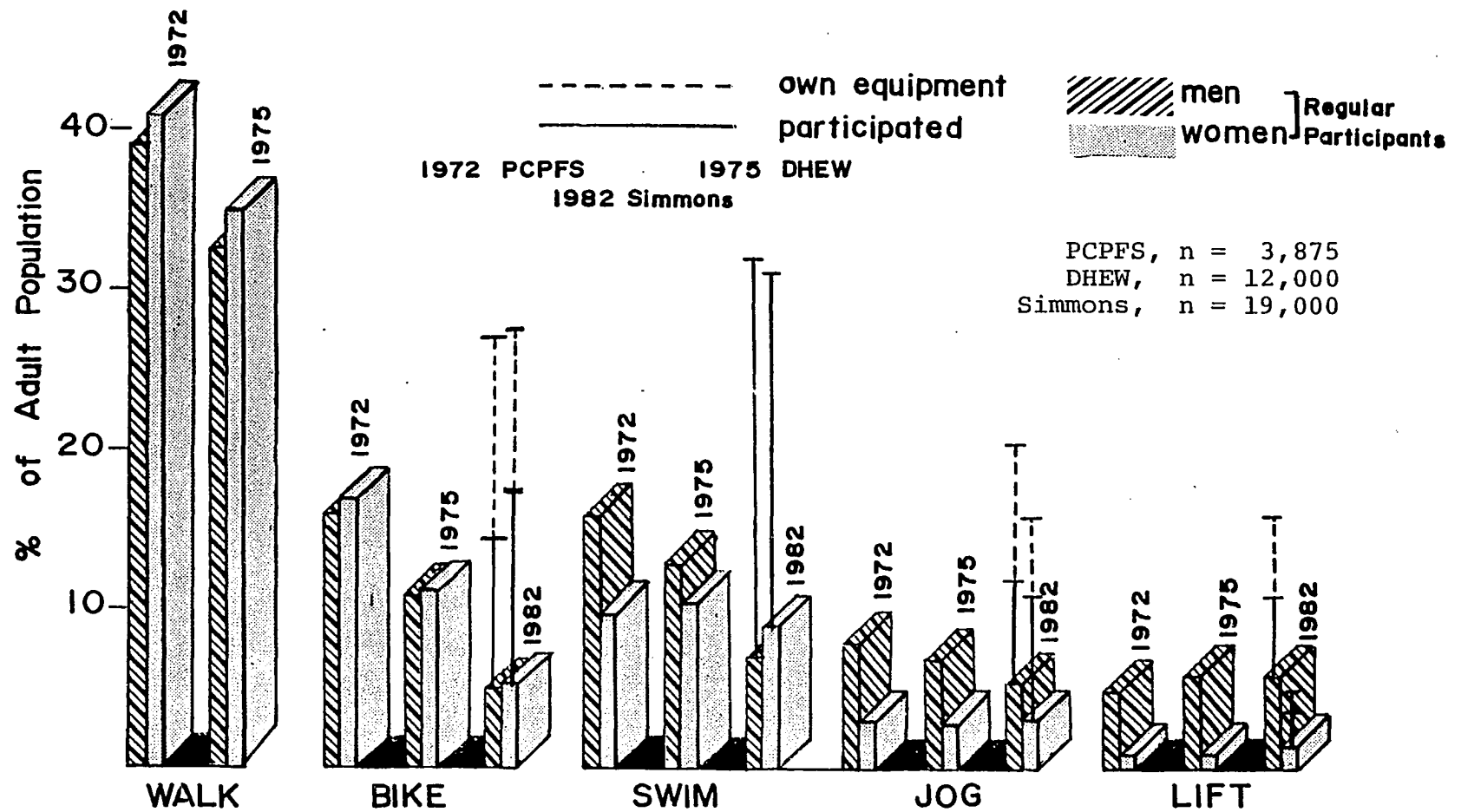


Figure 14. Selected activity analysis considering ownership, participation, and regular participation according to sex.

women biked. In 1975 the percentage of biking participation rate dropped to 10.8% for men and 11.1% for women. In 1982 participation dropped further to 4.8% for men and 5.1% for women.

In 1982, more women, 9.1%, than men, 7.2%, swam on a regular basis. Participation of both sexes in jogging and lifting remained about the same throughout the decade, although, in both activities, more men than women were regularly active. Weight lifting participation data indicate that 5% of the male and 1% of the female population lifted in 1972; 6.3% of the male and .8% of the female population lifted in 1975; and 6.2% of the male and 1.5% of the female population lifted in 1982. For jogging, the following participation rates were reported: in 1972, 8% of the male population and 3% of the female population; in 1975, 7.2% of the male and 2.7% of the female population; and in 1982, 5.2% of the male and 3.1% of the female population jogged on a regular basis.

Figure 14 also reveals that ownership of bicycles was similar for both sexes, 27.6% ownership for men compared with 27.4% ownership for women. Fewer women than men owned jogging shoes, 16.1% compared with 20.5%, or weight lifting equipment, 16.1% compared with 5.3%. It is of interest to note, though, that despite the lower ownership of jogging shoes, a similar number of women, 11.1%, and men, 12.2%, participated occasionally in jogging in 1982. However,

fewer women, 3.1%, than men, 5.2%, jogged on a regular basis. This perhaps suggests that when women buy jogging shoes they intend to use them for jogging and not for some other purpose.

In Chapter IV, it was noted that national adult participation in physical activity appeared to be declining. Participation analysis according to sex in Figure 14 indicates that this decline can be associated with both sexes. However, in some activities the decrease was not as marked for women as men. The drop in female regular participation from 1972 to 1982 for swimming, for example, was .9%. For the same period the male drop was 8.8%. The number of regular weight lifters remained constant for both sexes, approximately 6% of the male population and 1% of the female population. The number of women joggers examined at approximately 3% while there were fewer men jogging regularly in 1982, 5.2%, than in 1975, 8%.

Participation and Age

Declining participation in physical activity with advancing age has been well documented (Anderson, 1956; Cunningham, 1968; De Graza, 1962; DHEW, 1978; Hobart, 1975; Kenyon, 1966; Obinson, 1967; PCPFS, 1973; Perrier, 1979; Unkel, 1981; & Wohl, 1969). According to the 1982 data analyzed in the present study, the picture has not changed. Figures 15 and 16 illustrate that advancing age is associated with fewer individuals who (a) claim to have participated

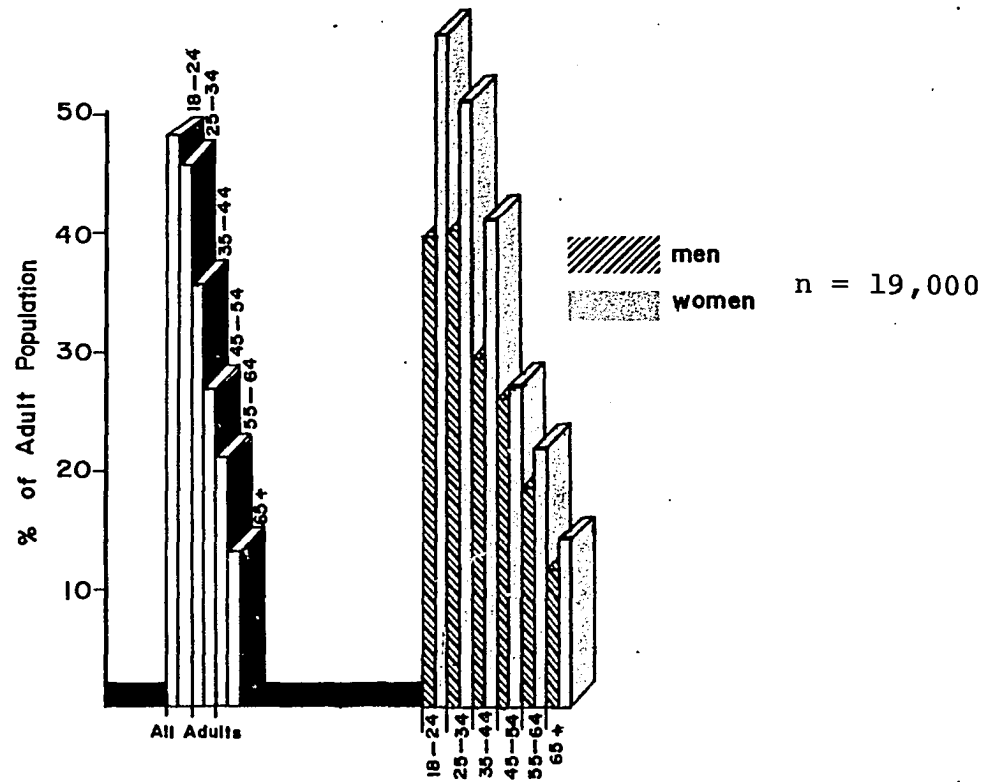


Figure 15. General participation in a physical fitness program according to age and sex. From Simmons Study of Media and Markets: Sports and Leisure, 1982, by Simmons Market Research Bureau, Inc, 1982. Adapted by permission.

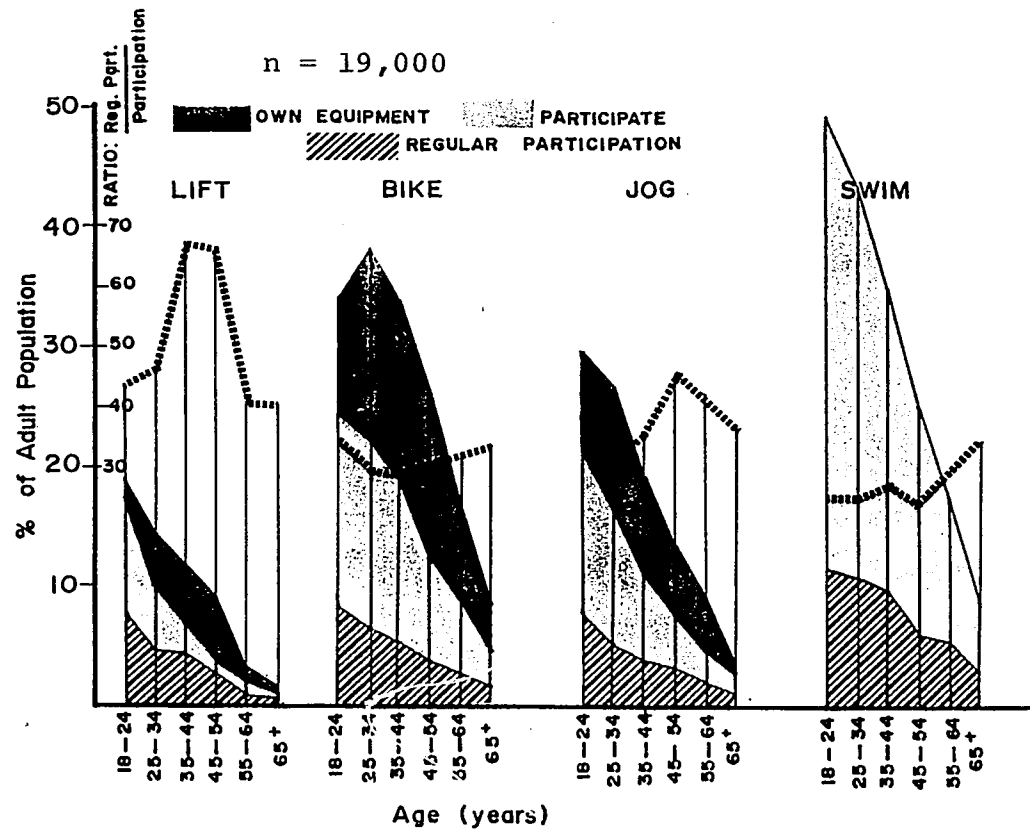


Figure 16. Selected activity analysis considering ownership, participation, and regular participation according to age. From Simmons Study of Media and Markets: Sports and Leisure, 1982, by Simmons Market Research Bureau, Inc, 1982. Adapted by permission.

in a physical fitness program, (b) claim to own the necessary equipment, (c) claim to have participated on at least a one-time basis in the four activities under study, and (d) claim to have participated regularly in the four activities under study.

The percentage drop in participation from the younger years, 18-34, to the middle years, 35-54, is approximately 36% for women and 30% for men. From the middle years to older years, 65+, there was approximately a 50% reduction in the number actively involved in physical activity. However, there is an interesting observation when the proportion of those who have participated, to those who are regularly active are considered. The ratio between regular participation and participation, represented by the dotted line on Figure 16 indicate increases with age in swimming and bicycling. The middle age groups, 35-54, have a higher proportion of regular participants in weight lifting, and 45-54 have the highest proportion of regular joggers. One implication here may be that if an older individual participates at all in these activities, she/he is more likely to do so regularly than the younger age groups.

The participation and regular participation to ownership analysis reveal that regular use of weight lifting equipment steadily dropped from 42% to 28% from age 18 to age 54. After that, the decline stabilized somewhat at 25% for the remaining age categories. Regular use of bicycles

was fairly constant at slightly less than 20% of those owning them. Approximately 25% of those owning jogging shoes across all age categories used them regularly. The highest regular usage occurred in the over 65 age group, 29%, and the lowest in the 25-34 age group, 19%. These data are summarized in Table 4.

Note in Figure 15 that in every age category, more women than men claim to have undertaken a physical fitness program in 1982. The largest differences between the sexes occurred prior to ages 35-44. The differences were 17.1% for the 18-24 age category, 10.9% for the 25-34 age category and 12% for the 35-44 age category. Thereafter, the difference in participation rates between the sexes gradually decreased. For instance, the difference was only 1% in the 45-54 age group, 3.5% in the 55-64 age group, and 1.3% in the over 65 age group. Regrettably, there was no information on regularity of participation in the physical fitness program.

Participation and Income

Figures 17 and 18 indicate a higher level of both participation and regular participation in physical fitness programs and the specific activities for persons with higher income. Of those earning over \$40,000, 45.3% claimed they undertook a physical fitness program in 1982. Only 19.3% of those earning less than \$10,000 did so. Of those earning over \$40,000, 7.2% jogged regularly compared with 3.0% for those earning \$20-24,000; 3% for those earning \$15-19,000; 4.2% for those earning \$10-14,000; and 2.4% for those earning

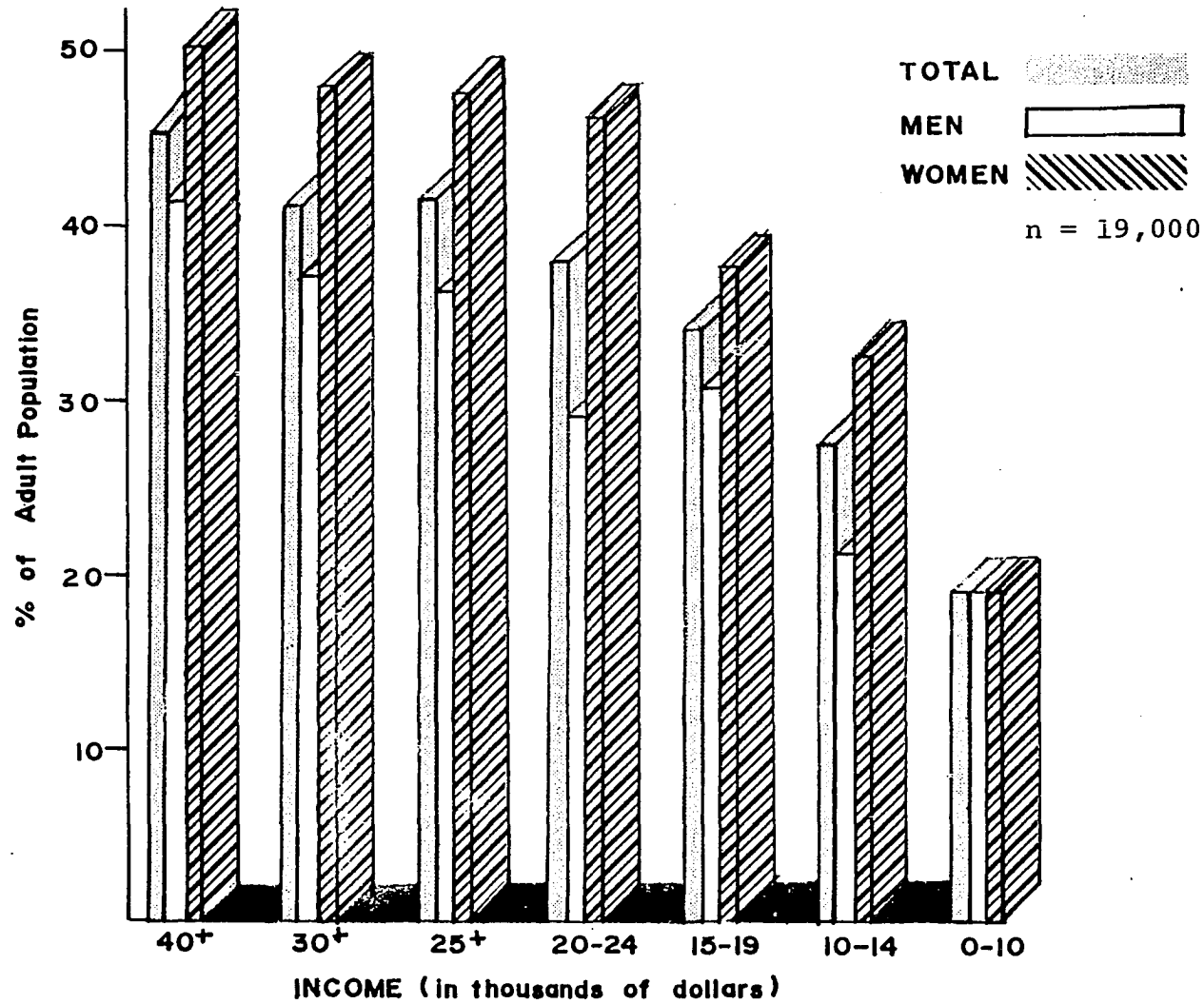


Figure 17. General participation in a physical fitness program according to income. From *Simmons Study of Media and Markets: Sports and Leisure, 1982*, by Simmons Market Research Bureau, Inc., 1982. Adapted by permission.

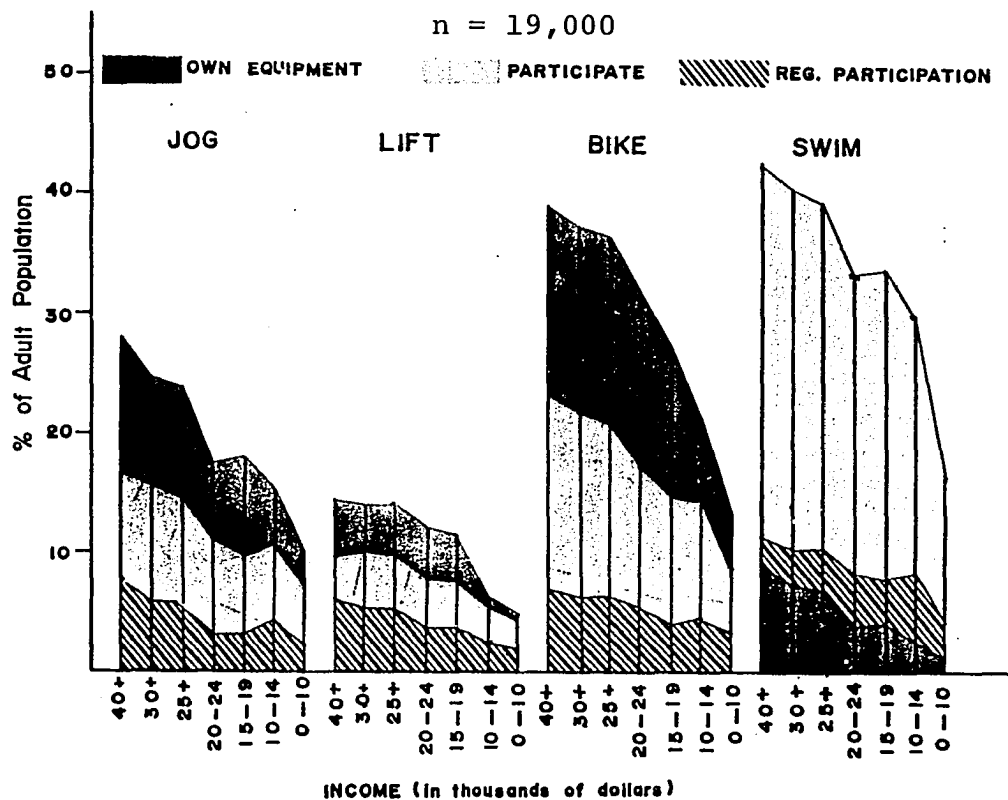


Figure 18. Selected activity analysis considering ownership, participation, and regular participation according to income. From Simmons Study of Media and Markets: Sports and Leisure, 1982, by Simmons Market Research Bureau, Inc, 1982. Adapted by permission.

less than \$10,000. Similar observations are made in the other activities. In weight lifting, 6% of those earning over \$40,000 lifted regularly compared with 1.9% of those earning less than \$10,000. Of those earning \$40,000, 6.8% biked regularly and 11.4% swam, compared with 3.3% and 4.1%, respectively, for those earning under \$10,000.

Regular use of equipment already owned for jogging, lifting, and bicycling did not vary much across income categories. The only exception to the lack of variation was in the under \$15,000-\$24,000 income range where regular use of jogging shoes was 17% compared to more than 23% for the other income categories. It is also interesting to note that, on the whole, a higher proportion of those earning under \$15,000 used their equipment in all three activities although their regular use, except for bicycling, was on par with the upper income categories. A complete summary of these data are found in Table 4.

The fact that more women than men participated in a physical fitness program is evident for all income categories except for the lowest one. Again, though, regularity of the program has not been accounted for.

Participation and Occupation

As Figure 19 reveals there was a higher ownership, participation rate, and regular participation rate among the professional/managerial category than any of the other occupational groups. Of the professional/managerial groups,

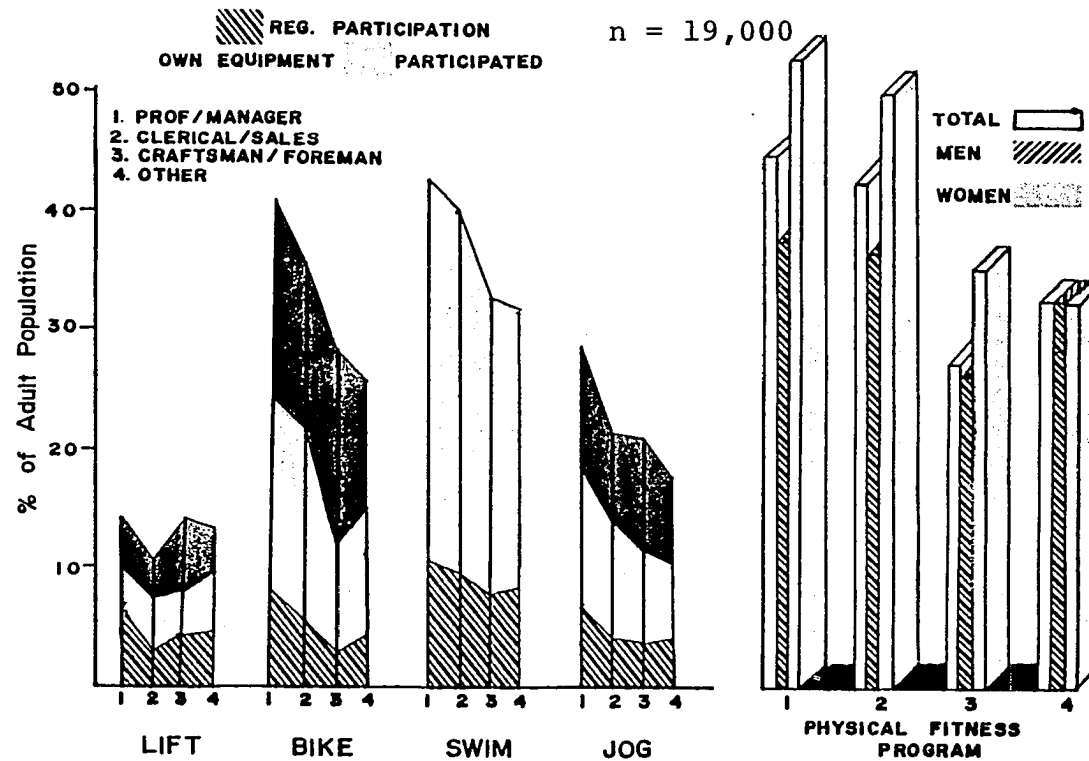


Figure 19. Selected activity and physical fitness program analysis considering ownership, participation, and regular participation according to occupation and sex. From Simmons Study of Media and Markets: Sports and Leisure, 1982, by Simmons Market Research Bureau. Adapted by permission.

44.9% undertook a physical fitness program in 1982 whereas 42.5% of the clerical/sales and 27.1% of the craftsmen/foremen did so. In all activities, regular participation was highest for the professional/managerial group: 5.8% lifted, 8.2% biked, 10.7% swam, and 6.8% jogged. Regular participation was lowest for craftsmen/foremen: 4.4% lifted, 2.9% biked, 8.0% swam, and 3.9% jogged. Among the clerical sales occupational group 3.1% lifted, 5.4% biked, 9.7% swam, and 4.4% jogged.

Again an analysis of the use of equipment owned indicates usage of the equipment was much lower than ownership would suggest. The highest proportion of those regularly using their weight lifting equipment, 41%, and bicycles, 20%, were among the professional/managerial occupational category. The lowest use of bicycles and jogging shoes, 18%, was evident among the craftsmen/foremen occupational group. (See Table 4 for a complete summary of these data.)

Participation and Education

Both income and occupation are likely to be related to education. Although such information is interesting and informative, numerous authorities contend that it is education that gives the single best predictor of the physical activity status of adults (Kenyon, 1966; Obinson, 1967; Orend, 1980; & Robinson, 1979).

The contention is supported by Simmons (1982) data. According to Figure 20 those who had attended or graduated

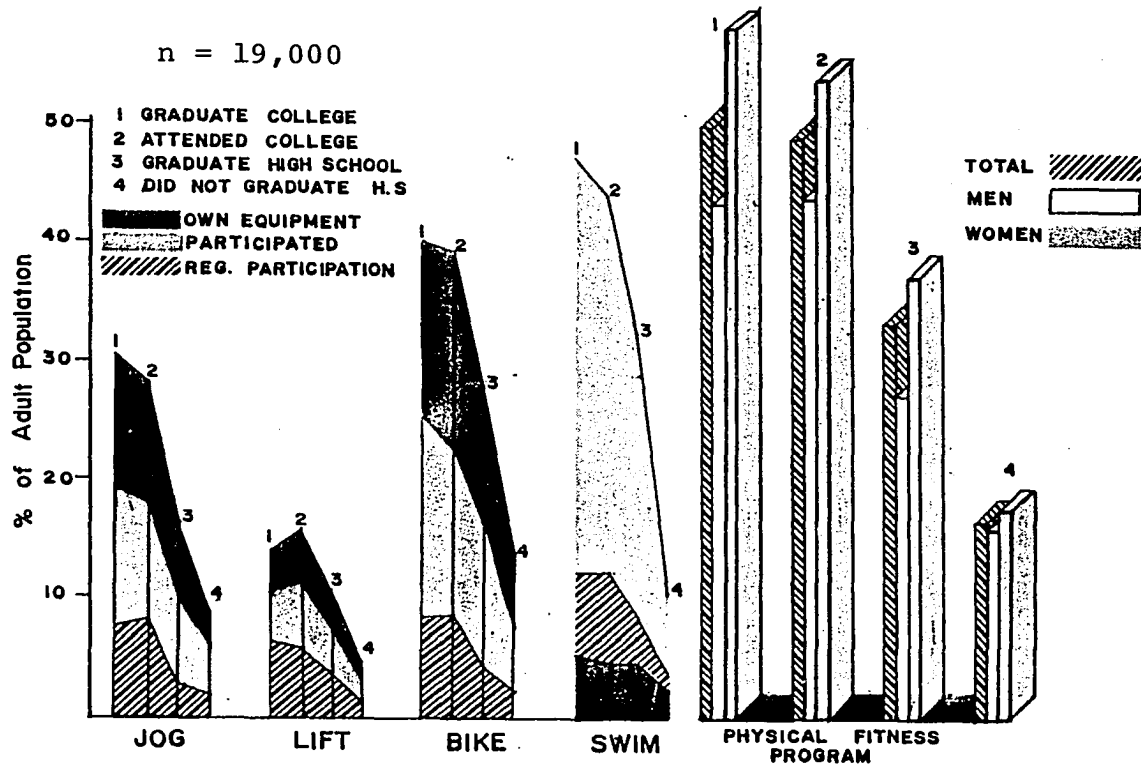


Figure 20. Selected activity and physical fitness program analysis considering ownership, participation, and regular participation according to education and sex. From Simmons Study of Media and Markets: Sports and Leisure, 1982, by Simmons Market Research Bureau. Adapted by permission.

from college were approximately three times as likely to have undertaken a physical fitness program as persons who did not graduate from high school. Whereas almost 50% of college graduates undertook a physical fitness program in 1982, only 16.5% of those who did not graduate from high school did so.

Exercise regularity in the four activities, however, revealed less difference with respect to education. Persons with more education were, nonetheless, more regular. Take jogging, for example. Whereas 19.2% of those graduating from college jogged in 1982, 7.7% did so on a regular basis compared with 6% of those who did not graduate from high school. The 13.2% participation difference between the two groups was reduced to 6% when regular participation was examined.

A comparison between participation, regular participation, and ownership reveals that individuals attending college reported the highest proportion of regular use of jogging shoes, 29%, and bicycles, 21%. College graduates, however, had the highest proportion, 45%, of those using the weight lifting equipment they owned. Those not graduating from high schools had the lowest regular usage of their lifting equipment. High school graduates reported the lowest regular use of their jogging shoes and bicycles (see Table 4).

A One-Year Comparison Between 1982 and 1983

A comparison between two subsequent years provided the opportunity to detect any changes in participation and

ownership status. Simmons (1982) and Simmons (1983) provided data for both years that were directly comparable for participation in a physical fitness program, and the four activities selected for analysis in this study; jogging, swimming, weight lifting, and bicycling.

Physical Fitness Program

Although degree of regularity is not known, Figure 21 indicates those persons claiming to have undertaken a physical fitness program increased from 33.5% in 1982 to 35.9% in 1983. More women, 38.5%, than men, 33.1%, once again claimed to have participated in a physical fitness program. More men than women began a program in 1983 closing the gap between the sexes from 7.2% to 5.4%.

The slight population increase in physical activity participation is barely reflected in the older age categories, 55-64 and 65+. In 1982, 12.9% of those over 65 participated in a physical fitness program. In 1983, that percentage was 13.5%, merely a .6% increase. This suggests that Objective D, i.e., 50% of adults 65 years and older should be engaged in appropriate physical activity by 1990, is unlikely to be met.

Individuals newly undertaking a physical fitness program in 1983 were once again likely to be college graduates. An increase in participation of 4.6% of that population group is indicated in Figure 21. All three of the occupational categories increased physical fitness program participation.

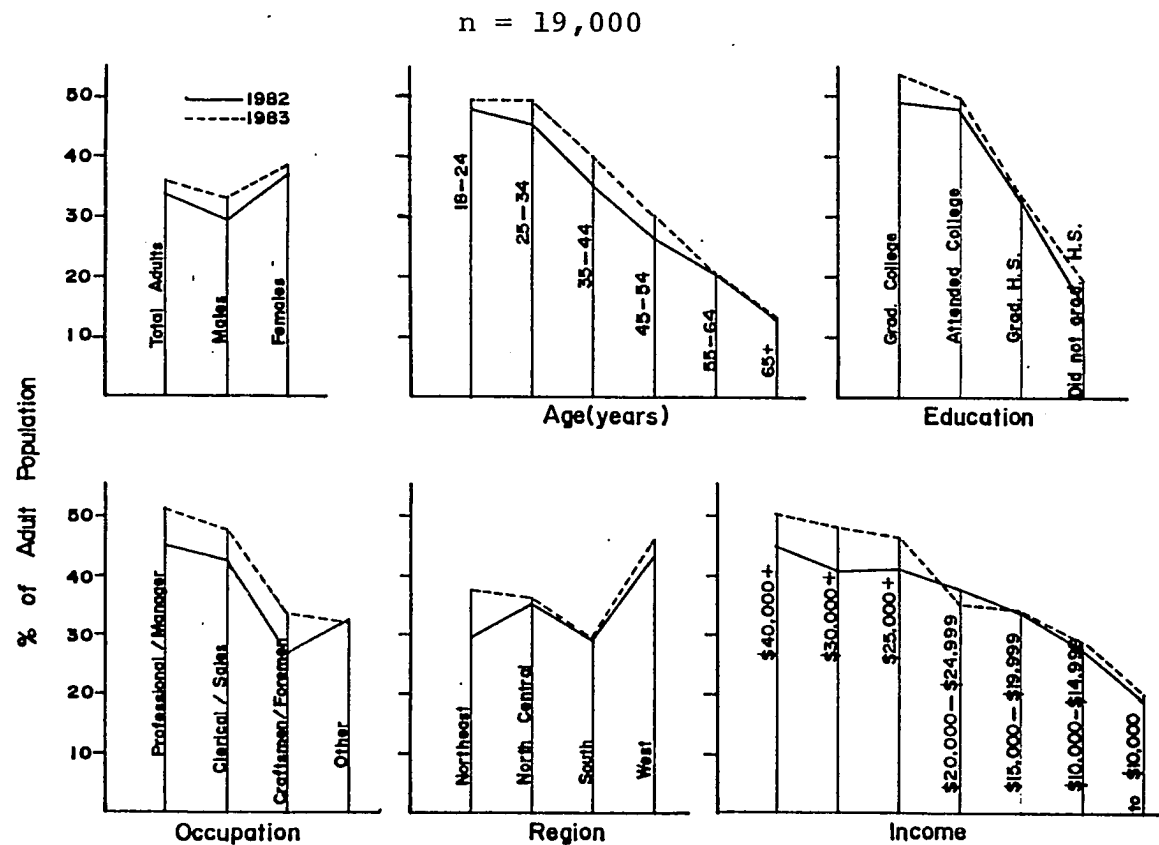


Figure 21. Participation in a physical fitness program, 1982-1983. From Simmons Study of Media and Markets: Sports and Leisure, 1982, 1983, by Simmons Market Research Bureau. Adapted by permission.

The professional/managerial category increase in participation was 6.4%; clerical/sales, 5%; and the craftsmen/foremen, 6.3%, increase from 1982 to 1983. Persons living in the Northeast increased participation by 7.9%, the largest for all regions. Wage-earners over \$25,000/year improved physical fitness participation 5.3%.

Swimming

Figure 22 reveals that participation in swimming decreased from 31.6% in 1982 to 28.1% in 1983. However, the number of individuals swimming regularly only dropped 1%. The biggest drop in participation, 8%, occurred among those individuals in the 18-24 category. Individuals who attended college but did not graduate dropped 5.4%. Swimming participation dropped in all occupations except professional/managerial. Percentages were 3.4% for the clerical/sales categories, 2.3% drop among craftsmen/foremen, 5.7% drop among those categorized as other. With respect to regions of the country except for the Northeast there was a drop in participation for all as follows: 5.4% in the North Central, 4.2% in the South, and 3.4% in the West. Those who earned between \$10,000 and \$40,000 a year all participated less in swimming in 1983. The largest drop in participation, however, occurred among those earning less than \$20,000 a year.

The demographics of those swimming on a regular basis, on the other hand, were the same in 1983 as they were in 1982. There was no improvement in regularity of swimming.

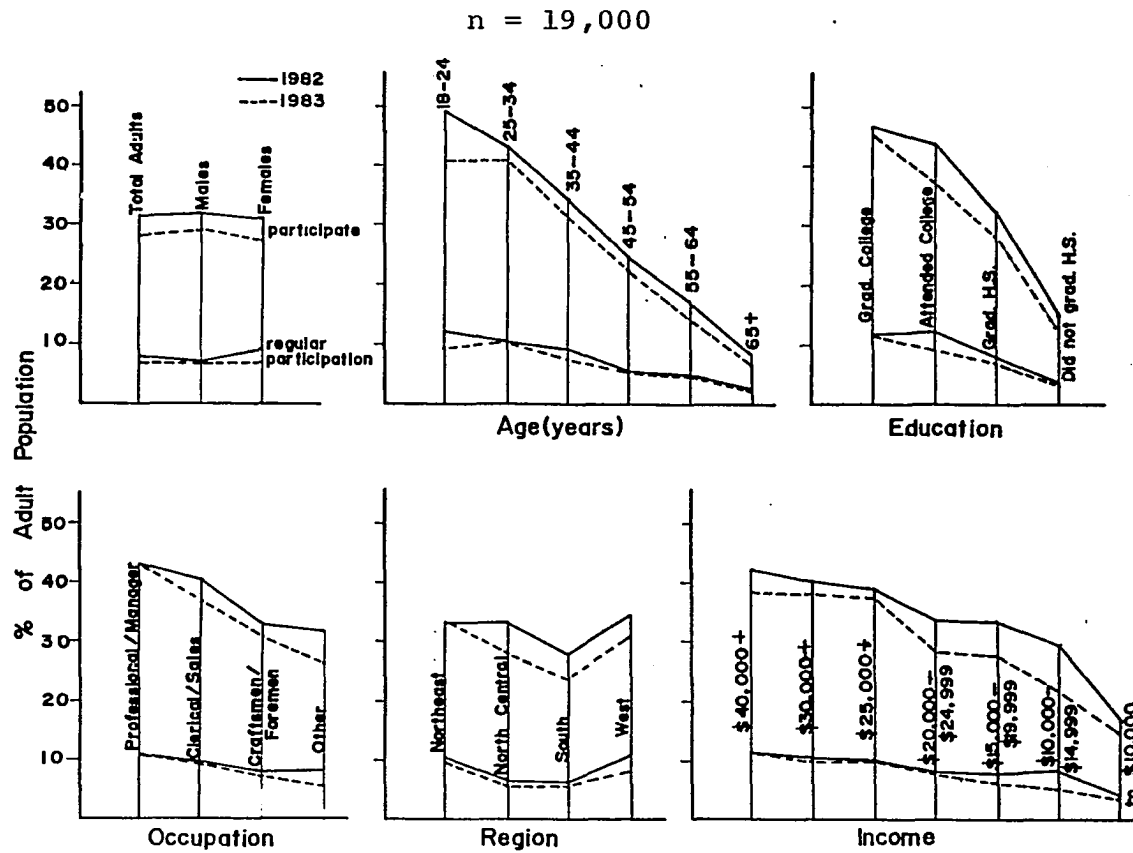


Figure 22. Swimming participation, 1982-1983. From Simmons Study of Media and Markets: Sports and Leisure, 1982, 1983 by Simmons Market Research Bureau. Adapted by permission.

Weight Lifting

The number of adults owning weight lifting equipment remained at about 10% of the population in 1983. Participation rates remained at approximately 7.5% and regular participation remained at 3.8%. Figure 23, however, indicates a change in the demographics. The 35-44 age group increased ownership of weight lifting equipment by 2.4%, blue-collar workers increased ownership by 3.7%, and those earning between \$10,000 and \$15,000 a year increased ownership by 4.4%. Neither the age nor group income category increased occasional participation or regular participation in weight lifting. However, blue collar individuals, i.e., the craftsmen and foremen increased 3.7% in occasional participation and 1.9% in regular participation in weight lifting over 1982. They exceeded the professional/managerial occupational category in this activity in 1983.

Jogging

Shoe companies continued to stimulate jogging shoe ownership in 1983. A little more than 20% of the total adult population owned jogging shoes in 1983, up from 18.2% in 1982. Women increased jogging shoe ownership from 16% in 1982 to 19% in 1983, an increase of 3%. Men, on the other hand, increased jogging shoe ownership by 1.8%.

Figure 24 reveals that ownership of shoes was up over all age categories, although the 18-24 and 35-44 age categories showed the largest increases, 2.9% and 4.7%, respectively.

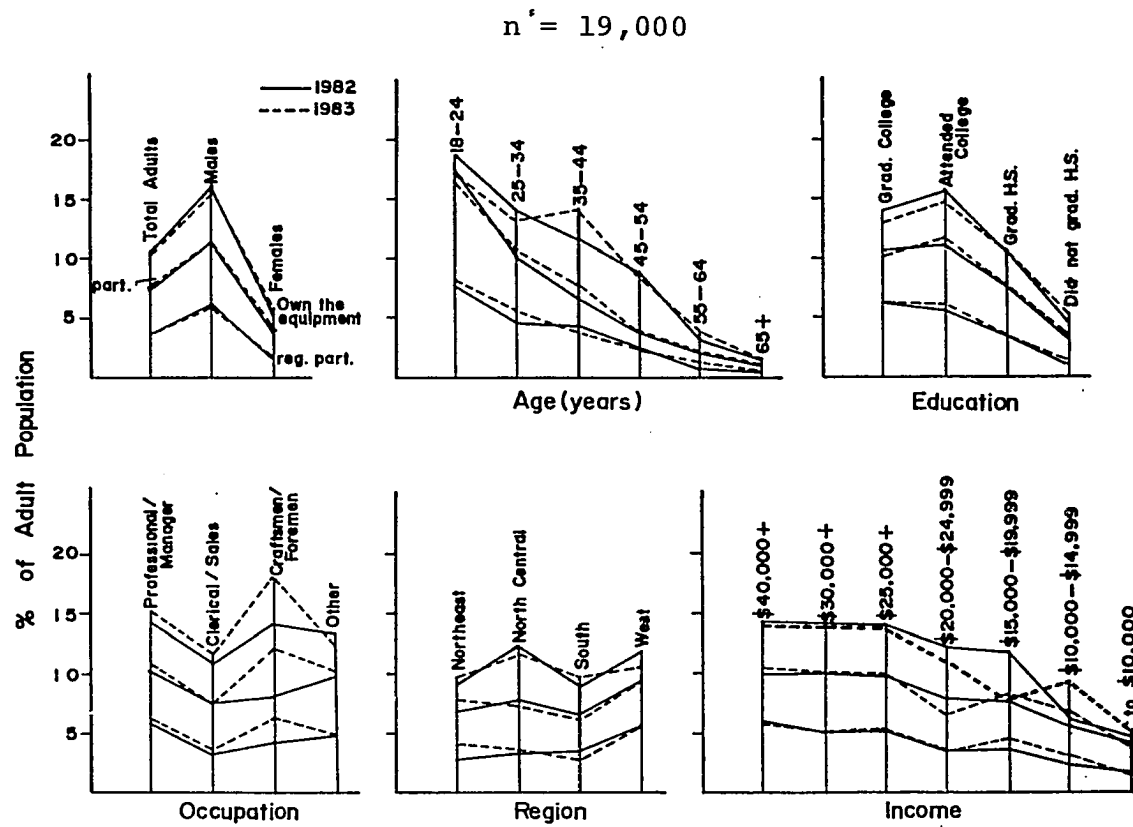


Figure 23. Weight lifting participation, 1982-1983. From Simmons Study of Media and Markets: Sports and Leisure, 1982, 1983 by Simmons Market Research Bureau. Adapted by permission.

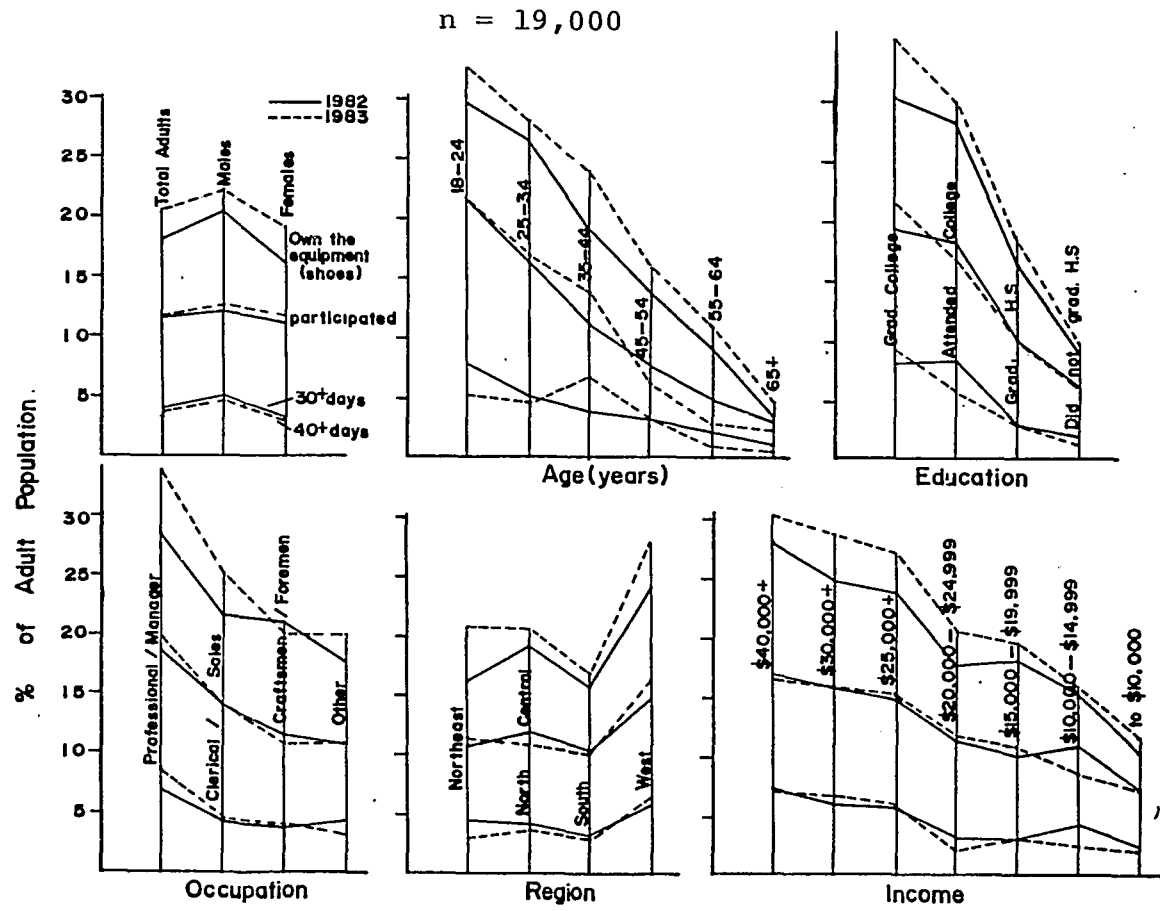


Figure 24. Jogging participation, 1982-1983. From Simmons Study of Media and Markets: Sports and Leisure, 1982, 1983 by Simmons Market Research Bureau. Adapted by permission.

The largest increases in shoe ownership, 5%, occurred among persons graduating from college. Individuals living in the Northeast owning jogging shoes increased 4.5%. Those with incomes over \$20,000 a year increased ownership of jogging shoes about 3%.

It should be noted that the increase in shoe ownership did little to increase overall jogging participation. The total number of participants remained at 11.5%. Regular participants approximated a mere 4% of the total population.

Similar to the owners of weight lifting equipment, the 35-44 age category markedly increased ownership of jogging shoes. But, unlike participants of weight lifting, the age group showed a 2.7% increase in jogging participation and a 2.8% increase in regular jogging participation. The 45-54 age group declined participation by 1.5%. The two oldest age groups also reduced participation slightly.

Bicycling

The status of bicycling within the total population remained similar from 1982 to 1983 although bicycle ownership was down by 1.4%. Figure 25 indicates ownership dropped 3.1% for individuals 25-34 years old. Clerical/salespersons and foremen/craftsmen ownership diminished 5.3% and 2.9%, respectively. In the middle to lower income ranges ownership also diminished.

The number of participants and regular participants did not change substantially in most age, occupation, regional,

n = 19,000

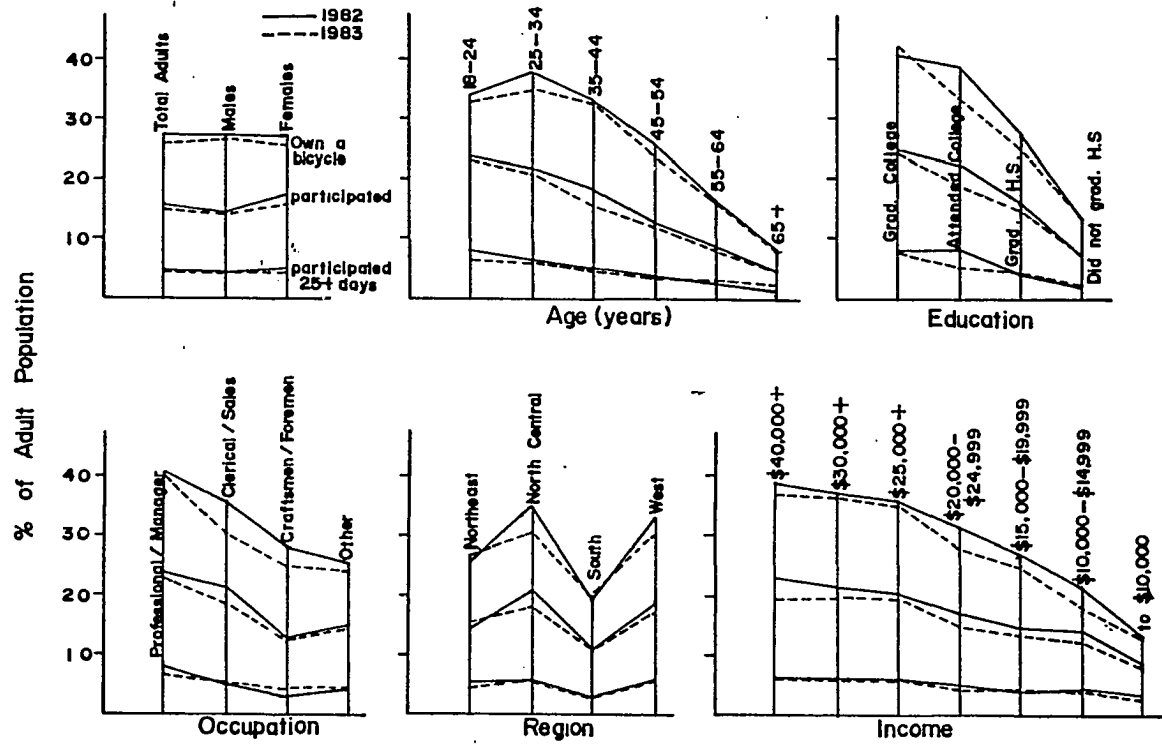


Figure 25. Bicycling participation, 1982-1983. From Simmons Study of Media and Markets: Sports and Leisure, 1982, 1983 by Simmons Research Bureau. Adapted by permission.

and income classifications with respect to bicycling. Participation rates of those 25-44 years old decreased 2.9%. The over-\$40,000 income category decreased bicycling participation by 3.5%. Persons attending but not graduating from college decreased participation by 3.5%. Other decreases occurred among clerical/sales workers, 3%, and those living in the North Central states, 2.8%. Regular participation was largely unchanged except among those attending but not graduating from college where a decline of 3.1% from 1982 to 1983 was found.

Relevance to Physical Activity Promotion

The information presented in this chapter is more revealing to the particular situation of some promotional groups than others. For purposes of the present study only broader applications of the data are considered.

Regional Considerations

From the regional standpoint, although persons attempting to promote physical activity in the West may assume that about 46% of their population are involved in some form of activity throughout the year, the 1983 activity analysis indicates that less than 10% of those are regular participants. This suggests, though, that the promotional strategy in the West may be different from other regions where the activity "sampling" rate of the population is lower, i.e., approximately 35% in the North Central and 30% in both the Northeast and South.

On the regional level there appears to be a relationship between activity popularity and region that warrants consideration by promoters. Although regular participation in all activities is low throughout all regions, that is, less than 10% of the population, swimming is by far the most popular regular activity in the Northeast, West, and South. In the North Central, swimming participation is about on par with bicycling. Reasons for these differences should be investigated so that implications for promotional campaigns can be understood. For example, in 1978, the PCPFS ran a national promotional campaign entitled "Suddenly it looks like everyone is running." The data presented above reveal that in all regions of the country, an individual whose participation is a target of the campaign is more likely to know someone who swims than one who jogs regularly. In the Northeast and North Central states, more people bike than jog and it is clear that many more people own bicycles than jogging shoes. In fact, based on the evidence that swimming and bicycling are more popular than jogging, and considering what is known about the benefits of all exercises and potential risks, it is illogical why jogging is the activity most frequently promoted.

Past Experience and Age

With respect to age/participation decline, there are potential reasons for this that must be weighed. It can be argued that there are several activities in which age may

be a factor in the ability to participate; contact sports, for example. A second explanation is that the decrease in participation with age may be more a function of previous experience than of age. This has been a popular explanation of authorities who studied the relationship between childhood experience and adult participation in physical activity (Harris, 1970; Montoye, 1959; Paffenbarger et al., 1978; Spreitzer & Snyder, 1976; Thisted, 1933). It was concluded that persons involved in high school and college athletics were more likely to be physically active as adults.

In the most detailed analysis of the effect past experience has on present physical activity status, Orend (1980) reported that whereas prior experience with sport and physical exercise in youth had a minor influence on present activity, no prior experience had a very large effect. Table 3 illustrates Orend's findings. It indicates that of the total population sample, 43.7% were classified as never having been active in competitive sports in school. Thirty-three plus percent fell into the category of those who had no involvement in physical exercise such as jogging, weight lifting, etc., as a youth or as an adult. Comparison of additional tabled participation rates indicates that individuals who participated in high school athletics or physical activity programs were more active as an adult than those who did not participate. It is important to recognize school participation did not ensure continued adult physical

Table 3

Comparison of Previous Participation in Sports and Physical Exercise on Physical Activity Participation as an Adult

	Never Active as an Adult	Active After 18 But Not Now	Became Active in the Past Year Only	Continuously Active as an Adult
No School Participation				
Competitive sports	43.7%	1.2%	.1%	.3%
Physical exercise	33.3%	1.0%	.7%	.4%
Low Level School Participation				
Competitive sports	12.5%	9.5%	1.2%	7.3%
Physical exercise	7.2%	10.0%	4.0%	18.7%
High Level Schools Participation				
Competitive sports	6.8%	7.5%	1.1%	8.9%
Physical exercise	2.7%	3.3%	.9%	13.7%

Note. Adapted from "Leisure Participation in the South" by R. J. Human Resources Survey, July 1980, ERIC Document 206 521. n = 3,207.

activity. Only 18.7% of the total sample was "continuously active as an adult" if they had low physical exercise participation in school. If they had high participation in school, 13.7% were continuously active as adults. Orend's (1980) point is supported in that whereas prior school experience cannot be alleged to have a causal effect on participation as an adult, no school experience is strongly associated with adult inactivity.

The reminder is offered that methodological limitations may not permit comparison of present physical activity patterns for different age categories if background experiences in school and sports and physical activity differ. A comparison of the individual with her/himself over time would give the only valid indication of the exact role of prior experience in later adult participation. That would require the reconstruction of earlier activities for each individual. Orend (1980) reported the results of such an analysis. Figure 26 indicates the generally expected finding concerning the relationship between competitive sports participation and advancing age. Of the 30% of the adults over 65 who participated in competitive sports prior to age 17 only 6.2% of those were active at 65 and beyond. However, participation in general physical activities such as jogging, weight lifting, and other exercise programs appear to support the hypothesis that "historical" participation patterns within an individual have a bearing on the age activity rates. When the proportion of those participating in physical

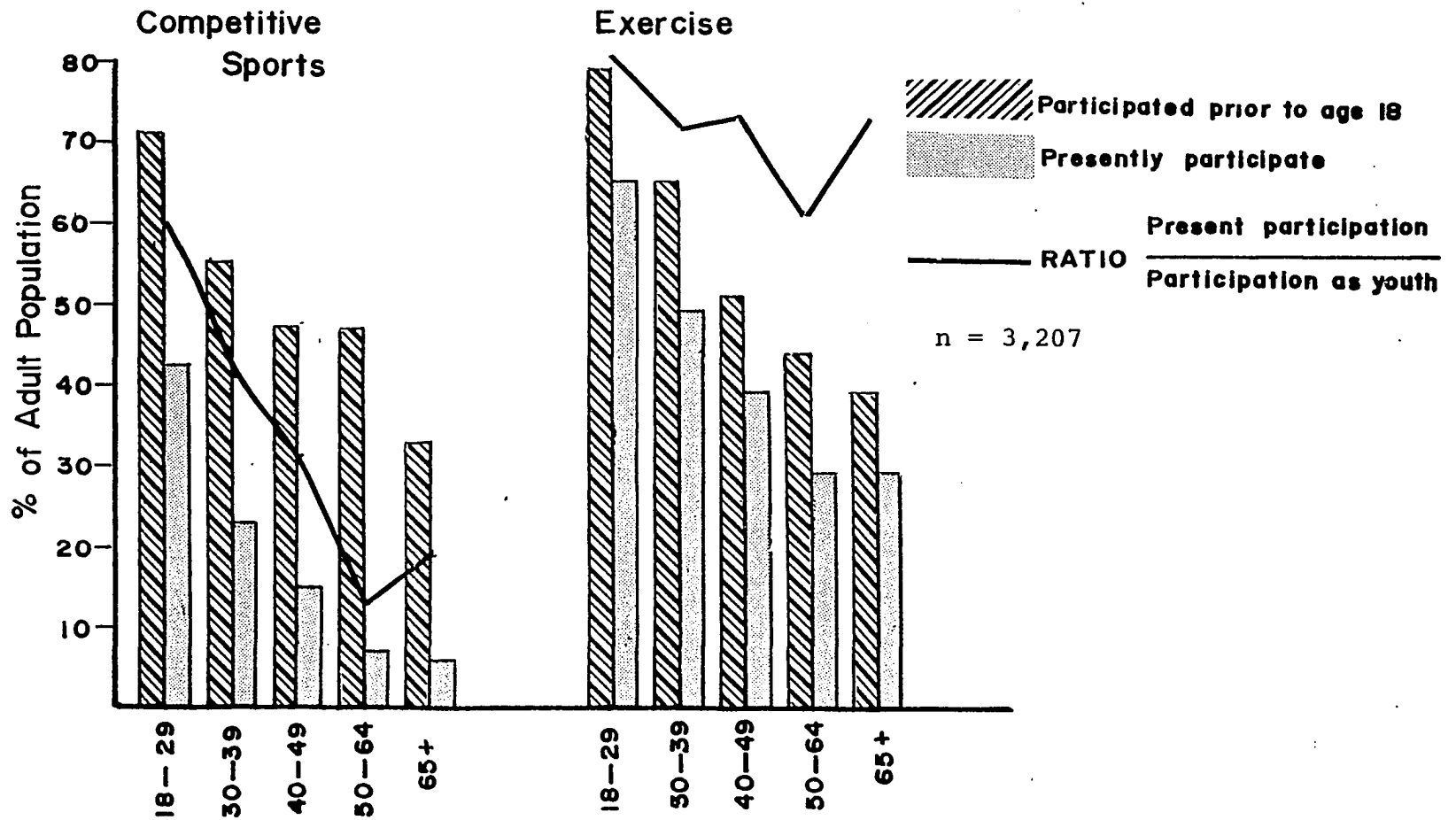


Figure 26. Comparison of previous participation in sports and physical exercise on physical activity participation as an adult according to age. From "Leisure Participation in the South" by R. J. Human Resources Survey, July 1980, ERIC Document 206 521.

exercise programs in youth is compared with those presently participating for every age group, there is a large drop in participation in competitive sports that is not evident with exercise programs as age advances.

Inactivity in youth does not explain why, if almost 80% of individuals 18-29 have had previous experience in physical activity, less than 50% undertook a physical fitness program in 1982 or why less than 12% were regularly active in jogging, weight lifting, bicycling, or swimming. Nor does Orend's idea explain why, among 30% of those 65 and over who had prior experience with physical activity, less than 3% were regularly active in any of the four activities analyzed in this study. Figure 16 reveals this. The issue of age and physical activity status is a confusing one. Although age appears related to current participation, there is still a great deal of information about the relationship that is left unanswered.

Education

Education is another factor that apparently has a substantial association with physical activity participation. The exact nature of the relationship is unknown. One must wonder if an individual who pursues an education is psychologically different from those not continuing education. Another question is whether there may be some aspect of the educational process that relates to being physically active or inactive.

It was assumed by the PCPFS 1972 study that because there was a positive relationship between schooling and physical activity status as an adult, the reason was due to longer exposure to physical activity. However, such a point of view makes further assumptions about activity experiences within education with respect to type and duration. In this regard Ferrell and Fuchs (1982) point out that there has been a general acceptance that since a relationship has been found between schooling and income, and among income and occupation and health status, the association was believed to be a "class" or "socioeconomic" effect. Their own research, however, found that after controlling for income, a major determinant of social class, there still existed a relationship between health and number of years of schooling. The mechanisms by which schooling influences health, however, are not as clearcut as it may seem. The hypotheses that additional years of schooling and thus possibly a more extensive knowledge or understanding about health education and physical activity that influences health behavior have been rejected by many health researchers (Ferrell & Fuchs, 1982; Fuchs, 1982). There exists, it is contended "third variables" affecting both schooling and health behavior.

One of the most interesting explanations came from Fuchs (1982). He suggested that both schooling and health behavior are related to individual differences in the ability to accept time discounts, i.e., the willingness and ability to

incur current costs for future benefits. According to Fuchs:

There are at least two ways that individual variations in time preference could explain the correlation between schooling and health. First, suppose that differences in time preferences are established early in life, are relatively stable and do affect subsequent behavior. These differences might be due to differences in the education or income of parents, the stability of the family, the values associated with different religions, or to other background characteristics. Given variation in time preference, it would not be surprising to observe that individuals with low rates of time discount would invest in many years of schooling and would also invest in health-enhancing activities. According to this view schooling has no direct effect on health; the observed correlation is due to both schooling and health as depending upon time preference.

A second possibility is that schooling actually affects time preferences; those with more schooling are more willing to invest at a lower rate of return. Thus more schooling could result in better health by increasing investment in health. (1982, p. 94)

In answer to the question "Why do not all college grads exercise?", Fuchs would contend there existed a major problem in using time discount to account for health behavior. Because of the uncertainty of the investment, the future value of any variable, whether it is the future price of stock or the state of health, cannot be determined with much certainty. Fuchs, thus, turned to individual risk-taking behavior to explain investment behavior. He contended that the uncertainty of the benefits derived from present health behavior was relatively substantial compared to the investment required.

Even the best information available indicates only the average expected benefit from such health investments; the return to any individual is highly uncertain. Only a minority of cigarette smokers will actually contract lung cancer, while giving up cigarette smoking does not provide a guarantee against the disease. Therefore, individual differences with respect to uncertainty can also affect investment. (Fuchs, 1982, p. 115)

In explaining the decision that individuals make when uncertain, Fuchs turned to the provocative work of Kahneman and Tversky (1979). These psychologists suggested that most individuals prefer certain to uncertain gains, but prefer uncertainty to certainty with respect to losses. Assume for instance, that an individual has the choice between (a) certain gain of \$500 or (b) an equal chance to win \$1,000 or nothing. According to Kahneman and Tversky (1979), the individual will choose the first option. When the same individual is offered a choice between (a) a certain loss of \$500 or (b) an equal chance to lose \$1,000 or nothing, the individual will choose the second option.

Fuchs contends that if this argument is applicable to health behavior, then, for a person considering giving up some current pleasurable activity or undertaking an unpleasant one in return for the chance of an improved health status sometime in the future:

The immediate action involves a loss with a high degree of certainty, but the future gain is quite uncertain for the individual even though it may be highly predictable, on average, for a large population. Thus, the stronger the individual's asymmetry with respect to uncertainty,

the less likely will he or she be to undertake the health enhancing action. (Fuchs, 1982, p. 115)

Fuchs concluded that individual differences in risk aversion probably confound efforts to measure time preferences and their effects on health behavior.

Just how education relates to exercise behavior, then, remains uncertain. In all likelihood, the explanation is a psychological one and not related directly to the number of years exposed to physical activity in school. Exposure, nevertheless, may be a factor when and if it encompasses an individual's learning of skills necessary for physical activity.

The major point of this discussion is that care must be taken in interpreting the meaning of any data. There is the tendency to assume that individuals with more education are exposed to more physical activity as part of their schooling and that such exposure is a causal factor and is central to adult participation in physical activity. This may ultimately be found to be the case. But, in the meantime, acceptance of the assumption closes the door to exploring other possibilities. Rather than education, per se, perhaps it is a "psychological ability" to look to the future and the realization that health habits presently undertaken may influence health further on in life.

Equipment Ownership

There are two final pieces of information presented in this chapter that seem to be of general importance to

physical activity promotion. The first lies within the demographic and geographic analysis of use of the equipment owned by the participants of jogging, lifting, and cycling. Swimming was eliminated from this discussion because of relatively low ownership of swimming pools. Table 4 summarizes ownership and equipment usage percentages discussed throughout the chapter. It must be noted that the weight lifting ratios are probably not indicative of those actually using their equipment. Whereas one must own a pair of jogging shoes to jog, and own a bicycle to bike, it is not necessary to own one's own weights to engage in lifting. There are many weight lifting gymnasiums and health studios that provide weight lifting equipment facilities. The ratio of participation and regular participation to ownership for weight lifting is therefore likely to be inflated. It is necessary for future physical activity surveys to make the distinction between those lifting with their own weights and those lifting in an outside facility.

Obviously, there is a serious lack of regular participation in the three activities that cannot be attributed only to equipment ownership. This is evident in all regions of the country, community sizes, both sexes, age ranges, income categories, occupations, and education ranges. The averages provided as the final item for each variable grouping in Table 4 allows the reader to determine where occasional use and regular use of the equipment is

Table 4

Summary of Occasional and Regular Use of Jogging, Bicycling,
and Weight Lifting Equipment

	<u>Jogging</u>		<u>Lifting</u>		<u>Bicycling</u>	
	O.U.	R.U.	O.U.	R.U.	O.U.	R.U.
Region						
Northeast	64%	27%	73%	30%	57%	21%
North Central	62	21	62	27	61	17
South	67	20	66	36	57	17
West	61	23	80	48	59	18
Average	64	23	70	35	59	18
Community Size						
A	63	24	74	39	59	19
B	64	22	86	41	59	18
C	66	22	56	28	57	19
D	60	20	53	18	56	11
Metro City	64	25	75	41	59	20
Metro Sub.	63	22	75	38	60	19
Non Metro	65	22	59	21	55	14
Average	64	22	68	32	58	17
Sex						
Men	60	25	73	28	64	18
Women	69	19	70	28	64	18
Average	65	22	72	34	59	18
Age						
18-24	73	27	94	42	70	24
25-34	62	19	70	32	58	17
35-44	57	20	56	38	56	16
45-54	55	25	43	28	49	15
55-64	52	22	63	25	53	17
65+	80	29	67	27	55	18
Average	63	24	66	32	57	18

Table 4 (cont'd.)

	<u>Jogging</u>		<u>Lifting</u>		<u>Bicycling</u>	
	O.U.	R.U.	O.U.	R.U.	O.U.	R.U.
Income						
\$40,000+	60%	26%	69%	42%	60%	18%
\$30,000+	63	24	70	36	59	17
\$25,000+	62	23	70	37	58	17
\$20-24,000	64	17	65	29	54	17
\$15-19,000	54	17	65	32	54	14
\$10-14,000	71	27	87	38	67	21
\$0-10,000	71	24	88	40	65	25
Average	64	23	73	36	60	18
Occupation						
Prof/Man	65	24	70	41	59	20
Cler/Sales	66	20	69	28	61	15
Crafts/Foremen	55	18	60	31	46	10
Other	61	25	72	37	58	18
Average	62	22	68	34	56	16
Education						
Grad. Coll.	63	25	75	45	61	20
Att. Coll.	64	29	70	36	57	21
Grad. H.S.	61	17	71	34	59	15
Did Not Grad H.S.	68	19	71	25	55	16
Average	64	23	72	35	58	18

Note. O.U. = Occasional Use; R.U. = Regular Use; From Simmons Study of Media and Markets: Sports and Leisure, 1982 by Simmons Market Research Bureau. Adapted by permission.

above or below average. For example, the Northeast region has above average regular use of jogging shoes, 27% compared with an average for all regions of 23%. Relative to bicycles, 21% of the Northeasterners use bicycles regularly compared with an average for all regions of 18%. The West has above average regular use of lifting equipment.

Community size D is 6% below the average community regular use of bicycles and 14% below the average community use of personal lifting equipment. Possibly the other communities provided weight lifting facilities and the low percentage of regular use in community D relates to lack of available facilities. Note, too, women tend to use their jogging shoes and bicycles on occasion at a higher percentage than men. But they do not use the equipment more regularly. In fact, women regularly use their jogging shoes 3% below the average for the two sexes combined; men use their shoes regularly 3% above average. The highest use of jogging shoes is in the 65+ age category at 5% above average for all other age groups. The lowest regular use of jogging shoes is evident in the 25-34 age group, 5% below average.

Aside from providing information about the sorry state of affairs regarding regular usage of personal equipment, such a detailed analysis presented above allows the promoter to locate potential groups that own equipment and use it less than average. Here then is a specific target group for promoters for which a concrete and tangible goal can be

realistically established. Instead of setting a goal at some abstract figure like the PCPFS encouraging 30% of the population to become regularly active in some activity, the goal of raising regular usage of equipment already owned to 30% is a logical objective.

The second piece of important information for physical activity promotion from the data discussed in this chapter lies in the demographic shifts that occurred between 1982-1983. The increase in weight lifting and jogging shoes ownership of the 35-44 age category may indicate that this age group became more aware of the need to be more physically active. They were, then, "ripe" targets for both shoe and weight lifting manufacturing companies. It must be noted that although the increase in ownership of the necessary equipment did not translate into greater participation--occasionally or regularly for the age group in weight lifting, it did for jogging. One must consider what variable distinguished the two activities. Clearly, it is occupational status. The increase in ownership of weight lifting equipment among blue-collar workers and also in occasional as well as regular participation in lifting is striking. Apparently, lifting to "get into shape" appeals to this particular occupational group more so than the others. While the occupational status in relation to jogging was not as apparent as that of weight lifting, it did appear to fall within the professional/managerial ranks.

Why weight lifting is so attractive to blue-collar workers and why the 35-44 age category increased participation so markedly between 1982 and 1983 is not clear. Was it a promotional campaign, the interest of employers in these categories of employees, or was it merely as Kisey (1983) suggested an individual search for some meaning in life? Perhaps at 35 years of age the meaning of existence begins to nag at one's conscience. Or is there some other reason? Unfortunately physical activity researchers are still asking "Who is doing what?" and not "Why are they doing it?"

From this point on in this report, demographic data are analyzed in conjunction with other data in order to help better understand why people do/do not pursue various forms of physical activity. To utilize Ray's (1983) model in marketing physical activity the more difficult task of examining individual fields of experience, or, in McClland's (1975) words "individual cages," must be undertaken.

CHAPTER VI
PHYSICAL ACTIVITY IN THE CONTEXT
OF LIFESTYLE

The awareness of some relationships among demographic variables and exercise discussed in the prior text is not new. Numerous researchers have noticed such associations although none have examined it in detail. Usually the observation is reported generally. For example, it has been pointed out that individuals volunteering for exercise programs tend to be better educated and to have white-collar jobs (National Diet Heart Study, 1968). In cardiac rehabilitation studies, the blue-collar occupations have been associated with dropping out of exercise at higher rates than those in white collar occupations (Andrew et al., 1981; Oldridge, 1979). Unemployment has also been associated with a higher frequency of dropping out (Bruce et al., 1976).

In studies unrelated to exercise, several speculations have been made about differences in social class attitudes and behavior. Some authorities contend that lower class individuals placed more emphasis on the present than on the future (Gurslin et al., 1960; Hollingshead, 1949). Such an idea of more than two decades is consistent with the relatively current Time Discount Theory proposed by Fuchs (1982).

While demographic analyses of data provide answers to the question of who is physically active, it does not

explain why a specific behavior occurs. Whereas the information in the previous chapter gave insight into who is physically active, to understand why this is so necessitates deeper examination of other variables. One must investigate how physical activity fits into an individual's pattern of living, or lifestyle. Lifestyle research goes beyond geographic and demographic information and assesses people's activities in terms of (a) how they spend their time, (b) their interests, that is, what they place importance on in their immediate surrounding, and (c) the opinions they have of themselves and the world around them (Plummer, 1974). The text that follows focuses on the individual in terms of what he or she requires to satisfy a specific set of needs and wants. The ultimate objective of such an analysis is to find a common link among groups of individuals that explains why they are or are not physically active.

One of the most exciting approaches to lifestyle research has been conducted by SRI International, an applied research organization located in California. SRI's Values and Lifestyles Typology (VALS) was developed over a 20-year period. It is based on the hypothesis that one is what one believes, dreams, and values. The typology alleges that an individuals attempt to mold his or her life in order to make beliefs and dreams come true. The writer subscribes to the VALS point of view although it is recognized that other categorization schemes are available.

Values of an individual consist of a compilation of attitudes, beliefs, opinions, hopes, fears, prejudices,

needs, desires, and aspirations that together govern behavior (Mitchell, 1983). The SRI International lifestyle research attempted to account for all of the above aspects of an individual in hopes of obtaining insight into why people believe and act the way they do (Mitchell, 1983). The SRI researchers sought to answer such questions as why two individuals with identical income, education, age, etc., act differently, and why individuals grossly different with respect to these variables act similarly in some aspects of their lifestyle.

The VALS Typology

The VALS typology describes four comprehensive groups of individuals classified into nine lifestyles. Each lifestyle describes a unique way of life defined by its distinctive array of values, drives, beliefs, needs, dreams, and special points of view (Mitchell, 1983). Only a brief overview of these lifestyles is offered. The interested reader is referred to Arnold Mitchell's book The Nine American Lifestyles (1983) for a more complete and colorful description.

The four groups of individuals and the nine lifestyles they represent are (a) Need-Drive Groups encompassing two lifestyles; Survivor and Sustainer; (b) the Outer-Directed Groups encompassing three lifestyles: Belonger, Emulator, and Achiever; (c) the Inner-Directed Groups encompassing three lifestyles: I-Am-Me, Experimental and Socially Conscious; and (d) the Combined Outer and Inner Directed Groups that encompass one lifestyle: the Integrated.

Before discussing each of the lifestyles in more details it is important to note that Mitchell's system of lifestyles is ordered into a double hierarchy. According to Figure 27 at the very bottom of the hierarchy are the Need Driven and at the very top the Integrated. Progression through the model occurs in a stepwise manner. That is, people may move one or two levels upward from their entry point. Few would be likely to move from bottom to top in a lifetime, although, Mitchell contends some individuals slip backward depending upon circumstances that occur during their lives. Although the objective is to move up through the hierarchy, a loss of a job, retirement, or illness could prevent an individual from improving his or her position.

The route from bottom to top may proceed via the outer-directed pathway, which, according to Mitchell, was the traditional developmental path. However, Mitchell's research found that some people did not fit into the traditional mold; they followed the beat of a different drummer, Mitchell describes these individuals proceeding up the hierarchy by way of a contemporary inner-directed developmental path. According to Mitchell, the distinguishing features of the two paths derive from the dominant driving force motivating behavior. The common denominator for all three lifestyles following the outer-direction path is that behavior occurs in response to signals, real or fancied, from others. The lifestyles following the contemporary

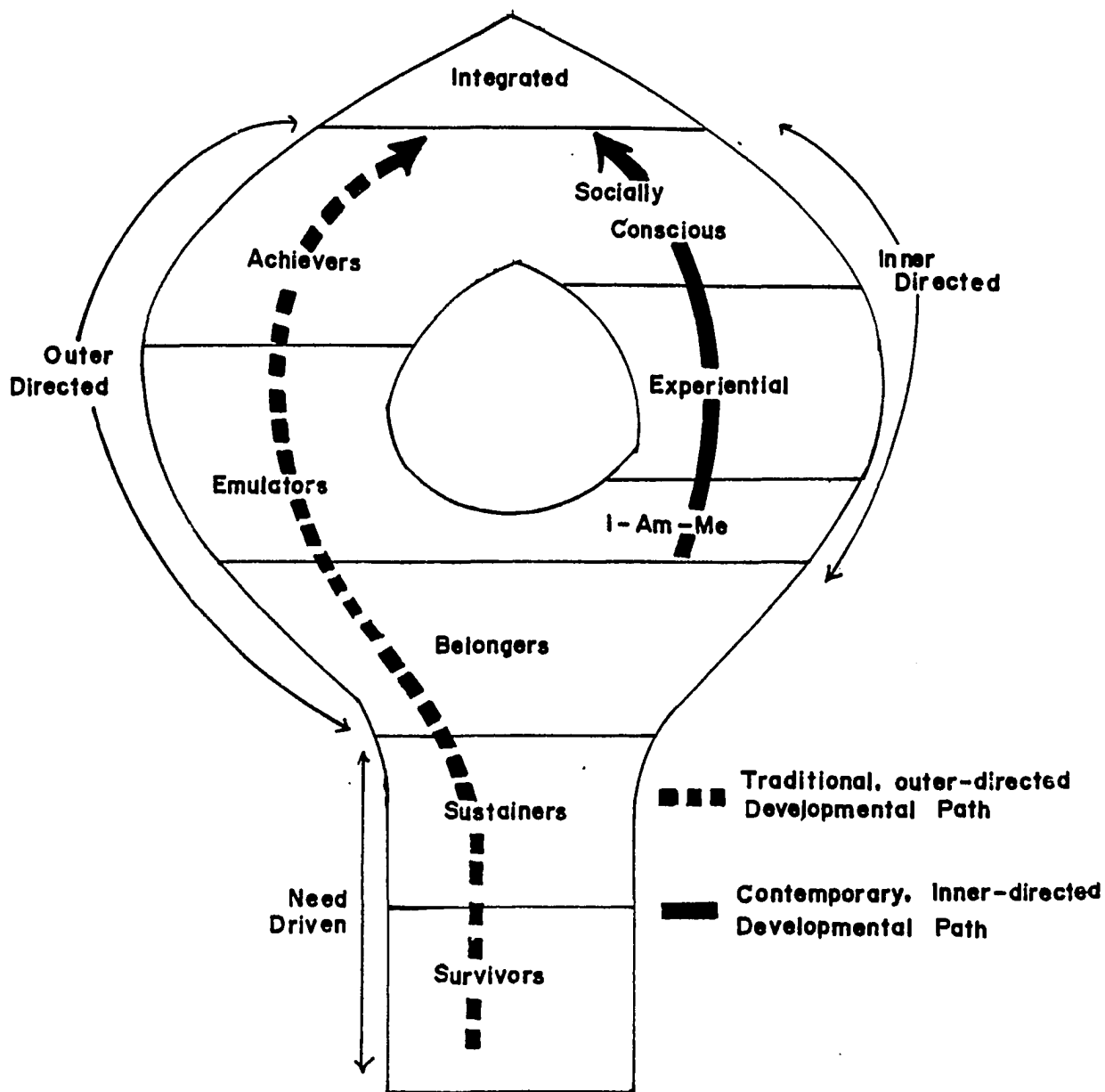


Figure 27. The VALS lifestyle double hierarchy. From The nine American lifestyles: Who we are and where we're going (p. 32) by A. Mitchell, 1983, New York: Macmillan. Reprinted by permission.

inner-direction path are based on the belief that what is "in here" is more important than what is "out there."

Why Mitchell's ideas are appropriate for physical activity promotion becomes evident in the discussion that follows. Basically, one of the most intriguing aspects and one of special interest to those in the promotion of physical activity is that some of the lifestyles appear to be more associated with exercise than others. A picture of why people behave in the way they do emerges from the lifestyle analysis and some insight into the reasons for that behavior becomes evident.

The Lifestyles

Need-Driven groups. Lowest on the typology are the Need-Driven groups, the Survivors and the Sustainers. Although these two groups are different with respect to demographics, they both have the common element of poverty. Consequently, the driving force in the lives of both groups is a desperate sense of need. Mitchell summarized the lives of the Need-Driver groups as those of hopelessness leading many to live rather shrunken and dull lives.

Survivors are characterized in Table 5. This group consists of 4% of the population, has a median age of 66 years, 79% have a high school education or less, and 68% are either retired or homemakers. Mitchell (1983) reported that many in the Survivor category were either born into poverty and unable to escape or have slipped into poverty due to old age and poor health.

Table 5

Selected Summary Characteristics of the Survivor Lifestyle

Median Age: 66		4% of the Adult Population
Sex: Female 75%		6 Million American Adults
<u>Education</u>		<u>Demographics</u>
Under 8th grade	37%	Very poor, older, heavily female group, largely retired
9-12th grade	42%	Least educated of all lifestyle groups
Technical	2%	
1-3 years college	9%	<u>Attitude</u>
College graduate	2%	Mistrustful and not likely to feel that achievements lie ahead
Graduate school	7%	Little self-confidence
		Little satisfaction from work or nonwork activities
<u>Occupation</u>		<u>Activities</u>
Prof/tech	3%	Activities influenced by high age, low education, and limited resources
Man/Admin	0%	Strikingly absent from pursuits requiring high levels of physical energy, such as active sports or outdoor life
Sales/clerical	5%	Score high in cigarette smoking, TV watching
Craftsman/machine labor	3%	
Service	11%	<u>Consumption</u>
Homemaker	21%	Emphasis on basics and necessities to satisfy immediate needs
Retired	46%	Below average ownership of recreational equipment such as camping/backpacking, exercise equipment or bicycles
Student	3%	
<u>Income</u>		
\$0-5,000	78%	
\$5,000-7,499	22%	
\$7,500-9,999	0%	
\$10,000+	0%	

Note. From The Nine American Lifestyles: Who We Are and Where We're Going by A. Mitchell, 1983. NY: McMillian.

The Sustainers, described in Table 6, are a younger group than the Survivors with a median age of 33 years. Like the Survivors, Sustainers are low in educational attainment. As Table 6 reveals, 81% of the Sustainers have a high school education or less. Mitchell found many Sustainers to be out of work or working parttime at minimum wage. Sixty percent earn less than \$10,000 a year. Mitchell contended that many of the group would eventually slip back into the Survivor category as they age. Whereas Survivors were merely playing a waiting game for death, relying on TV and mementoes of the past to get them through each day, Mitchell pointed out that the Sustainers had many years of life ahead but had generally given up trying to escape their circumstances. That further explains why they eventually end up in the Survivor category.

As Tables 5 and 6 reveal, neither Need-Driven group obtain much satisfaction from work or nonwork activities. The resentment Sustainers show toward mainstream culture, according to Mitchell, is manifested in commercial sexual outlets and gambling. Sustainers have high attendance at horse races, are the most likely group to smoke cigarettes, and have a high consumption of alcohol and junk food.

Outer-Directed group. This group of individuals, consisting of three diverse lifestyles, make up middle America. As a total group, the Outer-Directed make up two-thirds of the adult population. Within the category

Table 6

Selected Summary Characteristics of the Sustainer Lifestyle

Median Age: 33

7% of the Adult Population

Sex: Female 55%

11 Million American Adults

Education

Under 8th grade	12%
9-12th grade	69%
Technical	4%
1-3 years college	12%
College graduate	3%
Graduate school	0%

Occupation

Prof/tech	2%
Man/admin	2%
Sales/clerical	5%
Craftsman/machine labor	31%
Service	13%
Homemaker	23%
Retired	3%
Student	3%

Income

\$0-5,000	20%
\$5,000-7,499	22%
\$7,500-9,999	18%
\$10,000-14,999	18%
\$15,000-19,999	7%
\$20,000-24,999	3%
\$25,000+	12%

Demographics

Youngish group having a tough time making it
 High unemployment, low paying jobs, erratic incomes
 Medium to low education
 Mainly blue collar jobs
 Highest divorce rate of any lifestyle group

Attitudes

Among the least happy of the lifestyle groups
 Most likely to feel left out
 Not supportive of working women
 Get little satisfaction from jobs, friends
 Lead lives high in resentment toward mainstream culture
 Such resentment many debate through the pleasures of the flesh and reliance on Lady Luck

Activities

Attend horse races more than any other group
 Tend to be feisty and outdoorsy
 Go fishing more frequently than other groups
 Above average participation in bowling, team sports such as baseball, basketball, football, softball
 Most likely of any group to smoke cigarettes

Table 6 (cont'd.)

Consumption

High consumption of alcohol
High consumption of pancake
mix, potato/corn chips,
gum, candy, frozen
dinners

Note. From The Nine American Lifestyles: Who We are and
Where We're Going by A. Mitchell, 1983. NY: McMillian.

the largest lifestyle group is the Belongers who encompass 35% of the adult population. Emulators encompass 10% and 22% are considered to be Achievers.

A full description of the Belongers is presented in Table 7. They are an aging group, median age of 52 years, and are generally considered to be "middle class" America. Mitchell contends that these are the people for whom soap operas and romance magazines were created. Overall, Belongers have medium to low education; 64% attended or graduated from high school and 15% attended college; 20% are retired and 28% are homemakers. Of those who work, 17% hold primarily blue-collar jobs. Mitchell describes this group of Outer-Directed as puritanical, conventional, dependent, sentimental, and mass oriented. Their key drive is to fit in, or, at the very least, not to stand out. They tend to live in the southern states and prefer town to open country. They are removed from the center of action and tend to strongly support traditional values. Belongers are a contented family-oriented group with strong family and nationally patriotic roots. They prefer home and family activities such as gardening, baking, needlework, and watching TV to vigorous physical activity, cultural pursuits, or inner-growth activities.

Next on the hierarchy among the Outer-Directed groups are a younger group with a median age of 27 years. Mitchell called these individuals Emulators because they strive to

Table 7

Selected Summary Characteristics of the Belonger Lifestyle

Median Age: 52		35% of the Adult Population
Sex: Female 68%		57 Million American Adults
<u>Education</u>		<u>Demographics</u>
Under 8th grade	10%	Tend to be above middle age, female, white, middle-income and middle class
9-12th grade	64%	Tend to live in the South with fewer in the more sophisticated regions such as the mid-Atlantic Pacific, and New England
Technical	4%	Prefer living in towns and open country
1-3 years college	15%	Majority have graduated from high school but few have graduated from college
College graduate	3%	Under represented in technical, professional, managerial and administrative occupations
Graduate school	4%	Mainly blue collar, homemaker, or retired
<u>Occupation</u>		Overall picture is of a large, aging group a bit removed from the center of action, tending strongly toward traditional values
Prof/tech	3%	
Man/admin	2%	<u>Attitudes</u>
Sales/clerical	11%	Content with the way things are
Craftsman/machine labor	17%	Powerful family orientation
Service	5%	Likely to think things are changing too fast
Homemaker	28%	Get a lot of satisfaction from jobs and friends
Retired	20%	Deeply patriotic, loving pomp and ceremony of tradition; roots go deep and hold fast
Student	1%	
<u>Income</u>		
\$0-5,000	8%	
\$5,000-7,499	9%	
\$7,500-9,999	10%	
\$10,000-14,999	20%	
\$15,000-19,999	16%	
\$20,000-24,999	16%	
\$25,000+	21%	

Table 7 (cont'd.)

Activities

Tend to have low participation
in vigorous activities,
cultural pursuits, inner-
growth activities

Prefer home and family
activities--gardening,
baking, needlework,
collecting recipes, watching
TV

Below in average participation
in team sports, racket
sports, swimming, tennis

Above average smoking and
those having smoked over
10 years

Consumption

Below average ownership of
exercise equipment and
bicycles

Below average in consumption
of alcohol

Note. From The Nine American Lifestyles: Who We Are and
Where We're Going by A. Mitchell, 1983. NY: McMillian.

be like those they consider richer and more successful. Preferring city life, Emulators embrace conspicuous consumption, follow trendy fashion, and spend only where it shows. They are big spenders and tend to be in debt. As the information in Table 8 indicates, 62% have a high school or less level of education, 30% are found in sales/clerical occupation, and 35% in machine/labor occupations. Their families usually have two incomes. Their job satisfaction is low, and consequently, Emulators usually wind up with a poor self-image perhaps accounting for their high consumption of alcohol. Mitchell contends that individuals in this group generally do not make it to the Achiever status. Mitchell attributes this to their low level of education and blue-collar type of occupations that do not lead to improving social position. Mitchell placed Emulators ahead of the Belongers because they ask more for themselves and take on a greater responsibility for getting ahead instead of just drifting with events.

The Achievers described in Table 9 are at the pinnacle of Outer-Direction. Mitchell found them to be a diverse, gifted, hard working, self-reliant, successful, and happy group. Sixty percent have college educations, and Mitchell's data reported a large proportion to be self-employed. Achievers are found in many types of occupations including the ambitious, competitive corporate executive, the skilled lawyer, doctor, scientist, and the money-oriented athlete

Table 8

Selected Summary Characteristics of the Emulator Lifestyle

Median Age: 27		10% of the Adult Population
Sex: Female 47%		16 Million American Adults
<u>Education</u>		<u>Demographics</u>
Under 8th grade	1%	Youthful, high school graduates,
9-12th grade	62%	½ having attended college
Technical	9%	Under-represented in the
1-3 years college	23%	intellectual, highly trained
College graduate	3%	domains of professional,
Graduate school	3%	technical, managerial, and
		administrative jobs
<u>Occupation</u>		Family income probably consists
Prof/tech	9%	of two incomes
Man/admin	6%	Prefer city life because that
Sales/clerical	30%	is where the good jobs are
Craftsman/machine		Most urbanized of lifestyle
labor	35%	groups, least likely to live
Service	3%	in towns and open country
Homemaker	4%	<u>Attitudes</u>
Retired	0%	Most outstanding feature is:
Student	4%	their vehemence concerning
		social situation
<u>Income</u>		Support right for women to work
\$0-5,000	3%	Job satisfaction is low
\$5,000,7,499	5%	<u>Activities</u>
\$7,500-9,999	7%	Tend to copy the patterns of
\$10,000-14,999	16%	others rather than express
\$15,000-19,999	32%	individual drives
\$20,000-24,999	19%	Neither intellectual nor artistic,
\$25,000+	18%	not oriented to people or the
		home, socially inclined
		Above average participation in
		bowling and pool/billiards
		Above average smoking

Table 8 (cont'd.)

Consumption

High consumers of alcohol
High consumers of high sugar
and high carbohydrate
products such as snack foods
and soft drinks

Note. From The Nine American Lifestyles: Who We Are and
Where We're Going by A. Mitchell, 1983. NY: McMillian.

Table 9

Selected Summary Characteristics of the Achiever Lifestyle

Median Age: 43		22% of the Adult Population
Sex: Female 40%		35 Million American Adults
<u>Education</u>		<u>Demographics</u>
Under 8th grade	2%	Most male dominated group
9-12th grade	30%	50% have children living at home
Technical	8%	The most prosperous of the lifestyle groups, income average of \$31,400
1-3 years college	27%	Heart of upper middle class America
College graduate	18%	Half live in suburbs
Graduate school	15%	95% Caucasian
<u>Occupation</u>		Well educated
Prof/tech	29%	Highest percentage of self-employed, contain lowest percentage looking for work of all groups
Man/admin	17%	Almost 50% hold managerial administrative, or professional technical jobs
Sales/clerical	12%	
Craftsman/machine labor	12%	
Service	2%	
Homemaker	13%	
Retired	3%	
Student	1%	
<u>Income</u>		<u>Attitudes</u>
\$0-5,000	2%	Well adjusted, self-confident, sense of being in control
\$5,000-7,499	1%	More likely than other groups to oppose limits on industrial growth
\$7,500-9,999	2%	Least alarmed about pollution
\$10,000-14,999	4%	Get more satisfaction from work than other groups, find life rewarding
\$15,000-19,999	8%	Rank second to Belongers in feeling the family is important to them
\$20,000-24,999	9%	Overall picture is that Achievers prefer social standards of the 1930s, 1940s, and 1950s, the decades when most of them were growing up
\$25,000-29,999	20%	
\$30,000-39,999	24%	
\$40,000+	31%	

Table 9 (cont'd.)

Attitudes (cont'd.)

Emergent values of 1960s and 1970s are not those of Achievers, but largely of those of the children of Achievers

Activities

Score high in playing golf, attending cultural events, drinking cocktails before dinner, travelling

Those who smoke tend to be heavy smokers

Indifferent to health-related food concerns

High in viewing sports programs and reading about sports

Consumption

Above average ownership of exercise equipment, bicycles, but seem to be for the use of children, not for themselves

Note. From *The Nine American Lifestyles: Who We Are and Where We're Going* by A. Mitchell, 1983. NY: McMillian.

or entertainer. The income of this group is high; 75% earn in excess of \$25,000 a year.

According to Mitchell, Achievers are a well-adjusted, self-confident group and are considered to be the establishment. Family is important. Achievers are the least likely of all lifestyles to be alarmed by pollution and most likely to oppose limits on industrial growth. Although Achievers have above-average ownership of exercise equipment and bicycles, Mitchell found that their use of this equipment was low. He concluded that ownership was likely to be for use by the children. Achievers are, on the whole, indifferent to health-related food concerns and are high in sports spectatorship and sports reading.

Inner-Directed groups. The other route proposed by Mitchell to the top of the VALS typology is the Inner-Directed route. Lifestyle groups following such a developmental path consist of only 20% of the adult population and consequently their economic impact is not nearly as large as the Outer-Directed group consisting of 67% of the adult population. Mitchell claims there is substantial evidence that the majority of Inner-Directed individuals were raised in the predominantly Outer-Directed families, especially Achievers. Inner-Directed individuals have rejected the forces of Outer-Direction. Many are active in social movements such as consumerism, conservation, and environmentalism and are powerfully supportive of modern social trends such as women working, sex between unmarried people, and legalization

of marijuana. Most have a high level of formal education, hold good jobs, and have high incomes.

According to Mitchell (1983), the Inner-Direction movement became evident in the 1960s and 1970s and, as a result, a new group of lifestyles evolved. He contended that whereas Inner-Direction had always been a part of the American romantic tradition, until the past 20 years it was confined to a relatively few. Today, he alleges, it is a mass movement.

Mitchell proposes three levels of Inner-Direction, each stage a gradual maturation over the previous one. The I-Am-Me stage depicted in Table 10 is, according to Mitchell, the tumultuous transition from the Outer-Directed way of life to Inner-Direction. I-Am-Me individuals are a young group with a median age of 21 years constituting 5% of the adult population. Forty-four percent are students with little income. I-Am-Me persons have a socially active lifestyle with a great deal of satisfaction coming from friends. They are very active in all types of sports as well as activities such as bowling, pool/billiards, and backpacking. They have low participation in gardening, baking, and needlework. I-Am-Me people have little concern for health-related foods and are high consumers of snack foods. The stage lasts approximately 4 years. Individuals in the group then pursue either the Emulator lifestyle with Outer-Directed individuals, or pass on to the Experiential lifestyle and maintain the Inner-Directed route.

Table 10

Selected Summary of Characteristics of the I-Am-Me Lifestyle

Median Age: 21		5% of the Adult Population
Sex: Female 36%		8 Million American Adults
<u>Education</u>		<u>Demographics</u>
Under 8th grade	0%	Youngest group in the VALS
9-12th grade	38%	typology, median age 21,
Technical	5%	single, high percentage of
1-3 years college	50%	students
College graduate	3%	Raised in comfortable, if not
Graduate school	5%	affluent settings
<u>Occupation</u>		Male dominated group
Prof/tech	3%	91% Caucasian
Man/admin	1%	Tend to reject affluent
Sales/clerical	19%	achiever values
Craftsman/machine		<u>Attitudes</u>
labor	19%	Socially active, preference for
Service	5%	going to a party rather than
Homemaker	0%	to stay at home
Retired	0%	99% think their greatest
Student	44%	achievements are ahead
<u>Income</u>		Think it's important to be a
\$0-5,000	8%	part of a group and to have
\$5,000-7,499	16%	social status
\$7,500-9,999	5%	90% think air pollution is a
\$10,000-14,999	9%	major world problem
\$15,000-19,999	5%	Get a great deal of satisfaction
\$20,000-24,999	*	from friends
\$25,000-29,999	*	Below average in considering
\$30,000-39,999	*	the inner self more important
\$40,000+	*	than power or influence
		<u>Activities</u>
		Related to youthfulness
		High in active sports, bowling,
		pool/billiards, backpacking
		Exceed all other groups in
		motorboating, hunting,
		snacking between meals

Table 10 (cont'd.)

Activities (cont'd.)

Low participation in gardening,
baking, needlework, health
related food concerns

Above average in team sports,
bicycling, jogging, racket
sports, swimming, exercising
in the gym, skiing

Consumption

Highest ownership of camping
backpacking equipment,
exercise equipment, racing
bicycles

Among highest in frequent
consumption of alcohol

Among highest in frequent
consumption of soft
drinks, snack foods, gum,
convenience foods

*Note. I-Am-Me's listed parents' income thus invalidating
these data.

From The Nine American Lifestyles: Who We Are and Where
We're Going by A. Mitchell, 1983. NY: McMillian.

A relatively youthful group with a median age of 27 years, Mitchell found the Experimentals, characterized in Table 11, to show more maturity than the I-Am-Me people. The fact that 67% have at least attended college probably explains the high representation, 67%, of this lifestyle in the over \$20,000 income category. According to Mitchell, Experimentals prefer city living, have faith in holistic medicine, do not rely on being a part of a group, do not find any importance in social status, place little reliance on TV for entertainment, and do most of the rock climbing and backpacking in their love to "get away from it all." Mitchell also found the Experimentals to be more concerned with issues than members of the I-Am-Me lifestyle group. He attributed this to the fact they are older and show more self-assurance. The flamboyance of the I-Am-Me lifestyle is toned down considerably as the individual moves into more spiritual, intellectual, and artistic preoccupations.

The next lifestyle in the Inner-Directed developmental path is the Socially Conscious lifestyle described in Table 12. Mitchell contends that this lifestyle is not the rejection of other lifestyles, as in the I-Am-Me stage, or intense concern with personal experience, as in the Experimentals. Rather, it represents a more mature concern with social issues and trends. With a median age of 39 years, Socially Conscious individuals are similar in age to the Achievers and are, in fact, considered by Mitchell to be

Table 11

Selected Summary Characteristics of the Experiential Lifestyle

Median Age: 27		7% of the Adult Population
Sex: Female 55%		11 Million American Adults
<u>Education</u>		<u>Demographics</u>
Under 8th grade	0%	Relatively prosperous postwar group
9-12th grade	25%	Median age 27, excellent education, preference for living in the West, ¼ live in Pacific states
Technical	9%	38% are college graduates, second only to Socially Conscious
1-3 years college	29%	Although many earn \$25,000-30,000/year, almost 30% earn less than \$15,000
College graduate	26%	High in professional/technical jobs
Graduate school	12%	Prefer city living over small towns or the country
<u>Occupation</u>		<u>Attitudes</u>
Profit/tech	27%	Powerfully inner-directed, happy, permissive in personal living
Man/admin	7%	Feel very much involved with what's going on
Sales/clerical	14%	96% believe the inner-self is more important than outward signs
Craftsman/machine labor	10%	Don't rely on being a part of the group, nor is social status important
Service	3%	Get a great deal of satisfaction from nonwork activities
Homemaker	12%	Place little reliance on TV for entertainment
Retired	1%	Believe industrial growth should be limited, air pollution is a major problem, not enough is done to protect the environment
Student	7%	
<u>Income</u>		
\$0-5,000	7%	
\$5,000-7,499	8%	
\$7,500-9,999	4%	
\$10,000-14,999	10%	
\$15,000-19,999	13%	
\$20,000-24,999	16%	
\$25,000-29,999	20%	
\$30,000-39,999	11%	
\$40,000+	10%	

Table 11 (cont'd.)

Activities

Similar activities as I-Am-Me's
but not quite as high

Seem to slowly abandon some
of their youthful pursuits,
but take up others

Bowl less, play less pool/
billiards, do less
motorboating and backpacking
than I-Am-Me's but still
above average

Above average participation
in team sports, bicycling,
jogging, swimming, racket
sports, exercise in the
gym, skiing

Have a strong health-related
food concern

Are highly social

Consumption

High ownership of recreational
equipment, camping/backpacking,
bicycles

Above average consumption of
sugar-free soft drinks, mineral
water, sugarless gum

Note. From The Nine American Lifestyles: Who We Are and
Where We're Going by A. Mitchell, 1983. NY: McMillian.

Table 12

Selected Summary Characteristics of the Socially Conscious Lifestyle

Median Age: 39		8% of the Adult Population
Sex: Female 52%		13 Million American Adults
<u>Education</u>		<u>Demographics</u>
Under 8th grade 1%		Excellent education
9-12th grade 14%		Intellectual jobs
Technical 4%		Affluent
1-3 years college 24%		Shun the South
College graduate 19%		Equal sexual balance
Graduate school 39%		Large number of children living at home
<u>Occupation</u>		Second highest divorce rate (behind Emulators) suggesting a certain stress and tension to this lifestyle
Prof/tech 59%		<u>Attitudes</u>
Man/admin 5%		Generally self-confident independent group, believes that the system needs an overhaul
Sales/clerical 6%		Least likely of any group to think that social status or being a part of a group is important
Craftsman/machine labor 3%		Feel they have a say in things
Service 1%		Do not believe woman's place is in the home, believe that women with small children can work and be good mothers,
Homemaker 5%		air pollution is a major problem, not enough is spent on the environment, industrial growth should be limited
Retired 3%		
Student 2%		
<u>Income</u>		<u>Activities</u>
\$0-5,000 2%		Score high in participation in cultural events, health aspects of food, use of libraries, self-learning, watching educational TV
\$5,000-7,499 3%		
\$7,500-9,999 2%		
\$10,000-14,999 10%		
\$15,000-19,999 12%		
\$20,000-24,999 18%		
\$25,000-29,999 14%		
\$30,000-39,999 25%		
\$40,000+ 12%		

Table 12 (cont'd.)

Activities (cont'd.)

Especially tend to engage in
healthful outdoor sports
such as cycling, jogging,
swimming, gym exercise and
sailing

Don't participate much in
bowling, pool/billiards,
hunting

Watch sports programs

Consumption

Similar to Achievers

Higher than average percentage
own camping/backpacking
equipment, exercise equipment,
swimming pools, and bicycles

Consumption of alcohol above
average

Health and diet concerns are
reflected in food consumption

High ownership of recreational
equipment, camping/backpacking,
bicycles

Above average consumption of
sugar-free soft drinks,
mineral water, sugarless
gum

Note. From The Nine American Lifestyles: Who We Are and
Where We're Going by A. Mitchell, 1983. NY: McMillian.

the Inner-Directed equivalents of the Outer-Directed Achievers.

The two groups differ, however, attitudinally. Whereas the Achievers have little concern for the environment, the Socially Conscious group believe that success should not be attained at the expense of life's quality. They are a highly educated lifestyle group. Eighty-two percent attended or graduated from college or attended graduate school; 59% hold professional/technical occupational positions. This lifestyle has the second highest divorce rate behind the Emulators suggesting, contends Mitchell, a certain stress and tension. The high alcohol consumption of those in the Socially Conscious group adds support to Mitchell's suggestion. As a group, the Socially Conscious tend to engage in healthful outdoor sports such as cycling, jogging, swimming, gym exercises, and sailing. They are also prominent among sports spectators.

Mitchell's Inner-Directed Socially Conscious and Outer-Directed Achievers eventually meet in the typology he proposes. He contends that the two groups come into so much contact that they begin to influence each other. The corporate executive, he alleges, after many political battles over environmental factors, sees the importance of the balance between industry and the environment. The Socially Conscious, on the other hand, come to realize and appreciate that sometimes compromises are necessary for the economic benefit of society.

Combined Outer and Inner-Directed group. The integrated people have put together the decisiveness of Outer-Direction with the penetration of Inner-Direction. Not many people attain a truly integrated outlook on life. Hence Mitchell contends that very little is known about this group.

Lifestyle and Physical Activity

Mitchell's data permit one to relate demographics such as education, income, and occupation to physical activity. Table 13 summarizes the demographics of the VALS typology and Table 14 summarizes the dominant physical activity characteristics for each lifestyle. Tables 5 through 14 reveal differences among the lifestyle groupings in demographics, attitudes, and dominant physical activity participation. The older, retired group of Survivors has a very low physical activity level. Sustainers engage more in fishing, bowling, and team sports such as baseball and softball. They do not frequently participate in individual exercise programs. The home-oriented, older Belongers have low participation in all physical activities. Emulators are the bowlers, and pool and billiards players and participate much less in sports or individual exercise programs. Golf is a popular game with Achievers.

In essence, Mitchell's (1983) data suggest that physical activity may be a more integral part of an Inner-Directed lifestyle than Need-Driven or Outer-Directed styles of living. The I-Am-Me persons are a very active group of individuals

Table 13

Demographic Summary of the VALS Typology

	Percentage							
	Survivors	Sustainers	Belongers	Emulators	Achievers	I-Am-Mes	Experientials	Socially Conscious
Median Age	66	33	52	27	43	21	27	39
Adult Population	4	7	35	10	22	5	7	8
Sex: Female	75	55	68	47	40	36	55	52
Education								
Under 8th grade	37	12	10	1	2	0	0	1
9-12th grade	42	69	64	62	30	38	25	14
Technical	2	4	4	9	8	5	9	4
1-3 years college	9	12	15	23	27	50	29	24
Graduate college	2	3	3	3	18	3	26	19
Graduate school	7	0	4	3	15	5	12	39
Occupation								
Prof/tech	3	2	3	9	29	3	27	59
Man/admin	0	2	2	6	17	1	7	5
Sales/clerical	5	5	11	30	12	19	14	6
Crafts/machine labor	3	31	17	35	12	19	10	3
Service	11	13	5	3	2	5	3	1
Homemaker	21	23	28	4	13	0	12	5
Retired	47	3	20	0	3	0	1	3
Student	3	3	1	4	1	44	7	2
Income								
Under \$5,000	78	20	8	3	2	8	7	2
\$5,000-7,499	22	22	9	5	1	16	8	3
\$7,500-9,999	0	18	10	7	2	5	4	3
\$10,000-14,999	0	18	20	16	4	9	10	10
\$15,000-19,999	0	7	16	32	8	5	13	12
\$20,000-24,999	0	3	16	19	9	*	16	18
\$25,000-29,999	0	5	12	12	20	*	20	14
\$30,000-39,999	0	3	6	4	24	*	11	25
\$40,000+	0	4	3	2	31	*	10	12

*Some I-Am-Mes listed parents income thus invalidating data
 From The Nine American Lifestyles: Who We Are and Where We're
 Going by A. Mitchell, 1983. NY: McMillian.

Table 14

Physical Activity Summary: VALS Typology

Group	Activity
Survivors	Very low in any activity
Sustainers	Fishing, bowling, team sports Are not participants in individual sports
Belongers	Low participation in any sports or individual exercise
Emulators	High participation in bowling, pool, billiards. Low participation in sports and individual exercise
Achievers	High participation in golf
I-Am-Mes	High participation in all active sports, individual exercise, bowling, hunting
Experientials	High participation in all active sports and individual exercise Low participation in bowling, backpacking
Socially Conscious	High participation in all individual exercise Do not bowl or hunt

and pursue a variety of physical activity programs, both individually and team oriented. The Experimentals are also a very active group according to Mitchell, although, less so than those classified as I-Am-Me. The Socially Conscious lifestyle is also an active one; members of this group prefer individual physical activities to group-oriented ones.

Other findings about the personalities of the physically active and the inactive tend to support Mitchell's lifestyle and physical activity data. According to Pilch (1971), individuals who were physically active scored higher in self-concept, social repute, proper control of one's impulses and proficiency in one's career. Perrier (1978) found the physically active to show a more confident, relaxed, less uptight, energized, disciplined, and generally positive outlook. These are all qualities Mitchell associated with the Inner-Directeds. Inactive individuals, on the other hand, were more pessimistic, tense, and undisciplined group of people according to Perrier (1978). These are qualities Mitchell (1983) associated with the Need-Drive, Belongers, and Emulators.

As established in the prior chapter, age and health play an important role with respect to participation in physical activities as an adult. Inasmuch as age and health factors are also associated with specific lifestyle groups, i.e., Survivors and Belongers are older, they may contribute to the low levels of physical activity within these lifestyles.

Age, however, is not a factor with the Sustainers or the Emulators. Yet neither of these lifestyles can be positively related to physical activity. The common element for Emulators and Belongers is low educational attainment. Possibly prior experience or Fuchs' (1982) third variable plays a role.

The overall importance of these kinds of data to promoters of physical activity is that rather than considering education, income, occupation, and so forth as independent variables as was done in Chapter V, how these factors fit into a much larger concept needs to be addressed. Members of the Inner-Directed lifestyles appear to have a different reason for living and a different way of living than other lifestyle groups. Perhaps the link between Fuchs' (1982) Time Discount Theory and physical activity participation occurs within an inner rather than an outer orientation to living.

Kisbey's (1984) observation that the trend toward an increase in physical activity is more the result of society moving toward a need for the expression of inner self than from any persuasion from government is tenable. If Mitchell (1983) is correct in his conclusion that the Inner-Directed route is now a mass movement compared to what it was prior to the 1960s, it can, perhaps, be expected that the growing numbers leading Inner-Directed lifestyles may potentially lead to more physically active adults.

Mitchell's data also point out that individuals at various lifestyle stages have different physical activity needs. Perhaps the lack of success of many corporate programs is related to the tendency to satisfy the needs of one specific group of individuals. It is unlikely, for instance, that many Sustainers or Belongers would be found volunteering to participate in individual exercise programs sponsored by their employers. Such persons are group oriented; they have a sense of safety in numbers. On the other hand, it is unlikely that Socially Conscious individuals would find group exercise programs to their liking since they tend to be more individually oriented. The 1982-1983 Simmons data indicating an increase in the number of 34- to 45-year-old blue-collar individuals in weight lifting and the increase of white-collar individuals in jogging can perhaps be explained by their psychological orientation. Whereas demographics helped distinguish groups of similar individuals, Mitchell's (1983) lifestyle approach adds an extra dimension and supports the concept that exercise needs differ for the various lifestyle groups. Promoting physical activity in but one manner ignores totally the differences in needs among people. Moreover, it fails to consider numerous other potentially important variables. The need for instruction about increasing the level of physical activity and how to select the physical activity that best matches particular psychological orientations are two examples for promoters of activity to weigh.

Unfortunately, Mitchell's data do not give any information about regularity of participation nor do they provide guidelines that would aid in understanding the psychological matching process. No details were offered about what the different lifestyle groups sought from physical activity. Consequently, Mitchell's work suggests only the beginning of a situation lifestyle analysis. Still unanswered is why some individuals in each lifestyle group are physically active and others are not. Also to be studied is why a number of people begin an exercise program and then drop out.

The next step in understanding the why of physical activity participation begins a search for clues within the activities undertaken by people in their leisure time. It can be assumed that individuals with different lifestyles have different leisure priorities. Time for physical activity is, therefore, likely to be in competition with other things an individual might prefer to do. The following chapter, therefore, examines physical activity as it relates to other leisure time behavior.

CHAPTER VII
PHYSICAL ACTIVITY IN THE CONTEXT
OF LEISURE

Data from the studies addressed in the previous chapter suggested that lifestyle is related to both the amount and type of physical activity undertaken by an individual. The next question is whether there exists any relationship among leisure participation during nonwork hours, demographics, and lifestyle. To answer this question, the results of two studies are discussed in the text immediately following.

Leisure Participation Research

The data first discussed in this chapter derive from a 1980 study reported by Orend entitled the "Human Resources Survey on Leisure Participation in the South." In the analysis of the potential market for the arts in the South, the population was clustered into groups according to their preferences for leisure activity. The premise behind the clustering strategy was the belief that people have specific leisure interest areas. The performing arts promoters sought to identify a possible pattern of leisure activities once the major interest area was known. There was concern as to whether an individual who had a major interest in exercise, for example, was also interested in the arts and could be a potential target for arts promotion. The second study,

conducted by three university professors, Hawes, Talazyk, and Blackwell (1975), studied how the leisure industry could utilize knowledge of consumer satisfactions, associated with leisure-time activities, to market products or plan for the future of the leisure industry.

Both studies have their limitations. The Human Resources Survey data were collected only from individuals living in the South and cannot be generalized to the entire U.S. population. And, although Hawes et al. (1975) utilized a national sample, they did not take regularity of participation into account. They were concerned solely with isolating reasons individuals undertake leisure-time activities. Consequently, the interpretation of their results is also limited. Nonetheless, data from both studies are worth examination since they illustrate how information about leisure has implications for physical activity promotion.

The first and immediately eye-catching result presented in the Human Resources Survey was verification of the small percentage of the population with jogging, weight lifting, sports participation, and other forms of exercise programs as a major factor in their leisure. Figure 28 reveals that 3.2% of the population could be classified as predominantly physically active in leisure. The largest group of individuals, 50.5%, were categorized in an undirected leisure cluster. That is, they showed no pursuit of any single leisure-time activity. Individual hobbies/family activities

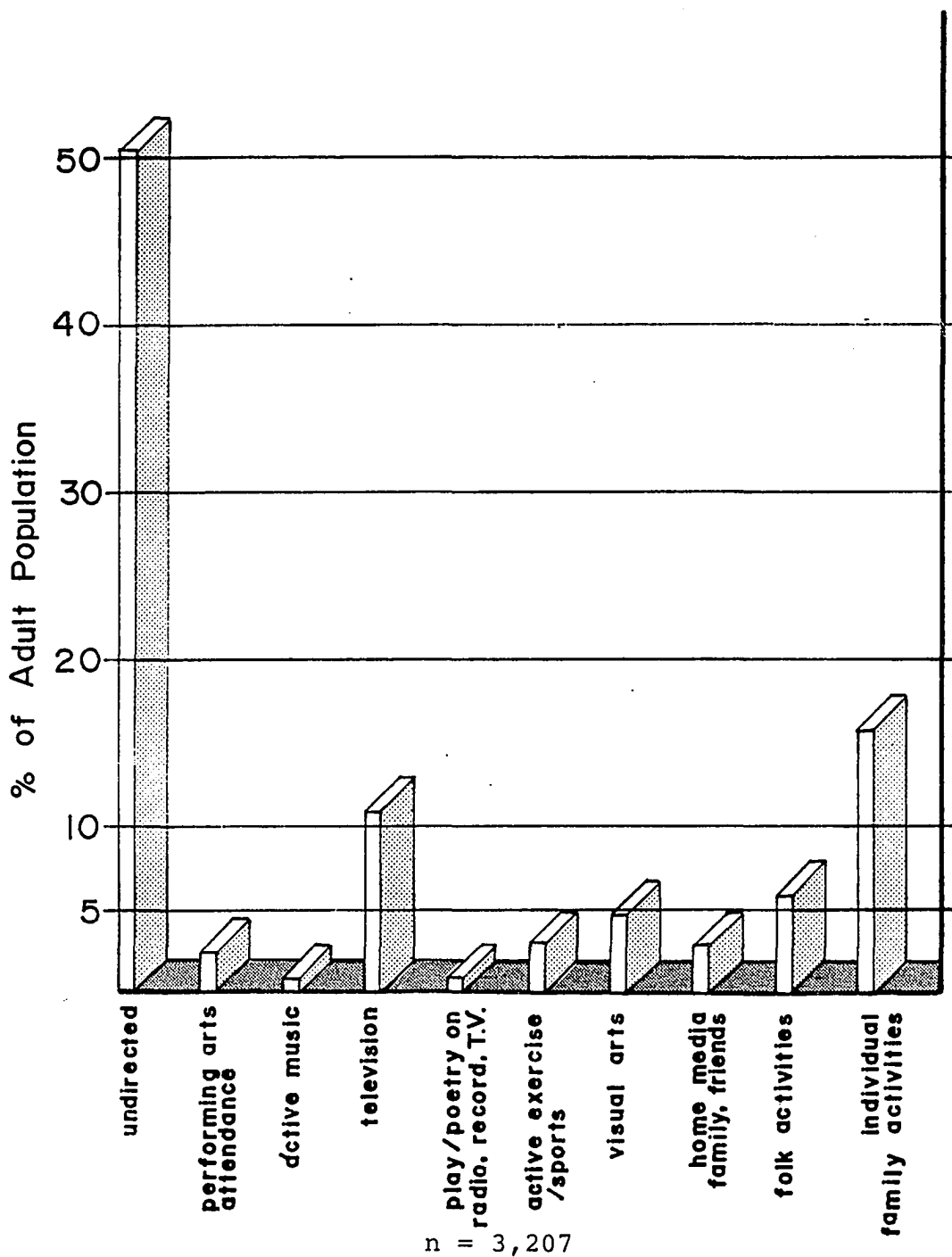


Figure 28. Leisure participation clusters. From "Leisure Participation in the South" by R. J. Orend, 1980, Human Resources Survey, ERIC Document 206 521.

and watching television follow undirectedness with 16% and 11% falling into those leisure clusters, respectively.

Hawes et al.'s (1975) execution of cluster analysis on their data was based on specific satisfactions people appeared to be searching for in their leisure-time activities. These data are summarized in Tables 15 and 16.

Hawes et al. (1975) described six types of leisure groupings for men, and nine groupings for women. The activities within each cluster had similar characteristics. Group 1 leisure pursuits for women, for example, were largely competitive, team-oriented activities. Group 2 pursuits were all individually oriented and of an active nature compared with Group 5. Activities in Group 5 were also individually oriented but relatively passive. There was also a group of individuals who were found to be predominantly satisfied by creative/social work activities, and another Group 4, who pursued people-oriented activities.

Women's clusters were more limited in variety than those of the men. This is readily revealed by comparing Tables 15 and 16. Hawes et al. (1975) did not find a "purely" sports oriented group, such as Group 1 for women, among the men's leisure clusters. Nor did individual exercise such as jogging or visiting the health spa fit into any of the dominant male leisure groups as it did for women. What meaningful interpretation can be made of this is questionable, given the limitations of the study. It does, however, call

Table 15

Selected Leisure Pursuit Groups and Activities for Women

Group	Activities
1--Competitive/ active team pursuits	Tennis Bicycling Bowling Playing basketball, football, baseball, softball, volleyball, handball Chess, checkers, backgammon
2--Individual active pursuits	Reading the Bible Gardening, lawn care, landscaping Exercising, jogging, visiting a health spa Church-related activities Horseback riding
3--Creative/ social work	Volunteer, community, school, youth group or charitable organization work Woodworking, metalworking, furniture refinishing, home workshop projects
4--People oriented	Square dancing or other organized dances Visiting a bar or club Photography, taking pictures Playing piano, organ or other musical instrument for pleasure
5--Individual passive	Bingo, bridge, or card games Attending sporting events as spectator Collecting coins, stamps, bottles, etc. Swimming
6--Outdoor passive	Camping by tent Attending concerts or plays Camping by trailer, camper, or motor home
7--Outdoor medium active-- people oriented	Ice skating, roller skating Canoeing, rowing, rafting Driving around for pleasure or sightseeing Playing basketball, football, baseball, softball

Table 15 (cont'd.)

Group	Activity
8--Outdoor low active-- individual oriented	Hiking, backpacking, nature study Walking for pleasure Canoeing, rowing, rafting
9--Outdoor- passive	Power boating, water skiing, scuba diving Fishing or hunting Camping by trailer, camper, or motor home

Note. From "Consumer Satisfaction from Leisure Time Pursuits" by D. K. Hawes, W. W. Talazyk, and R. D. Blackwell, 1975, Advances in Consumer Research, 2, pp. 817-836.

Table 16

Selected Leisure Pursuit Groups and Activities for Men

Group	Activities
1--Active, traditionally oriented	Attending sporting events as a spectator Playing basketball, football, baseball Automobile modification or tune up Swimming Chess, checkers, backgammon Bingo, bridge, or similar card games Bowling Pool, billiards, or table tennis Fishing or hunting
2--Creative/passive	Playing the piano, organ, or other instrument for pleasure Creative crafts or handicrafts Reading a book for pleasure Walking for pleasure Playing with children Woodworking, metalworking, furniture refinishing, home workshop projects Golf Listening to music from records, tape, or radio Photography, taking pictures
3--Medium activity (upper socioeconomic scale)	Hiking, backpacking, nature study Attending concerts or plays Volunteer, community, school, youth group of charitable organization work Golf Job-related reading or study Power boating, water skiing, scuba diving
4--Medium activity (lower socioeconomic scale)	Square dancing or other organized dances Horseback riding Visiting a bar or club Ice skating, roller skating Bicycling

Table 16 (cont.d)

Group	
5--Outdoor individual low activity	Canoeing, rowing, rafting Writing letters, doing crossword puzzles Camping by tent
6--Passive individual and family	Fixing up the house, remodeling, making repairs Gardening, lawn care, landscaping Collecting coins, stamps, bottles, etc.

Note. From "Consumer Satisfaction from Leisure Time Pursuits" by D. K. Hawes, W. W. Talazyk, and R. D. Blackwell, 1975, Advances in Consumer Research, 2, pp. 817-836.

attention to the need for rigorous research utilizing the clustering strategies.

A major flaw in the Hawes et al. (1975) study is that the clusters only accounted for 51.5% of the variance for the female population and 42% of the male population. The undirected leisure or television clusters were not considered in the Hawes et al. study as they were in the Human Resource data. It is, therefore, unknown if such individuals would have made up the remainder of the unaccounted for variance in the population sample used by Hawes et al.

Although the results of neither study are conclusive, the relationships among physical activity and leisure satisfactions are, at least, tentatively proposed. First, it may be important for promoters of physical activity to know that the majority of the population has no specific direction to its leisure. Secondly, among those who have a direction, the leisure pursuits appear to be psychologically similar.

It is speculative to consider Mitchell's (1983) lifestyle typologies in light of Hawes et al. (1975) leisure orientations. However, there appears to be a similarity between the Group 1 active, traditionally oriented men and the Mitchell typology of the Sustainer and Emulator. Hawes et al. found the male Group 3 category consisted of upper socioeconomic individuals; the kind of activities within this group seem similar to the pursuits of Mitchell's (1983) Experimentals,

Socially Conscious, and Achiever lifestyles. One may also recognize the leisure pursuits of the Belongers labeled by Mitchell (1983), in Groups 4 and 5 for women and Groups 4 and 6 for men as characterized in the preceding tables.

There is no acceptance of complete consistency between Mitchell's lifestyle groupings and Hawes et al. leisure pursuit groupings. However, the association cited above surely suggests the appropriateness of systematic inquiry. The possibility of gaining new insights for promoters of physical activity warrants attention.

Other Leisure Interests

The ultimate objective of leisure analysis is to determine whether individuals classified in one leisure pursuit cluster show interest in other leisure activities as well. Specifically of concern to physical activity promotion is whether evidence exists to suggest that the undirected leisure population show any interest, albeit small, in undertaking sports or other forms of physical activity.

The Human Resource Study provides some information about leisure interests involving more than one cluster. Table 16 presents the associations of each leisure cluster (down column) and other leisure activities (across column). The values represent mean factor scores for the group. Values nearer zero indicate the group participates little in the specified activity group. Higher positive scores show participation. Higher negative scores indicate

Table 17

Leisure Pursuit Clusters and Activities

Leisure Cluster ^a	Leisure Activities ^b									
	1	2	3	4	5	6	7	8	9	10
A	-.17	-.23	-.14	-.27	-.29	-.10	-.04	-1.40	-.09	-.10
B	3.36	-.34	.09	-.28	-.20	-.14	.02	.04	.08	.22
C	1.32	.89	.16	.21	-.32	-.32	5.26	.16	-.16	1.00
D	-.12	-.13	-.07	.04	1.29	-.16	-.09	-.09	-.09	.09
E	.33	.67	.06	.67	.18	.39	-.18	-.33	4.72	.33
F	-.20	.15	.37	.04	.41	2.57	.20	-.04	.02	.17
G	.30	.02	2.12	.13	.14	-.06	-.35	-.06	.12	.49
H	.00	2.67	.04	.65	.16	.25	.12	-.10	.08	-.41
I	.35	.10	.08	-.07	-.11	.25	-.11	1.73	.09	-.10
J	-.24	.21	-.14	.68	-.17	-.09	-.09	-.09	.04	

Note. ^aLeisure Clusters

- A. Undirected
- B. Performing arts attendance
- C. Active music/performing arts
- D. Television
- E. Play/poetry on radio/record/TV
popular music
- F. Active sports and physical activity
- G. Visual arts
- H. Home media, family and friends
- I. Folk activities
- J. Individual and family oriented
activities

^bLeisure Activities

- 1. Performing arts attendance
- 2. Popular low energy entertainment
- 3. Visual Arts
- 4. Home oriented. Do-it-yourself activities
writing, novels, poetry, picnicking
- 5. Television
- 6. Sports and physical exercise
- 7. Active music
- 8. Folk activities
- 9. Undefined
- 10. Religious and religious arts

greater nonparticipation. Consider, for example, physical activity and sport as a dominant leisure pursuit identified in Column 6. As the negative value indicates, physical activity/sport is not pursued at all by 6 of the 10 leisure clusters. The three largest leisure clusters are identified in Figure 28 as being potential target groups; i.e., Cluster A, the undirected; Cluster D, the television dominated; and Cluster J, the family and individual hobby cluster all show little interest in physical activity participation. The only clusters associated with some participation in physical activity are Cluster E, the Play/Poetry and Popular Music grouping; Cluster H, the Home Media/Family and Friends leisure groupings; and Cluster I, those who pursue folk activities.

The analysis of the Human Resource Survey (1980), is oriented toward arts pursuits. However, the results suggest that the three target groups for physical activity promotion, the undirecteds, T.V., and individual/family groups, show no present interest in physical activity. Before promotional approaches that might be appropriate for these individuals can be developed, it is necessary to find out who these individuals are and what they do, i.e., demographic information. What lifestyle groupings are evident and is there any information from existing research that may help in redirecting the leisure patterns of these individuals toward physical activity? The answer to this question is examined in the remainder of this chapter.

Leisure Cluster Membership Analysis

Community size. There seems to be a relationship between community size and leisure activity. Figure 29 bears this out. Although 41% of the population of communities with over 500,000 people were undirected in their leisure, 51% of those living in towns of under 10,000 and rural areas were undirected. The Sports/Exercise cluster size dropped from 5% of the communities over 500,000 to 1.4% in communities with a population less than 10,000. According to Mitchell (1983), Belongers liked small towns and the open country. They were not particularly active, preferring instead to be involved in family activities and individual hobbies such as needlework, collecting recipes, and so forth. The Human Resource data suggested that 50% of the Belongers were also likely to be undirected in their leisure thus lending credence to the usefulness of examining multiple data sets in planning promotional campaigns.

Age. Figure 30 calls attention to the fact that up to age 64, the older an individual was, the more undirected and television oriented he or she became in leisure. Once over 65, perhaps as a result of retirement, undirection dropped 12% and individual hobby/family oriented leisure increased by 9%. This was attributed to individuals apparently taking up some form of hobby at retirement (Orend, 1980). Prior to the traditional retirement age, two leisure pursuits decreased with age, namely sports, and

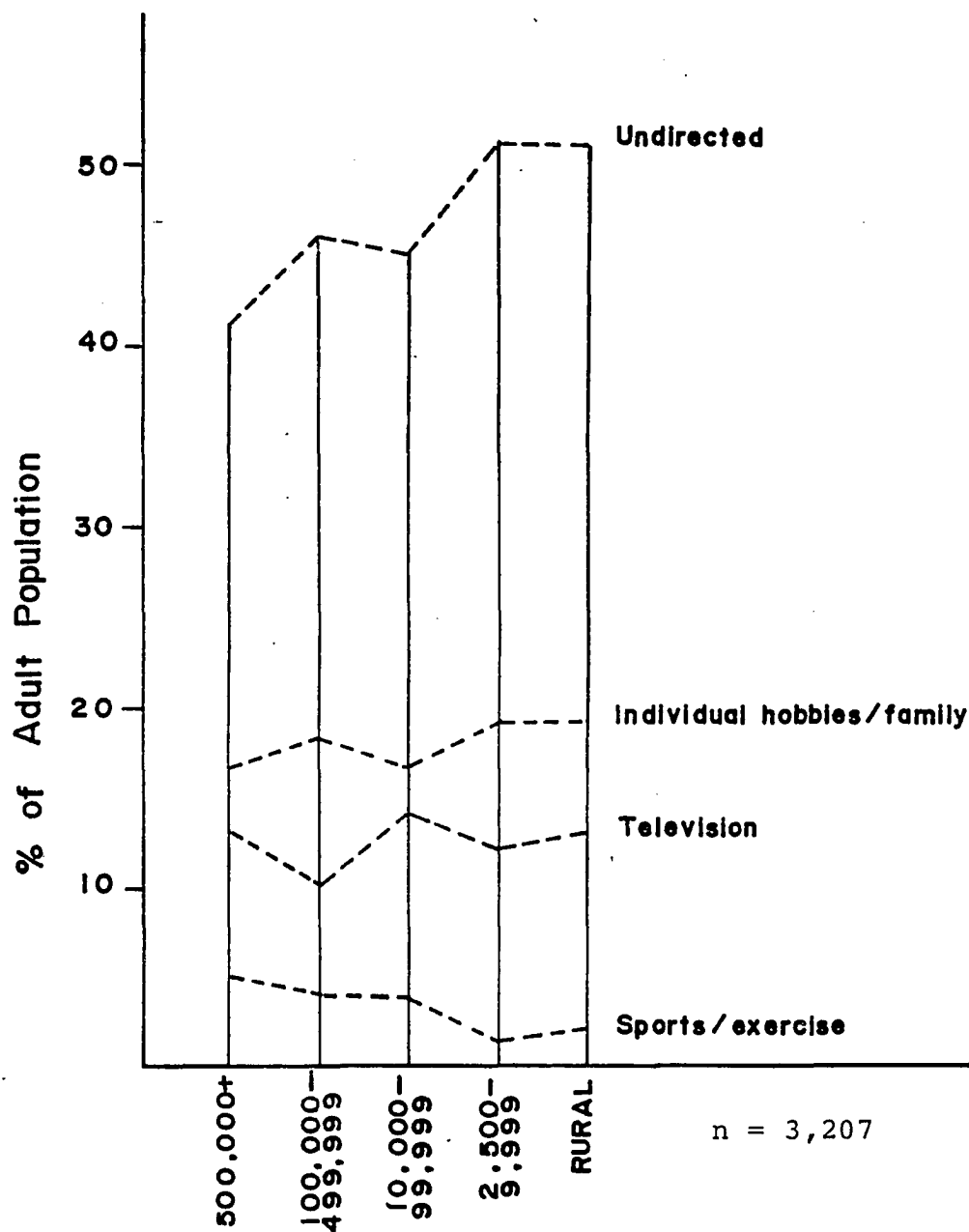


Figure 29. Leisure participation clusters according to community size. From "Leisure Participation in the South" by R. J. Orend, 1980, Human Resources Survey, ERIC Document 206 521.

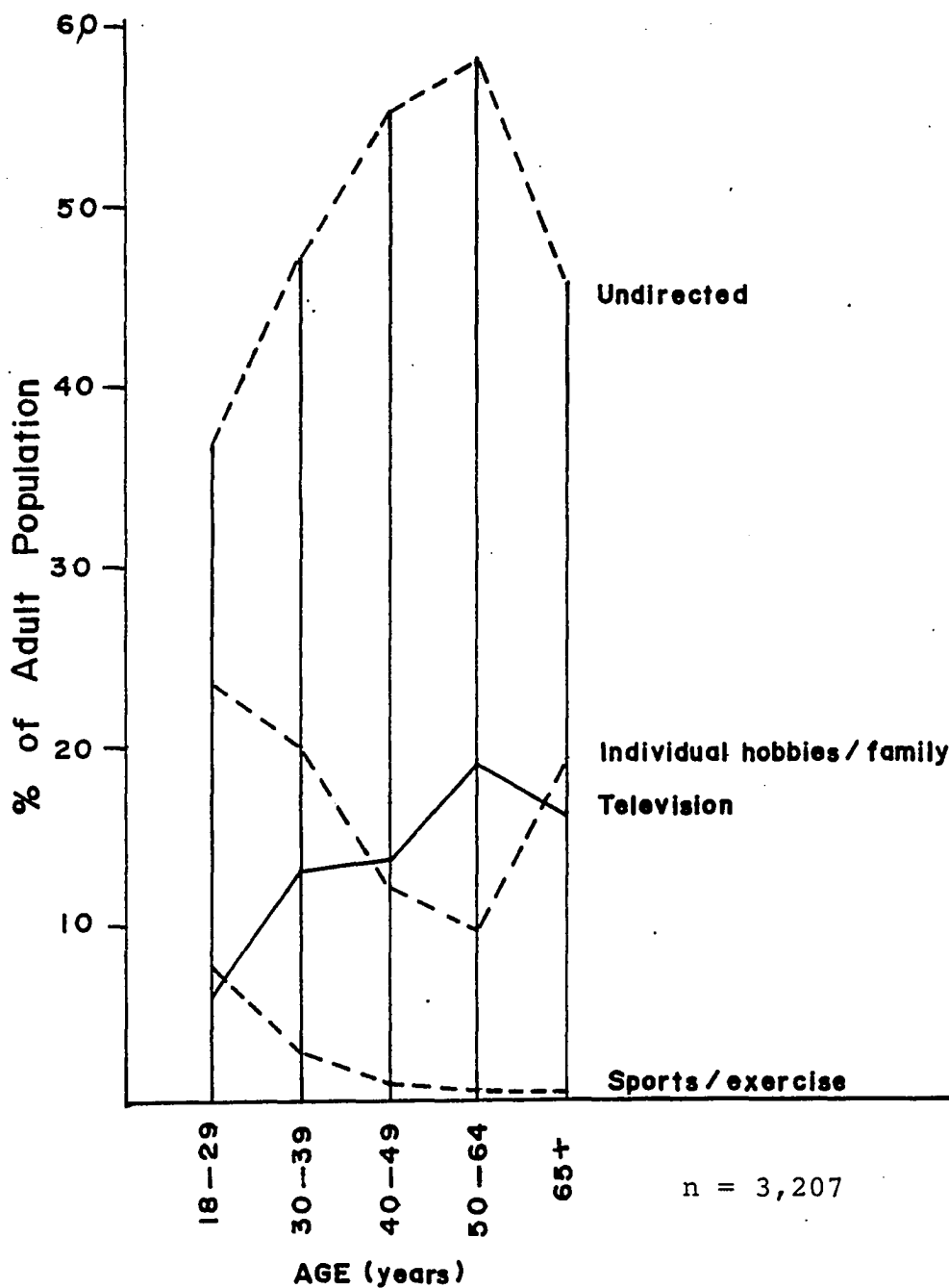


Figure 30. Leisure participation clusters according to age. From "Leisure Participation in the South" by R. J. Orend, 1980, Human Resources Survey, ERIC Document 206 521.

family/individual pursuits. Undirection increased 21% from age 18 to 64 and television increased 13.5%. Mitchell's (1983) data indicated that Belongers made up 35% of the adult population and had a median age of 52 years. This is the point at which undirection and television dominated the leisure orientation of 78% of the individuals. Such an awareness has implications for attempting to redirect leisure time to physical activity.

It is important to note that neither study used a cohort sample. Age, therefore, may not have been a causal variable relative to these data. As Chapter V revealed, previous experience in leisure should be considered as a contributing factor. Mitchell (1983) found Belongers to be less educated and the assumption was made that they had little prior exposure to leisure pursuits. However, lack of prior experience may also be due, not to the lack of opportunity, but to the Fuchs and Ferrell (1983) "third variable." Mitchell (1983) pointed out that Belongers never expected much from life; perhaps their lack of involvement in leisure pursuits other than TV and family resulted from a general lower level of expectation associated with the quality of youth leisure pursuits.

Education. Figure 31 indicates an increase in sports/physical exercise participation with more years of schooling except for college graduates. Those with less than an eighth grade education do not participate in

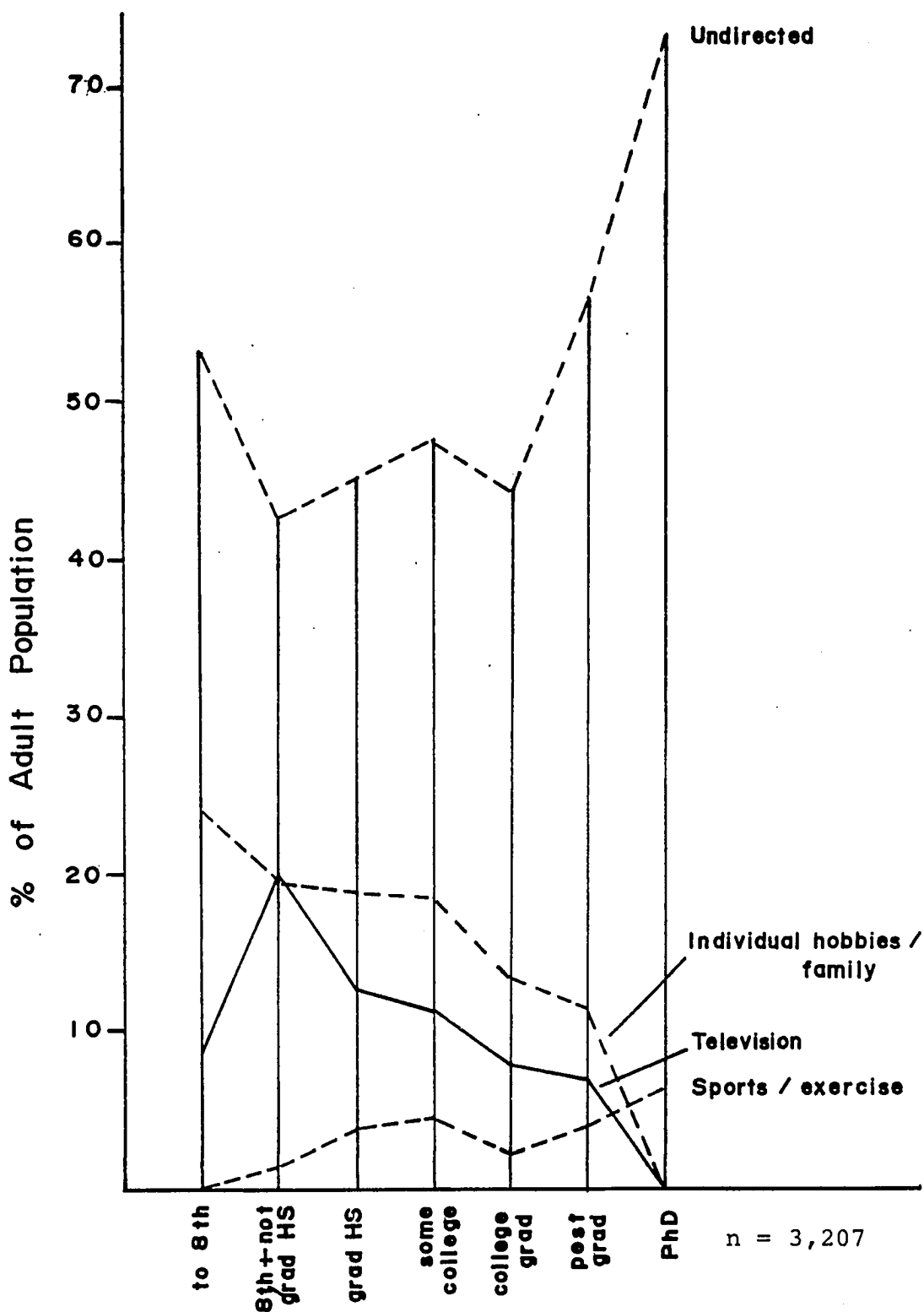


Figure 31. Leisure participation clusters according to education. From "Leisure Participation in the South" by R. J. Orend, 1980, Human Resources Survey, ERIC Document 206 521.

sports/exercise. The highest percentage of physical activity participation occurs with the Ph.D. population where 6.6% identify sports/exercise as a dominant leisure pursuit. The highest participation, 24% of the individual hobby/family cluster occurs for those with less than an eighth grade education. The lowest, 0%, is associated with individuals having a Ph.D. Television dominates the leisure pursuits of 20% of those with an 8th grade to 12th grade education, 13% of the high school graduates, 11.6% of those with some college education, 8% of people graduating from college, 7% of individuals with a postgraduate degree, and 0% of those with a Ph.D.

The increase of 12% of those with a postgraduate education over those who graduated from college who were undirected in leisure should be noted. A further 16% of undirected leisure is discernible among the Ph.D. population. Possibly the lack of direction has some association with a reduction in television and family/individual pursuits. Both of these activities dropped from 8% and 12% respectively, in the postgraduate category and to zero among the Ph.D. population.

Three speculations for this are offered. First, perhaps leisure time as such is not available for highly educated individuals. Secondly, perhaps leisure and work are so integrally intertwined that the individual does not distinguish one from the other. The third speculation revolves around

the data analysis. Recall that Mitchell found more Socially Conscious and Experimentals with a postgraduate education. He also found these groups to be high in pursuing social causes and volunteer work. These were two activities not considered in the Human Resource survey. These activities may help explain some of the undirection indicated in this study.

Income. Higher income individuals indicate considerable undirection in leisure and less individual/family oriented leisure than lower income individuals (see Figure 32). More than 50% of persons earning over \$15,000 a year had no leisure focus. The highest television focus was 17% for individuals in the under \$5,000 income category; lowest TV leisure was 7.7% for persons in the \$12,000-15,000 income category. Over 20% of those earning under \$5,000, \$5,000-8,000, \$8,000-10,000, and \$12,000-15,000 engaged in leisure pursuits which focused on individual hobbies and family.

According to Mitchell (1983), Socially Conscious and Experimental groups both had substantial incomes. The high undirection among individuals with advanced education may also provide an appropriate explanation of the leisure activities of higher income persons. The individual/family and television orientation of the lower income groups and the low sports/physical activity participation are consistent with the characteristics of Mitchell's (1983) Need-Drives and Belongers. According to Mitchell, 32% of the Emulators

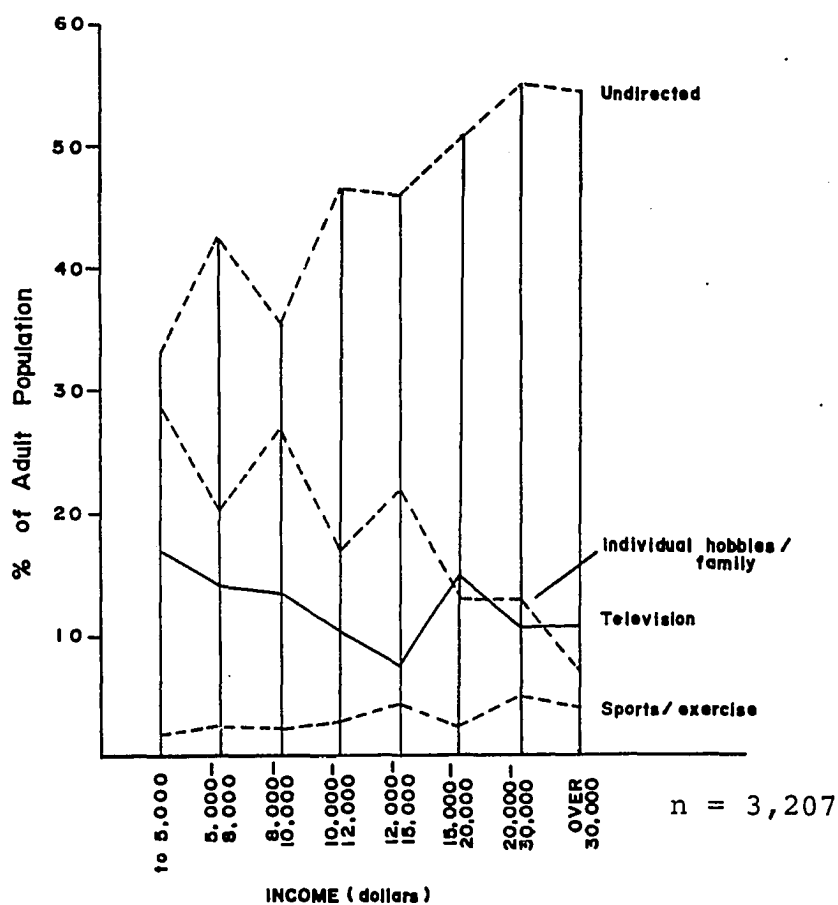


Figure 32. Leisure participation clusters according to income. From "Leisure Participation in the South" by R. J. Orend, 1980, Human Resources Survey, ERIC Document 206 521.

make between \$15,000-20,000/year. The Human Resource Survey data indicated that this income cluster not only had lower participation in sports/ exercise than either of the adjacent income levels, it also reported a jump in television and a drop in individual/family orientation. Mitchell's data suggested that Emulators were not oriented to people or family.

Fifty-five percent of Achievers make over \$30,000 a-year as do 37% of the Socially Conscious and 21% of the Experimentals. According to Mitchell, the Inner-Driven lifestyle groups participated more in exercise and sports than the Outer Directed lifestyle. One can speculate, then, that the Experimentals and Socially Conscious probably constitute a large number of those in the sports/exercise cluster among the higher income categories.

Occupation. As Figure 33 reveals, the highest undirected leisure cluster was among farmers where 74% had no particular leisure focus. The highest family/individual cluster, 31% was among homemakers. The highest television cluster, 28%, was found among the retired, and the highest sports/exercise cluster was associated with professional, service workers, and students, although, in each case, the percentages were 6% or less.

Once again Mitchell's (1983) lifestyle groups afforded some interesting interpretations. Mitchell found Survivors to be largely retired; television, he stated, dominated their leisure. A high proportion of homemakers were

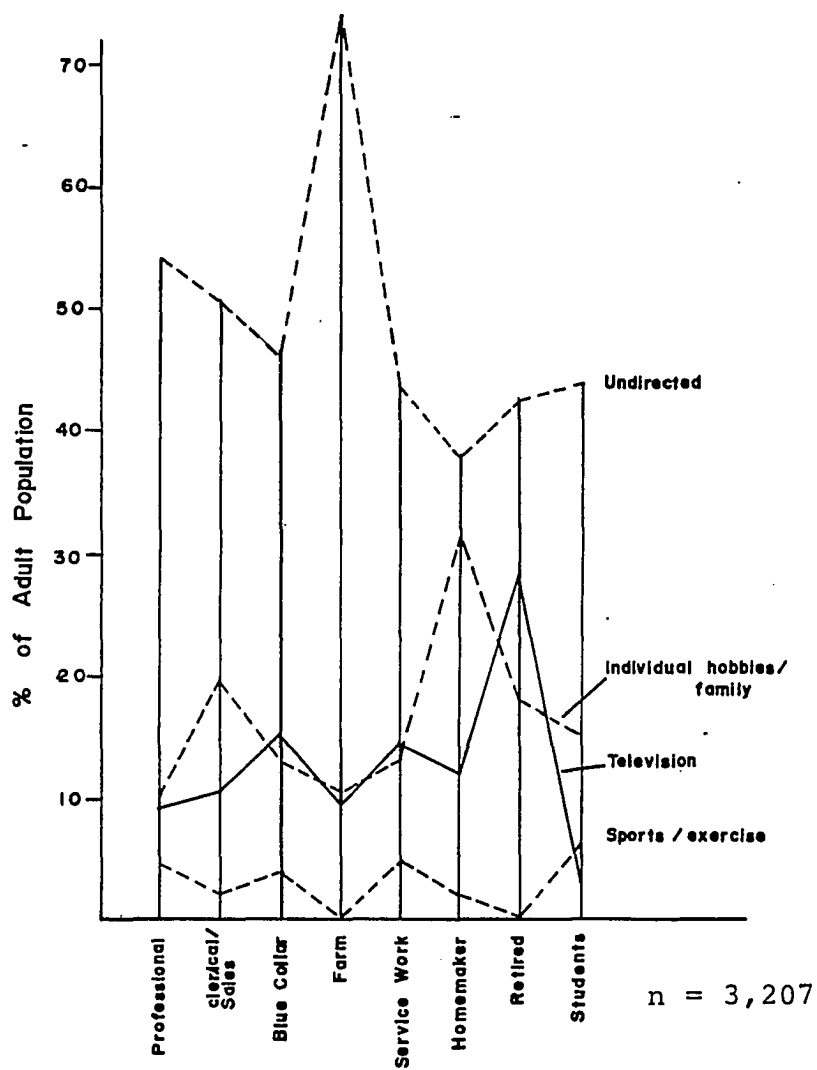


Figure 33. Leisure participation clusters according to occupation. From "Leisure Participation in the South" by R. J. Orend, 1980, Human Resources Survey, ERIC Document 206 521.

classified as Belongers; they tended to be family oriented. Emulators were predominant among clerical/sales occupations. They ranked third lowest in sports/exercise pursuits behind retired people and farm workers. Figure 33 indicates that blue collar workers, who, according to Mitchell (1983) consisted of 44% Sustainers, were found in the Human Resource survey to be second highest in television viewing behind the retired.

The sports/physical exercise involvement of the service workers is difficult to explain. Mitchell's data reported such individuals to have high participation in softball and basketball games and were not found in individual exercise programs. This may account for the result in the Human Resource Survey.

Relevance to Physical Activity Promotion

The answer to the question, "If people are not physically active in nonwork time, what are they doing?" is that they are largely undirected. When individuals do have a dominant leisure interest, there appear to be definite relationships among the kinds of activities undertaken. A competitively oriented woman, for instance, may undertake all leisure pursuits that are highly competitive in nature. A basically passive individual will be likely to undertake similarly passive leisure activities. Apparently, there is some type of sociopsychological influence in the choice of leisure pursuit that can be associated with physical activity preference.

However, the relationship between lifestyle, physical activity and leisure remains hazy. Although the Inner Directed lifestyles are characterized by higher participation in physical activity, these individuals also seem to show more of an undirected leisure pattern than other lifestyle groups. The fact that volunteer work, social cause issues and "work as leisure" were not included in the data that were examined makes it difficult to be conclusive regarding the leisure time pursuits of Inner-Directed individuals. Both of Mitchell's (1983) Need-Driven and Belonger lifestyles also appear to be largely undirected. They are, however, more individual hobby/family and television oriented in leisure than the Inner-Directed. Information about Achievers and their leisure is also vague except for the awareness that they appear predominantly undirected.

In sum, it seems that, although there are slight variations among individuals who pursue undirected, television, hobby/family and sports/exercise oriented leisure in their lifestyles, physical activity appears to be "in competition" predominantly with the above three leisure pursuits. Why these are the dominant pursuits for each lifestyle classification and how difficult it would be to persuade people to take time from these three activities and undertake some physical activity is not known. The critical question is, given the opportunity to change present patterns of behavior, would people in the particular groupings identified

by the Human Resource Survey, further classified according to Mitchell's lifestyle, constitute a logical target group for promoting increased participation in sports and physical activity?

Two more questions also warrant consideration. First, assuming that large numbers of the population are aware of the value of exercise to health and also that they agree exercise is important, if the barriers to their participation could be minimized, would the awareness be translated into action? Secondly, how difficult a task is it to redirect the leisure behavior of those involved in other leisure priorities? In other words before attempting to change behavior, can the requisite knowledge of where people stand regarding their desire to increase present levels of participation be acquired? How? If large numbers in each lifestyle category appear ready and willing to increase physical activity participation, that would involve a different kind of promotional campaign than for people who, on the whole, had little or no interest in changing their present behaviors. The following chapter examines this issue of interest with respect to increasing participation in physical activity and sports.

CHAPTER VIII
STRENGTH OF DESIRE TO INCREASE PHYSICAL
ACTIVITY PARTICIPATION

With the potential relationship established between geographic/demographic data and physical activity and the concept of lifestyle and psychological orientation to leisure considered, the next questions to be answered with respect to Ray's (1982) situation analysis are these:

1. Among individuals who are not physically active, how many would like to be?
2. Among people who are occasionally active, such as those claiming to have participated during the year but not regularly, how many would like to be more active?
3. Among persons claiming to be regularly active, how many would like to be more active?

Responses to these questions are important in that they give some indication of the magnitude of the promotional problem. If people are undirected or television-oriented in their leisure and have no desire to increase their level of physical activity, it will likely be a far harder task to redirect them into a more physically active lifestyle than if they indicated at least some interest. The promotional strategy would become one of perhaps finding a method to

raise the conscience of such individuals towards expecting more from life, thus, hopefully simultaneously increasing their interest in physical activity.

The issue of increasing people's desires to participate in sports and physical exercise has not been systematically studied. As indicated in prior text, there is a question as to whether people express their own internal belief about the value of exercise to health, or if they echo messages from the various public education and other media campaigns. Have people become indoctrinated with regards to this thing called "exercise"? Do they therefore, respond in a manner they perceive to be socially acceptable? These are critical questions to understanding the relationship between stated beliefs about the value of exercise and actual behavior.

To gain insight about how many people would like to increase their participation in sports and exercise, data from the Human Resource Study (Orend, 1980) is again examined. Information was obtained about how many people actually "desired" to increase their present physical activity levels. It is important, though, that the data within this chapter are interpreted with caution. While an analysis of desire to increase participation is valuable, it ignores problems and reasons for not increasing participation levels. For example, in reference to improving arts participation by the population of the South, Orend (1980) commented:

There is always difficulty in translating expressed interest or desire to action. For

this reason the survey was designed to measure intensity of desire--the hypothesis being that the stronger the desire the higher the probability of it being translated into behavior change. (p. 147)

In other words, desire does not necessarily mean that respondents will participate given the opportunity. A "strong desire" may give a better indication of the numbers likely to respond to encouragement to exercise. But again, one must not jump to the conclusion regarding potential behavior change because individuals indicate a strong desire to do so. The analysis is important, however, because it provides crucial information about whether there is interest in physical activity participation within the population. Examination of those who desire and strongly desire to increase their participation in physical activity follows. The analysis seeks to reveal knowledge of both the size of these two populations and the type of individual they encompass.

Desire to Increase Participation

As Figure 34 indicates, approximately 25% of the people in the sample population used in the Human Resource study (1980) had a desire to increase their level of participation in sports; approximately 44% had a desire to increase their participation in exercise, i.e., jogging, weight lifting, and other exercise programs. If desire to participate is analyzed according to three degrees of desire, i.e., weak, moderate, and strong, Figure 34 reveals that participation

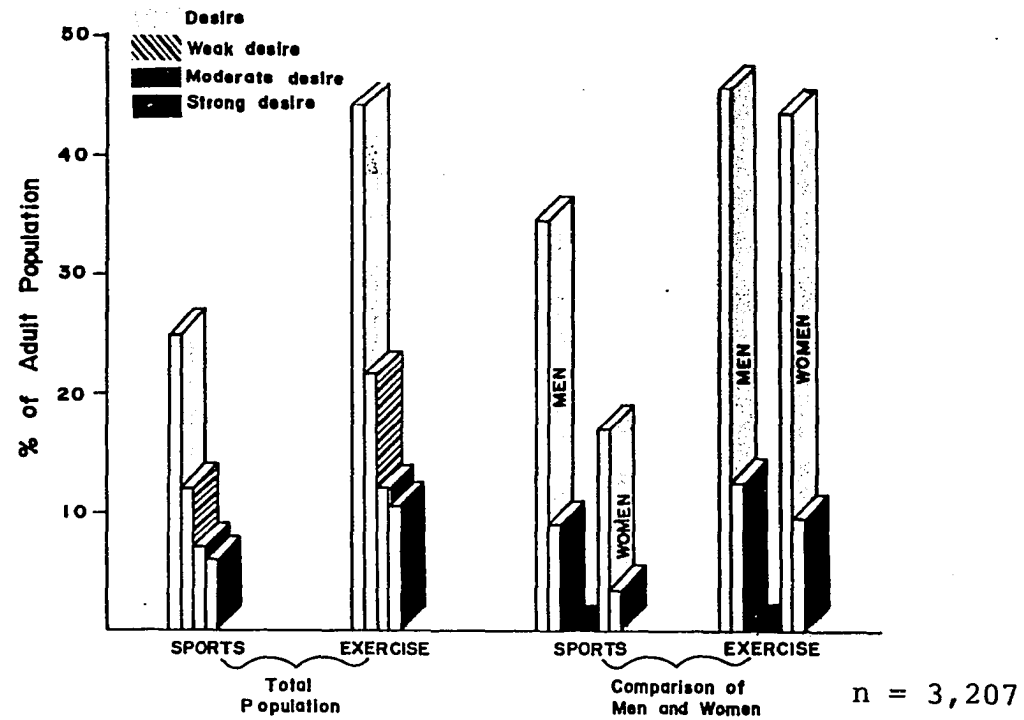


Figure 34. Strength of desire to increase participation in sports and exercise. From "Leisure Participation in the South" by R. J. Orend, 1980, Human Resources Survey, ERIC Document 206 521.

of those with a strong desire, is considerably less than weak desire across all forms of activity. Only about 6% of the population had a strong desire to increase participation in sports and 11% had a strong desire to increase their participation in an exercise program. It should be noted that overall, almost twice as many people strongly desired to increase participation in individual exercise than strongly desired to increase participation in sports.

More men than women had a desire and strong desire to increase participation in both sports and exercise. Whereas 34.4% of the male population desired to increase participation in sports and 45.6% desired to increase participation in exercise, only 17.4% and 43.5% respectively of the female population reported such a desire. Of the male population, 8.8% and of the female population, 3.3% strongly desired to increase participation in sports. Only 9.6% of the female population compared with 12.6% of the male population strongly desired to increase participation in exercise.

Figure 34 does not clarify specifically the sample described. For example, interpretation of whether the data include (a) only those already exercising, (b) only adults not involved in exercise, and/or (c) some representatives of both of the groups is important information for physical activity promoters that is missing from Figure 34. To find out exactly who is involved it is necessary to analyze desire and strong desire by historical activity pattern.

Historical Consideration of Activity Participation
and Strength of Desire to Increase Participation

Unfortunately for the physical activity promoter, individuals who have never participated in any form of sports and exercise have the least desire to increase participation. This is illustrated in Figure 35. Only 1.4% of the "never participated" group strongly desired to increase participation in sports and 4.3% strongly desired to increase their participation in exercise. Prior participants, that is, those who exercised as adults but gave up participation for some reason, show the next lowest desire to increase participation. Of this group, 4.2% strongly desired to increase participation in sports; 10% strongly desired to increase participation in exercise. Among the new participants, that is, those who took up activity during the previous year but until that point had not been active since school, 9% strongly desired to increase their participation in sports. Twelve percent strongly desired to increase their participation in exercise.

There are some people who demonstrated steady participation through school and adulthood. This group had the highest proportion, 24% and 18%, respectively, strongly desiring to increase their level of participation in sports and exercise. This is also the only group that had a higher proportion strongly desiring increased participation in sports over exercise.

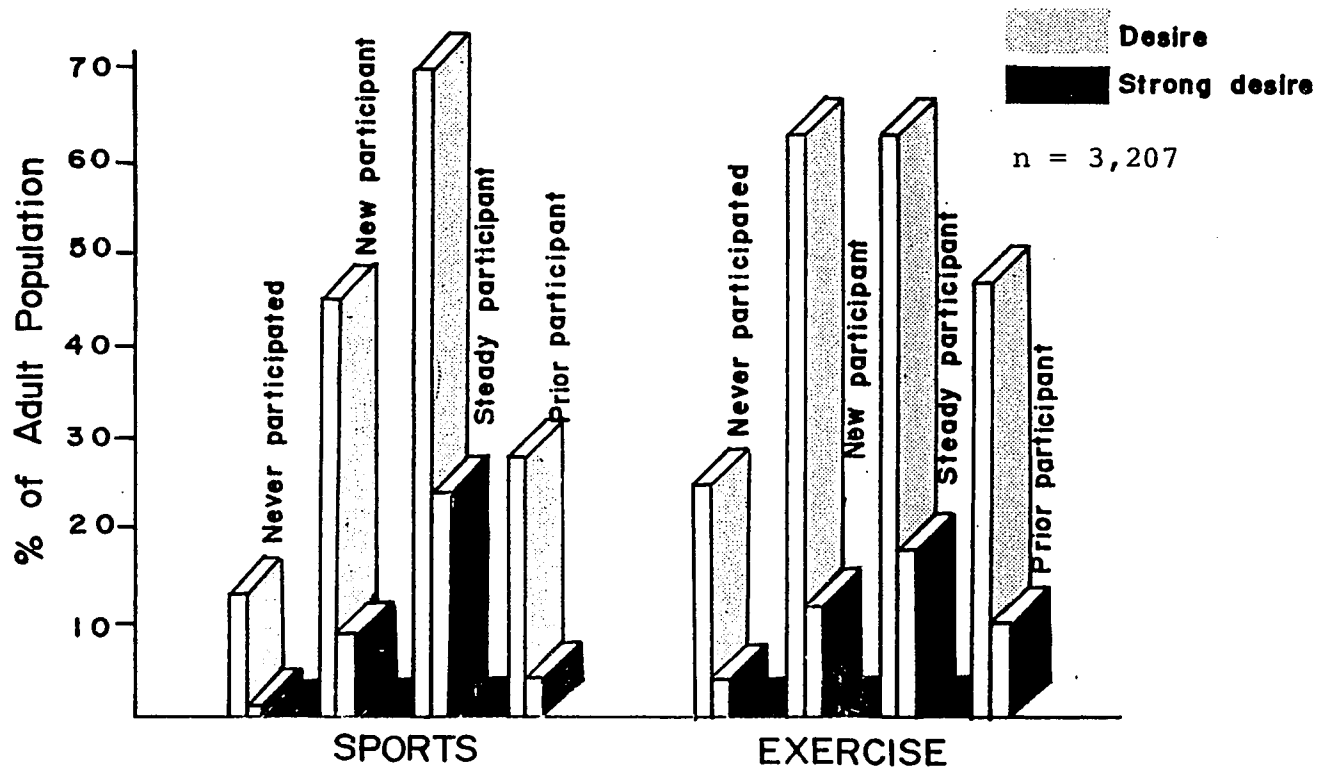


Figure 35. Prior activity and strength of desire to increase participation. From "Leisure Participation in the South" by R. J. Orend, 1980, Human Resources Survey, ERIC Document 206 521.

It is clear, then, that individuals who have been exercising over an extended period of time make up the bulk of those both desiring and strongly desiring to increase current levels of participation. Individuals who have never participated show little interest in increasing their participation in physical activity. The fact that the recent participants show a higher level of both desire and strong desire than prior participants and nonparticipants indicates the importance of the physical activity experience being a pleasurable one. That is to say, one that has enough enjoyment to warrant the repetition. According to present information, once individuals drop out of exercise and sports they do not appear to wish to engage again in physical activity. Whether this is due to the fact that they failed in their endeavor and wish to avoid further failure, or whether there are other reasons for their lack of interest in physical activity is unclear. However, there are implications for promoters and designers of programs with goals of attracting and retaining new participants.

Relationship Between Strength of Desire and Activity During the Prior 12 Months

Does the degree of activity during the previous year, that is, no activity compared to either moderate activity, or high activity make a difference in the desire of an individual to increase participation? According to Figure 36, the answer is yes. Of people who were not active during the previous

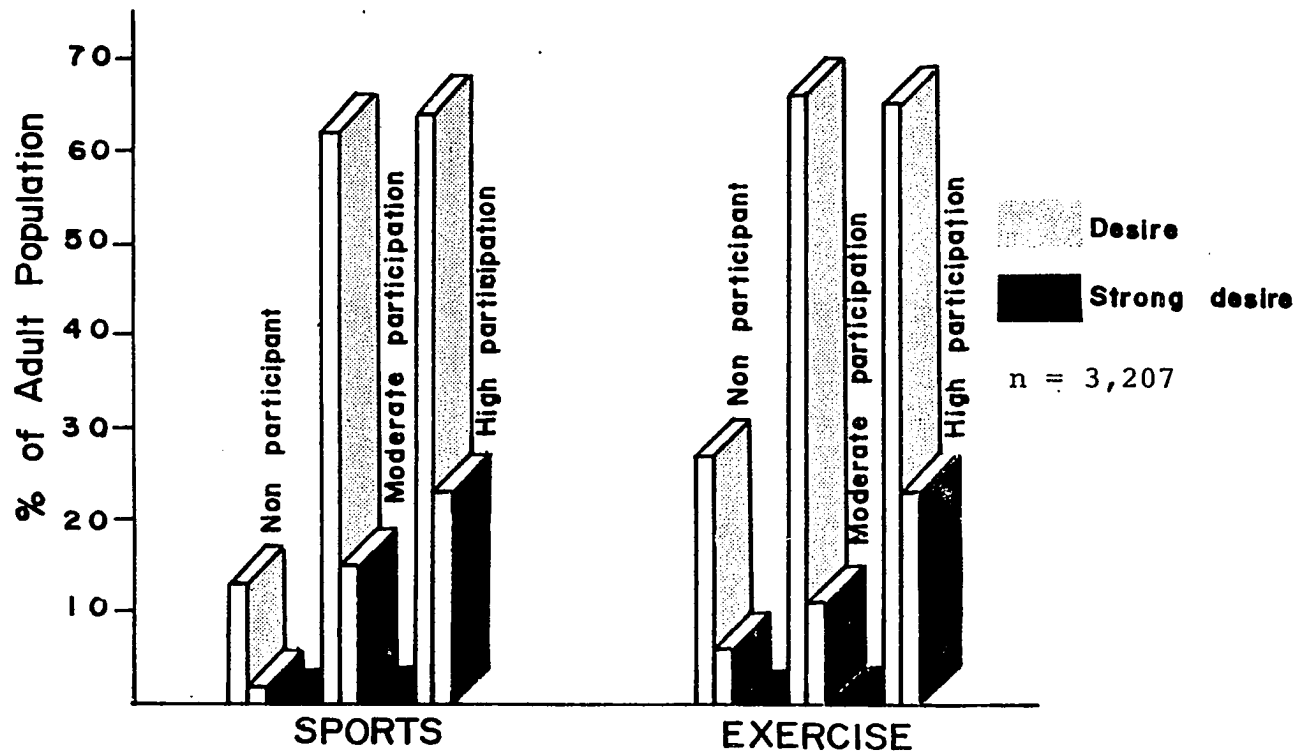


Figure 36. Degree of activity during the previous 12 months and strength of desire to increase participation. From "Leisure Participation in the South" by R. J. Orend, 1980, Human Resources Survey, ERIC Document 206 521.

12 months, 13.3% showed desire to increase sports participation and 27.3% showed a desire to increase exercise participation. Only 1.8% and 6.4% of the same group of individuals showed a strong desire to increase participation in sports and exercise respectively. Compare these percentages with those who were either moderately or highly active. Approximately 64% in both groups indicated a desire for increased participation. There appears to be a positive relationship between the degree of activity and strongly desiring to increase participation. Of those with a high participation rate during the previous 12 months, 23% strongly desired to increase their participation in both sports and exercise compared with 15% and 11%, respectively, for those who were moderately active.

Once again, then, individuals already active make up most of the group strongly desiring to increase participation. As well, the degree of activity appears to play a role in a strong desire to increase participation. It is not the high actives or even the moderately actives, though, who are the target concerns of proponents of physical activity. Rather, persons who are sporadically active, or not active at all, are the groups of people for whom sports and exercise promoters plan their campaigns. The latter group is of special importance; yet this group has the least interest in increasing participation.

More specific information about these individuals can be obtained by studying geographic and demographic factors.

These kinds of data will help determine probable lifestyle groupings and give some clues as to attitudes, opinions, beliefs, that the campaign organizers must consider. While those who are not physically active might be a target group for a physical activity promotional campaign, if the individuals are predominantly Sustainers and Belongers, then their particular attitudes and beliefs can affect the success of the campaign. Given what is known about Sustainers and Belongers, the success might be minimal. If the nonphysically active belong to the Inner-Driven lifestyle category, the promotional strategy would first need to consider the attitudes, beliefs and opinions of that particular group of individuals.

Demographics

Community size. In a previous examination of participation in exercise and sports according to community size, it was acknowledged that those living in the smaller towns and rural areas were less active than those living in the larger communities. The data, with respect to desire to increase participation, is similar. Of those living in communities with a population over 50,000, approximately 30-35% show a desire to increase participation in sport; approximately 50% desired to increase participation in exercise. In communities with a population of less than 50,000 and in rural areas, desire to increase participation in sport drops to approximately 20% of the population. Desire to increase

participation in exercise drops to between 38 and 40% of the population (see Figure 37).

Of those living in communities with a population base of over 50,000, between 4 and 11% indicated a strong desire to increase participation in sports, and between 10 and 24% expressed a strong desire to increase participation in exercise. However, those strongly desiring to increase participation in sport do not fluctuate as much across community size as they do among those strongly desiring to increase participation in exercise. For neither sport or exercise, though, is the relationship between community size and strength of desire a clear one. The available data about the relationship between community size and desire to increase participation in physical activity, therefore, provide little information that will help in promotional campaigns. Either more specific data must be collected or community size must be considered with other variables.

Age. Although there is evidence of individuals strongly desiring to increase participation in sports in each age category, there are more persons strongly desiring increased participation in exercise than sports. Examination of Figure 38 calls attention to this. Whereas only 1.9% of those aged 18-29 strongly desired to increase participation in sports, 18.8% strongly desired to increase participation in exercise. The 30-39 age category showed the highest proportion; 6% who strongly desired to increase sports

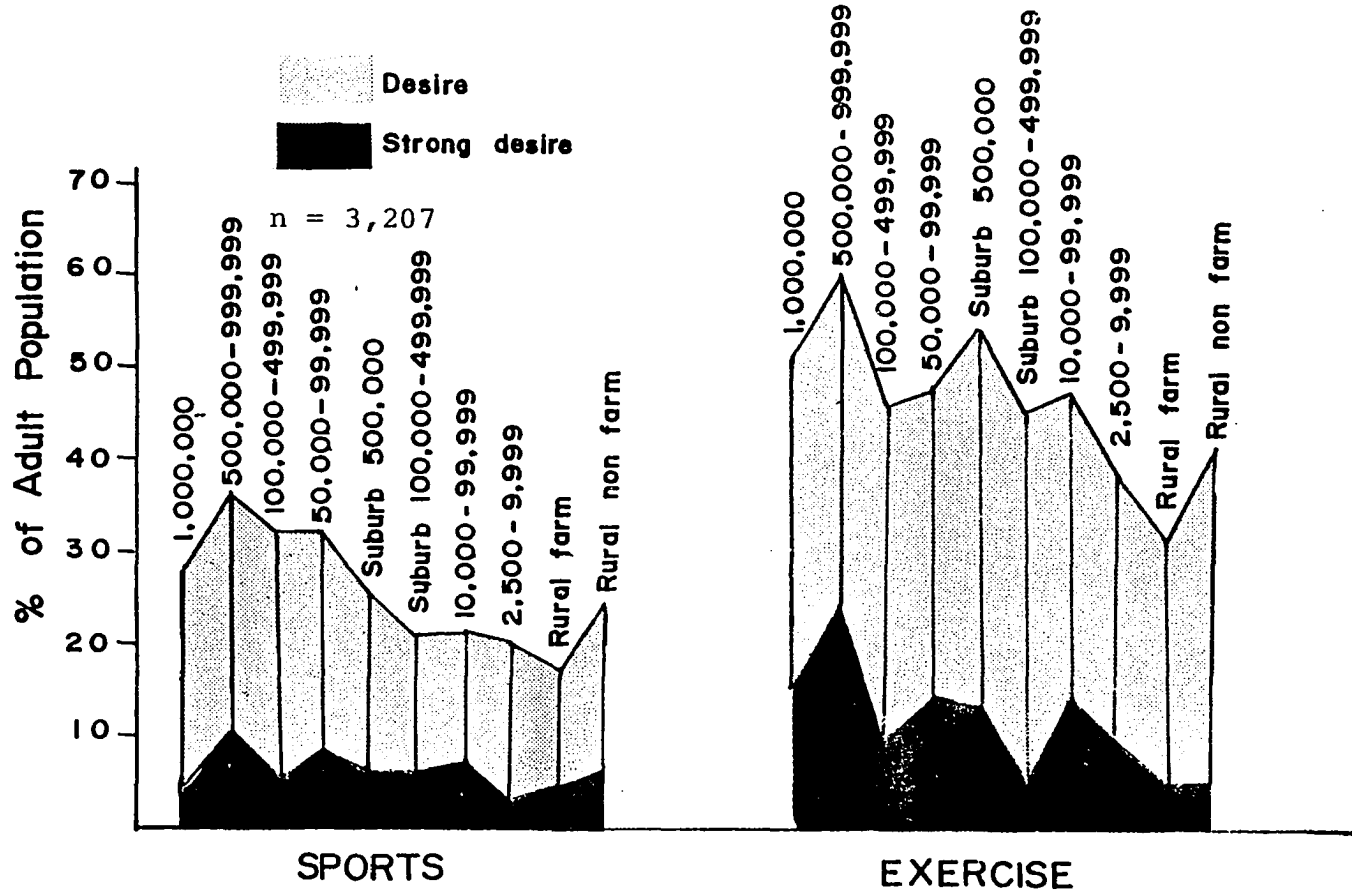


Figure 37. Strength of desire to increase participation according to community size. From "Leisure Participation in the South" by R. J. Orend, 1980, Human Resources Survey, ERIC Document 206 521.

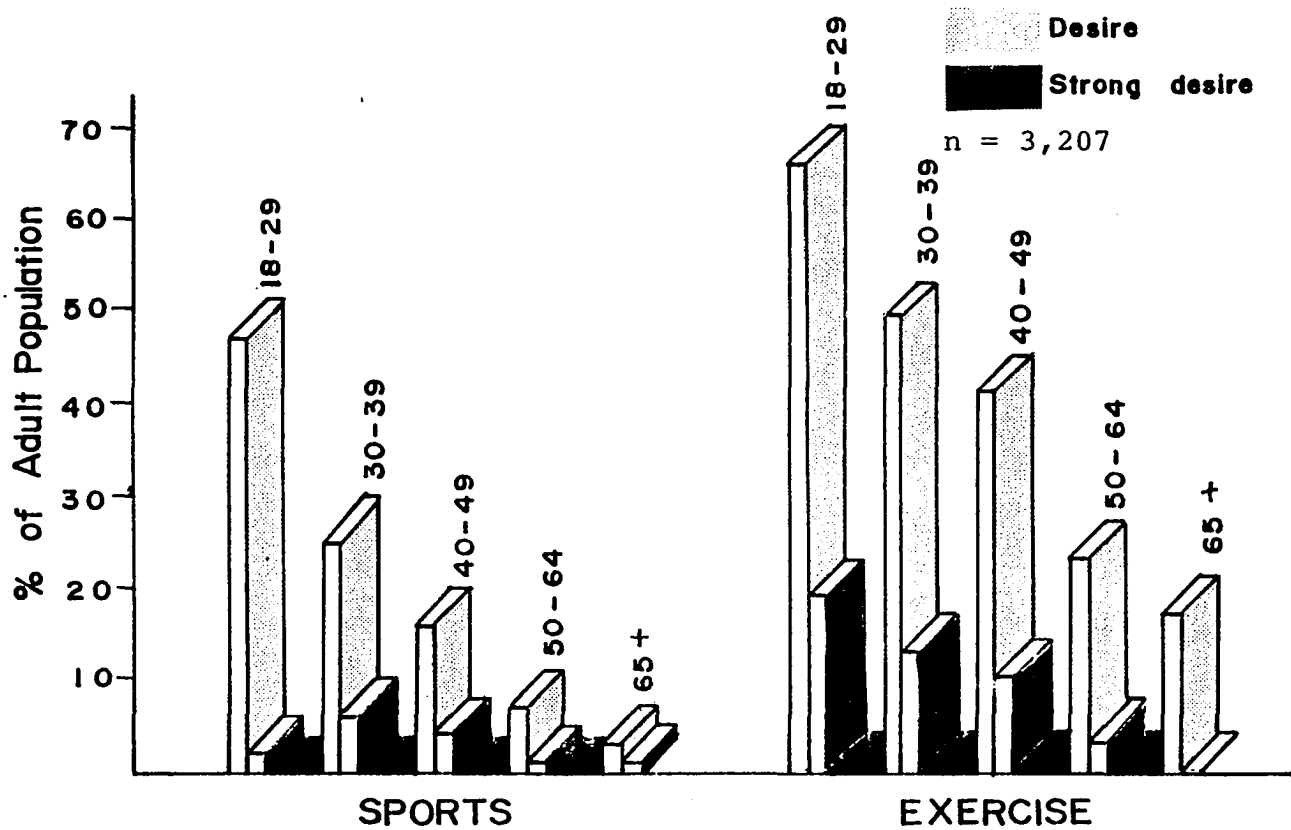


Figure 38. Strength of desire to increase participation according to age. From "Leisure Participation in the South" by R. J. Orend, 1980, Human Resources Survey, ERIC Document 206 521.

participation. This age group ranked second among those who strongly desired to increase participation in exercise with 13%.

An interesting observation is evident in the 65+ age group. Whereas no persons in this age category strongly desired to increase participation in exercise, 1% indicated they strongly desired to increase participation in sports. This is not a substantial percentage. However, it is relevant in light of results obtained by Gunter (1980) of why senior citizens participated in bowling. One of the main reasons given was to belong to a team or a group. The competition was not of itself important. It was the regularity of the activity, the sociability of the event, and the sense of belonging that was important.

One other fact that can be observed in the data is that both desire and strong desire decreased with increasing age. This may be related more to prior exercise experience or the "third variable" syndrome than to age, per se. It has some bearing, though, on the national objective relating to the senior citizens. Clearly, it will be difficult to accomplish the task of encouraging 50% of adults over 65 to engage in some form of physical activity by 1990. Aside from the fact that in this age category, no interest in increasing physical activity participation was shown, within the group there are a high proportion of Mitchell's (1983) Need-Drivens and Belongers. The lifestyle of neither group is physical activity oriented. The satisfaction with the

status quo shown by individuals within both lifestyles presents a problem for the physical activity promoter.

In the age categories which are of particular interest to business and industry, 40-64, only 3.6% of the 40-49 and .7% of the 50-64 strongly desire to increase participation in sports. Nine and five-tenths percent and 3.3%, respectively, strongly desire to increase participation in exercise. The group is so small that one must question the desirability of spending sums of money on physical fitness facilities and/or equipment. Larger numbers in these categories would have to strongly desire an increase in their present physical activity level to justify such a target effort and expenditure.

Income. The income groups between \$10,000 to \$20,000 showed the highest proportion of those strongly desiring to increase participation in sports. And, on the whole, the higher the income, the higher the proportion of individuals showing a strong desire for increase in individual exercise. These findings are presented in Figure 39. The \$12,000-15,000 group showed the highest percentage at 9.3% and 15.2%, with a strong desire to increase participation in both sports and exercise, respectively.

A precise explanation of these data is difficult to offer. A number of Mitchell's (1983) Sustainers, Belongers, and Emulators fit into the income range under consideration. So, too, do a small number of Experientials and Socially Conscious. Thus, without more precise data a cross analysis

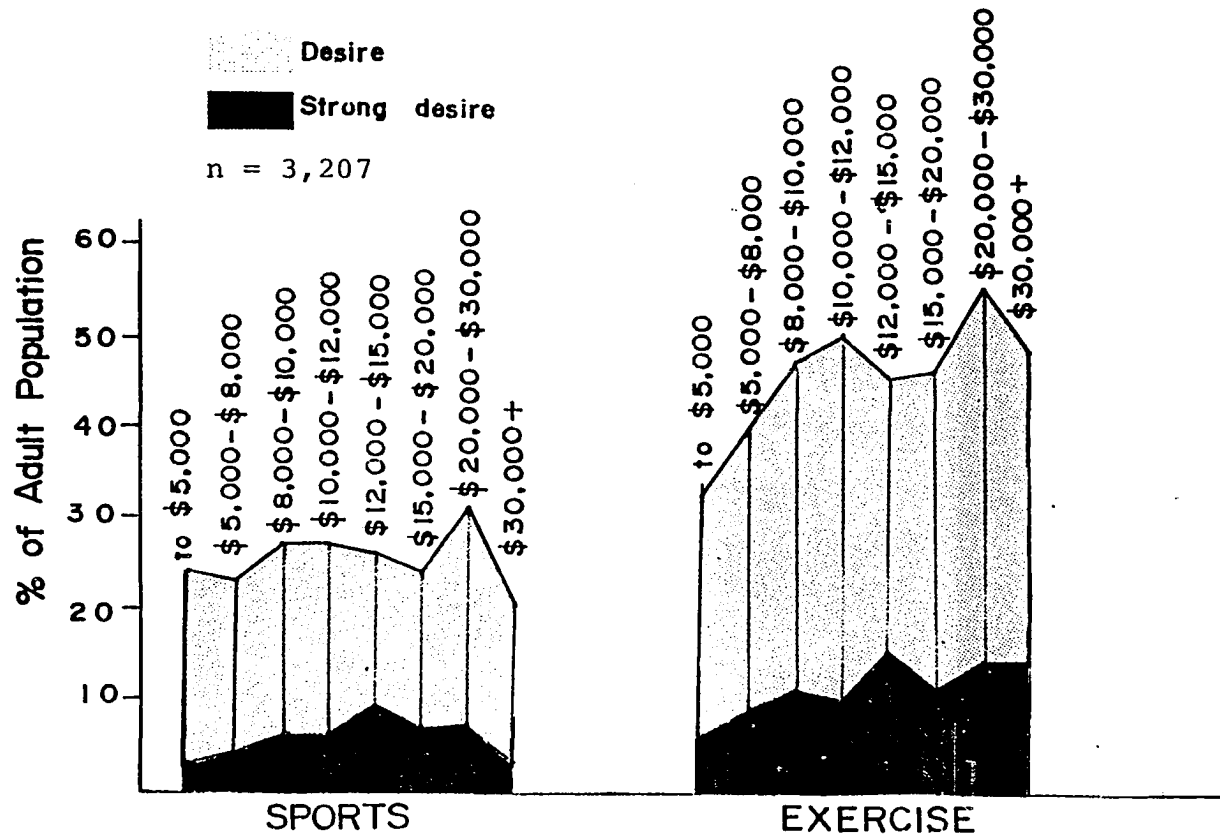


Figure 39. Strength of desire to increase participation according to income. From "Leisure Participation in the South" by R. J. Orend, 1980, Human Resources Survey, ERIC Document 206 521.

of Mitchell's (1983) lifestyles with the income data above provides no help in sorting out meanings for income groupings with respect to desire and strong desire to increase participation.

Education. Educational attainment and desire to increase present participation levels appear to be related. According to Figure 40, 14.1% of the of the postgraduates and 32.1% of those with a Ph.D. strongly desired to increase participation in exercise. The highest interest in increasing sports participation, 12%, was among the post-graduate population. The least interest was reported among non-high-school graduates where none with less than an eighth grade education indicated a strong desire to increase participation. For persons with a Ph.D., there was more interest in increasing the level of individual exercise than of sports. Whereas 32.1% strongly desired to increase level of exercise participation, only 2.5% of this educational category expressed a strong desire to increase participation in sports.

While there is some support from the above information for the idea that people with less than a college education do not show interest in increasing their levels of physical activity, the reader is again reminded of the "third variable" (Fuchs & Ferrell, 1983) with respect to this relationship. The relationship between desire and educational attainment, therefore, remains relatively unclear.

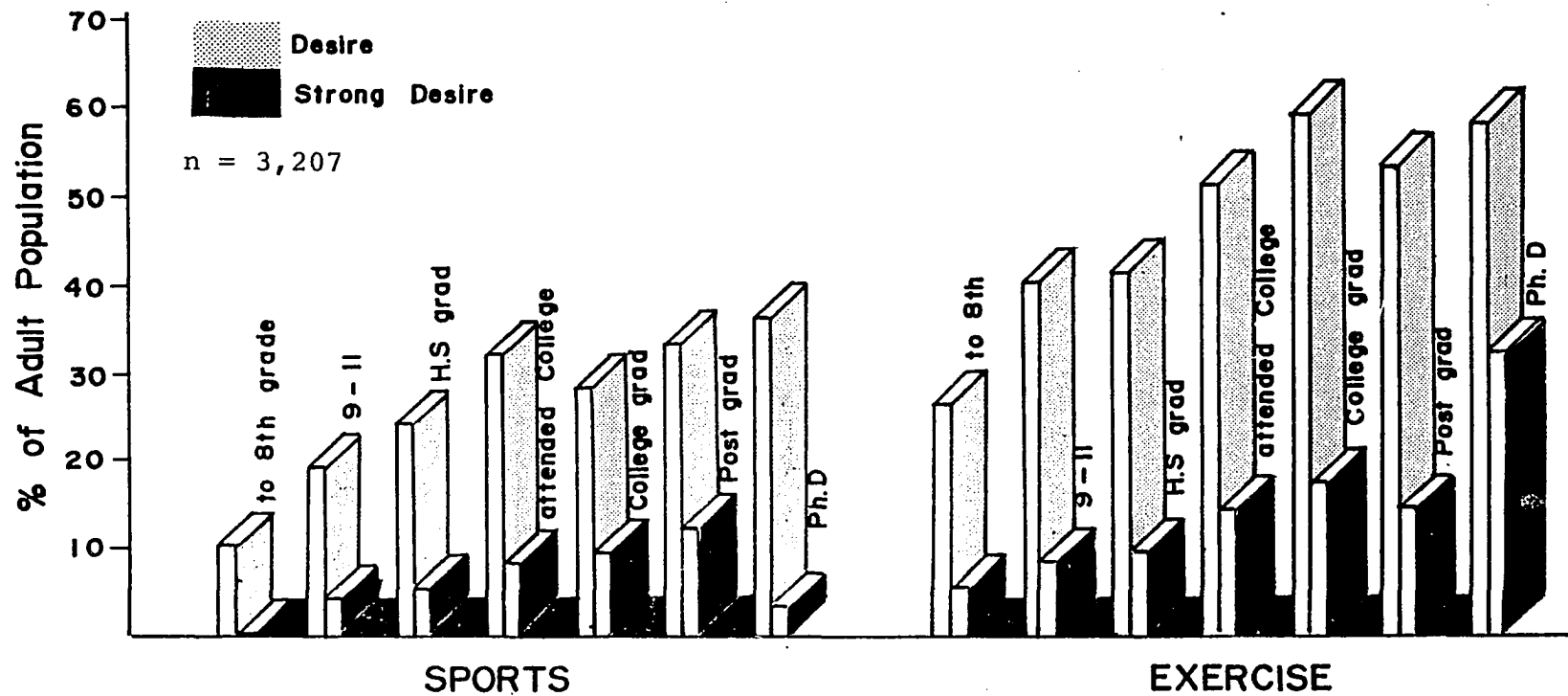


Figure 40. Strength of desire to increase participation according to education. From "Leisure Participation in the South" by R. J. Orend, 1980, Human Resources Survey, ERIC Document 206 521.

Occupation. When considering occupation, students were found to be the largest group desiring to increase their participation level in both exercise and sports. This is graphically revealed in Figure 41. The data indicate that 7% of the white collar, 6% of the blue collar, 4% of the service workers, and 3% of the housewives, strongly desired to increase participation in sports. These occupational categories were also similar in strongly desiring to increase participation in exercise at 13%, 10%, 11%, and 11%, respectively. Farm workers indicated no interest at all. Given the nature of their labor, this is understandable. Note, once again, the evidence for a strong desire to increase participation in sports is seen in the older segment of the population with 4% of the retired indicating a strong desire to increase participation.

Relevance to Physical Activity Promotion

The rationale for the discussion in this chapter assumed that increased participation could be related to an expressed desire to change participation behaviors. Moreover, it was assumed that the proportion who were likely to increase participation would be those expressing a strong desire to do so. If an individual showed no desire for physical activity then it was taken for granted that he or she would be unlikely to be easily motivated to increase physical activity participation.

What has been revealed in this chapter is that to successfully market physical activity, it seems necessary

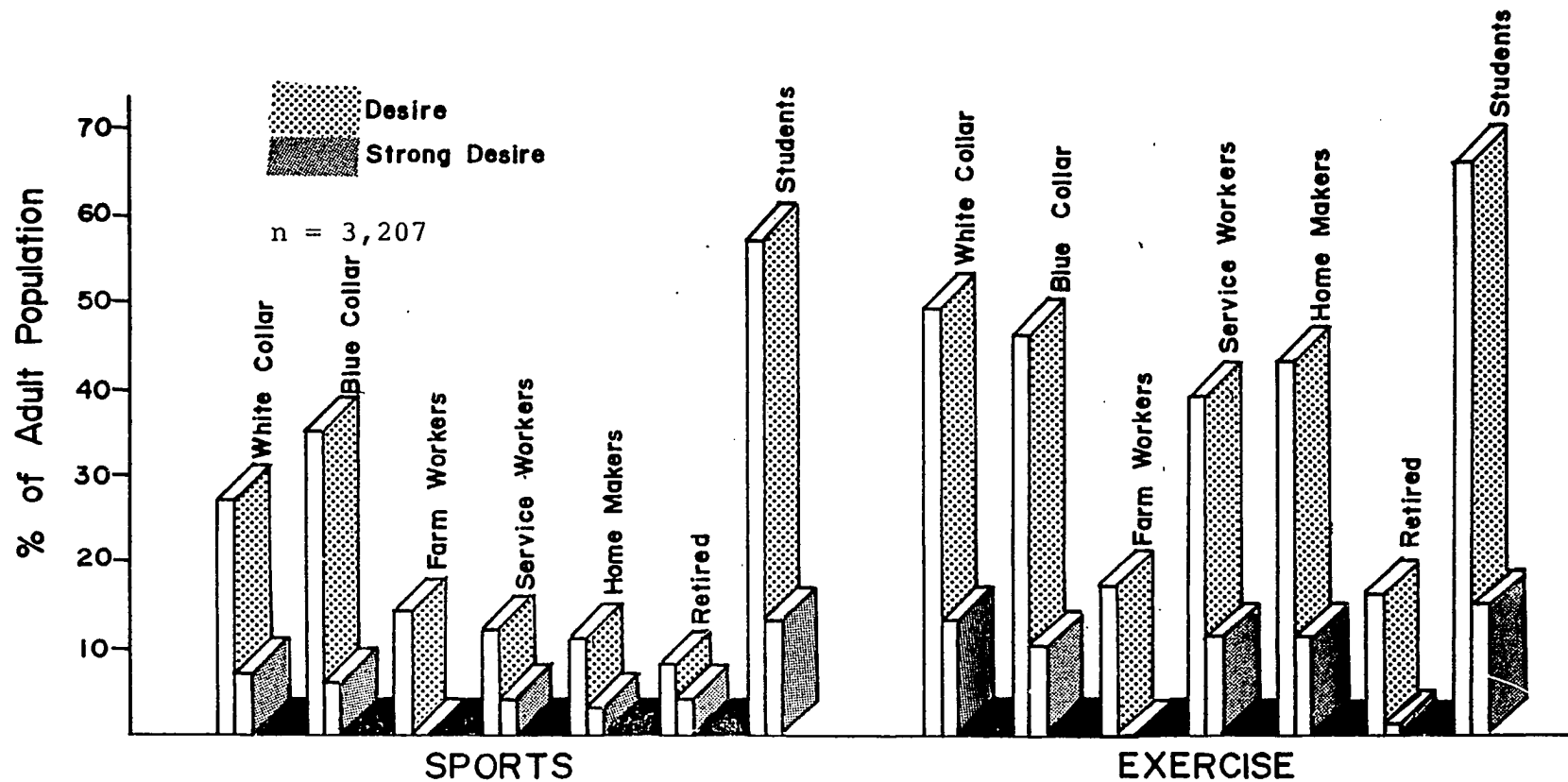


Figure 41. Strength of desire to increase participation according to occupation. From "Leisure Participation in the South" by R. J. Orend, 1980, Human Resources Survey, ERIC Document 206 521.

to (a) create a strong desire in those not already physically active but who presently express a desire, and (b) create a desire in those not already active who presently express no interest at all in physical activity. Without accomplishing these changes first, it seems unlikely that any promotional campaign could be effective regardless of how creatively it was designed. The analysis above also calls attention to the notion that although applying Mitchell's lifestyle groupings to the demographic data provided by the Human Resource Study was not totally revealing, the consideration of lifestyle of those not desiring to increase physical activity participation offers a promising direction for further study of the influences on people's decision to be or not to be physically active.

Obviously information regarding desire to increase physical activity participation is scant. Available data presently are inadequate to suggest helpful relationships. Whereas there is clear evidence that those desiring to increase physical activity participation closely follows the demographics of those already physically active, and that non-actives show little interest in being more active, no clear promotional direction is evident. Research is desperately required with respect to desire to change activity behaviors.

The data about those desiring and strongly desiring to increase physical activity participation do, however, lead

us to consider two further questions. First, if individuals indicate a desire to increase physical activity participation, why do they not do so? Secondly, of those not desiring to increase their level of participation, why do they not? Information about both of these matters, barriers to increasing participation and reasons why people do not exercise, therefore, must be thoughtfully examined. Perceptions people have of leisure satisfactions also warrant systematic study. The next chapter analyzes available data about these issues.

CHAPTER IX
ANALYSIS OF PHYSICAL ACTIVITY BEHAVIOR: BARRIERS,
DROPPING OUT, AND SATISFACTION DERIVED
FROM PHYSICAL ACTIVITY

Earlier chapters described groups of individuals and their common and distinctive characteristics that might provide insights into their physical activity behaviors. The discussion focused on geographic, demographic, lifestyle, and leisure data. The immediately preceding chapter dealt with identifying both the size of the population, and who, within the population, had an interest in increasing physical activity participation. In this chapter, available data about barriers to physical activity participation are analyzed. The purpose is to determine why people are not physically active when they express a desire to be so. The chapter ends with a discussion of available information about satisfactions participants claim to associate with physical activity. Thus potential directions for breaking down barriers to nonparticipation may be discovered.

Research about Barriers to Physical Activity

Published reports and discussion about barriers to physical activity are scant. Further, the typical exercise participation research report that is available provides little useful information. Researchers tend to overgeneralize discussions about the reasons why individuals do not

participate in the reported exercise program. Typical reasons given include (a) simple lack of interest (Jette, 1980); (b) passivity (Telama, Vuolle, & Laakso, 1981); (c) work leaves people too fatigued (Telama et al., 1981), (d) exercise interferes with work (Olison, 1982); (e) there is no time for exercise (Olison, 1982); (f) it is too inconvenient (Olison, 1982); (g) exercise is too troublesome, upsetting to the normal routines (Brown, 1981); and (h) people perceive they already get enough exercise (Perrier, 1979). Aside from the generality factor, no indication of any potential relationship between demographic, lifestyle or leisure participation and the barriers is reported. The possibility of finding methods of counteracting barriers to physical activity participation is, therefore, limited.

The perception that individuals get enough exercise in their day-to-day existence without undertaking a special program of exercise is particularly disturbing. According to Perrier (1979), almost 50% of the adult population feel they get sufficient exercise just from normal day-to-day activities. This belief was particularly strong among older people. Thirty-eight percent of those over 57, and a majority of persons over 65, feel the amount of exercise they presently get is enough (Perrier, 1979). Perhaps this explains the data in Chapter VIII; for this age group a strong desire to increase participation in physical activity was low.

Why people do not volunteer for exercise programs when given the opportunity, as opposed to undertaking their own exercise program, is an especially important piece of information for barrier identification. It has been of particular interest to researchers since the success of many corporate programs relies on employees joining of their own free will. Obviously volunteering for exercise programs involves a different set of commitments than exercising on one's own, e.g., at one's own convenience and pace, etc. However, the reasons given by nonjoiners of exercise classes or programs are not too different from the reason given by people for not exercising at all. Barriers to volunteering include (a) heavy work loads (Durbeck & Heinzelman, 1972; Rhodes & Dunwoody, 1980), (b) travel schedule and lack of time (Durbeck & Heinzelman, 1972; Rhodes & Dunwoody, 1980), (c) sufficient activity (Durbeck & Heinzelman, 1972; Rhodes & Dunwoody, 1980; Sidney & Shephard, 1976), and (d) above average fitness level (Durbeck & Heinzelman, 1972; Rhodes & Dunwoody, 1980; Sidney & Shephard, 1976).

Another concern that needs attention is identification of barriers to "prescriptive" exercise. For example, among cardiac patients for whom exercise programs are virtually mandated, the array of reasons given for eventually dropping out include (a) lack of individual attention (Andrew, Oldridge, Parker, & Cunningham, 1981); (b) lack of interest, nonmotivation, family problems (Bruce, Frederick, Bruce, & Fisher, 1976; Oldridge, 1979); (c) lack of belief in the

value of exercise (Andrew et al., 1981); (d) difficulty of the training regimens, aversion to hospitals and a simple dislike of physical exercise (Sanne & Rydin, 1973).

Stated as such, it is difficult for the exercise promoter to counteract any of the above perceived or factual barriers effectively. "Lack of time," "lack of interest," and "nonmotivation" cannot be manipulated without more knowledge about what the individual does with his/her leisure time or how individuals live their lives. This lends credence to the importance of activity promoters and planners understanding how physical activity fits into the total concept of lifestyle and leisure. In addition, tackling the problem of barriers to participation in sports and exercise requires data on barrier patterns across groups of individuals so that specific target groups can be identified.

Most Frequent Barriers to Increasing Participation in Sports and Exercise

The Human Resource study (Orend, 1980) provides some data along the lines of barrier patterns. The reasons why people expressed a desire to increase participation but did not were examined by analysis of groups of individuals and factors associated with the groups. The results found by the Human Resource Survey are summarized in Table 18.

Overall, the single most important barrier to participation in sports and exercise is time. Among people desiring to increase participation in sports and exercise, 40.5% and

Table 18

Most Frequent Barriers to Increasing Participation
in Sports and Exercise

	<u>Playing Sports</u>		<u>Jogging, Wt Lifting exercise program</u>	
	Desire	Strong Desire	Desire	Strong Desire
Time	40.5%	32.3%	57.3%	55.2%
Family/ Friends	12.7	16.0	10.3	7.6
Inconvenient	5.0	5.0	6.5	9.9
Cost	5.9	3.1	3.1	2.4
Availability	11.9	16.2	3.3	4.0
Crowds	1.5	3.7	0.9	1.5
Quality	0.6	2.6	0.2	0.0
Clothes	0.0	0.0	0.2	0.0
Facilities	4.8	6.5	4.7	4.8
Program	0.9	0.8	1.3	1.7
Handicaps	10.7	12.3	6.7	7.0
Children	4.8	1.3	5.1	5.5

Source: Orend, 1980.

57.3% respectively cited time as a barrier. Considering only those strongly desiring to increase participation, time again was the most frequently cited barrier. Thirty-two and three tenths percent of individuals strongly desiring to increase participation in sports and 55.2% of individuals strongly desiring to increase participation in exercise cited time as the barrier to fulfilling their desire. Note that for both those desiring and strongly desiring, many more individuals cited time as a barrier to exercise participation than sports participation. This observation may suggest that time is of greater importance for activities done on a daily or weekly basis than for activities done periodically. An individual exercise program is, perhaps, perceived more as a daily activity than sports involvement.

Table 18 also indicates another difference between barriers to sports and exercise participation. Whereas 16% and 16.2% of those strongly desiring to increase participation in sports cited Family/Friends and Availability respectively as barriers, only 7.6% and 4% of those strongly desiring to increase participation in exercise cited the same factors as participation barriers. As well, 12% strongly desiring to increase participation in sports cited handicaps as a barrier compared with 7% strongly desiring to increase participation in exercise. Inconvenience was the second most important barrier to increasing exercise participation, but was only the sixth most important barrier to increasing sports participation.

The above data suggest that when physical activity promoters isolate perceived barriers to physical activity participation it is important to recognize that the frequency of the barriers may differ according to whether individuals are interested in sports or exercise. Whereas a promotional program that attempts to neutralize the perceived barrier of time may be relevant to over 50% of those strongly desiring to increase participation in exercise, it will only be relevant to 34% of those strongly desiring to increase participation in sports. A further 44.5% of those strongly desiring to increase participation in sports perceive Family/Friends, Availability and Handicaps as barriers, and certainly are a larger group than those citing time.

Barriers to Activity Considering

Past Physical Activity Patterns

Activity behavior traced over a span of time shows that those who have never participated cite time less frequently as a reason for nonparticipation, and inconvenience, facilities and availability, more frequently than other groups. These data are presented in Table 19. Whereas 52.3% of the steady participants claim time as a barrier to increasing their participation, only 35.3% of individuals who have never been active cite time as the barrier. Almost 17% of these individuals claim Family/Friends and 9.7% cite availability as a barrier compared with 12.7% and 5.2% respectively of the steady participants.

Table 19

Barriers to Activity Considering Past Physical
Activity Patterns

	Never Participated	Participated Prior to Last 12 Months	Participated Only in Last 12 Months	Steady Participation
Family/ Friends	16.7%	13.1%	17.4%	12.7%
Inconvenient	8.9	5.9	7.6	7.6
Quality	1.8	0.5	1.9	0.4
Clothes	0.1	0.4	-	0.2
Facilities	5.7	3.9	3.9	4.5
Crowds	0.2	0.6	0.4	2.3
Programs	0.9	0.8	-	0.8
Cost	7.7	6.9	10.9	7.1
Time	35.3	40.1	45.9	52.3
Availability	9.7	7.5	7.1	5.2
Handicaps	6.8	14.7	2.9	3.5
Children	6.3	3.2	2.1	3.8

Source: Orend, 1980.

One interesting feature is the high proportion, 14.7%, of those who participated prior to the past 12 months, but not within the past 12 months, citing handicaps as a reason for not increasing participation. Although no information was available about the type of handicaps, the observation that many people who begin an exercise program are forced to stop because of injury has been noted by several researchers (Durbeck & Heinzelman, 1972; Mann, Garrett, Farhi, Murray, & Billings, 1969; Pollock, Miller, Janeway, Linnerud, Robertson, & Valentino, 1971; Pollock, Broida, Kendrick, Miller, Janeway, & Linnerud, 1972; Pollock, Gettman, & Milesis, 1977). Attrition over a 5- to 6-month exercise program due to injury ranged from 15% in moderate intensity exercise studies (Pollock et al., 1971), to 40% in higher intensity exercise programs (Pollock et al., 1972). Most of the injuries were orthopedic or involved knee joints and leg muscles and could be directly attributed to the exercise regimen (Durbeck & Heinzelman, 1972; Mann et al., 1969; Pollock et al., 1977).

Injuries have been cited as a serious problem in many exercise studies using adult subjects. Physiologists have tended to ignore the possibility that most adults are not only out of shape cardiovascularly, but also that their muscles and joints have adapted to the lower stress requirements of a sedentary lifestyle. Consequently, even supervised exercise regimens, under controlled research conditions,

have been seriously affected by injured individuals dropping out of the program. As a result, researchers have begun to analyze the relationship between exercise intensity, cardiovascular fitness and injury. There seems little doubt that intensity of the exercise program takes its toll on continued exercise participation.

Pollock et al. (1977), for example, found injury occurring in 22% of subjects exercising 3 days/week for 15 minutes whereas 54% of those exercising 3 days/week for 45 minutes developed an injury. None of the subjects exercising for 30 minutes, 1 day/week, developed an injury. Twelve percent exercising for 2 days/week and 39% exercising for 30 minutes for 3 days/week developed injuries. Pollock et al. (1977) concluded that although the results of exercise showed a greater increase in cardiorespiratory fitness for the 45 minute duration and 5 days/week groups, such programs were not recommended for beginners because of the significantly greater percentage of injuries.

The impact of injury on people's ability to remain physically active is probably much higher for the general population than among the subjects of the research studies cited above. Pollock et al. (1977) used relatively young subjects whose injury rate may have been lower than that occurring among older, less physically fit subjects. Other researchers using older subjects have found age to be a factor. Mann et al. (1969) reported a 49% and Kilbom, Hartley,

Saltin, Bjure, Grimby, & Astrand (1969) a 48% injury rate among middle_aged subjects.

It should also be noted that Pollock et al. (1977) only studied subjects who jogged. There is, as yet, no reported research about exercise routines that alternate muscle groups daily. For example, alternating swimming with biking and jogging has not been investigated as a method of reducing injuries among adults beginning an exercise program. Some activities do appear to be more of a factor in overuse than others. Oja, Teraslinna, Partanen, and Karava (1974), for example, found that about 3/4 of the injuries occurred in the walking/running/volleyball groups and a substantially smaller number of injuries, 25%, were distributed between those in bicycle or swimming programs. Oja's et al. finding is further evidence that a program utilizing changes in working muscle groups might be a more effective method for training the cardiovascular system of adults while also avoiding injury. Oja et al. (1975) concluded from their study of middle aged subjects that an exercise program aimed at training the cardiovascular system meant first properly training the muscles and joints of the locomotive system. He contended that weakness of the muscles and joints of the legs necessitated training levels much lower than those needed to train the cardiovascular system. Consequently, cardiovascular training had to be sacrificed until the muscles and joints were strong enough to handle a higher training intensity.

In sum, the handicap barriers to physical activity may be potentially minimized by educating the public. More importantly, adult exercise leaders need to understand the hazards of training the cardiovascular system before strengthening the locomotive system. Moreover, consideration should be given to encouraging a variety of activities so that different muscles and joints are alternately exercised, thus minimizing the potential for overuse.

Barriers to Activity Considering Sports and Exercise

Participation During the Prior 12 Months

Comparison of participation and nonparticipation in the past 12 months on Table 20 shows once again that time is the most frequent barrier. However, whereas 45.3% cited time as a barrier to increase participation in sports, only 26.6% of individuals who were not active during the previous 12 months cited time as the reason. More frequently alleged barriers within the group for their lack of sports participation were (a) Availability, cited by 17.2%; (b) Family/Friends, cited by 12.3%; (c) Inconvenience, cited by 11.1%; and (d) cost, cited by 10%. For the participants, Family/Friends were barriers to 13.4%, but only 9.7% considered availability to be a barrier. The most important barrier to increased participation of those already participating in sports besides time and family/friends were handicaps. Such problems were cited by 11.4%.

Table 20

Barriers to Activity Considering Sports and ExerciseParticipation During the Prior 12 Months

	<u>Playing Sports</u>		<u>Jogging, Wt. Lifting or Exercise Program</u>	
	Participant	Nonparticipant	Participant	Nonparticipant
Time	45.3%	26.6%	61.3%	40.9%
Family/ Friends	13.4	12.3	10.4	12.6
Inconvenient	2.7	11.1	6.2	8.5
Cost	4.1	10.4	2.9	3.7
Availability	9.7	17.2	2.0	7.4
Crowds	2.1	0.0	0.9	0.7
Quality	1.3	0.0	0.5	0.0
Clothes	0.0	0.0	0.3	0.0
Facilities	4.9	4.2	2.9	10.2
Programs	1.3	0.0	0.6	3.5
Handicaps	11.4	8.5	6.3	7.7
Children	2.9	9.7	5.3	4.1

Source: Orend, 1980.

Time was a greater barrier to exercise participation than to sports participation. Sixty-one and three-tenths percent of the participants and 40.9% of the nonparticipants cited time as a reason for not increasing their participation. Lack of facilities were perceived to be a barrier to 10.2% of the nonparticipants compared with just 2.9% of the participants. Family/friends were barriers to 10.4% of the participants and 12.6% of the nonparticipants. Inconvenience was restrictive to 6.2% and 8.5% of participants and nonparticipants respectively.

Barriers to Activity Considering Demographics

In all age groups, except 50-64 and the 65+ group, time was cited as the most frequent barrier to increasing sports participation. Table 21 indicates that in the 50-64 age group, 60% of the respondents reported that handicaps were the main reason for not participating more in sports although there was a desire to do so. In the over-65 age group, 54% cited family and friends as obstacles to participating in sports.

In the age category with whom business and industry might be most concerned, 64% of the 30-39 age category and 60% of the 40-49 age category cited insufficient time as the primary reason for not increasing their participation in physical activity. This may be important information for physical activity directors when attempting to develop and promote exercise programs within the workplace.

Table 21

Most Frequent Barriers to ActivityConsidering Demographics

	Playing Sports	Jogging, Wt. Lifting, Exercise
Age:		
18-29	Time(43%)	Time(57%)
30-39	Time(46)	Time(64)
40-49	Time(32)	Time(60)
50-64	H/caps(60)	Time(52)
65+	Fam/friends(54)	Time(45)
Income:		
to 5,000	Time(55)	Time(45)
5,000-8,000	Time(30)	Time(64)
8,001-10,000	Time(38)	Time(42)
10,001-12,000	Time(45)	Time(46)
12,001-15,000	Time(45)	Time(42)
15,001-20,000	Time(33)	Time(55)
20,001-30,000	Time(34)	Time(74)
over 30,000	Time(46)	Time(75)
Education:		
to 8th grade	Time(34)	Time(41)
8th, not		
H.S. grad.	Time(37)	Time(42)
H.S. grad.	Time(36)	Time(54)
Some college	Time(41)	Time(64)
grad 4 yr.		
College	Time(50)	Time(67)
Post Grad.	Time(47)	Time(69)
Ph.D.	Time(83)	Time(68)
Occupation:		
White collar	Time(40)	Time(58)
Blue collar	Time(46)	Time(57)
Farm	Avail(82)	Time(60)
Service	Time(47)	Time(68)
Housewife	Child(33)	Time(35)
Retired	H/caps(31)	Time(32)
Student	Time(33)	Time(53)

Education and income groupings all indicate that time was the single most frequent barrier. The range of respondents was from a low of 30% for those with incomes between \$5,000-\$8,000 to a high of 55% of those earning less than \$5,000. The latter income category includes a large number of students perhaps accounting for this finding. Categories of persons with more education indicate time more frequently as the barrier for not increasing participation. For example, 68% of those with a Ph.D. state time as the primary barrier to increasing participation in exercise programs. Only 42% of those not graduating from high school gave the same reason. Similar data are observed for the higher income group for individual exercise, but not in relation to playing sports.

Data classified by occupational groupings reveal that availability, 82%, was the primary barrier indicated by farm workers for not increasing participation in sports. Children prevented 33% of the housewives from increasing sports participation. Handicaps were the barrier indicated by 31% of retired individuals. In exercise programs, time was given as the most important barrier across all occupation categories. However, some occupations, notably service personnel, 68%, and farmers, 60%, cited time more frequently than other groups.

Relevance of Barrier Data to Physical
Activity Promotion

Unfortunately, it is difficult, even impossible to weigh the impact of "not enough time" on possible behavioral change. In fact, it is difficult to ascertain if time is stated as an "off the cuff" answer for lack of a better reason, or because it is actually a legitimate barrier. The issue of time is particularly perplexing when one considers that lower income groups, who, as Mitchell (1983) established, are more likely to work part-time or who are unemployed, also indicate that time is the main barrier to increasing physical activity. Lack of interest would be a more understandable reason for these groups since Mitchell found them to be major consumers of television. "Can't be bothered" was not an option in the Human Resource Study. Consequently, lack of time might have been perceived to be the most acceptable option available on the survey questionnaire.

Obviously, much more information about the relationship among the various lifestyle barriers and physical activity is necessary before any feasible solution to removing or reducing them can be proposed and effected. One focus of future research should be on why specific leisure choices are made, not what choices are made. For example, why was T.V. selected over a walk around the block? What were the barriers to walking that led to T.V. viewing instead? Was exercise ever considered as an option in the individual's

leisure time? It seems almost impossible to develop a promotional strategy without data on these aspects of the decision making process.

Dropping out of Exercise

The fact that many people begin an exercise program although they eventually drop out is assumed to indicate at least some degree of interest. The most vexing problem facing corporate exercise programs is that not only are there large numbers of people who do not begin a program when facilities are made available, but of those who do join, many either drop out shortly after they begin, or are not regular enough to influence their level of fitness.

The data on adherence to exercise is confusing. Researchers have mixed so many factors together that it is difficult to arrive at understandings as to why people drop out. In addition, much of the available research has severe methodological limitations. The present discussion does not examine methodological issues. The reader is referred to an excellent analysis of the kinds of problems involved in compliance to regimen research addressed in Compliance in Medical Care, by Haynes, Taylor, and Sacket (1979). The majority of the research about exercise compliance is, like much of the medical compliance research, unsound. Unfortunately, eliminating findings on the basis of good methodology would leave few reports from which to draw information. Therefore,

only research that is extremely flawed, in the writer's judgment, has been omitted from the following discussion. Two methodological problems that have been particularly prominent in exercise compliance research involve (a) subject selection and (b) the exercise program. All of the research reports analyzed in this chapter have confounded results associated with these problems. For example, whereas all of the studies relied on volunteers, some of the studies used only executives (Massie & Shephard, 1971; Oja et al., 1974; Owen, Beard, Jackson, & Prior, 1980; Yarovote, McDonagh, Goldman, & Zuckerman, 1974). Others derived data from investigations of white-collar workers (Bjurstrom & Alexiou, 1978; Cox, Shephard, & Corey, 1981; Shephard, 1982). Still others do not report subject occupation (Mann et al., 1969; Pollock, Foster, Salisbury, & Smith, 1982). It is, therefore, impossible to infer potential relationships between compliance and occupational categories from the data presently available.

The type of exercise programs used in exercise compliance research has varied considerably. Some involved supervision (Heinzelman & Bagley, 1970; Mann et al., 1969; Massie & Shephard, 1971; Shephard et al., 1982) and some were a mixture of supervised and unsupervised programs (Bjurstrom & Alexiou, 1978). Duration of the studies varied from 8 weeks (Pollock et al., 1982) to 5 years (Bjurstrom & Alexiou, 1978) and 10 years (Owen et al., 1980). Activities

included in the exercise programs have ranged from general exercise (Massie & Shephard, 1971; Oja et al., 1974; Pollock et al., 1982), and pure jogging programs (Cox et al., 1981; Mann et al., 1969) to unspecified types of exercise (Bjurstrom & Alexiou, 1978; Shephard et al., 1982).

All the studies, however, report a common element in their results. The dropout curve for exercise resembles the group relapse curve for such health treatment programs as smoking, alcohol, and heroine addiction (Baekeland & Lundwall, 1975; Morgan, 1976). All of the curves are characterized by a rapid decrease in participants during the initial 3-6 months, followed by a more gentle, downward slope, then an eventual plateau at around 20% of the original participants remaining (Bjurstrom & Alexiou, 1978; Carmody, Senner, Malinow, & Matarazzo, 1980; Oldridge, 1979).

Dropout rates for exercise have been reported as high as 20% after 15 weeks (Bjurstrom & Alexiou, 1978), 40% after 1 year (Bjurstrom & Alexiou, 1978), between 45-50% after 2 years and 75% after 5 years (Bjurstrom & Alexiou, 1978). Long-term adherence to exercise for women is considerably poorer. Although little difference existed in the retention rate between men, 81%, and women, 78%, during supervised group programs, only 11% of the women beginning exercise remained active after 5 years compared with 45% of the original male participants (Bjurstrom & Alexiou, 1978). Male and female retention rates for the first 4 years were 66%

vs. 54%; 54% compared to 35%; 52% and 29%; and 49% compared with 26% respectively for men and women (Bjurstrom & Alexiou, 1978).

In cardiac rehabilitation exercise programs where it seems that motivation to persist with physical activity would be high, the dropout rate is also considerable. Studies report only 39% (Wilhelmsen, Sanne, Elmfeldt, Grimby, Tibb-
lin, & Wedal, 1975) to 57% (Oldridge, 1978) of cardiac patients remain in an exercise program after 1 year. As few as 13% could be classified as "regular" participants (Kentala, 1972). Once again, a large number, 30% of the patients, dropped out fairly early in the program (Carmody et al., 1980). This is similar to the phenomenon seen among healthy individuals.

The longer the individual remains in the program, reasons for dropping out appear to change. For example, Bjurstrom and Alexiou (1978) reported that during the first 15 weeks of supervised group exercise, 79% dropped out because of lack of interest, 13% for physical/medical reasons, and 8% due to changes in job status. After the supervised program ceased and the individual was left to pursue exercise on his or her own, a further 81% dropped out due to lack of interest, 18% due to change in job status, and 1% for physical/medical problems. In cases where individual survived the change from group to individual exercise, dropping out became increasingly associated with job status and

decreasingly from lack of interest. The induction period, first 2-6 months, is the most critical time for potential dropouts. Participants who had not previously exercised regularly encountered unexpected aches and pains and needed a great deal of encouragement and sympathy to continue their physical involvement (Hanson, 1976; Mann et al., 1969).

In addition to the reasons for dropping out discussed above, still other influences warrant consideration. These are presented in the following commentary.

Smoking behavior. The evidence that smokers are less involved in exercise than nonsmokers (Cathart, 1977; Olison, 1982), volunteer less often to participate in exercise programs (National Diet-Heart Study, 1968; Remington, Taylor, & Buskirk, 1978; Shephard, Morgan, Finucane, & Schimmelfing, 1980; Taylor, Buskirk, & Remington, 1973; Yarovote et al., 1974), and drop out of exercise programs more often than nonsmokers (Massie & Shephard, 1971; Oldridge, 1976), appears fairly substantial. Smoking and vigorous physical activity just do not seem to mix.

Health constraints. Poor health is not often given as a reason for nonparticipation in exercise (Telama et al., 1980). However, it has been noted that nonparticipants are generally more overweight and more hypertensive than those who exercise (Cathart, 1977). Nonvolunteers for exercise programs are in poorer physical condition (Yarovote et al., 1974). Dropouts tend to weigh more and have a higher percentage of

body fat than those exercising (Dishman, Ickes, & Morgan, 1980; Massie & Shephard, 1971; Pollock et al., 1982). Therefore, although poor health or overweight is seldom given as an explanation for not exercising, individuals with such characteristics appear to eliminate themselves from exercise programs and activities.

Age. Age also appears to be related to dropping out of exercise. Teraslina, Partinen, Koskela, and Oja (1969) found it to be more difficult to enlist individuals over 50 to volunteer for exercise, especially if they had higher levels of Cardiovascular Heart Disease (CHD) risk factors. Teraslina et al. suggested that people under 50 years old probably believed youthfulness and strength can be retained with physical activity. After the age of 50, men with higher CHD risk factors conceivably consider it too late for physical activity to have a positive effect on health. Consequently they are less motivated to undertake a physical activity program. Teraslina et al. speculation bears testing.

Another possible interpretation, according to Teraslina et al. (1969), could be that there exists a certain level of health risk at which an individual feels just enough stress to be motivated to find preventive measures. At such a level, physical activity is not yet perceived to be dangerous. When stress exceeds a certain level, though, it possibly has an inhibiting effect. The individual, thus, views exercise as being either too dangerous or its potential benefit

coming too late. Such notions suggest the need for carefully conducted research.

Significant others. Wives of sedentary men tend to be more neutral or negative towards their husband's exercise programs than the wives of exercise participants (LaPoint & Donald, 1972). Other nonparticipants cite duties at home, specifically with their wives, as explanations of why they do not engage in exercise (Telama et al., 1980). Olson (1982) also found interference with family life to be a barrier to regular exercise.

Similar findings are associated with those who volunteer for exercise programs (Shephard et al., 1980). Family life as a barrier is also associated with persons dropping out of programs (Heinzelman & Bagely, 1970). Heinzelman found that of 143 men whose wives' attitudes towards exercise were positive, 80% had good to excellent patterns of adherence. On the other hand, only 40% of the men whose wives' were neutral or negative had good or excellent patterns of adherence.

The wives of cardiac patients involved in a prescriptive exercise program were also found to influence dropout rate. Cardiac patients with indifferent or negative spouses were three times more likely to drop out than those with a supportive spouse (Oldridge, 1979).

Program content and adherence. It is important to note that virtually nothing is known about the relationship, if

any, between program content and exercise adherence. It is suspected, though, based on lifestyle and its apparent relationship with leisure pursuits of individuals, that program content and structure probably play a substantial role both in attracting participants and in maintaining exercise once they have begun a program. Durbeck and Heinzelmann (1972) and Massie and Shephard (1971) both attempted to investigate this topic but their studies deal with too many variables to yield acceptable information about this issue. Durbeck and Heinzelmann invited executive level men, aged 35 to 55, employed by the National Aeronautics and Space Administration (NASA) in Washington, D.C., to participate in one of three types of exercise programs: (a) a supervised stress laboratory program, (b) a supervised group jogging program, and (c) an unsupervised individual program. Participants were expected to exercise for 30 minutes, 3 times a week.

The stress lab was located at the NASA headquarters and consisted of a circuit of 12 activities: (a) warm-up, (b) first treadmill, (c) sand bag, (d) bicycle, (e) wall pulley, (f) rope jump, (g) sit ups, (h) rowing, (i) balance beam, (j) second treadmill, (k) medicine ball, and (l) a taper-off. The jogging program was conducted 10 to 15 minutes' drive from NASA. Subjects were transported to and from the location twice a day. The individual participation program was unsupervised. Subjects had the option of (a) running in place, (b) bench stepping, (c) bicycling, (d) swimming, (e) basketball, and (f) skiing.

It is not possible to determine how program content related to adherence because of the fact that facility accessibility was not identical for all three. That is to say, facility location appeared to influence program choice. One hundred and forty-nine subjects chose the on-site stress lab program. Only 49 chose the jogging program and 42 the individual program. Although the mean attendance rates for all three groups were similar, a higher percentage of those in the unsupervised individual program exercised zero days a week than those in the other two programs that were supervised. Whether this was because of (a) the type of exercise, (b) the facility location site, or (c) the lack of supervision cannot be determined.

Consequently, Durbeck and Heinzelmann (1972) did not generate any telling information about the influence of program type and content on adherence to exercise. Initially, it appeared that the closeness of the location to the work site made the stress lab program more attractive. However, the relationship between facilities and attendance is unclear because of other interacting variables such as the production orientation of the stress program. The only interpretation that can be made from this study is that accessibility to facilities potentially makes exercise more attractive.

Although one author, Olson (1982), reported that distance from the exercise facility was not a factor for those already exercising on their own incentive, the impact of

facility location and volunteering for exercise programs has been noticed by other researchers. Persons not exercising, but willing to volunteer to participate in a program, tended to live nearer to the program location (Hanson, 1976; Rhodes & Dunwoody, 1980; Teraslinna et al., 1970).

There is also evidence that some cardiac patients who dropped out of programs did so if (a) they found difficulty in attending a scheduled time slot, (b) perceived the program site to be inconveniently located, or (c) encountered parking difficulties (Andrew et al., 1981). In such cases, of course, one cannot assume that because an individual ceased attending the organized exercise session, that he or she ceased to exercise. Although this possibility is hardly ever considered by many researchers, Mann (1969) found that there were dropouts who often kept training on their own.

The potential influence of supervision compared to non-supervision on attendance was investigated by Massie and Shephard (1971). He compared attendance and regularity of men placed in an individual program with those placed in a supervised YMCA program. He concluded that middle aged men responded better to a group program rather than to a solitary program. However, his results were confounded by the fact that the YMCA group had to pay \$60. According to Pollock et al. (1982), payment for the program as an independent variable cannot be ignored. Pollock et al. (1982) found that individuals sharing the cost of the exercise

program with their company or those reimbursed by the company only upon satisfactory attendance, have been shown to have a much higher attendance than subjects whose company paid the entire fee (Pollock et al., 1982). Massie and Shephard's results, therefore, cannot be considered conclusive.

Relevance to Physical Activity Promotion

Specific knowledge about barriers and reasons for not being physically active are potentially helpful in designing a plan for removing such barriers, either fancied or real. Such knowledge, regrettably, is so minimal that implications for activity promotion must involve "educated" speculation.

Some strategies are fairly obvious. For example, it is probably necessary to change smoking behavior and to help with weight reduction before individuals associated with these habits or characteristics can be successfully encouraged to exercise on both a continuing and regular basis. It also appears advisable to include "significant others" in any type of exercise promotion campaign.

At the same time, it would be a necessary step to carefully analyze selected psychosocial factors associated with those not exercising. This has not been considered by U.S. researchers conducting exercise compliance studies. The fact that their programs seem to attract white-collar workers leads to the suspicion that they are unwittingly "marketing" their programs to such individuals. The needs of employees

differ according to the type of company and the lifestyle groupings within the employee population. Burgess (1973) studied the physical activity patterns of middle-aged men and developed a profile of the typical nonexerciser. His subjects were all Canadians making the application of his typologies to Americans of doubtful validity. Subjects were middle- to upper-class males, further limiting the generalizability of his results. However, his typologies of nonparticipants in exercise are interesting and seem relatively easy for companies to develop with their nonexercising employees if they wished to put forth the effort.

Burgess (1973) proposed six categories of lifestyle groupings within an employee population: (a) the Moderate Man, (b) the Work Oriented Man, (c) the Conservationist, (d) the Family Man, (e) the Busy Man, and (f) the Pre-Occupied Man. The interpretation and descriptions of each of these follows:

The Moderate Man.

Many of the non-participants described themselves as ruled by moderation. They were sincere in their belief that nothing should be done in excess. Excessive striving after physical achievement was just as suspect in their minds as gluttony. To them the moderate man admits to no enthusiasms beyond an enjoyment of the gracious life. To strive or struggle openly for anything was the mark of gaucheness and immaturity. To express a concern for health or physical fitness which exceeded their moderate level was to have a fetish. Lack of real understanding of the principles of conditioning or unsatisfying past experiences seemed to be the foundation of this set of attitudes.

The Work Oriented Man

A dominant attitudinal theme heard in the non-participant interviews was a need to produce some useful product or effect from physical effort. The work oriented man included in his daily round a variety of practical activities such as raising livestock, improving a summer cottage, maintaining a farm or acreage or working on his home and property. Aspects of the Protestant work ethic were evident in this attitudinal classification. These individuals were suspicious or uneasy about exercise for its own value. They would not train to be in a sport, choosing to play themselves into condition. Thus they found themselves no longer able to pursue activities they had learned as a young person because they were not fit enough. Their sense of the appropriateness of various activities was very strong as were their rationale for their own non-participation. They were mildly contemptuous of individuals who had to exercise to remain fit.

The Conservationist

The conservance incentive was evident within the non-participant group. With these individuals it took the form of avoidance of all unnecessary effort. The conservationist avoided straining themselves at all costs. They were largely resistive to circumstances which forced effort upon them. They tended to rate themselves as being low active and were more negatively disposed to activity than others in the non-participant sample. Their maxim was, "I don't need exercise, I need rest." Escape from tension and life pressures seemed to dominate their recreational past-times. They tended to indulge themselves and to seek relief through resting and alcohol.

The Family Man

The individuals in this category uniformly rated the needs of their wives and children ahead of their social and recreational need. They tended to pursue recreational activities with their parents or in-laws. Many travelled each week-end to the family farm where they worked with other members of their family and with their children. Traditional rural recreations were typical amongst them. Horseback riding, the occasional softball game, curling, a Saturday night dance or a trip to the beer parlour were frequent recreations. In town during the week, efforts were made to ensure the children got to dancing, music, or swimming lessons. They occasionally socialized through a club or community league, but tended to confine their recreations and social life to interactions with the family. Many of

this group were also classified with the Work-oriented man. Like this other group they were also bound by a strong sense on duty. They expressed considerable concern about absenting themselves from their children for any reason.

The Busy Man

This classification includes those who found their time too fully occupied to be able to fit in an exercise regimen. The Busy Man category often included those from the work oriented man category. These individuals derived great satisfaction and fulfillment from their job performance. They were disapproving of the physically active individual and indicated this through a faint endorsement of their activities. As a group they were single minded, hard working persons who grudgingly gave time for the interview. They acknowledge no special exercise need suggesting that they obtained enough exercise from their daily round. All sought to escape from their job pressure through quiet recreations.

The Pre-Occupied Man

This category included those individuals who were involved in recreation which did not permit them the necessary time for participation in sport and physical activity. Their selection of activities centered in the quiet range and tended to be social and aesthetic. Intellectual stimulation, good company and interesting activities filled their spare time. They perceived no need for exercise beyond what they obtained from the maintenance for their home and property. (Burgess, 1973, pp. 125-129)

The characteristics as described by Burgess (1973) suggest that the Moderate Man, the Work-Oriented Man and the Family Man are variations of Mitchell's (1983) Belongers. The Conservationist and the Busy Man are similar to the Achievers. The Pre-Occupied is a variation of Inner-Drivens.

With the above-stated comparisons in mind, the concept of "lack of time" for exercise takes on a new and more colorful dimension. It is proposed herewith that we are not dealing with an unknown, intangible variable called "time," but, rather, with an attitude. The attitude is not toward

physical activity as such, but one that represents a way of setting forth life's activities in priority order. Based upon his typologies, Burgess (1973) could foresee several approaches to promoting physical activity among nonexercisers. For Moderate Man, for example, he suggested that physical activity must be presented as a socially acceptable means of health maintenance. He reasoned that since members of this group tended to be socially active, physical activities with a social quality should be attractive to them.

The Work Oriented Man, on the other hand, required a different approach. Physical activity had to be presented as having a thoroughly practical outcome. Getting "fit" would not likely motivate persons of this type. In fact, what Burgess (1973) suggested was the production approach, a quick, efficient and time-saving method to obtain enough exercise to help participants be better equipped to perform more work.

Other promotional suggestions for the remaining groups would be:

1. For the Conservationist: Activities of a quiet nature such as walking, or cycling for enjoyment of the outdoors and of nature. The activities should be attentive to the individual's desire not to strain too much in life.
2. For the Family Man: Low-level and low-skill activities involving the whole family.

3. For the Busy Man: Activities offering release from tension and pressure. Convenience to facilities would be important to members of this group and, therefore, the on-site company gym would be appealing.
4. For the Pre-Occupied Man: Activities that are convenient and stylish, divorced from the sports scene and appealing to the group members' needs to enjoy life to the fullest.

Although Burgess (1973) made a gallant attempt to discover how physical activity could be made attractive to those not exercising by understanding why nonexercisers are inactive, none of his suggestions have been tested. At present the "prescription" for promotion is still conjecture. It is a direction, nonetheless, that deserves considerably more attention than it has received to date in the United States.

Satisfactions Derived from Physical Activity

Perhaps an understanding of the satisfactions derived from exercise offers clues to help make physical activity more attractive to nonexercisers. Once again, the problem of overgeneralizing confounds the interpretation of studies about adult physical activity behavior.

Reasons given for exercising include a range of satisfactions: (a) fitness, (b) enjoyment, (c) recreation, and (d) weight control (Olison, 1982). Motives for volunteering

for an exercise program are found to be (a) health, fitness, and fun (Shephard et al., 1980); (b) fitness, health, and social reasons (Cox et al., 1981); (c) desire to feel better and healthier; (d) concern about lessening the chance of a heart attack; (e) help research (Heinzelmann & Bagley, 1970); and (f) to have the chance to exercise with leadership in prearranged facilities with medical supervision (Mann et al., 1969).

Reasons for adherence to an exercise program also span a broad range. Among the explanations are (a) organized sessions (Rhodes & Dunwoody, 1980); (b) closeness to facilities (Hanson, 1976; Rhodes & Dunwoody, 1980); (c) desire to feel better (Heinzelmann & Bagley, 1970; Rhodes & Dunwoody, 1980; Stiles, 1967); (d) concern about lessening the chance of a heart attack (Heinzelmann & Bagley, 1970; Rhodes & Dunwoody, 1980); (e) to relax and have fun (Heinzelmann & Bagley, 1970; Rhodes & Dunwoody, 1980; Shephard et al., 1980); (f) companionship (Shephard et al., 1980; Stiles, 1967); and (g) attainment of a desired self-image (Shephard et al., 1980; Stiles, 1967).

As stated, such reasons are too numerous and varied to be of much help to physical activity promoters. One important fact does emerge, however, and warrants consideration. The reasons for continuing an exercise program are somewhat different from those for beginning a program. There is some evidence that the social aspect of exercise becomes increasingly important the longer an individual remains in the

exercise program (Heinzelmann & Bagley, 1970). Initially, volunteers considered the social aspects of exercise as having the least influence upon their decision to participate. At the end of the program, 25% stated that social aspects were the most attractive feature of the program, one that influenced adherence (Heinzelmann & Bagley, 1970). Apart from this particular consideration, while it is clear that there may be some useful information to extract from such data, there is little practical promotional value in it.

One promising approach to the analysis of reasons for exercising comes from the research of Hawes et al. (1975). These investigators were able to identify seven groupings of related leisure satisfactions. These are presented in Table 22. Examination of groupings reveals that not everyone is interested in leisure activities to keep healthy. Some individuals search for satisfaction from other people as revealed by Group 1 women and Group 6 men. Others, Group 4 women and Group 3 men, seek tranquility. Still other persons are in search of self by means of recognition from others that comes either through success in competition or by making a contribution to society. These persons are identified in women's Group 5 and men's Group 6.

Interpretation of such data leads one to suspect that if the satisfactions sought from life by nonactives were known, a potential strategy for encouraging them to add physical activity to their particular approach to life could

Table 22

Groupings of Related Leisure Satisfactions

Women	Men
GROUP 1	GROUP 1
Meet new people	Physical challenge
Learn new things	Keep healthy
Contact with friends	Develop a skill
Do new things	Feeling of mastery
Happy memories	Chance to compete
Stronger family ties	Feeling of control
Get most out of life	Feeling of independence
GROUP 2	GROUP 2
Develop a skill	Helps in my work
Being creative	Recognition from others
Feeling of mastery	Being creative
Mental challenge	Benefit society
Feeling of independence	Understand myself better
Feeling of control	Mental challenge
	Learn new things
GROUP 3	GROUP 3
Physical challenge	Alone in a quiet spot
Keep healthy	Alone with thoughts
Enjoy wonders of nature	Enjoy wonders of nature
Stronger family ties	Peace of mind
	Feeling of independence
	Do new things
	Style of living
GROUP 4	GROUP 4
Alone in quiet spot	Happy memories
Alone with thoughts	Old family activity
Peace of mind	Get most out of life
	Can respect myself
	Interesting experience
	Peace of mind
	Feeling of control

Table 22 (continued)

Women	Men
GROUP 5	GROUP 5
Uncertainty involved	Uncertainty involved
Interesting experience	Adventure and excitement
Chance to compete	Chance to compete
Adventure and excitement	Interesting experience
Recognition from others	Do new things
GROUP 6	GROUP 6
Benefit society	Stronger family ties
Helps in my work	Educational for children
Understand myself better	Benefit society
Educational for children	Understand myself better
Recognition from others	Enjoy wonders of nature
GROUP 7	GROUP 7
Can respect myself	Meet new people
Feeling of control	Contact with friends
Get most out of life	Learn new things

Source: Hawes, D. K., Talazyk, W. W., & Blackwell, R. D. (1975). Consumer satisfaction from leisure time pursuits. Advances in Consumer Research, 2, p. 834.

be suggested. If female Belongers, for example, enjoy group gatherings, perhaps promoting aerobic dance sessions with their friends might be one method of appealing to these individuals. Just from general observation, one cannot help but suspect that personalities such as Richard Simmons and Jack LaLanne may provide clues appropriate to motivating group-oriented individuals. Apart from Hawes et al. (1975) study on satisfactions derived from leisure, the only other helpful investigation of reasons for being physically active is the typology approach by Burgess (1973).

In analyzing physically active individuals, Burgess (1973) designated three types of exercisers. His categories tend to support the satisfaction groupings of Hawes et al. (1975). Burgess' (1973) groups included (a) the Institutional Exercisers, (b) the Solitary exercisers, and (c) the Competitors. The characterizations of the three groups are these:

Institutional Exercisers

By far the largest group among the participants were those whose incentive and enjoyment was derived from the camaraderie of the locker room. All these men were institutional exercisers in that they travelled to a set location, changed into their workout clothing, participated, and after a shower, returned to their work or went home. They tended to form acquaintanceships with many of the group who attended with them. These social interactions were, in the main, of a casual nature. Nevertheless they proved to be an important feature of the institutional setting. Many of these individuals reported that they had tried to exercise alone but had found it boring and lacking incentive. The existence of a group towards which they felt a slight loyalty provided enough incentive to move them when their spirits were unwilling. Many of this group described the exercise routine as boring. They were prepared to endure the discomfort and to put up with the boredom as part of the regimen knowing in the long run that they

were going to benefit. Most of them recognized that this was a life-long activity which was necessary for their well-being. "It's a life sentence," said one of them. These regular exercisers were able to relate on a casual friendly level to other exercisers and found in these relationships a source of allegiance and free masonry. The exercise was tiresome and boring but the fellowship was a balm for it.

Solitary Exercisers

Contrasting with the institutional exercisers was a smaller group of individuals who were every bit as enthusiastic if not as social. Some of these subjects attended an institution but after their initial indoctrination they made it a point to operate alone. Their attendance was entirely functional to their exercise needs. They made little attempt to encourage social interaction stating that they were not interested in anything other than getting enough exercise. A number of other solitary exercisers worked out at home or used their home as a base for running or cross-country skiing. They were quietly proud of their fitness and tended to be secretive with their co-workers. The primary characteristic of this group was their functional approach to exercise which they had built in to their daily round. One subject summed up the attitude of the groups in his statement. "I don't make a big deal out of it. I just get it done quickly and efficiently."

The Competitors

The third group amongst the actives was comprised of men who were still actively competing in their particular sport. To this group their training had a functional quality in that they were able to maintain a level of physical fitness which enhanced their daily life. Each stated that he enjoyed the competitive aspects of his involvement but this was of equal importance to his feelings of well-being.

Feelings of achievement and self-worth resulting from their participation were expressed by this group. While some tended to take a loss badly, the majority treated each performance as relative to a personal standard. Growing out of their sports competition were a variety of social and sport political interactions. As men over twenty five they were older athletes who commanded the respect of their fellows in the sport. Their involvement in their sport represents a commanding interest which had altered their life style substantially. (Burgess, 1973, pp. 134-136)

Once again, a careful study of Burgess (1973) data gives some insights into motivations and/or needs of individuals. Those classified as Institutional exercisers apparently derive a different set of satisfactions from their participation than others. It is not the exercise in itself that seems to be attractive to the Institutional Exerciser, but the associations and effects of others.

The Solitary Exerciser, on the other hand, acquires satisfaction directly from the activity. The competitors acquire satisfaction from testing themselves against others. Their physical activity enables them to meet challenges.

Like the information available about barriers to physical activity, there is still much more research needed about the satisfactions derived from exercising. Although physical activity promoters are not ultimately interested in individuals who are exercising as a part of their daily lives, a study of the satisfactions derived from exercise of such persons and the kinds of individuals they are, might help better understand nonactive people. For example, if achievers are often found to engage in competitive leisure pursuits, it might be possible to appeal to nonactive achievers to take exercise by means of instruction in competitive types of activities. After they have gained knowledge about the activity, the next step, perhaps, would be to introduce them to organized age-group competition. There is a worldwide program in Master's level running, swimming and bicycling

that provides age group competition for exactly these kinds of people.

Individuals clearly preferring peace and quiet, on the other hand, may be introduced to cycling or hiking groups that explore nature and the open country. The possibilities are limitless IF the necessary information on the lifestyle and psychological orientations of the various groups are available. To achieve this, there needs to be a systematic and thorough situational analysis similar to that presented in the present study. Then, a successful marketing communication program as outlined by Ray (1983) may be implemented.

CHAPTER X

THE CHALLENGE TO PHYSICAL EDUCATION

The systematic study of the status of physical activity in the country addressed in this study suggests that the major role the profession must assume is that of redirecting the present traditional product orientation of researching and promoting physical activity to that of an individual client orientation. Research to date indicates that the product orientation has failed to provide critical facts about (a) the social network in which the individual lives and works and (b) the perceived needs of people with respect to physical activity. Consequently, there is little information available to help influence a passive society to become a more active one.

Lack of research about differing individual needs has caused a particular problem for physical educators. The problem is associated with the tendency to emphasize "individual fault" for failure to achieve a physically active society to the exclusion of acknowledging the contribution of "system fault," i.e., failure of the present promotional approach and programs to appeal to individual interests, orientations, backgrounds, attitudes, and needs of the people. In short, researchers have failed to investigate the potentially productive characteristics associated with understanding and changing physical activity behavior.

The situational analysis prescribed by Ray's Marketing Communication Model helped define the status of physical activity. Enough objective information is present available to permit promotional objectives and goals to be established. The steps in Ray's model (p. 65) can be pursued to the message strategy step. Data crucial for formulating message strategies are lacking. Specific knowledge about people and their exercise participation behaviors are extremely limited. Without this type of information only message strategies based on guesswork can be designed.

A further flaw in the research that exacerbates the incomplete information problem is failure to utilize communication theory to adequately interpret the results obtained in exercise participation studies. This, along with an "indifference" to the potential importance of the psychological matching of an individual and her or his physical activity participation, has contributed to the confusing results reported in present exercise participation research. Consequently, information about the physiological values of exercise to the individual is far ahead of knowledge as to how to successfully promote exercise to the society at large.

The immediate challenge to physical education is to take a central leadership role in expanding exercise participation research to include more practical and meaningful concerns. Influence of social networks, communication theory as applied to the promotion of physical activity, and the perceived

needs of people with respect to physical activity must be systematically studied. To obtain data associated with such study, physical education must move from a traditional-centered research approach, one that focuses on the profession, to a society-centered approach that considers, first and foremost, the consumer. It must be acknowledged that the field is no longer one in which participants of activity programs take part by mandate. The customary preparation of physical education preprofessionals that includes classes in physiology, nutrition, exercise leadership skills, curriculum development, and other exercise science-related areas, may have been compatible with required physical education such as that found in the public school systems. Voluntary participation, similar to the present status, on the other hand, requires, in addition to the above knowledge, an ability to produce and present a product attractive enough to people so they willingly adopt it. Inability to promote, encourage, and recognize the basic needs of people renders present knowledge about exercise useless. Yet, the trend in colleges and universities is to train leaders who are more administratively and physiologically inclined than sociologically inclined.

A first step in responding to the challenge is to identify a theoretical framework, albeit from another field, that forces the profession into new thought patterns that are completely lateral to the customary vertical style of thinking

in which we usually engage. One consequence of this would be to change the emphasis of the field from one that is rooted in medicine to one that improves our capabilities in dealing with societal members to whom we are responsible. The writer recommends Rogers' Diffusion of Innovation Model as a starting point to understanding the basic questions required for changing and improving knowledge of exercise behavior.

Diffusion of Innovations

Diffusion of innovation theory provides a framework for tracking the important factors in the spread of an idea, behavior, or technological development from the source of the idea to members of society. Rogers (1983) credits Gabriel Tarde as the first to observe certain generalizations about the diffusion of innovations. Tarde's book, The Laws of Imitation, published in 1903, discussed why some ideas are adopted and others rejected and observed that the rate of adoption of a new idea usually followed an S-shaped curve over time. However, according to Rogers:

The research tradition that can claim major credit for initially forming the intellectual paradigm for diffusion research, and that has produced the largest number of diffusion studies and over the longest period of years, is rural sociology. (Rogers, 1983, p. 51)

Diffusion researchers are interested in how to encourage more effectively the adoption of an innovation that would be helpful to society. For example, in the 1940s, the corn

farmers of Iowa were introduced to a new hybrid variety of corn and encouraged to plant it in place of the open pollinated type they had planted for generations. The change was important to increasing the yields of corn produced per acre of land. Another example was the introduction of birth control as an essential ingredient for economic improvement for developing nations. Like physical activity, other fields of study found that despite obvious advantages in the adoption of a new idea, encouraging adoption among the members of society is difficult (Rogers, 1983). A wide gap often exists between what is known to be of value to society and what is actually put into use.

Four aspects of diffusion are acknowledged: (a) the communication process, (b) the channels through which that communication takes place, (c) the time required, and (d) the social network to which people belong. Taking each of these into account, diffusion is therefore defined as "the process by which an innovation is communicated through certain channels over time among the members of a social system" (Rogers, 1983, p. 5). In other words, to understand how an idea spreads through society it is important to first know what communication factors, channels, time, and social network components are important to the spread and adoption of the innovation as it occurs under natural conditions.

Rogers' (1983) explanation calls attention to additional considerations that directly influence diffusion: (a) the

innovation itself--the characteristics of physical activity causing it to be a potentially difficult innovation to diffuse, (b) the communication process--the communication characteristics of the social systems and of individuals hindering or aiding the diffusion process, (c) characteristics of the individual--the special needs and wants of individuals with respect to physical activity, and (d) characteristics of change agents or agencies--differences/similarities between physical activity personnel in terms of education, social status, etc., and the participants who are being encouraged to become more physically active.

Only after the above factors have been weighed is it possible to understand how to manipulate communication, time, social system, and channel factors to effect the diffusion process. Thereafter, a message strategy as delineated by Ray (1982) can be effectively developed.

It is difficult to separate innovation characteristics from communication, individual, and change agency characteristics completely since, in many cases, knowledge of one of these elements aids in understanding another. For the sake of simplicity, and to give a clearer picture of where diffusion research may lead the physical education profession in understanding physical activity promotion, each area is discussed below as if it were a separate entity.

Innovation Characteristics

The question as to why some innovations become widely adopted and others do not has been pinpointed to five characteristics of the innovation (Rogers, 1983):

1. The relative advantage the innovation is perceived by individuals to have over the idea it supersedes,
2. The compatibility of the innovation with the existing values, past experiences, and the needs of potential adopters,
3. The complexity of the innovation,
4. The triability of the innovation,
5. The observability of the innovation.

Rogers (1983) contends that, in general, innovations with a perceived greater relative advantage, compatibility, triability, observability, and less complexity will be adopted more rapidly.

What the perceived relative advantages of physical activity may be to potential participants is not known. Much of the exercise participation research has focused upon objective advantages, such as improved health, rather than on subjective advantages. Some lifestyle groupings may, indeed, give more importance to the potential economic advantage of improved health. Others, however, may consider the social prestige of being a part of the 'exercise set' as important. Or, perhaps, the satisfaction derived from the challenge of physical activity, or the sociability it provides,

is a catharsis for an otherwise boring or sedentary job. None of the available exercise participation research has attempted to separate the influence of social network groupings from relative advantage of exercise to the individual. It is, therefore, appropriate to suggest that the knowledge we have about relative advantage of exercise is unknown and requires substantial research.

Compatibility of the exercise program to norms and values has similarly been ignored. There is evidence that lifestyle (Mitchell, 1981) and personality (Hawes et al., 1976) play a major part in both the adoption of physical activity and the type of physical activity adopted. Burgess (1973) also provided evidence that lifestyle and personality are associated with an individual's adoption of physical activity.

The adoption of an incompatible innovation often requires the prior adoption of a new value system (Rogers, 1983). Burgess' typologies suggest that this may be a problem with some categories of individuals. The positioning or portrayal of physical activity, therefore, becomes quite critical in order to avoid alienation of inactives. For instance, the "Life. Be in it" organizers intentionally avoided the term "fitness" in their promotional campaign. Prior research indicated that the idea of being physically active for the sake of fitness was not acceptable to the Drifter population selected as the target group for the "Life. Be in it" promotional campaign.

The basic assumption behind the positioning of an innovation is that people behave toward an idea similarly to the way they behave toward other ideas. If the individual has a positive attitude toward fitness as a concept, then physical activity and fitness may be positioned together. If not, the first task is to find out what positive benefits an individual may accept as a reason for being more physically active. Obviously, the positioning of an innovation rests on accurately measuring its compatibility with factors important to the individual. This is still another type of information about which we have inadequate knowledge.

The importance of complexity, triability, and observability to exercise adoption has not been reported with respect to physical activity. The complexity issue has especially been overlooked. Influence of social systems, scheduling conflicts with other activities important to the individual, and the fact that undertaking a physical activity program requires a large amount of information prior to the individual taking part in exercise, have not been considered as important aspects to the adoption of physical activity.

Exercise participation researchers have also been guilty of basic mistakes such as making the exercise program too stressful, ignoring the psychological matching issue, and ignoring the existence of need. These are aspects of complexity that have likely led to the high dropout rates.

The effects of other complexity issues such as the willingness of individuals to take their pulse rate, record daily workouts, or follow a routine of exercise day after day have not been measured.

Finally, there is the question of observability. Is, for example, attendance at a company gymnasium located in a central setting higher than one located in the basement? Does an on-site program generate a higher attendance than one located off site, at a YMCA, for example? If management undertakes an exercise program in full view of the employees, does this influence participation within the company? If so, what types of employee are so influenced?

The above may seem to be relatively simple questions to answer. But they have not been addressed and would provide important practical data to improving the status of the physical activity.

Communication Characteristics

Throughout this report the importance of understanding how an individual thinks and behaves has been continually stressed. The prime reason for this is the acknowledgment of a fundamental principle of human communication, namely, that the transfer of ideas occurs most frequently between two individuals who are alike, or homophilious in terms of beliefs, education and social status (Rogers, 1983). If individuals have freedom to choose with whomever they interact, there is a strong tendency to select someone who is

most similar to themselves. Effective communication, then, comes more easily because of a common language and similarities in personal and social characteristics. The importance of this is that although homophilous communication is the most influential in terms of knowledge gain, attitude formation, attitude change, and overt behavior change, one of the most distinctive problems in the communication of innovations is that the participants and promoters are usually quite heterophilous (Rogers, 1983).

For example, a change agent, or agency such as the PCPFS, physical activity director, physical education student, or the exercise science professor, is more technically competent and more highly educated and, as a consequence, belongs to a different socialstratum than many exercise participants. Unless the problems associated with heterophily are recognized and treated, ineffective communication occurs. The two groups simply do not talk the same language. The frustration evident in comments made by Conrad, Executive Director of the PCPFS, that people just could not seem to understand how something as simple as exercise could be so beneficial to them illustrates heterophilousness. Typically, lack of knowledge about factors important to the communication process leads to what Rogers (1983) refers to as "individual blame" instead of "system blame." The implication in Conrad's statement, for example, is that the misunderstanding was the fault of the people for not listening to

expert advice rather than one of the agency's lack of perception of the problem. Instead of asking "What are we doing wrong?" the tendency is to pass off lack of system success to the individuals and their inability to understand what is "good for them."

Part of the problem with respect to physical activity promotion is that exercise behavior has been studied as if there were one single social system, one single communication system, and one single individual need. The logistics of this kind of error is best summed up by Katz:

It is as unthinkable to study diffusion without some knowledge of the social structures in which potential adopters are located as it is to study blood circulation without adequate knowledge of the structure of veins and arteries. (Katz, 1961, p. 72)

Methodologically, untangling the effects of the structure of a system on communication independent of the effects of the characteristics of the individuals who make up the system is no easy matter. It can, however, be done and Rogers (1983) gives an example of such an effort.

In summary, effective communication depends upon knowing how the social network influences exercise participation. The answers to the following questions seem like a good place for physical education researchers to start:

1. What is the influence of the social network on the individual's exercise behavior?
2. Is there a way of utilizing knowledge of social networks to speed up or improve upon exercise participation?

3. What effect does the attitude of the opinion leader toward physical activity have on the attitudes toward exercise participation of the individuals in each social network making up that system?
4. What is the most effective communication approach in each social network, i.e., how can physical activity be positioned so that it attracts the attention of individuals within specific social networks?

The above offers fertile ground for physical activity researchers and should provide crucial information for use in developing message strategies.

Individual Characteristics

Individual characteristics important to the diffusion process consist of two types. The first is what Rogers refers to as the adopter categories; the second is the innovation-decision process. Both have been found to be important to the selection of communication put to use in the message strategy.

With respect to adopter categories, not all individuals in a social system adopt an innovation at the same time. They adopt in a time sequence and are classified by diffusion researchers according to when they first begin using the innovation. Adopter distributions have been found to closely approach normality, i.e., a bell shaped curve: (a) Innovators (2.5% of total adopters), (b) Early adopters (13.5%),

(c) Early majority (34%), (d) Late majority (34%), and (e) Laggards (16%).

Innovators are the first to adopt an innovation. They have generally been found to be venturesome and eager to try new ideas. Their interest leads them out of local peer networks and into more cosmopolitan social relationships. Because they are different, Innovators may not be respected by the other members of a social system. However, they are important to the diffusion process since it is they who are usually responsible for launching the new idea within a system.

Early adopters are a more integrated part of the local social system than innovators. Whereas innovators are cosmopolites, early adopters are localites. Results of Diffusion research indicate that early adopters, more than others, have the greatest degree of opinion leadership in most social systems (Rogers, 1983). Early adopters are generally the individuals from whom to seek information before using the innovation. It is, therefore, this category of individual other change agencies in fields such as family planning and agriculture have utilized as the "local missionary" for speeding up the rate of diffusion.

Early Majority individuals adopt new ideas just before the average member of a social system. Although they interact frequently with their peers, they seldom hold leadership positions. They may deliberate for some time before completely adopting a new idea.

Late Majority people adopt new ideas after the average member of a social system. Adoption may be due both to an economic necessity and to increasing network pressures.

Laggards are the last in a social system to adopt. They are the most localite in their outlook. Many are near isolates in the social networks. Since their point of reference is the past, decisions are often made in terms of what has been done in previous generations. These individuals interact primarily with others who also have relatively traditional values, thus reinforcing their tendencies to be more past oriented than now or future oriented.

The interesting aspect of the adopter categories described above is their apparent explanation of why there are some people who are physically active in each of Mitchell's lifestyle categories (1983). It is, therefore, obvious from these kinds of data that not only must lifestyle be taken into consideration in the promotion of physical activity, but also the adopter categories within each lifestyle. Recall in the discussion of the Australian promotional campaign, Chapter II, the comment that the segmentation categories seemed too broad for an effective marketing campaign. The information on lifestyle and adopter category tends to support this comment. Perhaps as a direct result of no practical information about people and their exercise behavior for use in the message strategy step, the Australian campaign organizers oversimplified segmentation of the public. In doing

so, the campaign became no more effective than a mass media approach.

The Innovation Decision Process

The second aspect of understanding the individual's physical activity behavior relates to how one arrives at the decision to become physically active in the first place. The issue seems to be so simple that it might be assumed research about this topic is abundant. Unfortunately, the pathways through which individuals pass to arrive at the ultimate decision to become physically active have not been studied.

The diffusion model recognizes that the decision to adopt or reject an innovation is not an instantaneous act but rather a process occurring over time and consisting of a series of actions. The five stages of the innovation decision process of knowledge, persuasion, decision, implementation and confirmation are depicted in Figure 42. Information pertaining to each of these decision stages is important because different communication strategies are required for each.

Knowledge Stage

Once the individual is made aware of the innovation and gains some understanding of how it functions, the knowledge stage has begun. According to Rogers (1983), the question as to whether needs or awareness of an innovation triggers

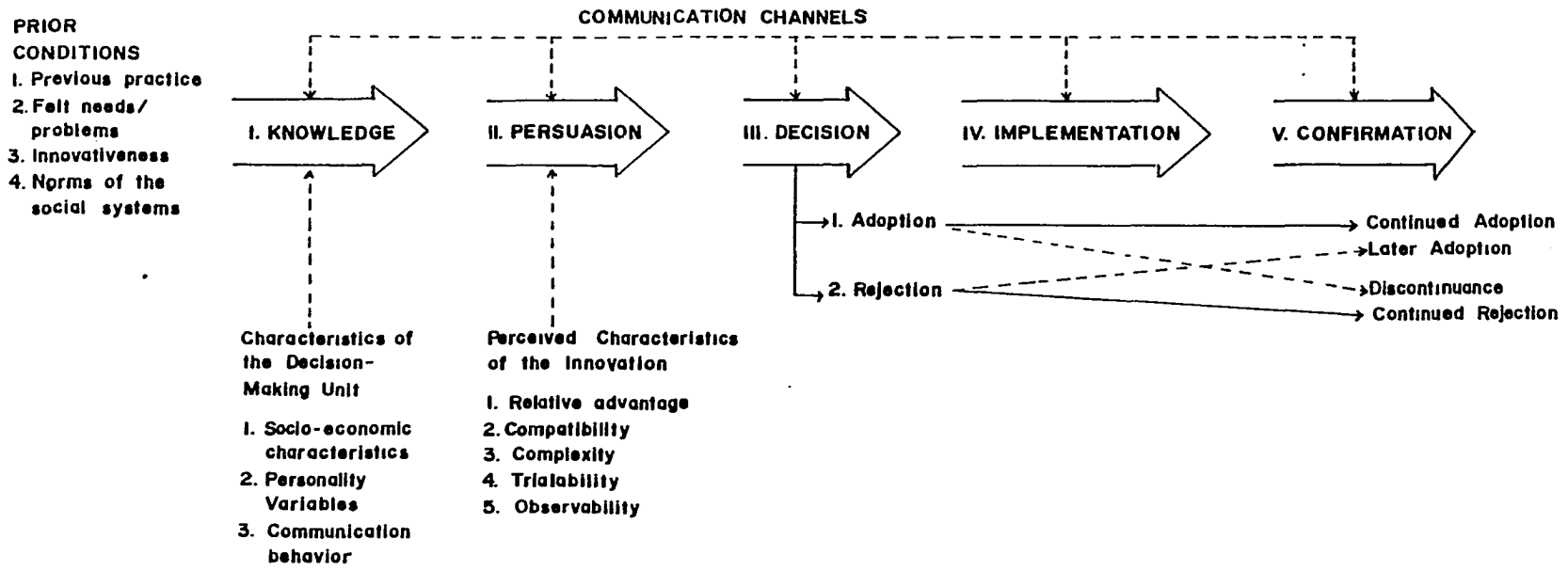


Figure 42. A model of stages in the innovation-decision process.

Source: Rogers, E. M. (1983). Diffusion of innovations. New York: Free Press, p. 165.

interest in the innovation and, subsequently, the search for knowledge, is not clear. Some claim that an individual plays a passive role in being exposed to awareness/knowledge about an innovation. Others feel that awareness/knowledge is only gained through behavior that must be initiated first by a need. Awareness, therefore, is not just a passive activity (Rogers, 1983).

The fact that individuals tend to expose themselves to ideas that are compatible with their interests, needs, or existing attitudes tends to support the latter theory. For example, individuals can exist without exercise, ignoring messages, until suddenly, one day they perceive a need that was not present before. Perhaps excess body weight has become a burden and/or is hindering job advancement. Maybe there is an individual need for an expansion of leisure activities. Or perhaps, as has been the case with company executives, they become more aware after being exposed to a stress test, of the toll that smoking, a sedentary job, and occupational stress take on their bodies. The individual thus begins to seek knowledge about physical activity.

The fundamental problem for physical activity leaders is to determine if and how needs are created. If it is possible to create needs, how can they be created more rapidly than would otherwise occur left to natural progressions? Whether need precedes knowledge, or knowledge creates a need is a confused interaction. The answer seems, in part, to be

innovation dependent (Rogers, 1983). For example, a farmer probably requires the need for a new pesticide to come first before searching for knowledge about an innovation that could solve the problem of bugs destroying his crops. On the other hand, simply knowing a new clothing fashion exists may be enough to create need for that particular clothing. Exercise participation research has not begun to answer the sequence question of whether need or knowledge is primary. Evidence indicates that knowledge of exercise is not always the factor motivating behavior change. This suggests, perhaps, that need may have to precede the search for knowledge.

Persuasion Stage

The next stage in the innovation decision model is the persuasion stage in which the individual forms a favorable or unfavorable attitude toward the innovation. Here the important questions are to be answered by research: (a) what sources does the individual use to seek information? (b) what messages are received? and (c) how is the information interpreted? Diffusion theory suggests that individuals require social reinforcement of attitudes toward the innovation and, therefore, checks their thinking to determine if it fits with that of the peers.

The persuasion stage, then, is typically an innovation-evaluation stage in which the reduction in uncertainty about an innovation's expected consequences and the advantages and

disadvantages are sought. Although answers to such anxieties may easily be available from scientific evaluations, in many cases, the information is usually sought from peers whose subjective opinion is more relevant and convincing than impersonal sources such as the mass media.

Like the knowledge stage, the kind of persuasion information needed to help in physical activity promotional campaigns is lacking. Some people are persuaded to become more physically active simply by seeing a message about the start of an exercise class. However, evidence also suggests that the typical enrollee has already been, or is already, physically active (Human Resource, 1978). Research about persuasion techniques that effectively influence individuals who have never considered physical activity has not been reported. Diversion tactics, i.e., those used by PARTICIPac-tion Saskatoon, where nationalism was intended to motivate citizens to join a sample physical activity program such as the community action walking project, was not effective in keeping people active after these programs ceased. With respect to physical activity, it is not even clear where an individual seeks information regarding exercise and who ultimately persuades him or her to begin a program. This further underscores the need for focused research.

Decision Stage

The decision stage occurs when an individual decides to adopt or reject the innovation. While adoption is the decision

to make full use of an innovation and rejection is the decision not to adopt, the situation is more complex in that there exist two types of rejection behavior (Rogers, 1983). Active rejection means considering adoption (including its trial) but then deciding not to adopt it. Passive rejection refers to never really considering use of the innovation. To date, there is no evidence that any consideration has been given to the two types of rejection behavior by researchers of physical activity.

There is one final point that must be stressed before leaving this discussion of the Innovation Decision Model. Although there is the implicit assumption of a linear sequence of the first three stages in the innovation decision process, i.e., knowledge, persuasion, decision, in some instances the actual sequence of stages may be knowledge-decision-persuasion. 'Try it, you'll like it' characterizes the approach. Although the idea was tried by the PARTICIPAction Saskatoon campaign without much success, it has not really been studied as a possibility with respect to exercise participation. What effect would several 8-week courses in "how to" activities have on participation in the long term? Employees of a company could be encouraged to try 8 weeks of jogging, bicycling, aerobic dance, etc., without actually having to commit themselves psychologically to a long-term program. At the present there is no reported study investigating this approach as a possibility in persuading

individuals, who would otherwise remain inactive, to begin an exercise program on a limited time basis.

Implementation Stage

Implementation occurs when the individual puts an innovation into use. Questions such as how to use the innovation, where to obtain it, how to implement it, what operational problems are likely to be involved and how can they be solved, are likely to arise. Although little is known about the first three stages in the exercise decision process, even less is known about the implementation of behavioral patterns leading to the adoption of exercise as a part of daily living.

Most promotional campaigns have avoided claiming that they are at the implementation stage in their campaigns. They claim merely to be at the awareness/knowledge stage. This is probably due to the fact that the implementation stage of exercise is an unknown, unresearched subject area. While it is relatively easy to borrow theoretical knowledge from other fields regarding the most efficient method to convey knowledge to the population, information about the implementation stage probably requires specific research relating directly to exercise behavior. This kind of information is just not available at present.

Implementation ends when the new idea becomes an institutionalized and regularized part of the adopters' ongoing operations. Aside from Morgan's work (1978) on the addictive

aspect of physical activity there have been only subjective reports about people who are habitually active (Mann, 1969). How exercise becomes habitual, how long it takes for this to occur, the influence of time and schedule in the ongoing exercise program, are as yet unresearched topics.

Evidence suggests that only about 20% of those beginning an exercise program remain active in a given class or program for any extended period of time. Unfortunately, research has concentrated on factors like self-determination, closeness to facilities, the influence of body weight, smoking behavior and so forth, on compliance to physical activity to the detriment of other, perhaps more helpful studies. The obtained data may be of general value. But they are limited in that two very important variables, social network and psychological needs, have not been considered. Such research projects, perhaps, ought to be repeated taking the latter variables into account.

It may also be valuable to investigate the potential influence of situational variables with respect to implementation. For example, Small (1982) helped explain individual driving patterns for potential use in the planning of city road systems. This shows promise for use in understanding the effect of schedules and time on individual physical activity behavior.

One of the questions that must be answered is, Can participation and compliance percentages be improved if individual

needs are matched to the exercise program instead of expecting the individual to mold to the available program? Can we improve attendance by knowing more about how time schedule and how other situational factors influence the decision to exercise or not to exercise on a particular day? In other words, instead of assuming that an individual is incapable of staying with a program because of personal fault factors, it is time to assume that because the individual has joined the program he or she really does want to be physically active. Our job, therefore, becomes one of finding out how to fill individual needs based on particular individual requirements.

Re-invention. Re-invention is the degree to which an innovation is changed or modified by the user in the process of adoption. If an individual drops out of the program it is usually assumed that he or she has dropped exercise altogether. The possibility that another variety of exercise has been adopted that suits personality, lifestyle, or time schedule better than the program being offered has not been considered. We have no idea how much re-invention of a physical activity program takes place, what kind of changes occur, why they occur, or how they occur. A study of the re-invention process of an exercise program may help in directing likely candidates more quickly to the re-invention stage before they perhaps become discouraged with an unsuitable exercise program.

Confirmation. At the confirmation stage, the individual seeks reinforcement for the innovation decision already made. This decision may be reversed if the individual is exposed to conflicting messages. Research about the kind of confirmation data required or desired by people is non-existent. What factors cause individuals to change their decisions about activity participation? What factors enforce the decisions? Where does the information come from and can it be controlled by the physical activity agent or agency?

Discontinuance. This refers to the decision to reject an innovation after having previously adopted it. Like rejection of the innovation, the innovation decision model recognizes two types of discontinuance: replacement and disenchantment (Rogers, 1983). Replacement discontinuance is the rejection of the idea in order to adopt a better idea or perhaps just a different one. For example, changing from jogging to triathlon (running, swimming, bicycling) or from aerobic dance to weight lifting are examples of replacement discontinuance.

Disenchantment discontinuance, on the other hand, is a decision to reject the idea as a result of dissatisfaction with its performance. Rogers (1983) contended that dissatisfaction may come about because the innovation is inappropriate for the individual and does not result in a perceived advantage over alternative practices. Or discontinuance may result from misuse of an innovation that could have

otherwise functioned advantageously for the individual, i.e., where injury interrupts the individual's ability to function. Although there has been considerable research on exercise discontinuance, there is little conclusive information. Part of the reason for this may stem from underestimating the complexity of exercise as an innovation. The reason why research cannot identify the "typical dropout" with any degree of certainty is perhaps due to the fact that no effort has been made to isolate other variables first. If individuals with different perceived needs are "lumped together" in one physical activity program, then it would be difficult, if not impossible, to identify the typical dropout when failure of the program to meet needs is the primary reason for dropping out. According to Rogers (1983), diffusion research has shown the importance of compatibility among individual beliefs, past experiences, and needs in relation to discontinuance behavior. Careful study of discontinuance behavior from this perspective is, therefore, important to the future of physical activity promotion.

Change Agency/Agent Characteristics

Rogers presented a flow chart of the relationship between change agency, change agent, and client system. This is presented in Figure 43. Theoretically, according to Rogers, the change agency is the R&D department. It is here that innovations are researched, defined, tested, and developed.

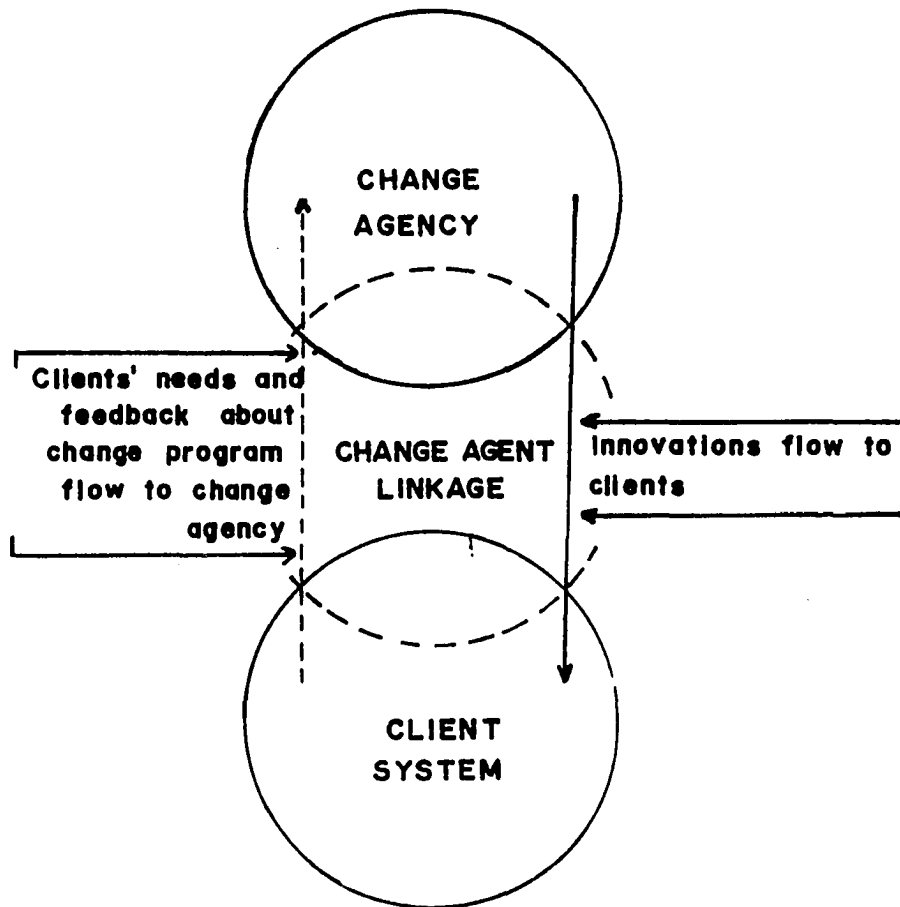


Figure 43. Linkage between change agents, change agency, and client system.

Source: Rogers, E. M. (1983). Diffusion of innovations. New York: The Free Press, p. 314.

The role of the change agent is to diffuse the innovation developed by the Change Agency, which, in response to some perceived need within society, regarded the innovation important enough to diffuse to the client system.

Rogers contended that diffusion campaigns that fail tend to be more innovation-minded than client-minded. Note that Rogers included an arrow in both directions between the agency and the agent, and the agent and the client system. This indicates a feedback mechanism exists throughout the system. It also demonstrates that the linkage between the agency, agent, and client is a crucial one. Not only is the role of the change agent one of diffusing the innovation, but it also includes another dimension. The change agent, to be effective, must relay to the agency the needs and problems of the clients, i.e., act as a feedback system from the client system for the change agency so that adjustments to the innovation can be made based upon success or failure. Take, for example, the PCPFS, and their innovation of the PCPFS school fitness tests outlined in Objective A in Chapter II. In this case the agency, the PCPFS, developed an idea that was intended to encourage youngsters to become more physically active. The PCPFS considered it desirable to diffuse the idea into the school system. Their agents, once the idea was accepted by the school board members and the school principal, were the physical education teachers, or the classroom teachers. Recall in Chapter II, under

actions by the PCPFS of Objective A, the following comment was made:

The number of school age youth taking the PCPFS test each year has for the past ten years remained relatively constant, between 18 and 19 million per year. During the 1981-82 school year a little over 500,000 youths won the coveted PCPFS fitness award. This trend is down-ward. Back in '78-'79 a little over 700,000 won the award. Attention needs to be directed towards the causes of this unfavorable trend and remedial actions initiated.

There are several statistics in the above statement that bear immediate consideration. First, the number of winners of the PCPFS award, 500,000 out of the approximately 18 million participants, amounts to 2.7% of the total participants. One must question how such a small number of winners can be justified as contributing to the physical activity status of youth when, by definition, 97.3% are destined to be declared "losers." Second, the 1981 census figures for students between the ages of 10 and 17 years enrolled in school was approximately 28 million (National Center for Education Statistics, 1981). Participants of the PCPFS test, therefore, constitute approximately 64% of the total student population within that age range. How many of the 64% participate out of the challenge and enjoyment of performing a 600 yard run, situps, chin ups, and a standing long jump and how many participate by school mandate? That is, would the participation percentages be higher or lower if the children were given the option to participate in the test? This is a crucial question to understanding needs and

desires of youngsters with respect to physical activity. Yet, it has not been asked either by the PCPFS staff or by physical educators.

Part of the problem contributing to an innovation oriented agent and thus the blind acceptance of the innovation by the agent regardless of its consequences can be attributed to the concept of homophily. The story of Babcock presented by George Leonard in his book The Ultimate Athlete illustrates the idea of homophily as it may be associated with physical education.

Standing in front of the boys and girls was a taut-muscled young man with gym shoes, gym pants, a white T-shirt, a crew cut, a whistle, and a clipboard. Next to the young man, like a guillotine in the sunlight, was a chinning bar. I stopped to observe the scene.

The man looked at his clipboard. "Babcock," he called.

There was stir among the boys and girls. One of them rose and made his way to the chinning bar: Babcock, the classic fat boy.

Shoulders slumped, he stood beneath the bar. "I can't," he said.

"You can try," the man with the clipboard said.

Babcock reached up with both hands, touched the bar limply--just that--and walked away, his eyes down-cast, as all the boys and girls watched, seeming to share his shame. (Leonard, 1977, p. 5)

There is, in this case, a complete lack of consideration for the client's ability to accomplish the task. Just as there exists an insensitivity to the 97% losers of the PCPFS test, the insensitivity among the physically skilled physical education teachers of the abilities of the lower skills of inactives. What does it matter if Babcock can perform a chin up or not?

Will it encourage him to be more physically active? Diffusion research in other fields indicates that because the change agents or agencies do not understand many of the social networks with which they deal, or the individuals within those systems, they do not really try to help the individuals with the greatest needs. Nor do they understand how to do so. It is the rare physical education professional student who is not reasonably capable in sports or physical activity of any type. From this group come the Ph.D.'s, the researchers, the leaders of adult physical activity classes, the agencies from whom decisions are forthcoming as to how physical activity will be introduced to the nation. Is it a wonder why physical education has been accused of dealing only with highly skilled individuals?

According to Rogers, other subject areas have at least attempted to face and solve the homophily problem. One solution used in family planning diffusion, for example, was to select change agent aides who were as much like the clients as possible (Rogers, 1983). If most clients possessed only a few years of formal education, it was recognized that a university-trained change agent would be likely to face greater communication difficulties than he or she had less education. They therefore sent individuals with a similar background as the clients into the network.

Physical education researchers and teachers have not begun to investigate the effect of change agent characteristics

on exercise adoption. The fact that we are producing ineffective change agents by requiring a highly technical preparation of these individuals flies directly in the face of the whole physical education preparation philosophy. Yet, over the years, the results of producing ineffective change agents has been far-reaching. It touches in a sense all the Babcocks of the country, the 18 million participants of the PCPFS fitness test, company programs, recreation departments, state fitness councils, and other groups charged with physical activity promotional responsibilities.

Implications

The insufficiency of usable information about physical activity, the inadequacy of prior promotional campaigns, and the reality of diminished activity among the population at large (cited in this report) have enormous ramifications that pervade every part of the physical education field. It suggests the need for a total reorganization and rethinking of the profession including AAHPERD, the researchers, teachers, i.e., those presently involved as change agents, as well as the curriculums for training future physical activity change agents. In other words, given the status of physical activity in the United States and the 1990 PCPFS goals, a complete reeducation of physical education professionals and researchers at work within the system is indicated. A reevaluation of professional preparation experiences that stress a

heavy physiological and medical orientation to one that develops leaders who perceive of themselves as change agents for inactive lifestyles is imperative. Such individuals must possess an ability to communicate, directly and indirectly, with all members of society and have a sense of responsibility for the physical activity behavior of their clients. It is they who must be held directly accountable for failure to accomplish the task of inspiring and developing an active population. Physical educators in the role of change agents must provide direction to the leadership agency responsible for the physical activity innovation.

The PCPFS physical fitness test is just one tiny indication of the blind "traditional" acceptance by physical education professionals of methods for introducing researching, and justifying physical activity to society. Every so often another study to test the fitness of school children is commissioned. Every time the result is the same. Our children are not physically fit as measured by the tests. The Babcocks of the country, who are not necessarily overweight, have told us over and over that they do not like to perform chin-ups or sit-ups or prepare for a physical fitness test. Seldom, however, have we asked Babcock what kind of physical activity he would like to do. "To study the teaching of physical education," commented Leonard, "was to prepare yourself to create Olympic champions. Not much here for Babcock or for most of the rest of us" (p. 6). Why do physical

education leaders such as those discussed by Legwold (1983) endorse, and, in fact, encourage schools to prepare their students specifically for the physical fitness tests? If such preparation encourages increased physical activity within the student population, then the tests and preparation for them can be justified. If they have no effect upon physical activity behavior, then we must ask: What does the physical fitness test really measure? Lack of physical activity within society? Or, does it measure the inability of the present system to appeal to the masses? Do physical education experiences, in fact, contribute to inactivity within society? Most children enjoy activity. What happens to them in "gym" that turns them off? The answers to such questions are not hard to measure. The questions themselves, however, pose a threat. The ultimate challenge is whether physical education can ask the critical questions, face the answers in a nondefensive manner, and accept past failures by indicating a willingness to reconceptualize its role. In this respect a further comment by Leonard bears analysis.

At that time a friend was studying physical education at one of our state universities. The physical-education department there was proud of its "academic" bent, and it was hard not to be impressed by the dry, rigorous quality of its offerings. The textbooks and course work testified to the fact that the tools and methods of a technical age had been brought into play to analyze, say, the precise physics involved in a championship high jump, or the ideal "bump" in volleyball. Even the subject of "psychological motivation" was approached mechanically, as you might program a computer. An intelligent creature from another planet,

coming across this material, would have reason to believe that the earth was inhabited by machines. And the main function of these machines would seem obvious to compete in something called the Olympics. (Leonard, 1975, p. 6)

It is time to take a lateral thinking approach to why the physical education profession, the PCPFS, and all the agencies and agents charged with sport and physical activity in this country have not had the impact they should have had on this society's needs, wants, and desires for physical activity. It is time to recognize that our responsibility is to inactive individuals in society as well as to skilled and potentially elite Olympic athletes. This study has provided information to allow a solid beginning to the reevaluative process.

One final comment is in order. No single person can accomplish the task of improving physical activity status within society. It must be a combined effort of all individuals within an organization, in this case, the profession. And, it is quite apparent that the answers to the solution do not lie within the present knowledge base of the profession. The immediate task at hand is to search other progressive fields of knowledge for potential direction. The Diffusion of Innovation Model and the application of marketing and communication theory may not provide the ultimate direction. The writer has merely suggested these approaches as an example of how other fields, not typically studied by physical educators, can provide some intriguing methods for analyzing the task we must accomplish.

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APPENDIX A

LETTER OF PERMISSION

Simmons Market Research Bureau, Inc.

June 22, 1984

Ms. Christine Brooks
1155 N.W. 35th
Corvallis, Oregon 97330

Dear Ms. Brooks:

We are delighted that our data are part of your Doctoral dissertation on physical fitness activity and you hereby are given permission to use the data as described in your letter and attachments received by me on June 13th.

As requested in that letter, I am enclosing data from our 1983 Study to enable you to update the 1982 data included in the draft you sent.

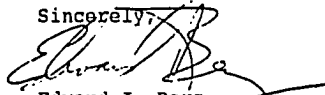
Please note that all of our data are to be credited to "Simmons Market Research Bureau: 1982 or 1983 (as appropriate) Study of Media and Markets."

Your comment about Arnold Mitchell's lifestyle approach prompts me to suggest that in your future research you may want to consider using our data in conjunction with SRI's VALS segmentation. As you many know, and as is described in the enclosed materials describing our Study, our respondents are classified into the VALS segments. With permission from VALS, we can tabulate for you sports participants by the VALS segments. If you are interested in pursuing this, I suggest you contact Dr. James Ogilvy, the VALS Director of Research (Arnold Mitchell has retired).

If possible, I would appreciate receiving a copy of your finished dissertation incorporating our data.

All best wishes.

Sincerely,



Edward I. Barz
Senior Vice President

EIB:bb
encl.

SMRB 219 East 42 Street, New York, NY 10017 (212) 867-1414



July 9, 1984

Ms. Christine Brooks
1155 N.W. 35th
Corvallis, Oregon 97330

Dear Ms. Brooks:

Your research sounds very interesting, and you have our permission to use the VALS double hierarchy.

*Best regards
Jay Wiley*

SRI International

333 Ravenswood Ave • Menlo Park, CA 94025 • 415 326-6200 • TWX: 910-371-2046 • Telex: 334486 • Facsimile: 415 326-5512

APPENDIX B

RAW DATA

Raw Data--Simmons Market Research Bureau Study of
Media and Markets, 1982

Participation in a Physical Fitness Program	Jogging			Weight Lifting			Bicycling			Swimming			
	Own Jogging Shoes	Participated	Participated 30+ Days	Own Weight Lifting Equipment	Participated	Participated 25+ Days	Own a Bicycle	Participated	Participated 25+ Days	Own a Swimming Pool	Participated	Participated 25+ Days	
Total													
Population:	33.5	18.2	11.5	4.1	10.4	7.4	3.7	27.5	16.1	5.0	3.9	31.6	8.2
Males	29.6	20.5	12.2	5.2	16.1	11.7	6.2	27.4	14.5	4.8	-	32.1	7.2
Females	36.8	16.1	11.1	3.1	5.3	3.7	1.5	27.6	17.6	5.1	-	31.1	9.1
Age:													
18-24	48.2	29.4	21.4	7.8	18.7	17.5	7.9	34.3	24.1	8.1	2.2	49.3	12.4
25-34	45.5	26.5	16.4	5.1	14.2	10.0	4.6	38.1	22.2	6.5	4.3	43.4	10.7
35-44	35.5	19.2	11.0	3.9	11.7	6.6	4.4	33.6	18.7	5.3	6.2	34.5	9.4
45-54	26.8	13.7	7.6	3.4	8.8	3.8	2.5	25.9	12.8	3.9	3.3	24.9	5.8
55-64	20.9	9.3	4.8	2.0	3.2	2.0	0.8	16.6	8.8	2.8	3.5	17.3	5.1
65+	12.9	3.5	2.8	1.0	1.5	1.0	0.4	8.2	4.5	1.5	1.1	8.6	2.9
Education:													
Grad. Coll.	49.5	30.3	19.2	7.7	14.2	10.6	6.4	41.0	25.2	8.2	5.2	46.7	12.0
Attended college	48.7	28.0	18.0	8.1	15.8	11.1	5.7	39.2	22.5	8.4	4.9	43.9	12.1
Grad H.S.	33.0	16.2	9.9	2.8	10.7	7.6	3.6	27.6	16.2	4.2	4.4	32.4	8.2
Did not Grad H.S.	16.5	8.8	6.0	1.7	4.8	3.4	1.2	13.6	7.5	2.2	2.0	15.2	3.8

Participation in a Physical Fitness Program	Jogging			Weight Lifting			Bicycling			Swimming			
	Own Jogging Shoes	Participated	Participated 30+ Days	Own Weight Lifting Equipment	Participated	Participated 25+ Days	Own a Bicycle	Participated	Participated 25+ Days	Own a Swimming Pool	Participated	Participated 25+ Days	
Occupation:													
Prof/Man	44.9	28.6	18.7	6.8	14.3	10.0	5.8	40.9	24.1	8.2	-	42.8	10.7
Cler/sales	42.5	21.6	14.2	4.4	1.9	7.5	3.1	35.7	21.6	5.4	-	40.0	9.7
Craftsmen/ foremen	27.1	21.1	11.6	3.9	14.3	8.0	4.4	28.2	12.9	2.9	-	32.7	8.0
other	32.5	17.6	10.7	4.4	13.4	9.7	4.9	25.7	15.0	4.6	-	31.7	8.3
Regions:													
North East	29.5	16.2	10.4	4.4	9.2	6.9	2.8	25.8	14.6	5.5	4.8	33.1	10.1
North Cent.	35.3	19.2	11.8	4.1	12.4	7.7	3.3	35.2	21.4	5.8	3.3	33.3	6.7
South	29.3	15.5	10.4	3.1	8.8	6.5	3.5	19.6	11.2	3.3	2.7	27.7	6.6
West	43.0	24.0	14.6	5.6	11.8	9.4	5.7	33.0	19.4	6.0	5.4	34.2	10.8
Community Size:													
A	35.7	19.7	12.5	4.7	10.7	7.9	4.2	28.8	17.1	5.6	4.6	34.5	10.0
B	34.7	19.4	12.4	4.2	9.8	8.4	4.0	27.6	16.4	5.0	3.9	31.3	8.1
C	34.7	16.5	10.9	3.6	13.1	7.4	3.7	26.4	15.1	5.1	3.3	32.1	7.0
D	23.3	12.9	7.6	2.6	7.7	4.1	1.4	24.8	14.0	2.8	1.9	22.7	4.2
Metro City	36.0	20.3	12.9	5.0	10.9	8.2	4.5	26.6	15.8	5.3	3.0	31.5	8.0
Metro													
Suburb	36.6	19.5	12.3	4.2	10.7	8.1	4.1	30.0	18.0	5.6	5.2	34.7	9.9
Non Metro	24.6	13.2	8.6	2.9	9.2	5.4	2.0	24.2	13.2	13.4	2.6	26.0	5.2

Participation in a Physical Fitness Program	Jogging			Weight Lifting			Bicycling			Swimming			
	Own Jogging Shoes	Participated	Participated 30+ Days	Own Weight Lifting Equipment	Participated	Participated 25+ Days	Own a Bicycle	Participated	Participated 25+ Days	Own a Swimming Pool	Participated	Participated 25+ Days	
Income:													
\$40,000+	45.3	27.9	16.8	7.2	14.4	9.9	6.0	38.8	23.2	6.8	8.9	42.2	11.4
\$30,000+	41.0	24.9	15.6	5.9	14.2	10.0	5.1	37.3	21.9	6.3	7.2	40.2	10.4
\$25,000+	41.4	23.9	14.7	5.6	14.0	9.8	5.2	36.3	20.9	6.2	6.8	39.1	10.3
\$20,000-													
24,000	37.8	17.4	11.1	3.0	12.2	7.9	3.5	31.6	17.2	5.2	3.8	33.3	8.3
\$15,000-													
19,999	34.2	18.0	9.7	3.0	11.7	7.6	3.7	27.0	14.7	3.9	3.7	33.5	7.6
\$10,000-													
14,000	27.6	15.3	10.9	4.2	6.3	5.5	2.4	21.4	14.4	4.5	2.6	29.4	8.3
under													
10,000	19.3	10.0	7.1	2.4	4.8	4.2	1.9	13.0	8.5	3.3	1.2	16.4	4.1

Raw Data--Simmons Market Research Bureau Study of
Media and Markets, 1983

Physical Fitness Program	Jogging			Bicycling			Weight Lifting			Swimming			
	Own Jogging Shoes	Participated	Participated 40+ Days	Own a Bicycle	Participated	Participated 25+ Days	Own Weight Lifting Equipment	Participated	Participated 25+ Days	Own a Swimming Pool	Participated	Participated 25+ Days	
Total Population:	35.9	20.5	11.6	3.7	26.1	15.0	4.6	10.3	7.5	3.8	4.6	28.1	7.0
Males	33.1	22.3	12.6	4.6	26.7	14.1	4.7	15.4	11.4	5.9	4.6	29.2	6.9
Females	38.5	19.0	10.7	2.9	25.6	15.8	4.5	5.7	4.0	1.8	4.6	27.2	7.1
Age:													
18-24	49.6	32.3	21.7	5.2	32.9	23.4	6.4	17.1	16.5	8.1	4.9	41.3	9.7
25-34	49.5	28.2	16.9	4.6	35.0	20.7	5.9	13.1	10.6	5.5	4.8	41.0	10.4
35-44	40.3	23.9	13.7	6.7	32.8	15.8	4.8	14.2	7.7	3.8	7.1	31.8	7.8
45-54	30.2	15.9	6.1	3.0	23.9	12.1	3.5	8.6	3.6	2.3	5.9	22.4	5.3
55-64	20.6	10.8	2.9	0.9	16.6	8.1	3.2	3.8	1.3	0.4	3.5	14.5	4.3
65+	13.5	4.6	2.3	0.6	8.2	4.6	2.4	1.2	1.2	0.4	1.3	6.7	2.0
Education:													
Grad. Coll. Attended college	54.1	35.3	21.3	9.0	42.4	24.6	7.8	13.0	10.2	6.2	5.3	44.9	11.6
Grad H.S. Did not	33.9	18.6	9.9	2.8	25.3	14.8	4.5	10.8	7.4	3.4	5.2	28.2	7.0
Grad H.S.	20.2	9.6	5.7	1.2	13.7	7.5	2.5	5.3	3.6	1.5	2.4	13.2	3.1

Physical Fitness Program	Jogging			Bicycling			Weight Lifting			Swimming			
	Own Jogging Shoes	Participated	Participated 40+ Days	Own a Bicycle	Participated	Participated 25+ Days	Own Weight Lifting Equipment	Participated	Participated 25+ Days	Own a Swimming Pool	Participated	Participated 25+ Days	
Occupation:													
Prof/Man	51.3	33.6	19.9	8.6	40.3	22.9	6.8	15.0	10.9	6.3	5.7	43.0	10.7
Cler/sales	47.5	25.1	14.0	4.5	30.4	18.6	5.2	11.5	7.3	3.5	5.6	36.6	9.0
Craftsmen/foremen	33.4	20.1	10.6	4.0	25.3	12.2	4.4	18.0	12.0	6.3	5.9	30.4	7.1
other	32.0	20.1	10.8	3.2	23.9	14.4	4.4	12.3	10.2	4.7	4.0	26.0	5.6
Regions:													
North East	37.4	20.7	11.3	3.2	26.7	15.6	4.5	9.5	7.8	4.1	4.8	33.3	9.8
North Cent.	35.8	20.5	10.6	3.5	30.8	18.6	6.0	11.5	7.3	3.5	3.7	27.9	5.7
South	29.5	16.6	10.0	2.9	20.1	10.7	3.1	9.7	6.3	2.9	3.7	23.5	5.7
West	46.1	27.7	16.2	6.3	30.2	17.2	5.6	10.5	9.5	55.3	5.9	30.8	8.0
Community Size:													
A	39.9	23.4	12.4	4.5	27.2	16.0	5.2	11.4	8.4	4.2	5.5	30.5	8.2
B	37.0	21.0	13.0	3.9	27.4	15.6	4.4	10.5	8.0	4.5	4.7	29.9	7.2
C	33.4	18.6	10.5	3.0	24.7	13.9	4.1	9.6	7.2	2.9	4.4	26.9	6.7
D	24.2	13.3	7.3	1.8	21.9	12.0	3.9	7.2	4.2	1.6	2.1	18.6	3.6
Metro City	39.1	23.3	13.0	4.4	23.8	14.7	4.7	10.6	8.0	4.5	3.6	27.8	7.6
Metro Suburb	38.4	22.0	12.6	4.3	29.4	16.5	5.1	11.3	8.5	4.2	5.9	31.4	7.6
Non Metro	27.2	14.4	8.1	1.8	22.9	12.5	3.4	7.9	5.1	1.9	3.3	22.3	5.3

Physical Fitness Program	Jogging			Bicycling			Weight Lifting			Swimming			
	Own Jogging Shoes	Participated	Participated 40+ Days	Own a Bicycle	Participated	Participated 25+ Days	Own Weight Lifting Equipment	Participated	Participated 25+ Days	Own a Swimming Pool	Participated	Participated 25+ Days	
Income:													
\$40,000+	50.8	30.1	16.4	6.9	37.1	19.7	6.1	13.8	10.4	5.8	8.1	38.3	11.1
\$30,000+	48.4	28.5	15.8	6.5	36.6	19.9	6.1	13.9	10.1	5.2	7.3	38.2	9.9
\$25,000+	46.7	27.1	15.2	5.9	35.4	19.8	5.9	13.6	9.6	5.0	6.9	37.4	9.5
\$20,000- 24,999	35.5	20.5	11.6	2.0	28.0	14.8	4.3	10.8	6.5	3.4	4.5	28.0	7.8
\$15,000- 19,999	34.6	19.4	10.8	2.8	25.2	13.7	4.4	7.9	8.1	4.5	3.2	27.5	6.0
\$10,000- 14,999	28.9	15.8	8.3	2.3	17.8	12.3	3.8	9.2	6.9	3.1	2.9	21.7	5.1
under \$10,000	19.8	11.3	7.1	1.9	12.7	8.0	2.7	5.1	3.8	1.5	1.8	14.4	3.6

Raw Data

Human Resource Research Survey from Orend

Proportion of the Adult Population in each Leisure Participation Cluster

Undirected.....	50.5%
Performing Arts Attendance.....	2.7%
Active Music.....	1.1%
Television.....	11.1%
Play/Poetry on radio, record, TV.....	1.1%
Active Exercise/sports.....	3.2%
Visual Arts.....	4.9%
Home media/family, friends.....	3.1%
Folk Activities.....	5.9%
Individual family activities.....	15.9%

Leisure Participation Cluster Membership

	Undirected	Individual Hobbies/ Family	T.V.	Sports/ Exercise
<u>Community Size</u>				
500,000+	41.4%	16.5%	13.0%	5.0%
100,000- 499,999	46.1	18.3	10.1	3.7
10,000- 99,999	45.1	16.5	14.4	3.7
2,500- 9,999	51.1	18.9	12.3	1.4
Rural	51.2	19.1	13.0	2.3
<u>Age</u>				
18-29	36.5	23.5	5.8	7.6
30-39	47.0	19.8	13.0	2.7
40-49	55.1	12.4	13.6	1.3
50-64	57.8	9.8	19.3	0.9
65+	45.5	19.1	16.4	0.4
<u>Education</u>				
to 8th grade	52.9	24.0	9.0	0.0
8th+, not H.S. graduate	42.6	19.4	20.4	1.5
Grad. H.S.	45.3	18.9	12.9	3.9
Some college	47.6	18.5	11.6	4.8
College Grad	44.4	13.7	8.3	2.4
Post Grad	56.6	11.6	7.3	4.2
Ph.D.	72.8	0.0	0.0	6.6

Leisure Participation Cluster Membership

	<u>Undirected</u>	<u>Individual Hobbies/ Family</u>	<u>T.V.</u>	<u>Sports/ Exercise</u>
<u>Income</u>				
to \$5,000	33.4	28.7	17.0	1.8
\$5,000-\$8,000	42.8	20.2	14.1	2.4
\$8,000-\$10,000	35.8	27.2	13.7	2.3
\$10,000-\$12,000	46.5	17.2	10.5	2.9
\$12,000-\$15,000	46.0	22.0	7.7	4.4
\$15,000-\$20,000	51.0	13.3	14.9	2.7
\$20,000-\$30,000	55.0	12.8	10.9	5.0
over \$30,000	54.4	7.0	10.8	4.3
<u>Occupation</u>				
Professional	54.3	10.3	9.2	4.7
Clerical/Sales	50.7	19.9	10.5	2.2
Blue Collar	46.3	13.1	15.2	3.9
Farm	73.9	10.4	9.9	0.0
Service	43.6	14.3	14.5	4.9
Homemaker	37.9	31.3	12.3	2.0
Retired	42.6	17.8	28.3	0.0
Students	44.3	15.0	3.3	6.1

Human Resources Research Survey from Orend
Strength of Desire to Increase Participation in
Sports and Exercise

	<u>Sports</u>		<u>Exercise</u>	
Desire	24.9%		44.3%	
Small Desire	11.9		21.5	
Moderate Desire	7.2		12.1	
Strong Desire	5.8		10.7	
	<u>Desire</u>	<u>Strong Desire</u>	<u>Desire</u>	<u>Strong Desire</u>
<u>Sex</u>				
Men	34.4	8.8	45.6	12.6
Women	17.4	3.4	43.5	9.3
<u>Prior Activity</u>				
Never				
Participated	11.7	1.4	25.2	4.3
New Participant	44.7	9.2	63.4	12.2
Steady				
Participant	69.7	23.7	62.7	18.4
Prior				
Participant	27.6	4.2	47.4	10.1
<u>Degree of Activity in Past 12 months</u>				
Nonparticipant	13.3	1.8	27.3	6.4
Moderate				
Participant	62.0	15.0	63.3	11.4
High Participant	64.7	23.4	65.3	22.8
<u>Community Size</u>				
1,000,000	27.5	4.0	50.9	15.3
500,000-				
999,999	36.4	11.1	59.9	24.0
100,000-				
499,999	32.0	5.2	4.4	9.5
50,000-99,999	31.7	7.8	47.8	13.6
Suburb 500,000	24.6	5.6	53.7	13.1
Suburb				
100,000-499,999	21.4	5.6	44.8	4.5
10,000-99,999	21.4	6.8	47.5	13.7
2,500-9,999	19.9	3.2	38.4	8.6
Rural Farm	16.8	4.4	31.0	5.0
Rural Nonfarm	24.4	5.6	41.3	5.1

	<u>Sports</u>		<u>Exercise</u>	
	<u>Desire</u>	<u>Strong Desire</u>	<u>Desire</u>	<u>Strong Desire</u>
<u>Age</u>				
18-29	47.1	1.9	65.6	18.8
30-39	25.3	6.3	49.4	13.3
40-49	15.6	3.6	40.5	9.5
50-64	7.4	0.7	22.9	3.3
65+	3.4	0.9	17.3	0.1
<u>Income</u>				
to \$5,000	23.7	3.3	32.2	5.9
\$5,000-\$8,000	23.3	4.1	39.2	9.3
\$8,000-\$10,000	26.5	6.3	47.4	11.2
\$10,000-\$12,000	27.4	6.2	49.9	9.8
\$12,000-\$15,000	26.5	9.3	45.4	15.2
\$15,000-\$20,000	23.9	7.2	46.1	10.6
\$20,000-\$30,000	31.4	7.0	55.2	14.0
\$30,000+	19.9	3.4	47.6	14.2
<u>Education</u>				
to 8th grade	10.3	0.0	26.0	4.6
9-11 grade	19.0	3.8	39.6	8.2
H.S. Grad.	24.2	4.9	41.0	9.3
Attended college	31.6	7.8	51.3	13.8
College Grad	28.4	8.6	59.0	16.9
Post Grad	33.0	12.0	53.2	14.1
Ph.D.	36.0	2.5	57.9	32.1
<u>Occupation</u>				
White Collar	27.2	7.3	48.6	13.4
Blue Collar	36.6	6.1	46.3	10.4
Farm Worker	13.9	0.0	17.5	0.0
Service Worker	12.0	4.0	38.9	11.1
Home Maker	10.9	2.8	42.7	10.7
Retired	8.1	3.6	16.3	0.7
Student	57.0	13.5	66.2	14.5

APPENDIX C

DEFINITIONS OF REGION AND COMMUNITY SIZES

The four regions in the Simmons report represent state groups in accordance with standard Bureau of the Census definitions.

- Northeast: Connecticut, Maine, Massachusetts, New Hampshire, New Jersey, New York, Pennsylvania, Rhode Island
- North Central: Illinois, Indiana, Iowa, Kansas, Michigan, Minnesota, Missouri, Nebraska, North Dakota, Ohio, South Dakota, Wisconsin
- South: Alabama, Arkansas, Delaware, Florida, Georgia, Kentucky, Louisiana, Maryland, Mississippi, North Carolina, Oklahoma, South Carolina, Tennessee, Texas, Virginia, Washington, D.C., West Virginia
- West: Arizona, California, Colorado, Idaho, Montana, Nevada, New Mexico, Oregon, Utah, Washington, Wyoming

The definitions of community sizes for the Simmons report conform to the Nielsen classification and are as follows:

- Community Size A: All counties as of June 19, 1981 belonging to the 25 largest SCSAs or SMSAs according to the 1980 Census of Population.
- Community Size B: All counties not included under A that are either over 150,000 population or in SCSAs or SMSAs over 150,000 population according to the 1980 Census of Population.
- Community Size C: All counties not included under A or B that are either over 40,000 population or in SMSAs over 40,000 population according to the 1980 Census of Population.
- Community Size D: All remaining counties.