

TEACHER BURNOUT: A COMPARISON OF K-12
PUBLIC SCHOOL PHYSICAL EDUCATORS IN
SUBURBAN COOK COUNTY, ILLINOIS

By

JOAN ELLEN MARTIN

Bachelor of Science
North Central College
Naperville, Illinois
1959

Master of Arts
Northwestern University
Evanston, Illinois
1962

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Thesis Approved:

Betty Abernombie

Thesis Adviser

Betty M. Edgley

A.B. Harrison

Robert S. Ramm

Norman A. Durbin

Dean of the Graduate College

PREFACE

The primary object of this study is to compare the amount of perceived burnout between elementary, junior high, and secondary public school physical education teachers in suburban Cook County, Illinois. Second, consideration is given to the relationship between teacher burnout and six demographic variables. Analysis of variance (ANOVA) techniques are used to analyze the data and test the research hypotheses.

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CHAPTER I

INTRODUCTION

Each year, the teaching profession loses some of its most competent and dedicated individuals to the syndrome known as teacher burnout. Why are so many once enthusiastic and effective teachers leaving the professional ranks? According to McGuire (23, p. 5): ". . . burnout has already stricken thousands of sensitive and thoughtful teachers--teachers who are abandoning the profession. Additional thousands may join their peers for they fear for their physical and mental health."

Teaching has become a changing, frustrating, and stressful occupation. The inability to cope with societal-personal changes and/or uncontrolled stress situations leads to teacher burnout. A 1979 National Education Association Resolution declared (34, p. 36): ". . . the dynamics of our society and increased public demands on education have produced adverse and stressful classroom and school conditions." Swick (36, p. 29) concurred with NEA's observation: ". . . during the past decade, the teaching profession has experienced many changes . . . the increased demands on teachers have resulted in negative stress situations."

Personal and professional stress situations that lead to burnout have affected teachers to the extent that they have chosen to: (a) leave the profession altogether, or (b) stay on the job and become toned down, tuned out, or turned off (9, 11, 13, 14, 36, 37, 41). For those who

decide to remain, burnout or "combat neurosis" becomes a frightening and debilitating affliction (14, 30, 47).

Burnout is not limited to, but is more prevalent in, helping (people contact/service oriented) professions. Evidence supports the theory that all members of helping professions are, at some point in time, affected by burnout (13, 19, 27, 42). Teachers, considered helping professionals, are prime candidates for the burnout syndrome.

Many articles have been written and many workshops/institutes have been conducted on burnout, but little research has been undertaken to determine the cause/effect relationship between burnout and members of the teaching profession. Some educators have theorized that teacher burnout is directly related to the length of teaching service, specifically ten or more years (5, 6, 34, 36). Others counter, and claim that burnout can and does occur at any stage of the teaching experience (10, 32, 42). Analysis of educational research has failed to fully answer the question: is the amount of burnout experienced by teachers contingent upon their level of teaching? Several researchers have, within their studies, implied that teacher burnout was significantly affected by the level of teaching (2, 11, 16, 26, 33, 36, 46). Still, scrutiny of available resources upholds the need for additional and effective teacher burnout research (4, 5, 7, 40, 41). This study, therefore, investigated the level of burnout experienced by public school physical education teachers compared to their level of teaching.

Statement of the Problem

The problem of this study was to compare the degree of perceived burnout between elementary, junior high, and secondary public school

physical education teachers in suburban Cook County, Illinois, The Maslach Burnout Inventory (MBI) was distributed to 750 randomly selected (250 at each of the three grade levels--elementary, junior high, and secondary) physical education teachers. Based upon the findings, conclusions were drawn as to whether or not the degree of perceived burnout was related to the level of teaching.

Purpose of the Study

Despite the vast amount of available information regarding burnout, research on teacher burnout has been limited and rarely studied with respect to one specific teaching area. The purpose of this study was to investigate perceived burnout in a previously unexplored population, namely, physical education teachers. A second purpose of this study was to determine whether the grade level taught and demographic variables affected the burnout levels of physical educators.

Hypotheses

The following hypotheses were developed for this study:

1. There is no significant difference between elementary, junior high, and secondary public school physical education teachers in the frequency dimension of Emotional Exhaustion.
2. There is no significant difference between elementary, junior high, and secondary public school physical education teachers in the frequency dimension of Depersonalization.
3. There is no significant difference between elementary, junior high, and secondary public school physical education teachers in the frequency dimension of Personal Accomplishment.

4. There is no significant difference between elementary, junior high, and secondary public school physical education teachers in the intensity dimension of Emotional Exhaustion.

5. There is no significant difference between elementary, junior high, and secondary public school physical education teachers in the intensity dimension of Depersonalization.

6. There is no significant difference between elementary, junior high, and secondary public school physical education teachers in the intensity dimension of Personal Accomplishment.

7. There is no significant difference between selected demographic variables in the frequency dimension of Emotional Exhaustion.

8. There is no significant difference between selected demographic variables in the frequency dimension of Depersonalization.

9. There is no significant difference between selected demographic variables in the frequency dimension of Personal Accomplishment.

10. There is no significant difference between selected demographic variables in the intensity dimension of Emotional Exhaustion.

11. There is no significant difference between selected demographic variables in the intensity dimension of Depersonalization.

12. There is no significant difference between selected demographic variables in the intensity dimension of Personal Accomplishment.

Assumptions

The following assumptions were placed upon this study:

1. It was assumed that the subjects answered the MBI truthfully and in good will thus producing an honest MBI response.

2. It was assumed that the subjects answering the MBI had no difficulty in understanding the directions and/or statements presented.

Limitations

The following limitations were placed upon this study:

1. The time factor limited the number of MBI's distributed.
2. The time factor limited the number of MBI's returned.
3. The cost factor (postage, MBI reproduction, envelopes) limited the number of MBI's distributed and received.

Delimitations

The following delimitations were placed upon this study:

1. The representative population included 250 elementary, 250 junior high, and 250 secondary public school physical education teachers in suburban Cook County, Illinois.
2. The use of the inventory method in the collection and presentation of the data.
3. The use of one specific subject area population (physical education teachers).

Definition of Terms

The following definitions were used in this study:

1. Stress: the body's nonspecific response to any demand placed on it whether that demand is pleasant or not (1).
2. Eustress: good or positive stress (1).
3. Distress: bad or negative stress (1).

4. Teacher Stress: the occurrence of perceived negative situations that result in adverse teacher responses or behavior (36).

5. Stressor: any stimulus, internal or external, which activates our psychological and physiological coping mechanisms (37).

6. Burnout: emotional exhaustion resulting from stress or interpersonal contact (19).

7. Teacher Burnout: ". . . unchecked stress caused by the institutions' impersonal and unyielding demands and by the immediate environment in which teaching is done" (13).

8. Helping Professions/Professionals: occupations/people whose work involves continuous direct contact with different kinds of recipients (19).

9. Job Satisfaction: ". . . the appraisal of one's job as attainment of one's important job values, providing these values are congruent with or help to fulfill one's basic needs" (12).

10. Emotional Exhaustion: being emotionally overextended and exhausted by one's work (22).

11. Depersonalization: impersonal response towards recipients (students) of one's care or service (22).

12. Personal Accomplishment: feelings of competence and successful achievement in one's work with people (22).

Summary

Burnout, as a term, has been labeled neologistic. Burnout, as an individual and group problem, has been labeled as an epidemic among human service professionals.

The multitude of available burnout information indicates that it has

been recognized as a critical social issue among helping professionals. Teachers, who represent one such group of "people workers," are duly concerned with the prevalence of burnout among their peers.

In order to fully understand and combat teacher burnout, the various causes of the syndrome need to be identified. Prevention, rather than treatment, may be the key to reducing teacher burnout and increasing teacher survival. As one step toward that end, the present study examined the causative relationship between teacher burnout and the level of teaching.

CHAPTER II

REVIEW OF RELATED LITERATURE

Introduction

A thorough search of the literature indicated that the present study, although similar to previous research, was not an attempt to replicate earlier studies. The review of related literature was, however, restricted to inquiries that were directly related to the burnout syndrome among individuals in the helping professions.

Review of Related Literature

Non-Teaching Studies

Pines and Maslach (31) conducted a study to determine the characteristics leading to burnout among mental health workers. Seventy-six San Francisco staff workers from a variety of mental health facilities were interviewed. Items dealing with demographic information, working conditions, job related attitudes, and self perceptions were used to collect the data. According to the findings, the characteristic of mental health workers that had the greatest effect on their level of burnout was their length of employment in the mental health field which produced less compassion for and more negative feelings toward their patients as well as a less humanistic attitude toward the problem of mental illness (31).

Pines and Kafry (30) conducted a study to determine the various

sources of burnout among social service workers. A questionnaire, used to identify the frequency of burnout, was completed by 129 Midwest social service workers. The Job Diagnostic Survey, Kunin's Faces Scales, the Job Description Index, and job attitude questions were used to measure internal and external work characteristics related to job satisfaction. The findings indicated that the extrinsic working environment (relationships with co-workers and clients) had a greater effect on burnout than intrinsic working conditions (30).

Maslach and Jackson (20) studied burnout among policemen and their families. Two questionnaires, used to measure burnout, were completed by 130 rural and urban California married couples. Male police officers completed a detailed survey (statements dealing with their home life, stress coping mechanisms, and work environment) and the Maslach Burnout Inventory. The police officers' wives answered questions pertaining to their husbands' conduct at home and their occupation. According to the findings, a high degree of home stress was directly related to a high degree of burnout. Results also pointed out that high burnout scores were more prevalent among younger policemen (20).

Harrison (12) investigated the relationship between job satisfaction and burnout among child protective service (CPS) workers. A Psychometric survey, used to measure role conflict and ambiguity, was administered to 112 CPS workers in urban Minnesota. The Job Description Index (JDI) was used to measure job satisfaction (the most applicable measure to the burnout syndrome). Results indicated a high degree of role conflict and ambiguity among CPS workers. According to the findings, urban Minnesota CPS workers, when compared with workers in other job positions, experienced less satisfaction with their job advancement levels and more

satisfaction with their salaries. Harrison (12) established a significant relationship between job dissatisfaction and role conflict/ambiguity among CPS workers.

Thompson (38) studied the burnout syndrome among group home houseparents. A mailed questionnaire was completed by 47 North Carolina houseparents of group homes for emotionally disturbed teenagers. Results indicated a significant relationship between burnout and the houseparents according to their sex (high male burnout scores were equated with direct involvement in the new resident screening process but no authority in the final new resident selection and higher salaries--high female scores were equated with direct involvement in the new resident screening process and having to conduct resident meetings). Job conditions and staff relationships were also found to have a significant influence on the burnout levels among group home houseparents (38).

Otto (28) examined the entire syndrome referred to as burnout. The study sample consisted of 30 volunteers, all members of various helping professions, who were placed into three groups, based upon their knowledge of and/or experience with burnout. Each professional responded to 220 statements covering 7 various areas of burnout. Data revealed significant agreement among the participants with regard to the major aspects of burnout: what it is (problems stemming from the work environment); causes (inability to handle individual and job related stress factors); effects (burned out individuals possess definite, yet common, characteristics); and management and control (both were deemed the responsibility of the employer and the employee) (28).

Whitebook (42) conducted a study to determine how child care workers perceived their job and burnout. Phone interviews were used to collect

data from 95 San Francisco child care workers in 32 randomly selected child care centers. A significant relationship was established between working conditions and job satisfaction, both of which accounted for a high turnover rate among the workers, and a high level of burnout (42).

Streepy (35) conducted a survey to determine the incidence of burnout among direct-service providers in family service agencies. Subjects were 108 direct-service providers in 12 New Jersey family service agencies. Respondents completed an author-developed 81-item (13 of which were used to measure burnout) questionnaire. Streepy concluded that worker burnout was significantly related to: low income, less education (no graduate degree), fewer years of experience, low job satisfaction, negative feedback from clients, poor attitudes toward their profession, limited contact with clients, difficulty in providing adequate client assistance, and additional work pressure.

Lavandero (17) studied the amount of burnout experienced by professional nurses. The Maslach Burnout Inventory (MBI) was administered to 299 registered, volunteer nurses. Results indicated a significant relationship between emotional exhaustion (burnout), personal involvement, and job satisfaction and job-related variables (the patients) (17).

Justice, Gold, and Klein (15) examined select life occurrences and their relationship to burnout. An author constructed test battery was administered to 188 social service personnel in Louisiana and Texas. Demographic data, items measuring burnout and feelings about one's life and work, a list of life occurrences made up the areas of the instrument. Results indicated a significant difference between life occurrences labeled positive or negative. Negative occurrences tended to initiate or rapidly increase existing burnout while positive occurrences slowed burnout

down. Job type or sex had little significance to burnout potential (15).

Teaching Studies

Metz (25) conducted a study to identify common characteristics among renewed and burned out educators and the management sources responsible for their perceived renewal or burnout. Data gathering techniques, used with 216 randomly selected Denver and Jefferson County, Colorado, educators, included small group meetings (taped interviews and a questionnaire), a mailed questionnaire, and interview sessions. Metz concluded that, although differences were evident, characteristics of renewed and/or burned out educators were basically the same, indicating that the two groups were more alike than different in their characteristics. Results identified a variety of renewal sources (primarily those outside the work environment) while burnout sources were associated with job related stressors (25).

Results of a 1979, Newark, New Jersey, Teacher Center survey revealed that the burnout experienced by 41 percent of the district's urban teachers was significantly related to their profession. Three quarters of the teachers believed that teaching was directly responsible for moderate stress and health hazards (48).

Cichon and Koff (7) developed a test instrument which could be used to measure the relationship between teaching and stress. The Teaching Events Stress Inventory, a 36-item, rank order (from most to least stressful) questionnaire was completed by 4,934 non-randomized Chicago, Illinois, public school teachers. Respondents were asked to provide demographic data which would determine whether a relationship existed between certain background variables and the subjects' responses to the questionnaire items. Cichon

and Koff concluded that, regardless of the demographic data, teachers share common feelings about teaching and stress.

Anderson (2) investigated the relationship between burnout, personal data, and need insufficiencies among classroom teachers. Four hundred and fifty-nine suburban Connecticut K-12 teachers, grouped according to background data, were asked to complete the Maslach Burnout Inventory (MBI). Results indicated a significant relationship between perceived need insufficiencies and personal information (older, more experienced elementary teachers expressed greater job satisfaction); between burnout and background variables (intensity levels were higher on all variables); and between burnout and need insufficiencies (the higher the burnout level, the greater the perceived needs) (2).

Knowles (16) examined the relationship between specific burnout and background variables among Learning Disability (LD), Behavior Disorder (BD), and Mental Retardation (MR) teachers and determined how, using the same variables, special education teachers differed from regular classroom teachers. A test battery, used to evaluate burnout and demographic data, was completed by two matched groups of West Virginia teachers (161 regular, 161 special education). The Job Description Index (JDI), J-E Locus of Control Scale, Job Stress Scale, and a demographic data sheet were the instruments selected for use in this study. According to the findings, special education teachers, when compared with regular teachers, experienced greater degrees of stress, expressed more job dissatisfaction, and had a higher incidence of absenteeism. Results also indicated that among LD, BD, and MR teachers, BD teachers were more dissatisfied with their jobs, had a higher rate of absenteeism and expressed greater job related stress (16).

Cooke and Kornbluh (8) investigated the differences in job satisfaction and work quality among teachers and non-teachers. The University of Michigan's Institute of Social Research Quality Employment Survey was administered to 200 southeastern Michigan teachers. Results of the 1980 teacher survey were compared with those obtained from a similar 1977 nationwide survey completed by 2,000 non-teachers. According to the findings, teachers expressed higher degrees of job dissatisfaction than all workers (including other college graduates) in non-teaching positions (8).

Parkhouse and Holmen (29) investigated the differences in job satisfaction among inner-city and suburban high school physical education faculties in Los Angeles, California. All physical education faculties (25 men, 24 women) in three suburban and three inner-city schools were asked to complete the Job Description Index (JDI). The JDI was used to evaluate the job satisfaction aspects of pay, work, supervision, and colleagues. Several factors differentiated inner-city from suburban school faculties: inner-city teachers received an additional 11 percent in pay to monitor playgrounds and hallways; involuntary transfers from schools within the district affected more than half of the inner-city teachers; 42 percent of the inner-city faculty were white, 100 percent suburban faculty were white; and white students comprised less than 50 percent of the inner-city student population. The demographic traits of the faculty and students revealed no significant differences among the three inner-city schools. Hypotheses for the study were: (1) suburban faculty would be satisfied and dissatisfied with different aspects of their job from their inner-city counterparts; (2) dissatisfaction with intrinsic aspects of the job is associated with extrinsic satisfaction

(pay); and (3) satisfaction with the intrinsic aspects of the job would be associated with dissatisfaction with pay. The cognitive dissonance theory--when personnel are satisfied with the content of their job, they are not satisfied with their salary, and vice versa--was also tested. The data revealed significant differences in job satisfaction between the intrinsic and extrinsic aspects. The suburban teachers were dissatisfied with their pay but were satisfied with the aspects of colleagues, work, and supervision, while the inner-city teachers expressed the reverse. Hypotheses 2 and 3 were supported by the findings as was the cognitive dissonance theory (29).

Moore (26) studied the differences of experienced burnout, using nine specific background variables, among school principals. The Maslach Burnout Inventory (MBI) was completed by 256 northwestern Ohio principals. Results indicated no significant differences among the principals within the less stress producing variables, i.e., sex, years in present position, age, and level of professional growth. A significant relationship was found between the three MBI subscales and the remaining background categories, i.e., student population, grade level, weekly working hours, number of administrative aides, and length of administrative service. Moore (26) concluded that secondary principals with significant scores on the 5 higher stress producing factors experienced greater levels of burnout.

According to the findings of a 1980 study conducted by the New York State United Teachers, job related stress factors contributed to teacher burnout. Job location (urban schools) and teaching level (elementary) were found to have the greatest influence upon the amount of experienced burnout (46).

Young (44) reported on a study conducted to determine the relationship between stress and teaching. Seven hundred and fifty-seven Tacoma, Washington, teachers completed a limited version of the Chicago Teaching Events Stress Inventory. The committee that gathered the data concluded that those events that teachers ranked as the most stressful and having the greatest effect on them (involuntary transfer, notification of an unsatisfactory performance, and colleagues assaulted in school) ranked the lowest in incidence in the Tacoma schools (44).

Marner and Wright (18) developed a test instrument which could be used to identify stress factors in teaching. The Q-Sort, a 14-item, rank order (high, mid, and low stress levels) survey was completed by 91 educators (public school/college teachers/administrators) at three different locales (summer workshop, fall conference, and two graduate classes). According to the findings, the four groups, when examined individually, were not consistent in their selection of the highest and lowest stress factors. The researchers did find, however, that when total rankings for all groups were studied, a thread of agreement was evident (highest stress factors--"time management," "individualized instruction," and "judging people"; and lowest stress factors--"accepting other people's expertise," "personnel," and "activating") (18).

Schwab (33) developed a study to determine the relationship between selected work related stress variables, specific demographic variables, and teacher burnout. A Teacher Stress Survey was completed by 469 randomly selected Massachusetts classroom teachers. The Maslach Burnout Inventory (MBI), background data, and a Role Questionnaire were used to determine teacher perceptions of burnout, role ambiguity, and role conflict. Results indicated that certain demographic traits did

significantly affect teacher perceptions of both burnout (sex, grade level taught, age) and role ambiguity/conflict (age and teaching experience). Schwab established a significant relationship between burnout and role ambiguity/conflict.

Meadow (24) investigated the amount of burnout experienced by professionals working with deaf children. The Maslach Burnout Inventory (MBI) was completed by 240 professionals having some working association with deaf children/education. Meadow found that classroom teachers of deaf children had significantly higher scores on the Emotional Exhaustion subscale than teachers of non-deaf children. Work environment and job classification had a significant relationship to and influence upon the amount of experienced stress (classroom teachers in demonstration schools scored highest). There was a significant difference between experience and the amount of measurable burnout (the oldest experienced the least amount of burnout) (24).

Summary of Related Literature

The review of relatively recent literature supported the theory that there is a definite correlation between burnout and a host of work-life environmental stressors. Although an increasing amount of attention has focused on the relationship of burnout to positive and negative work, life, and self-perceptions, most of the documented information has been limited to helping professionals other than educators. Only recently has this relationship been stated in the terms of cause and effect among members of the teaching profession. The need for more research, based upon the identification of variables most likely to produce teacher burnout,

must be undertaken. This study, therefore, sought to establish a relationship between teacher burnout and grade level taught.

CHAPTER III

METHODS AND PROCEDURES FOR THE STUDY

Introduction

The present study was descriptive in nature and sought to compare the amount of perceived burnout among elementary, junior high, and secondary public school physical education teachers in suburban Cook County, Illinois. The methods and procedures used in this research were selected to assess the frequency and intensity of teacher burnout.

Preliminary Procedures

A pilot study was conducted for the purpose of comparing the amount of perceived burnout among elementary, junior high, and secondary public school teachers. One hundred and eighteen Naperville, Illinois, teachers, not included in the final study, were randomly selected for the pilot study. The subjects, divided according to their level of teaching and length of teaching experience, completed the Maslach Burnout Inventory (MBI) and a demographic information sheet. Because of time limitations, only the frequency dimension of the three MBI subscales were used to measure perceived teacher burnout.

Results of the pilot study showed that secondary teachers with 10-15 and 21 or more years of teaching experience expressed Emotional Exhaustion and Depersonalization more often than teachers with 16 to 20

years of experience. Data indicated that elementary teachers and junior high teachers with 16 to 20 years of experience expressed Emotional Exhaustion and Depersonalization more often than secondary teachers with 16 to 20 years of experience.

As a result of the pilot study, it was decided to use both the frequency and intensity dimensions of the MBI. The investigator also decided to use the personal information data to determine significant differences between selected demographic variables and burnout.

Selection of Subjects

The population selected for inclusion in the study consisted of 1,533 physical education teachers currently employed in suburban Cook County, Illinois. Subjects were grouped according to their level of teaching (elementary, junior high, and secondary). The population was identified by receiving and reviewing a mailing list and labels, which were supplied by the Illinois State Board of Education, of all suburban Cook County, Illinois, physical education teachers. The representative population included 750 randomly selected (250 from each teaching level) physical education teachers (see Table I). The researcher used the Table of Random Numbers to insure that the selected sample was completely random.

Description of the Instruments

The following instruments were used for the collection of data for this study:

1. The Maslach Burnout Inventory (MBI), a 22-item, one-page questionnaire constructed around three subscales: Emotional Exhaustion,

TABLE I
REPRESENTATIVE POPULATION SELECTION

Grade Level	Number in Population		Number in Representative Population	
	No.	Percent	No.	Percent
Elementary	432	27.82	250	33.33
Junior High	337	21.70	250	33.33
Secondary	784	50.48	250	33.33
Totals for All Grade Levels	1553	100.00	750	100.00

Depersonalization, and Personal Accomplishment.¹ The reliability coefficients established for the subscales were: 0.90 (frequency) and 0.87 (intensity) for Emotional Exhaustion, 0.79 (frequency); 0.76 (intensity) for Depersonalization; and 0.71 (frequency) and 0.73 (intensity) for Personal Accomplishment (21). According to Maslach and Jackson (21), validity was established by correlating MBI scores with:

1. behavioral ratings made independently by a person who knew the individual well,
2. the presence of certain job characteristics that were expected to contribute to experienced burnout, and
3. measures of various outcomes that had been hypothesized to be related to burnout (p. 7).

The MBI was used to obtain self-perceptions of these three aspects (EE, DP, PA) of the burnout syndrome from 750 elementary, junior high, and secondary public school physical education teachers. Subjects were instructed to choose between seven pre-established and intact frequency ("how often people have these feelings") values: (0) never, (1) a few times a year or less, (2) once a month or less, (3) a few times a month, (4) once a week, (5) a few times a week, and (6) everyday; and eight intensity ("how strong people have these feelings") values: (0) never, (1) very mild, barely noticeable, (4) moderate, and (7) major, very strong. For the purposes of this study, the word "recipient" used by Maslach and Jackson was changed to the word "student."

A subject's overall burnout score was the sum of the values assigned to the frequency and intensity answers of each subscale. Six scores were computed for each subject: Emotional Exhaustion-Frequency,

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Depersonalization-Frequency, Personal Accomplishment-Frequency, Emotional Exhaustion-Intensity, Depersonalization-Intensity, and Personal Accomplishment-Intensity (21). The higher the degree of burnout, the higher the scores on the EE-F, DP-F, EE-I, and DP-I subscales and the lower the scores on the PA-F and PA-I subscales (21).

2. A Demographic Information sheet was used to gather data regarding personal characteristics of the representative population. Subjects were instructed to indicate their:

Sex	(male - female)
Age	(21-29, 30-39, 40-49, 50-59, 60 and over)
Marital status	(single, married, divorced, widowed)
Family status	(number of children) (0, 1, 2, 3, 4 or more)
Level of teaching	(elementary, junior high, high school)
Years of experience	(1-5, 6-10, 11-15, 16-20, 21 and over)
Extra duties	(coach, club/class sponsor, department chairman, other).

The instruments used in the study were a 22-item questionnaire consisting of three subscales (each subscale having two dimensions: frequency and intensity) and a personal information sheet. The instruments were edited, typed, and 800 copies were reproduced (with special permission of Consulting Psychologists Press, Inc., publisher of the Maslach Burnout Inventory) by a Stillwater, Oklahoma, copy shop (see Appendix A for publisher's reproduction permission letter).

Collection of Data

On May 7, 1982, a four-part packet was distributed to 750 randomly selected elementary, junior high, and secondary public school physical

education teachers in suburban Cook County, Illinois. The researcher theorized that, since higher degrees of teacher burnout were more likely to occur prior to the closing of school, May was selected as the most appropriate month in which to conduct the study. Materials included in the packet were: (1) a cover letter outlining the purpose of the study, (2) a personal information sheet, (3) the Maslach Burnout Inventory, and (4) a return, stamped self-addressed envelope. Individual packets were coded guaranteeing each subject complete anonymity. A follow-up reminder postcard, to insure a higher percentage of returns, was sent to all non-returnees on June 1, 1982. Within six weeks of both the initial mailing and follow-up notice, 463 (or 62%) of the 750 surveys had been completed and returned (see Table II and Appendices A and B for packet enclosures).

Analysis of Data

Maslach Burnout Inventory scores were subjected to statistical treatment enabling identification of significant differences between elementary, junior high, and secondary public school physical education teachers as to their perceived burnout according to their level of teaching. All data obtained from the MBI's were analyzed on the computer program of the Statistical Analysis System (SAS) at the Oklahoma State University Computer Center.

An analysis of variance (ANOVA), applied to MBI questions 1 through 22, of the mean scores was conducted for each teaching level and each dimension (frequency and intensity) of the three burnout subscales: Emotional Exhaustion, Depersonalization, and Personal Accomplishment. If ANOVA's (F's) were determined as significant, the group means were subjected to the Duncan New Multiple Range Test. Personal data were tested

TABLE II
RETURN RATE, BY GRADE LEVEL, OF THE
REPRESENTATIVE POPULATION

Grade Level	Number Sent	Percent	Number Returned	Percent
Elementary	250	33.33	155	20.67
Junior High	250	33.33	156	20.80
Secondary	250	33.33	152	20.27
Total for All Grade Levels	750	100.00	463	61.74

by the analysis of variance (ANOVA) statistical treatment. The .05 level of significance was used for all research questions.

Summary

The primary procedures used in data assembly for the study involved a four-part burnout survey. The population for the study was identified by reviewing a list, supplied by the Illinois State Board of Education, of suburban Cook County, Illinois, elementary, junior high, and secondary public school physical education teachers.

Inventories, following their reproduction, were distributed as part of a packet which included a cover letter, personal data sheet, and a return, stamped self-addressed envelope to 750 randomly selected physical education teachers in suburban Cook County, Illinois. Completed instruments were returned by 463 (or 62%) of the 750 physical education teachers that made up the representative population.

The data were analyzed using frequency and intensity counts of the responses on three subscales: Emotional Exhaustion, Depersonalization, and Personal Accomplishment. Analysis of variance (ANOVA) was used to determine, according to level of teaching, differences among elementary, junior high, and secondary public school physical education teachers for burnout levels. Where F's indicated significant differences between group means, a Duncan statistical test was performed to identify where the differences were. Analysis of variance (ANOVA) was used to determine the differences between selected demographic variables and burnout.

CHAPTER IV

ANALYSIS OF THE DATA

Introduction

The problem of the study was to compare the amount of perceived burnout between elementary, junior high, and secondary public school physical education teachers. Second, consideration was given to the relationship between teacher burnout and selected demographic variables.

Statistical Data

An analysis of variance (ANOVA) was conducted to compare the difference between elementary, junior high, and secondary physical education teachers in the frequency and intensity dimensions of the three MBI subscales: Emotional Exhaustion, Depersonalization, and Personal Accomplishment. An F value, labeled $PR > F$ by the computer, was calculated to determine whether or not a significant difference had been established between the three groups. Where significant ANOVA $PR > F$'s were obtained, group means were subjected to the Duncan analysis procedure.

The findings of this study, based upon an analysis of Maslach Burnout Inventory data, included the following:

The first hypothesis stated that: there is no significant difference between elementary, junior high, and secondary public school physical education teachers in the frequency dimension of Emotional Exhaustion.

Analysis of variance produced a $PR > F$ value of 0.3407 which indicated no significant difference between the groups at the .05 level. Acceptance of hypothesis one confirmed no significant difference in the frequency of feelings of Emotional Exhaustion among elementary, junior high, and secondary public school physical education teachers.

Comparison of group means indicated that there was no significant difference between elementary teachers ($M = 15.71$), junior high teachers ($M = 16.85$), or secondary teachers ($M = 17.32$) on the frequency of Emotional Exhaustion (see Table III).

Identification of similar response patterns among all three groups was achieved by examining, separately, each of the 9 items in the frequency of Emotional Exhaustion (work-related feelings) subscale (see Table IV). Each item on the frequency scale had a range of value choices from 0, "never," to 6, "everyday." High group scores on this subscale were used to predict a high degree of burnout.

Results showed that on the same 8 out of 9 items, the two choices "never" and "a few times a year" received the majority of responses, and "everyday" received the least number of responses. Only 1 out of 9 items, "I feel used up at the end of the workday", produced any evidence of burnout. One hundred and seven of the 463 subjects (23.11%) answered this question, "a few times a week." Of the 107 respondents, junior high teachers (41.12%) felt more used up than elementary teachers (32.71%) or secondary teachers (26.17%). The response pattern established for this subscale indicated, with the exception of one item, a low degree of burnout among elementary, junior high, and secondary physical education teachers.

An analysis of the within group response pattern showed that on 5 of

TABLE III

COMPARISON OF ELEMENTARY, JUNIOR HIGH, AND SECONDARY SCHOOL
PHYSICAL EDUCATION TEACHERS ON THE MBI DEPENDENT VARIABLE:
FREQUENCY OF EMOTIONAL EXHAUSTION

Analysis of Variance

df = 460 Mean Square = 163.941 F = PR > F = 0.3407 p > .05

Duncan's Multiple Range Test

<u>Grade Level</u>	<u>Number</u>	<u>Mean</u>	<u>Grouping*</u>
Elementary	155	15.71	A
Junior High	156	16.85	A
Secondary	152	17.32	A
Total	463		

* Means with the same letter are not significantly different at the .05 level of significance.

TABLE IV
MBI SUBSCALE ITEMS

-
- I. Emotional Exhaustion
1. I feel emotionally drained from my work.
 2. I feel used up at the end of the workday.
 3. I feel fatigued when I get up in the morning and have to face another day on the job.
 6. Working with people all day is really a strain for me.
 8. I feel burned out from my work.
 13. I feel frustrated by my job.
 14. I feel I'm working too hard on my job.
 16. Working with people directly puts too much stress on me.
 20. I feel like I'm at the end of my rope.
- II. Depersonalization
5. I feel I treat some students as if they were impersonal objects.
 10. I've become more callous toward people since I took this job.
 11. I worry that this job is hardening me emotionally.
 15. I don't really care what happens to some students.
 22. I feel students blame me for some of their problems.
- III. Personal Accomplishment
4. I can easily understand how my students feel about things.
 7. I deal very effectively with the problems of my students.
 9. I feel I'm positively influencing other people's lives through my work.
 12. I feel very energetic.
 17. I can easily create a relaxed atmosphere with my students.
 18. I feel exhilarated after working closely with my students.
 19. I have accomplished many worthwhile things in this job.
 21. In my work, I deal with emotional problems very calmly.
-

the 9 items in the frequency of Emotional Exhaustion subscale, more elementary teachers selected "never" or "a few times a year" more often than junior high teachers (3 items) or secondary teachers (1 item). The response pattern established for this subscale suggested that elementary teachers expressed positive feelings toward their work more often than junior high teachers or secondary teachers (see Table V).

The second hypothesis stated that: there is no significant difference between elementary, junior high, and secondary physical education teachers in the frequency dimension of Depersonalization.

Analysis of variance produced a $PR > F$ value of 0.2798 which indicated no significant difference between the groups at the .05 level. Acceptance of hypothesis two confirmed no significant difference in the frequency of attitudes of Depersonalization among elementary, junior high, and secondary public school physical education teachers.

A comparison of group means indicated that there was no significant difference between elementary teachers ($M = 6.69$), junior high teachers ($M = 7.56$), or secondary teachers ($M = 7.68$) on the frequency of Depersonalization (see Table VI).

Identification of similar response patterns among all three groups was achieved by examining, separately, each of the 5 items in the frequency of Depersonalization (student-related attitudes) subscale. Each item on the frequency scale had a range of value choices from 0, "never," to 6, "everyday." High group scores on this subscale were used to predict a high degree of burnout.

Results indicated that on all 5 items, the two choices "never" and "a few times a year" received the majority of responses. On 4 of the 5 items, "everyday" received the least number of responses. The response

TABLE V
 COMPARISON OF MAJORITY/LEAST RESPONSES FOR ITEMS ON THE MBI
 SUBSCALE: FREQUENCY OF EMOTIONAL EXHAUSTION

Item	Response*	Elementary		Junior High		Secondary		Totals	
		No.	Percent	No.	Percent	No.	Percent	No.	Percent
1	Maj. - 1	53	11.45	54	11.66	50	10.80	157	33.91
	Lst. - 6	3	0.65	4	0.86	3	1.97	10	2.16
2	Maj. - 5	35	7.56	44	9.50	28	6.05	107	23.11
	Lst. - 0	8	1.73	7	1.51	10	2.16	25	5.40
3	Maj. - 1	52	11.23	56	12.10	58	12.53	166	35.85
	Lst. - 6	1	0.22	1	0.22	4	0.86	6	1.30
6	Maj. - 1	64	13.85	50	10.82	48	10.39	162	35.06
	Lst. - 6	1	0.22	0	0.00	2	0.43	3	0.65
8	Maj. - 1	58	12.61	54	11.74	49	10.65	161	35.00
	Lst. - 6	1	0.22	4	0.87	7	1.52	12	2.61
13	Maj. - 1	45	9.78	44	9.57	41	8.91	130	28.26
	Lst. - 6	7	1.52	7	1.52	7	1.52	21	4.57
14	Maj. - 1	38	8.24	38	8.24	32	6.94	108	23.43
	0	39	8.46	35	7.59	34	7.38	108	23.43
	Lst. - 6	8	1.74	8	1.74	4	0.87	20	4.34
16	Maj. - 0	74	16.05	81	17.57	65	14.10	220	47.72
	Lst. - 6	1	0.22	0	0.00	1	0.22	2	0.43
20	Maj. - 0	74	16.05	63	13.67	67	14.53	204	44.25
	Lst. - 6	1	0.22	4	0.87	2	0.43	7	1.52

*0--never; 1--a few times a year or less; 2--once a month or less; 3--a few times a month; 4--once a week; 5--a few times a week; 6--every day.

TABLE VI

COMPARISON OF ELEMENTARY, JUNIOR HIGH, AND SECONDARY SCHOOL
PHYSICAL EDUCATION TEACHERS ON THE MBI DEPENDENT VARIABLE:
FREQUENCY OF DEPERSONALIZATION

Analysis of Variance

df = 460 Mean Square = 35.579 F = PR > F = 0.2798 p > .05

Duncan's Multiple Range Test

<u>Grade Level</u>	<u>Number</u>	<u>Mean</u>	<u>Grouping*</u>
Elementary	155	6.69	A
Junior High	156	7.56	A
Secondary	152	7.68	A
Total	463		

*Means with the same letter are not significantly different at the .05 level of significance.

pattern established for this subscale indicated a low degree of burnout among elementary, junior high, and secondary physical education teachers.

An analysis of the within group response pattern showed that on all 5 items in the frequency of Depersonalization subscale, more elementary teachers selected "never" more often than junior high teachers or secondary teachers. The response pattern established for this subscale suggested that elementary teachers expressed positive feelings toward students more often than junior high teachers or secondary teachers (see Table VII).

The third hypothesis stated that: there is no significant difference between elementary, junior high, and secondary public school physical education teachers in the frequency dimension of Personal Accomplishment.

Analysis of variance produced a $PR > F$ value of 0.0148 which indicated a significant difference between the groups at the .05 level. Non-acceptance of hypothesis three confirmed a significant difference in the frequency of achievement of Personal Accomplishment among elementary, junior high, and secondary public school physical education teachers.

A comparison of group means indicated that elementary teachers ($M = 37.94$) expressed feelings of competence and successful achievement in their work with students more often than junior high teachers ($M = 37.15$) or secondary teachers ($M = 35.45$) (see Table VIII).

Identification of similar response patterns among all three groups was achieved by examining, separately, each of the 8 items in the frequency of Personal Accomplishment (achievement-related feelings) subscale. Each item on the frequency scale had a range of value choices

TABLE VII
 COMPARISON OF MAJORITY/LEAST RESPONSES FOR ITEMS ON THE MBI
 SUBSCALE: FREQUENCY OF DEPERSONALIZATION

Item	Response*	Elementary		Junior High		Secondary		Totals	
		No.	Percent	No.	Percent	No.	Percent	No.	Percent
5	Maj. - 1	46	10.00	45	9.78	46	10.00	137	29.78
	Lst. - 6	2	0.43	4	0.87	3	0.65	9	1.96
10	Maj. - 0	62	13.54	56	12.23	51	11.14	169	36.90
	Lst. - 6	5	1.09	7	1.53	5	1.09	17	3.71
11	Maj. - 0	82	17.79	75	16.27	70	15.18	227	49.24
	Lst. - 6	3	0.65	5	1.08	4	0.87	12	2.60
15	Maj. - 0	77	16.67	68	14.72	56	12.12	201	43.51
	Lst. - 4	4	0.87	4	0.87	5	1.08	13	2.81
22	Maj. - 1	45	9.76	43	9.33	60	13.02	148	32.10
	Lst. - 6	6	1.30	9	1.95	4	0.87	19	4.12

* 0--never; 1--a few times a year or less; 2--once a month or less; 3--a few times a month; 4--once a week; 5--a few times a week; 6--every day.

TABLE VIII

COMPARISON OF ELEMENTARY, JUNIOR HIGH, AND SECONDARY SCHOOL
 PHYSICAL EDUCATION TEACHERS ON THE MBI DEPENDENT VARIABLE:
 FREQUENCY OF PERSONAL ACCOMPLISHMENT

Analysis of Variance

df = 460 Mean Square = 58.5121 F = PR > F = 0.0148 p < .05

Duncan's Multiple Range Test

<u>Grade Level</u>	<u>Number</u>	<u>Mean</u>	<u>Grouping*</u>
Elementary	155	37.94	A
Junior High	156	37.15	A B
Secondary	152	35.46	B
Total	463		

* Means with the same letter are not significantly different at the .05 level of significance.

from 0, "never," to 6, "everyday." Low group scores on this subscale were used to predict a high degree of burnout.

Results indicated that on all 8 items, the two choices, "a few times a week" and "everyday," received the majority of responses and "never" received the least number of responses. The response pattern established for this subscale indicated a low degree of burnout among elementary, junior high, and secondary physical education teachers.

An analysis of the within group response pattern showed that on 6 of the 8 items in the frequency of Personal Accomplishment subscale, more elementary teachers selected "never" (4 items) or "a few times a week" (2 items) than junior high teachers (2 items) or secondary teachers (0 items). The response pattern established for this subscale suggested that elementary teachers and junior high teachers expressed feelings of satisfaction about themselves and toward their work more often than secondary teachers (see Table IX).

The fourth hypothesis stated that: there is no significant difference between elementary, junior high, and secondary physical education teachers in the intensity dimension of Emotional Exhaustion.

Analysis of variance produced a $PR > F$ value of 0.0507 which indicated a significant difference between the groups at the .05 level. Non-acceptance of hypothesis four confirmed a significant difference in the intensity of feelings of Emotional Exhaustion among elementary, junior high, and secondary public school physical education teachers.

A comparison of group means indicated that secondary teachers ($M = 24.66$) expressed a stronger degree of burnout than junior high teachers ($M = 24.31$) or elementary teachers ($M = 21.41$) (see Table X).

Identification of similar response patterns among all three groups

TABLE IX
 COMPARISON OF MAJORITY/LEAST RESPONSES FOR ITEMS ON THE MBI
 SUBSCALE: FREQUENCY OF PERSONAL ACCOMPLISHMENT

Item	Response *	Elementary		Junior High		Secondary		Totals	
		No.	Percent	No.	Percent	No.	Percent	No.	Percent
4	Maj. - 6	77	17.04	62	13.72	51	11.28	190	42.04
	Lst. - 0	1	0.22	2	0.44	2	0.44	5	1.11
7	Maj. - 6	64	14.00	61	13.35	48	10.50	173	37.86
	Lst. - 1	1	0.22	3	0.66	10	2.19	14	3.06
9	Maj. - 6	85	18.65	63	13.67	49	10.63	198	42.95
	Lst. - 0	2	0.43	2	0.43	1	0.22	5	1.08
12	Maj. - 5	83	18.04	83	18.04	63	13.70	229	49.78
	Lst. - 1	1	0.22	2	0.43	4	0.87	7	1.52
	0	1	0.22	2	0.43	4	0.87	7	1.52
17	Maj. - 6	84	18.26	74	16.09	69	15.00	227	49.35
	Lst. - 0	1	0.22	0	0.00	0	0.00	1	0.22
18	Maj. - 5	57	12.47	63	13.79	46	10.07	166	36.32
	Lst. - 0	5	1.09	2	0.44	2	0.44	9	1.97
19	Maj. - 5	54	11.79	46	10.04	46	10.04	146	31.88
	Lst. - 0	1	0.22	1	0.22	2	0.44	4	0.87
21	Maj. - 5	45	9.80	55	11.98	51	11.11	151	32.90
	Lst. - 0	0	0.00	0	0.00	2	0.44	2	0.44

*0--never; 1--a few times a year or less; 2--once a month or less; 3--a few times a month; 4--once a week; 5--a few times a week; 6--every day.

TABLE X
 COMPARISON OF ELEMENTARY, JUNIOR HIGH, AND SECONDARY SCHOOL
 PHYSICAL EDUCATION TEACHERS ON THE MBI DEPENDENT VARI-
 ABLE: INTENSITY OF EMOTIONAL EXHAUSTION

Analysis of Variance

df = 460 Mean Square = 97.5079 F = PR > F = 0.0507 p < .05

Duncan's Multiple Range Test

<u>Grade Level</u>	<u>Number</u>	<u>Mean</u>	<u>Grouping*</u>
Elementary	155	21.41	B
Junior High	156	24.31	A
Secondary	152	24.66	A
Total	463		

* Means with the same letter are not significantly different at the .05 level of significance.

was achieved by examining, separately, each of the 9 items in the intensity of Emotional Exhaustion (work-related feelings) subscale. Each item on the intensity scale had a range of value choices from 0, "never," to 7, "major, very strong." High group scores on this subscale were used to predict a high degree of burnout.

Results indicated that on 6 of the 9 items, the two choices "never" and "very mild" received the majority of responses. On 3 of the 9 items, i.e., "I feel emotionally drained from my work," "I feel used up at the end of the workday," and "I feel frustrated by my job," "moderate" received the majority of responses. On 8 of the 9 items, "strong" and "major, very strong" received the least number of responses. On 1 of the 9 items, "I feel used up at the end of the workday," "never" received the least number of responses. The very irregular response pattern established for this subscale indicated a moderate degree of burnout among elementary, junior high, and secondary physical education teachers.

An analysis of the within group response showed that on 3 of the 9 items in the intensity of Emotional Exhaustion subscale, some interesting observations were noted: on one item, "I feel used up at the end of the workday," more elementary teachers selected "moderate" more often than junior high teachers or secondary teachers; on one item, "I feel emotionally drained from my work," more junior high teachers selected "moderate" more often than elementary teachers or secondary teachers; and on one item, "I feel frustrated by my work," more secondary teachers selected "moderate" more often than elementary teachers or junior high teachers. A comparison of responses for all 9 items of this subscale indicated that more junior high teachers and secondary teachers selected either "above moderate," "strong," or "major, very strong" more often

than elementary teachers. The rather inconsistent and somewhat erratic response pattern established for this subscale suggested that more secondary teachers and junior high teachers expressed stronger feelings about burnout than elementary teachers (see Table XI).

The fifth hypothesis stated that: there is no significant difference between elementary, junior high, and secondary physical education teachers in the intensity dimension of Depersonalization.

Analysis of variance produced a $PR > F$ value of 0.1134 which indicated no significant difference between the groups at the .05 level. Acceptance of hypothesis five confirmed no significant difference in the intensity of attitudes of Depersonalization among elementary, junior high, and secondary public school physical education teachers.

A comparison of group means indicated that there was no significant difference between elementary teachers ($M = 9.07$), junior high teachers ($M = 10.52$), or secondary teachers ($M = 10.77$) on the intensity of Depersonalization (see Table XII).

Identification of similar response patterns among all three groups was achieved by examining, separately, each of the 5 items in the intensity of Depersonalization (student-related attitudes) subscale. Each item on the intensity scale had a range of value choices from 0, "never," to 7, "major, very strong." High group scores on this subscale were used to predict a high degree of burnout.

Results revealed that on all 5 items, "never" received the majority of responses and the two choices "strong" and "major, very strong" received the least number of responses. The response pattern established for this subscale indicated a low degree of burnout among elementary, junior high, and secondary physical education teachers.

TABLE XI

COMPARISON OF MAJORITY/LEAST RESPONSES FOR ITEMS ON THE MBI
SUBSCALE: INTENSITY OF EMOTIONAL EXHAUSTION

Item	Response*	Elementary		Junior High		Secondary		Totals	
		No.	Percent	No.	Percent	No.	Percent	No.	Percent
1	Maj. - 4	38	8.26	50	10.87	41	8.91	129	28.04
	Lst. - 7	3	0.65	5	1.09	7	1.52	15	3.26
2	Maj. - 4	41	8.91	34	7.39	27	5.87	102	22.17
	Lst. - 0	7	1.52	7	1.52	9	1.96	23	5.00
3	Maj. - 1	38	8.28	36	7.84	32	6.97	106	23.09
	Lst. - 7	1	0.22	1	0.22	4	0.87	6	1.31
6	Maj. - 0	46	10.00	53	11.52	45	9.78	144	31.30
	Lst. - 7	2	0.43	5	1.09	2	0.43	9	1.96
8	Maj. - 1	41	8.93	23	5.01	24	5.23	88	19.17
	Lst. - 7	9	1.96	11	2.40	14	3.05	34	7.41
13	Maj. - 4	28	6.09	25	5.43	32	6.96	85	18.48
	Lst. - 7	8	1.74	17	3.70	18	3.91	43	9.35
14	Maj. - 0	35	7.61	34	7.39	31	6.74	100	21.74
	Lst. - 7	7	1.52	8	1.74	6	1.30	21	4.57
16	Maj. - 0	70	15.22	72	15.65	59	12.83	201	43.70
	Lst. - 6	4	0.87	3	0.65	4	0.87	11	2.39
20	Maj. - 0	72	15.69	60	13.07	63	13.73	195	42.48
	Lst. - 7	5	1.09	10	2.18	8	1.74	23	5.01

*0--never; 1--very mild, barely noticeable; 4--moderate; 7--major, very strong.

TABLE XII
 COMPARISON OF ELEMENTARY, JUNIOR HIGH, AND SECONDARY SCHOOL
 PHYSICAL EDUCATION TEACHERS ON THE MBI DEPENDENT VARI-
 ABLE: INTENSITY OF DEPERSONALIZATION

Analysis of Variance

df = 458 Mean Square = 58.9959 F = PR > F = 0.1134 p > .05

Duncan's Multiple Range Test

<u>Grade Level</u>	<u>Number</u>	<u>Mean</u>	<u>Grouping*</u>
Elementary	153	9.07	A
Junior High	152	10.52	A
Secondary	156	10.77	A
Total	461		

* Means with the same letter are not significantly different at the .05 level of significance.

Analysis of the within group response pattern showed that on all 5 items in the intensity of Depersonalization subscale, more elementary teachers selected "never" more often than junior high teachers or secondary teachers. The response pattern established for this subscale suggested that elementary teachers expressed stronger positive attitudes toward students than junior high teachers or secondary teachers (see Table XIII).

The sixth hypothesis stated that: there is no significant difference between elementary, junior high, and secondary public school physical education teachers in the intensity dimension of personal accomplishment.

Analysis of variance produced a $PR > F$ value of 0.0336 which indicated a significant difference between the groups at the .05 level. Non-acceptance of hypothesis six confirmed a significant difference in the intensity of achievement of Personal Accomplishment among elementary, junior high, and secondary public school physical education teachers.

A comparison of group means indicated that elementary teachers ($M = 42.07$) expressed stronger feelings of competence and successful achievement in their work with students than junior high teachers ($M = 41.31$) or secondary teachers ($M = 39.69$) (see Table XIV).

Identification of similar response patterns among all three groups was achieved by examining, separately, each of the 8 items in the intensity of Personal Accomplishment (achievement-related feelings) subscale. Each item on the intensity scale had a range of value choices from 0, "never," to 7, "major, very strong." Low group scores on this subscale were used to predict a high degree of burnout.

Results indicated that on 7 of the 8 items, two choices, "strong"

TABLE XIII

COMPARISON OF MAJORITY/LEAST RESPONSES FOR ITEMS ON THE MBI
SUBSCALE: INTENSITY OF DEPERSONALIZATION

Item	Response*	Elementary		Junior High		Secondary		Totals	
		No.	Percent	No.	Percent	No.	Percent	No.	Percent
5	Maj. - 0	50	10.87	42	9.13	37	8.04	129	28.04
	Lst. - 7	3	0.65	8	1.74	0	0.00	11	2.39
10	Maj. - 0	59	12.85	56	12.20	47	10.24	162	35.29
	Lst. - 7	4	0.87	7	1.53	4	0.87	15	3.27
11	Maj. - 0	76	16.49	69	14.97	65	14.10	210	45.55
	Lst. - 6	6	1.30	5	1.30	3	0.65	15	3.25
15	Maj. - 0	63	13.70	61	13.26	49	10.65	173	37.61
	Lst. - 6	10	2.17	9	1.96	6	1.30	25	5.43
22	Maj. - 0	43	9.35	39	8.48	31	6.74	113	24.57
	Lst. - 7	4	0.87	10	2.17	5	1.09	19	4.13

*0--never; 1--very mild, barely noticeable; 4--moderate; 7--major, very strong.

TABLE XIV

COMPARISON OF ELEMENTARY, JUNIOR HIGH, AND SECONDARY SCHOOL
PHYSICAL EDUCATION TEACHERS ON THE MBI DEPENDENT VARI-
ABLE: INTENSITY OF PERSONAL ACCOMPLISHMENT

Analysis of Variance

df = 460 Mean Square = 66.5764 F = PR > F = 0.0336 p > .05

Duncan's Multiple Range Test

<u>Grade Level</u>	<u>Number</u>	<u>Mean</u>	<u>Grouping*</u>
Elementary	155	42.07	A
Junior High	156	41.31	A B
Secondary	152	39.69	B
Total	463		

* Means with the same letter are not significantly different at the .05 level of significance.

and "major, very strong," received the majority of responses. On 1 of the 8 items, "I can easily see how my students feel about things," "moderate" received the majority of responses. On all 8 items, the two choices, "never" and "very mild," received the least number of responses. The response pattern established for this subscale indicated, with the exception of one item, a low degree of burnout among elementary, junior high, and secondary physical education teachers.

An analysis of the within group response pattern showed that on 5 of the 8 items in the intensity of Personal Accomplishment subscale, more elementary teachers selected "strong" or "major, very strong" more often than junior high teachers (2 items) or secondary teachers (2 items). On 1 of the 8 items, "I can easily see how my students feel about things," more secondary teachers selected "moderate" more often than junior high teachers or elementary teachers. The response pattern established for this subscale suggested that elementary teachers and junior high teachers expressed stronger feelings of satisfaction about themselves and toward their work than secondary teachers (see Table XV).

A comparison of mean scores revealed that, regardless of their teaching level, physical education teachers expressed Emotional Exhaustion more often and with more intensity than Depersonalization. Further mean score analysis indicated that, regardless of their teaching level, physical education teachers had, on all three subscales, higher intensity than frequency scores. An examination of the within group means showed that, on all three subscales, secondary teachers expressed burnout more often and with more intensity than junior high teachers or elementary teachers (see Table XVI).

TABLE XV

COMPARISON OF MAJORITY/LEAST RESPONSES FOR ITEMS ON THE MBI
 SUBSCALE: INTENSITY OF PERSONAL ACCOMPLISHMENT

Item	Response *	Elementary		Junior High		Secondary		Totals	
		No.	Percent	No.	Percent	No.	Percent	No.	Percent
4	Maj. - 4	34	7.47	39	8.57	48	10.55	121	26.59
	Lst. - 0	2	0.44	1	0.22	3	0.66	6	1.32
7	Maj. - 6	51	11.18	53	11.62	49	10.75	153	33.55
	Lst. - 3	4	0.88	1	0.22	2	0.44	7	1.54
9	Maj. - 7	56	12.15	42	9.11	42	9.11	140	30.37
	Lst. - 0	1	0.22	1	0.22	0	0.00	2	0.43
12	Maj. - 6	55	11.96	48	10.43	49	10.65	152	33.04
	Lst. - 0	0	0.00	2	0.43	4	0.87	6	1.30
17	Maj. - 6	58	12.61	36	7.83	29	6.30	105	22.83
	Lst. - 1	2	0.43	4	0.87	2	0.43	8	1.74
18	Maj. - 6	44	9.61	38	8.30	44	9.61	126	27.51
	Lst. - 0	2	0.44	2	0.44	2	0.44	6	1.31
19	Maj. - 7	51	11.09	49	10.65	43	9.35	143	31.09
	Lst. - 0	0	0.00	1	0.22	2	0.43	3	0.65
21	Maj. - 6	35	7.64	43	9.39	38	8.30	116	25.33
	Lst. - 0	0	0.00	0	0.00	2	0.44	2	0.44

*0--never; 1--a few times a year or less; 2--once a month or less; 3--a few times a month; 4--once a week; 5--a few times a week; 6--every day.

TABLE XVI

COMPARISON OF MEAN SCORES OF ELEMENTARY, JUNIOR HIGH AND
SECONDARY SCHOOL PHYSICAL EDUCATION TEACHERS ON THE
FREQUENCY AND INTENSITY DIMENSIONS OF THE MBI
SUBSCALES: EMOTIONAL EXHAUSTION, DEPER-
SONALIZATION, PERSONAL ACCOMPLISHMENT

Teaching Level	EEF	DPF	PAF	EEI	DPI	PAI
Elementary	15.71	6.69	37.94	21.41	9.07	42.07
Junior High	16.85	7.56	37.15	24.31	10.52	41.31
Secondary	17.32	7.68	35.46	24.66	10.77	39.69

High scores on EE and DP = high level of burnout; low scores on PA = high level of burnout.

Demographic Data

The findings of this study, based upon an analysis of the personal information data included the following:

Sex: Of the 463 respondents, 232 (50.11%) were males and 231 (49.89%) were females (see Table XVII). Of the 232 males, 81 (34.33%) were junior high teachers, 76 (32.76%) were secondary teachers, and 75 (32.33%) were elementary teachers. Of the 231 females, 80 (34.63%) were elementary teachers, 76 (32.90%) were secondary teachers, and 75 (32.47%) were junior high teachers (see Table XVIII).

Age: Of the 463 respondents, 180 (39.05%) were between 30 to 39 years old, 123 (26.68%) were between 40 to 49 years old, 96 (20.82%) were between 21 to 29 years old, 57 (12.36%) were between 50 to 59 years old, and 5 (1.05%) were 60 or more years old (see Table XVII). The majority of the respondents between the ages of 21 to 39 were junior high teachers. The majority of respondents between the ages of 40 to 60 or more years old were secondary teachers (see Table XVIII).

Marital Status: Two hundred and eighty-two (61.30%) teachers were married, 136 (29.57%) were single, 38 (8.26%) were divorced, 3 (0.65%) were widowed, and 1 was scored as "other" (see Table XVII). The majority of the 282 married respondents were secondary teachers; the majority of the 136 single respondents were junior high teachers; and the majority of the 41 divorced or widowed respondents were elementary teachers (see Table XVIII).

Family Status: Two hundred and ten (45.55 %) teachers had no children, 86 (18.66%) had two children, 64 (13.88%) had three children, 55 (11.93%) had one child, and 46 (9.98%) had four or more children (see Table XVII). The majority of respondents having 0 to 2 children were

TABLE XVII
 DEMOGRAPHIC CHARACTERISTICS OF INVENTORY
 RESPONDENTS (ALL GROUPS)

Characteristics	Number	Percent
<u>Sex</u>		
Male	232	50.11
Female	231	49.89
<u>Age</u>		
21-29	96	20.82
30-39	180	39.05
40-49	123	26.68
50-59	57	12.36
60 and over	5	1.08
<u>Marital Status</u>		
Single	136	29.57
Married	282	61.30
Divorced	38	8.26
Widowed	3	0.65
Other	1	0.22
<u>Family Status (Children)</u>		
0	210	45.55
1	55	11.93
2	86	18.66
3	64	13.88
4 or more	46	9.98
<u>Years of Experience</u>		
1-5	75	16.20
6-10	92	19.87
11-15	108	23.33
16-20	83	17.93
21 and over	105	22.68
<u>Grade Level</u>		
Elementary	155	33.48
Junior High	156	33.69
Secondary	152	32.83
<u>Extra Duties (Within School)*</u>		
Coach	352	60.90
Club/Class Sponsor	77	13.32
Department Chairman/ Team Leader	62	10.73
Other (In/Out of School)	85	14.71

*Some respondents circled more than one choice.

TABLE XVIII
 DEMOGRAPHIC CHARACTERISTICS OF INVENTORY RESPONDENTS
 WITHIN GROUP TOTALS OF ALL THREE LEVELS*

Characteristics	Elementary		Junior High		Secondary	
	No.	Percent	No.	Percent	No.	Percent
<u>Sex</u>						
Male	75	32.33	81	34.91	76	32.76
Female	80	34.63	75	32.47	76	32.90
<u>Age</u>						
21-29	34	35.42	38	39.58	24	25.00
30-39	62	34.44	68	37.78	50	27.78
40-49	37	30.08	34	27.64	52	42.28
50-59	18	31.58	14	24.56	25	43.86
60 and over	3	60.00	1	20.00	1	20.00
<u>Marital Status</u>						
Single	41	30.15	50	36.76	45	33.09
Married	95	33.69	91	32.27	96	34.04
Divorced	17	44.74	14	36.84	7	18.42
Widowed	2	66.67	0	0.00	1	33.33
Other	0	0.00	0	0.00	1	100.00
<u>Family Status</u>						
0	70	33.33	72	34.29	68	32.38
1	17	30.91	19	34.55	19	34.55
2	30	34.88	33	38.37	23	26.74
3	21	32.81	18	28.13	25	39.06
4 or more	16	34.78	13	28.26	17	36.96
<u>Years Experience</u>						
1-5	33	44.00	28	37.33	14	18.67
6-10	33	35.87	37	40.22	22	23.91
11-15	39	36.11	34	31.48	35	32.41
16-20	25	30.12	26	31.33	32	38.55
21 and over	25	23.81	31	29.52	49	46.67
<u>Extra Duties</u>						
Coach	95	26.99	132	37.50	125	35.51
Club/Class Sponsor	20	25.97	27	35.06	30	38.96
Department Chairman/ Team Leader	11	17.74	42	67.74	9	14.52
Other	44	51.76	23	27.06	18	21.18

TABLE XVIII (Continued)

Total Representative Population = 463
 Total in Combined Levels Varies According to Unanswered Choices:

<u>Characteristics</u>	<u>All Levels</u>
<u>Sex</u>	
Male	232
Female	231
<u>Age</u>	
21-29	96
30-39	180
40-49	123
50-59	57
60 and over	5
<u>Marital Status</u>	
Single	136
Married	282
Divorced	38
Widowed	3
Other	1
<u>Family Status</u>	
0	210
1	55
2	86
3	64
4 or more	46
<u>Years Experience</u>	
1-5	75
6-10	92
11-15	108
16-20	83
21 and over	105
<u>Extra Duties</u>	
Coach	258
Club/Class Sponsor	115
Department Chairman	30
Other	60

* Figure listed in percent column represents percentage of total with-
in all three grade levels.

junior high teachers. The majority of respondents having 3 to 4 or more children were secondary teachers (see Table XVIII).

Years of Experience: Of the 463 respondents, 108 (22.68%) had taught between 11 to 15 years, 105 (22.68%) had taught 21 years or more, 52 (19.87%) had taught between 6 to 10 years, 83 (17.93%) had taught between 16 to 20 years, and 75 (16.20%) had taught between 1 to 5 years (see Table XVII). The majority of respondents with 1 to 15 years teaching experience were elementary teachers. The majority of respondents with 16 to 21 or more years teaching experience were secondary teachers (see Table XVIII).

Level of Teaching: Of the 463 respondents, 156 (33.69%) were junior high teachers, 155 (33.48%) were elementary teachers, and 152 (32.83%) were secondary teachers (see Table XVII).

Extra Duty: Response totals to this question indicated that respondents were involved with more than one extra curricular activity. Of all the physical education teachers surveyed, 353 (60.90%) were coaches, 85 (14.71%) were scored as "other," 77 (13.32%) were club or class sponsors, and 62 (10.73%) were department chairmen (see Table XVII). The majority of coaches and department chairmen were junior high teachers, the majority of club/class sponsors were secondary teachers, and the majority of "other" were elementary teachers (see Table XVIII).

An overall view of the personal information data provided a very informative composite picture of elementary, junior high, and secondary public school physical education teachers. More junior high teachers were male, younger (21-39), single, had less children (0-2), and served as coaches or department chairmen. More secondary teachers were older (40-60 or more years old), married, had more children (3-4 or more), had

more teaching experience (16-21 or more years), and served as club/class sponsors. More elementary teachers were female, widowed, divorced, had less teaching experience (1-5 years), and participated in a variety of extracurricular activities.

Analysis of variance (ANOVA) was conducted to compare the differences between six demographic variables in the frequency and intensity dimensions of the three MBI subscales: Emotional Exhaustion, Depersonalization, and Personal Accomplishment. An F value, labeled PR > F by the computer, was calculated to determine whether or not a significant difference had been established between each of the six demographic variables. Where significant ANOVA PR > F's were obtained, means were subjected to the Duncan analysis procedure.

The seventh hypothesis stated that: there is no significant difference between selected demographic variables in the frequency dimension of Emotional Exhaustion.

Sex: Analysis of variance produced a PR > F value of 0.0574 which indicated no significant difference between male and female physical education teachers at the .05 level. A comparison of the mean scores for the sex variable indicated that there was no significant difference between male teachers (M = 15.75) and female teachers (M = 17.50) on the frequency of Emotional Exhaustion (see Table XIX).

Age: Analysis of variance produced a PR > F value of 0.0487 which indicated a significant difference between the age groups at the .05 level. A comparison of the mean scores for the age variable indicated that teachers 21 to 29 years old (M = 18.05) and 30 to 39 years old (M = 17.33) expressed burnout more often than teachers 50 to 59 years old (M = 13.56) or 60 or more years old (M = 12.40) (see Table XX).

TABLE XIX
 COMPARISON OF THE DEMOGRAPHIC VARIABLE SEX ON THE MBI
 SUBSCALE: FREQUENCY OF EMOTIONAL EXHAUSTION

Analysis of Variance

df = 461 Mean Square = 96.9897 F = PR > F = 0.0574 p > .05

Duncan's Multiple Range Test

<u>Sex</u>	<u>Number</u>	<u>Mean</u>	<u>Grouping*</u>
Male	232	15.75	A
Female	231	17.50	A
Total	463		

*Means with the same letter are not significantly different at the .05 level of significance.

TABLE XX
 COMPARISON OF THE DEMOGRAPHIC VARIABLE AGE ON THE MBI
 SUBSCALE: FREQUENCY OF EMOTIONAL EXHAUSTION

Analysis of Variance

df = 456 Mean Square = 96.4114 F = PR > F = 0.0487 p < .05

Duncan's Multiple Range Test

<u>Age</u>	<u>Number</u>	<u>Mean</u>	<u>Grouping*</u>
21-29	96	18.05	A
30-39	180	17.33	A
40-49	123	16.22	A B
50-59	57	13.56	B
60 and Over	5	12.40	B
Total	463		

* Means with the same letter are not significantly different at the .05 level of significance.

Marital Status: Analysis of variance produced a $PR > F$ value of 0.0050 which indicated a significant difference between the marital status groups at the .01 level. A comparison of the mean scores for the marital status variable indicated that single teachers ($M = 18.87$) expressed burnout more often than divorced teachers ($M = 18.36$), married teachers ($M = 15.32$) or widowed teachers ($M = 10.66$) (see Table XXI).

Family Status: Analysis of variance produced a $PR > F$ value of 0.0011 which indicated a significant difference between the family status groups at the .01 level. A comparison of the mean scores for the family status variable indicated that teachers with one child ($M = 18.63$) or no children ($M = 18.15$) expressed burnout more often than teachers with four or more children ($M = 14.58$), three children ($M = 14.37$) or two children ($M = 14.16$) (see Table XXII).

Years of Experience: Analysis of variance produced $PR > F$ value of 0.3474 which indicated no significant difference between the years of experience groups at the .05 level. A comparison of the mean scores for the years of experience variable indicated that teachers with 6 to 10 years experience ($M = 18.14$) expressed burnout more often than teachers with 1 to 5 years experience ($M = 16.93$), 11 to 15 years experience ($M = 16.79$), 16 to 20 years experience ($M = 16.20$), or 21 or more years experience ($M = 15.24$) (see Table XXIII).

Extra Duty: Analysis of variance produced a $PR > F$ value of 0.5073 for coaches and a $PR > F$ value of 0.7658 for club/class sponsors, which indicated no significant difference at the .05 level. Analysis of variance produced a $PR > F$ value of .0450 for department chairmen which indicated a significant difference between department chairmen and non-department chairmen at the .05 level. A comparison of the mean scores for the

TABLE XXI

COMPARISON OF THE DEMOGRAPHIC VARIABLE MARITAL STATUS ON THE
 MBI SUBSCALE: FREQUENCY OF EMOTIONAL EXHAUSTION

Analysis of Variance

df = 455 Mean Square = 94.8536 F = PR > F = 0.0050 p < .01

Duncan's Multiple Range Test

<u>Marital Status</u>	<u>Number</u>	<u>Mean</u>	<u>Grouping*</u>
Single	136	18.87	A
Married	282	15.32	B
Divorced	38	18.36	A B
Widowed	3	10.66	B
Other	1	10.00	B
Total	455		

* Means with the same letter are not significantly different at the .01 level of significance.

TABLE XXII

COMPARISON OF THE DEMOGRAPHIC VARIABLE FAMILY STATUS ON THE
 MBI SUBSCALE: FREQUENCY OF EMOTIONAL EXHAUSTION

Analysis of Variance

df = 456 Mean Square = 94.3167 F = PR > F = 0.0011 p < .01

Duncan's Multiple Range Test

<u>Family Status</u>	<u>Number</u>	<u>Mean</u>	<u>Grouping*</u>
0 Children	210	18.15	A
1 Child	55	18.63	A
2 Children	86	14.16	B
3 Children	64	14.37	B
4 or More Children	46	14.58	A B
Total	456		

*Means with the same letter are not significantly different at the .01 level of significance.

TABLE XXIII
 COMPARISON OF THE DEMOGRAPHIC VARIABLE YEARS OF
 EXPERIENCE ON THE MBI SUBSCALE: FREQUENCY
 OF EMOTIONAL EXHAUSTION

Analysis of Variance

df = 458 Mean Square = 97.442 F = PR > F = 0.3474 p > .05

Duncan's Multiple Range Test

<u>Years Experience</u>	<u>Number</u>	<u>Mean</u>	<u>Grouping*</u>
1-5	75	16.93	A
6-10	92	18.14	A
11-15	108	16.79	A
16-20	83	16.20	A
21 and Over	105	15.24	A
Total	458		

* Means with the same letter are not significantly different at the .05 level of significance.

extra duty variable indicated that non-department chairmen ($M = 16.99$) expressed burnout more often than department chairmen ($M = 14.29$) (see Table XXIV).

Results indicated that no significant differences were found with three, i.e., sex, years of experience, and extra duties (coaches and club/class sponsors) of the six demographic variables. Non-acceptance of hypothesis seven confirmed a significant difference in the frequency of Emotional Exhaustion with four, i.e., age, marital status, family status, and extra duty (department chairmen) of the six demographic variables.

The eighth hypothesis stated that: there is no significant difference between selected demographic variables in the frequency dimension of Depersonalization.

Sex: Analysis of variance produced a $PR > F$ value of 0.2841 which indicated no significant difference between male and female physical education teachers at the .05 level. A comparison of the mean scores for the sex variable indicated that there was no significant difference between male teachers ($M = 7.60$) and female teachers ($M = 7.01$) on the frequency of Depersonalization (see Table XXV).

Age: Analysis of variance produced a $PR > F$ value of 0.0090 which indicated a significant difference between the age groups at the .01 level. A comparison of the mean scores for the age variable indicated that teachers 30 to 39 years old ($M = 8.15$) and 21 to 29 years old ($M = 7.76$) expressed negative feelings toward their students more often than teachers 50 to 59 years old ($M = 5.61$) or 60 or more years old ($M = 2.20$) (see Table XXVI).

Marital Status: Analysis of variance produced a $PR > F$ value of

TABLE XXIV

COMPARISON OF THE DEMOGRAPHIC VARIABLE EXTRA DUTY ON THE
 MBI SUBSCALE: FREQUENCY OF EMOTIONAL EXHAUSTION

<u>Analysis of Variance</u>			
(1) df = 461	Mean Square = 97.6597	F = PR > F = 0.5073	p > .05
<u>Duncan's Multiple Range Test</u>			
<u>Extra Duty 1</u>	<u>Number</u>	<u>Mean</u>	<u>Grouping*</u>
Coaches	352	17.17	A
Non-Coaches	111	16.45	A
Total	463		
<u>Analysis of Variance</u>			
(2) df = 461	Mean Square = 97.7341	F = PR > F = 0.7658	p > .05
<u>Duncan's Multiple Range Test</u>			
<u>Extra Duty 2</u>	<u>Number</u>	<u>Mean</u>	<u>Grouping*</u>
Club/Class Sponsors	77	16.93	A
Non-Sponsors	386	16.56	A
Total	463		
<u>Analysis of Variance</u>			
(3) df = 461	Mean Square = 96.9040	F = PR > F = 0.0450	p < .05
<u>Duncan's Multiple Range Test</u>			
<u>Extra Duty 3</u>	<u>Number</u>	<u>Mean</u>	<u>Grouping*</u>
Department Chairmen	62	14.29	B
Non-Chairmen	401	16.99	A
Total	463		

*Means with the same letter are not significantly different at .05.

TABLE XXV
 COMPARISON OF THE DEMOGRAPHIC VARIABLE SEX ON THE MBI
 SUBSCALE: FREQUENCY OF DEPERSONALIZATION

Analysis of Variance

df = 461 Mean Square = 35.6101 F = PR > F = 0.2841 p > .05

Duncan's Multiple Range Test

<u>Sex</u>	<u>Number</u>	<u>Mean</u>	<u>Grouping*</u>
Male	232	7.60	A
Female	231	7.01	A
Total	463		

* Means with the same letter are not significantly different at the .05 level of significance.

TABLE XXVI
 COMPARISON OF THE DEMOGRAPHIC VARIABLE AGE ON THE MBI
 SUBSCALE: FREQUENCY OF DEPERSONALIZATION

Analysis of Variance

df = 456 Mean Square = 35.0035 F = PR > F = 0.0090 p < .01

Duncan's Multiple Range Test

<u>Age</u>	<u>Number</u>	<u>Mean</u>	<u>Grouping*</u>
21-29	96	7.76	A
30-39	180	8.15	A
40-49	123	6.76	A B
50-59	57	5.61	B
60 and Over	5	2.20	B
Total	456		

* Means with the same letter are not significantly different at the .01 level of significance.

0.3763 which indicated no significant difference between the marital status groups at the .05 level. A comparison of the mean scores for the marital status variable indicated that divorced teachers ($M = 8.13$) expressed negative feelings toward their students more often than single teachers ($M = 7.96$), married teachers ($M = 6.90$), or widowed teachers ($M = 4.66$) (see Table XXVII).

Family Status: Analysis of variance produced a $PR > F$ value of 0.0514 which indicated a significant difference between the family status groups at the .05 level. A comparison of the mean scores for the family status variable indicated that teachers with one child ($M = 8.89$) expressed negative feelings toward their students more often than teachers with no children ($M = 7.53$), three children ($M = 7.39$), two children ($M = 6.34$), or four or more children ($M = 5.82$) (see Table XXVIII).

Years of Experience: Analysis of variance produced a $PR > F$ value of 0.2480 which indicated no significant difference between the years of experience groups at the .05 level. A comparison of the mean scores for the years of experience variable indicated that teachers with 6 to 10 years experience ($M = 8.27$) expressed negative feelings toward their students more often than teachers with 11 to 15 years experience ($M = 7.67$), 1 to 5 years experience ($M = 7.25$), 16 to 20 years experience ($M = 6.93$), or 21 or more years experience ($M = 6.42$) (see Table XXIX).

Extra Duty: Analysis of variance produced a $PR > F$ value of 0.5300 for coaches, a $PR > F$ value of 0.8030 for club/class sponsors, and a $PR > F$ value of 0.2701 for department chairmen all of which indicated no significant difference at the .05 level. A comparison of the mean scores for the extra duty variable indicated that non-coaches ($M = 7.62$), non-sponsors ($M = 7.34$), and non-department chairmen ($M = 7.43$) expressed

TABLE XXVII

COMPARISON OF THE DEMOGRAPHIC VARIABLE MARITAL STATUS ON THE
 MBI SUBSCALE: FREQUENCY OF DEPERSONALIZATION

Analysis of Variance

df = 455 Mean Square = 35.684 F = PR > F = 0.3763 p > .05

Duncan's Multiple Range Test

<u>Marital Status</u>	<u>Number</u>	<u>Mean</u>	<u>Grouping*</u>
Single	136	7.96	A
Married	282	6.90	A
Divorced	38	8.13	A
Widowed	3	4.66	A
Other	1	7.00	A
Total	455		

* Means with the same letter are not significantly different at the .05 level of significance.

TABLE XXVIII

COMPARISON OF THE DEMOGRAPHIC VARIABLE FAMILY STATUS ON THE
 MBI SUBSCALE: FREQUENCY OF DEPERSONALIZATION

Analysis of Variance

df = 456 Mean Square = 34.6206 F = PR < F = 0.0514 p < .05

Duncan's Multiple Range Test

<u>Family Status</u>	<u>Number</u>	<u>Mean</u>	<u>Grouping*</u>
0 Children	210	7.53	A B
1 Child	55	8.89	A
2 Children	86	6.34	B
3 Children	64	7.39	A B
4 or More Children	46	5.82	B
Total	456		

* Means with the same letter are not significantly different at the .05 level of significance.

TABLE XXIX
 COMPARISON OF THE DEMOGRAPHIC VARIABLE YEARS OF
 EXPERIENCE ON THE MBI SUBSCALE: FREQUENCY
 OF DEPERSONALIZATION

Analysis of Variance

df = 458 Mean Square = 35.5119 F = PR > F = 0.2480 p > .05

Duncan's Multiple Range Test

<u>Years Experience</u>	<u>Number</u>	<u>Mean</u>	<u>Grouping*</u>
1-5	75	7.25	A
6-10	92	8.27	A
11-15	108	7.67	A
16-20	83	6.93	A
21 and Over	105	6.42	A
<hr/> Total		458	

* Means with the same letter are not significantly different at the .05 level of significance.

negative feelings toward their students more often than coaches ($M = 7.21$), club/class sponsors ($M = 7.15$), or department chairmen ($M = 6.53$) (see Table XXX).

Results indicated that no significant differences were found with four, i.e., sex, marital status, years of experience, and extra duties (coaches, club/sponsors, department chairmen) of the six demographic variables. Nonacceptance of hypothesis eight confirmed a significant difference in the frequency of Depersonalization with two, i.e., age and family status, of the six demographic variables.

The ninth hypothesis stated that: there is no significant difference between selected demographic variables in the frequency dimension of Personal Accomplishment.

Sex: Analysis of variance produced a $PR > F$ value of 0.6122 which indicated no significant difference between male and female physical education teachers at the .05 level. A comparison of the mean scores for the sex variable indicated that there was no significant difference between male teachers ($M = 37.04$) and female teachers ($M = 36.67$) on the frequency of Personal Accomplishment (see Table XXXI).

Age: Analysis of variance produced a $PR > F$ value of 0.1938 which indicated no significant difference between the age groups at the .05 level. A comparison of the mean scores for the age variable indicated that teachers 60 or more years old ($M = 41.00$) expressed positive feelings of satisfaction about themselves and their work more often than teachers 21 to 29 years old ($M = 38.22$), 40 to 49 years old ($M = 36.95$), 30 to 39 years old ($M = 36.31$), or 50 to 59 years old ($M = 36.03$), (see Table XXXII).

Marital Status: Analysis of variance produced a $PR > F$ value of 0.2750 which indicated no significant difference between the marital status groups at the .05 level. A comparison of the mean scores for the

TABLE XXX
COMPARISON OF THE DEMOGRAPHIC VARIABLE EXTRA DUTY ON THE
MBI SUBSCALE: FREQUENCY OF DEPERSONALIZATION

<u>Analysis of Variance</u>			
(1) df = 461	Mean Square = 35.6684	F = PR > F = 0.5300	p > .05
<u>Duncan's Multiple Range Test</u>			
<u>Extra Duty 1</u>	<u>Number</u>	<u>Mean</u>	<u>Grouping*</u>
Coaches	352	7.21	A
Non-Coaches	111	7.62	A
Total	463		
<u>Analysis of Variance</u>			
(2) df = 461	Mean Square = 35.6941	F = PR > F = 0.8030	p > .05
<u>Duncan's Multiple Range Test</u>			
<u>Extra Duty 2</u>	<u>Number</u>	<u>Mean</u>	<u>Grouping*</u>
Club/Class Sponsors	77	7.15	A
Non-Sponsors	386	7.34	A
Total	463		
<u>Analysis of Variance</u>			
(3) df = 461	Mean Square = 35.6048	F = PR > F = 0.2701	p > .05
<u>Duncan's Multiple Range Test</u>			
<u>Extra Duty 3</u>	<u>Number</u>	<u>Mean</u>	<u>Grouping*</u>
Department Chairmen	62	6.53	A
Non-Chairmen	401	7.43	A
Total	463		

* Means with the same letter are not significantly different at .05.

TABLE XXXI
 COMPARISON OF THE DEMOGRAPHIC VARIABLE SEX ON THE MBI
 SUBSCALE: FREQUENCY OF PERSONAL ACCOMPLISHMENT

Analysis of Variance

df = 461 Mean Square = 59.4314 F = PR > F = 0.6122 p > .05

Duncan's Multiple Range Test

<u>Sex</u>	<u>Number</u>	<u>Mean</u>	<u>Grouping*</u>
Male	232	37.04	A
Female	231	36.67	A
Total	463		

*Means with the same letter are not significantly different at the .05 level of significance.

TABLE XXXII
 COMPARISON OF THE DEMOGRAPHIC VARIABLE AGE ON THE MBI
 SUBSCALE: FREQUENCY OF PERSONAL ACCOMPLISHMENT

Analysis of Variance

df = 456 Mean Square = 58.8734 F = PR > F = 0.1938 p > .05

Duncan's Multiple Range Test

<u>Age</u>	<u>Number</u>	<u>Mean</u>	<u>Grouping*</u>
21-29	96	38.22	A
30-39	180	36.31	A
40-49	123	36.95	A
50-59	57	36.03	A
60 and Over	5	41.00	A
Total	456		

* Means with the same letter are not significantly different at the .05 level of significance.

marital status variable indicated that widowed teachers ($M = 41.33$) expressed positive feelings of satisfaction about themselves and their work more often than divorced teachers ($M = 39.18$), married teachers ($M = 36.77$), or single teachers ($M = 36.46$) (see Table XXXIII).

Family Status: Analysis of variance produced a $PR > F$ value of 0.8837 which indicated no significant difference between the family status groups at the .05 level. A comparison of the mean scores for the family status variable indicated that teachers with two children ($M = 37.36$) expressed positive feelings of satisfaction about themselves and toward their work more often than teachers with one child ($M = 37.30$), three children ($M = 36.90$), no children ($M = 36.60$), or four or more children ($M = 36.15$) (see Table XXXIV).

Years of Experience: Analysis of variance produced a $PR > F$ value of 0.0015 which indicated a significant difference between the years of experience groups at the .01 level. A comparison of the mean scores for the years of experience variable indicated that teachers with 1 to 5 years experience ($M = 39.22$) and 16 to 20 years experience ($M = 38.61$) expressed positive feelings of satisfaction about themselves and toward their work more often than teachers with 11 to 15 years experience ($M = 36.02$), 21 or more years experience ($M = 35.73$), or 6 to 10 years experience ($M = 35.61$) (see Table XXXV).

Extra Duty: Analysis of variance produced a $PR > F$ value of 0.2375 for coaches, a $PR > F$ value of 0.5533 for club/class sponsors, and a $PR > F$ value of 0.0521 for department chairmen, all of which indicated no significant difference at the .05 level. A comparison of the mean scores for the extra duty variable indicated that coaches ($M = 37.09$), club/class sponsors ($M = 37.33$), and department chairmen ($M = 38.62$)

TABLE XXXIII

COMPARISON OF THE DEMOGRAPHIC VARIABLE MARITAL STATUS ON THE
 MBI SUBSCALE: FREQUENCY OF PERSONAL ACCOMPLISHMENT

Analysis of Variance

df = 455 Mean Square = 58.9355 F = PR > F = 0.2750 p > .05

Duncan's Multiple Range Test

<u>Marital Status</u>	<u>Number</u>	<u>Mean</u>	<u>Grouping*</u>
Single	136	36.46	A
Married	282	36.77	A
Divorced	38	39.18	A
Widowed	3	41.33	A
Other	1	33.00	A
Total	455		

* Means with the same letter are not significantly different at the .05 level of significance.

TABLE XXXIV

COMPARISON OF THE DEMOGRAPHIC VARIABLE FAMILY STATUS ON THE
 MBI SUBSCALE: FREQUENCY OF PERSONAL ACCOMPLISHMENT

Analysis of Variance

df = 456 Mean Square = 59.6083 F = PR > F = 0.8837 p > .05

Duncan's Multiple Range Test

<u>Family Status</u>	<u>Number</u>	<u>Mean</u>	<u>Grouping*</u>
0 Children	210	36.60	A
1 Child	55	37.30	A
2 Children	86	37.36	A
3 Children	64	36.90	A
4 or More Children	46	36.15	A
Total	456		

* Means with the same letter are not significantly different at the .05 level of significance.

TABLE XXXV
 COMPARISON OF THE DEMOGRAPHIC VARIABLE YEARS OF
 EXPERIENCE ON THE MBI SUBSCALE: FREQUENCY
 OF PERSONAL ACCOMPLISHMENT

Analysis of Variance

df = 458 Mean Square = 57.6156 F = PR > F = 0.0015 p < .01

Duncan's Multiple Range Test

<u>Years Experience</u>	<u>Number</u>	<u>Mean</u>	<u>Grouping*</u>
1-5	75	39.22	A
6-10	92	35.61	B
11-15	108	36.02	B
16-20	83	38.61	A
21 and Over	105	35.73	B
Total	458		

* Means with the same letter are not significantly different at the .01 level of significance.

expressed positive feelings of satisfaction about themselves and toward their work more often than non-coaches ($M = 36.10$), non-sponsors ($M = 36.76$), and non-department chairmen ($M = 36.58$) (see Table XXXVI).

Results indicated that no significant differences were found with five, i.e., sex, age, marital status, family status, and extra duties (coaches, club/class sponsors, department chairmen) of the six demographic variables. Nonacceptance of hypothesis nine confirmed a significant difference in the frequency dimension of Personal Accomplishment with one, i.e., years of experience, of the six demographic variables.

The tenth hypothesis stated that: there is no significant difference between selected demographic variables in the intensity dimension of Emotional Exhaustion.

Sex: Analysis of variance produced a $PR > F$ value of 0.812 which indicated no significant difference between male and female physical education teachers at the .05 level. A comparison of mean scores for the sex variable indicated that there was no significant difference between male teachers ($M = 22.41$) and female teachers ($M = 24.50$) on the intensity of Emotional Exhaustion (see Table XXXVII).

Age: Analysis of variance produced a $PR > F$ value of 0.0002 which indicated a significant difference between the age groups at the .01 level. A comparison of the mean scores for the age variable indicated that teachers 21 to 29 ($M = 26.16$) expressed stronger feelings of burn-out than teachers 30 to 39 years old ($M = 25.02$), 40 to 49 years old ($M = 22.17$), 50 to 59 years old ($M = 17.96$), or 60 or more years old ($M = 13.00$) (see Table XXXVIII).

Marital Status: Analysis of variance produced a $PR > F$ value of 0.0034 which indicated a significant difference between the marital

TABLE XXXVI

COMPARISON OF THE DEMOGRAPHIC VARIABLE EXTRA DUTY ON THE
 MBI SUBSCALE: FREQUENCY OF PERSONAL ACCOMPLISHMENT

<u>Analysis of Variance</u>			
(1) df = 461	Mean Square = 59.2846	F = PR > F = 0.2375	p > .05
<u>Duncan's Multiple Range Test</u>			
<u>Extra Duty 1</u>	<u>Number</u>	<u>Mean</u>	<u>Grouping*</u>
Coaches	352	37.09	A
Non-Coaches	111	36.10	A
Total	463		
<u>Analysis of Variance</u>			
(2) df = 461	Mean Square = 59.4192	F = PR > F = 0.5533	p > .05
<u>Duncan's Multiple Range Test</u>			
<u>Extra Duty 2</u>	<u>Number</u>	<u>Mean</u>	<u>Grouping*</u>
Club/Class Sponsors	77	37.33	A
Non-Sponsors	386	36.76	A
Total	463		
<u>Analysis of Variance</u>			
(3) df = 461	Mean Square = 58.9796	F = PR > F = 0.0521	p > .05
<u>Duncan's Multiple Range Test</u>			
<u>Extra Duty 3</u>	<u>Number</u>	<u>Mean</u>	<u>Grouping*</u>
Department Chairmen	62	38.62	A
Non-Chairmen	401	36.58	A
Total	463		

* Means with the same letter are not significantly different at .05.

TABLE XXXVII
 COMPARISON OF THE DEMOGRAPHIC VARIABLE SEX ON THE MBI
 SUBSCALE: INTENSITY OF EMOTIONAL EXHAUSTION

Analysis of Variance

df = 461 Mean Square = 164.629 F = PR > F = 0.0812 p > .05

Duncan's Multiple Range Test

<u>Sex</u>	<u>Number</u>	<u>Mean</u>	<u>Grouping*</u>
Male	232	22.41	A
Female	231	24.50	A
Total	463		

* Means with the same letter are not significantly different at the .05 level of significance.

TABLE XXXVIII
 COMPARISON OF THE DEMOGRAPHIC VARIABLE AGE ON THE MBI
 SUBSCALE: INTENSITY OF EMOTIONAL EXHAUSTION

Analysis of Variance

df = 456 Mean Square = 159.183 F = PR > F = 0.0002 p < .01

Duncan's Multiple Range Test

<u>Age</u>	<u>Number</u>	<u>Mean</u>	<u>Grouping*</u>
21-29	96	26.16	A
30-39	180	25.02	A B
40-49	123	22.17	B
50-59	57	17.96	C
60 and Over	5	13.00	C
<hr/> Total		456	

* Means with the same letter are not significantly different at the .01 level of significance.

status groups at the .01 level. A comparison of the mean scores for the marital status variable indicated that single teachers ($M = 26.87$) expressed stronger feelings of burnout than divorced teachers ($M = 23.31$), married teachers ($M = 21.84$), or widowed teachers ($M = 18.00$) (see Table XXXIX).

Family Status: Analysis of variance produced a $PR > F$ value of 0.0039 which indicated a significant difference between the family status groups at the .01 level. A comparison of the mean scores for the family status variable indicated that teachers with no children ($M = 25.78$) expressed stronger feelings of burnout than teachers with one child ($M = 23.34$), two children ($M = 21.81$), four or more children ($M = 20.67$), or three children ($M = 19.93$) (see Table XL).

Years of Experience: Analysis of variance produced a $PR > F$ value of 0.0301 which indicated a significant difference between the years of experience groups at the .05 level. A comparison of the mean scores for the years of experience variable indicated that teachers with 6 to 10 years experience ($M = 26.13$) and 11 to 15 years experience ($M = 24.76$) expressed stronger feelings of burnout than teachers with 1 to 5 years experience ($M = 23.06$), 16 to 20 years experience ($M = 22.78$), or 21 or more years of experience ($M = 20.58$) (see Table XLI).

Extra Duty: Analysis of variance produced a $PR > F$ value of 0.1158 for coaches, a $PR > F$ value of .01490 for club/class sponsors, and a $PR > F$ value of 0.4950 for department chairmen, all of which indicated no significant difference at the .05 level. A comparison of the mean scores for the extra duty variable indicated that coaches ($M = 23.98$) and club/class sponsors ($M = 25.38$) expressed stronger feelings of burnout than non-coaches ($M = 21.78$) and non-sponsors ($M = 23.07$). A comparison of

TABLE XXXIX

COMPARISON OF THE DEMOGRAPHIC VARIABLE MARITAL STATUS ON THE
 MBI SUBSCALE: INTENSITY OF EMOTIONAL EXHAUSTION

Analysis of Variance

df = 455 Mean Square = 161.228 F = PR > F = 0.0034 p < .01

Duncan's Multiple Range Test

<u>Marital Status</u>	<u>Number</u>	<u>Mean</u>	<u>Grouping*</u>
Single	136	26.87	A
Married	282	21.84	B
Divorced	38	23.31	A B
Widowed	3	18.00	B
Other	1	11.00	B
Total	455		

* Means with the same letter are not significantly different at the .01 level of significance.

TABLE XL

COMPARISON OF THE DEMOGRAPHIC VARIABLE FAMILY STATUS ON THE
 MBI SUBSCALE: INTENSITY OF EMOTIONAL EXHAUSTION

Analysis of Variance

df = 456 Mean Square = 161.269 F = PR > F = 0.0039 p < .01

Duncan's Multiple Range Test

<u>Family Status</u>	<u>Number</u>	<u>Mean</u>	<u>Grouping*</u>
0 Children	210	25.78	A
1 Child	55	23.34	A B
2 Children	86	21.81	B
3 Children	64	19.93	B
4 or More Children	46	20.67	B
<hr/>			
Total	456		

* Means with the same letter are not significantly different at the .01 level of significance.

TABLE XLI
 COMPARISON OF THE DEMOGRAPHIC VARIABLE YEARS OF
 EXPERIENCE ON THE MBI SUBSCALE: INTENSITY
 OF EMOTIONAL EXHAUSTION

Analysis of Variance

df = 458 Mean Square = 162.961 F = PR > F = 0.0301 p < .05

Duncan's Multiple Range Test

<u>Years Experience</u>	<u>Number</u>	<u>Mean</u>	<u>Grouping*</u>
1-5	75	23.06	A B
6-10	92	26.13	A
11-15	108	24.76	A
16-20	83	22.78	B
21 and Over	105	20.58	B
Total		458	

* Means with the same letter are not significantly different at the .05 level of significance.

the mean scores for department chairmen indicated that non-department chairmen ($M = 23.61$) expressed stronger feelings of burnout than department chairmen ($M = 22.41$) (see Table XLII).

Results indicated that no significant differences were found with two, i.e., sex and extra duties (coaches, club/class sponsors, department chairmen) of the six demographic variables. Nonacceptance of hypothesis ten confirmed a significant difference in the intensity of Emotional Exhaustion with four, i.e., age, marital status, family status, and years of experience, of the six demographic variables.

The eleventh hypothesis stated that: there is no significant difference between selected demographic variables in the intensity dimension of Depersonalization.

Sex: Analysis of variance produced a $PR > F$ value of 0.2711 which indicated no significant difference between male and female physical education teachers at the .05 level. A comparison of the mean scores for the sex variable indicated that there was no significant difference between male teachers ($M = 10.52$) and female teachers ($M = 9.73$) on the intensity of Depersonalization (see Table XLIII).

Age: Analysis of variance produced a $PR > F$ value of 0.0248 which indicated a significant difference between the age groups at the .05 level. A comparison of the mean scores for the age variable indicated that teachers 30 to 39 years old ($M = 11.06$) expressed stronger negative feelings toward their students than teachers 21 to 29 years old ($M = 10.83$), 50 to 59 years old ($M = 9.17$), 40 to 49 years old ($M = 9.01$), or 60 or more years old ($M = 3.00$) (see Table XLIV).

Marital Status: Analysis of variance produced a $PR > F$ value of 0.5720 which indicated no significant difference between the marital

TABLE XLII

COMPARISON OF THE DEMOGRAPHIC VARIABLE EXTRA DUTY ON THE
MBI SUBSCALE: INTENSITY OF EMOTIONAL EXHAUSTION

<u>Analysis of Variance</u>			
(1) df = 461	Mean Square = 164.832	F = PR > F = 0.1158	p > .05
<u>Duncan's Multiple Range Test</u>			
<u>Extra Duty 1</u>	<u>Number</u>	<u>Mean</u>	<u>Grouping*</u>
Coaches	352	23.98	A
Non-Coaches	111	21.78	A
Total	463		
<u>Analysis of Variance</u>			
(2) df = 461	Mean Square = 164.972	F = PR > F = 0.1490	p > .05
<u>Duncan's Multiple Range Test</u>			
<u>Extra Duty 2</u>	<u>Number</u>	<u>Mean</u>	<u>Grouping*</u>
Club/Class Sponsors	77	25.38	A
Non-Sponsors	386	23.07	A
Total	463		
<u>Analysis of Variance</u>			
(3) df = 461	Mean Square = 165.553	F = PR > F = 0.4950	p > .05
<u>Duncan's Multiple Range Test</u>			
<u>Extra Duty 3</u>	<u>Number</u>	<u>Mean</u>	<u>Grouping*</u>
Department Chairmen	62	22.41	A
Non-Chairmen	401	23.61	A
Total	463		

* Means with the same letter are not significantly different at .05.

TABLE XLIII
 COMPARISON OF THE DEMOGRAPHIC VARIABLE SEX ON THE MBI
 SUBSCALE: INTENSITY OF DEPERSONALIZATION

Analysis of Variance

df = 459 Mean Square = 59.2728 F = PR > F = 0.2711 p > .05

Duncan's Multiple Range Test

<u>Sex</u>	<u>Number</u>	<u>Mean</u>	<u>Grouping*</u>
Male	230	10.52	A
Female	231	9.73	A
Total	461		

* Means with the same letter are not significantly different at the .05 level of significance.

TABLE XLIV
 COMPARISON OF THE DEMOGRAPHIC VARIABLE AGE ON THE MBI
 SUBSCALE: INTENSITY OF DEPERSONALIZATION

Analysis of Variance

df = 454 Mean Square = 58.4975 F = PR > F = 0.0248 p < .05

Duncan's Multiple Range Test

<u>Age</u>	<u>Number</u>	<u>Mean</u>	<u>Grouping*</u>
21-29	96	10.83	A B
30-39	180	11.06	A
40-49	122	9.01	B C
50-59	56	9.17	A B C
60 and Over	5	3.00	C
<hr/> Total		454	

* Means with the same letter are not significantly different at the .05 level of significance.

status groups at the .05 level. A comparison of the mean scores for the marital status variable indicated that single teachers ($M = 10.94$) expressed stronger negative feelings toward their students than divorced teachers ($M = 10.55$), married teachers ($M = 9.67$), or widowed teachers ($M = 8.00$) (see Table XLV).

Family Status: Analysis of variance produced a $PR > F$ value of 0.8048 which indicated no significant difference between the family status groups at the .05 level. A comparison of the mean scores for the family status variable indicated that teachers with one child ($M = 11.09$) expressed stronger negative feelings toward their students than teachers with no children ($M = 10.24$), two children ($M = 9.80$), three children ($M = 9.76$), or four or more children ($M = 9.37$) (see Table XLVI).

Years of Experience: Analysis of variance produced a $PR > F$ value of 0.5625 which indicated no significant difference between the years of experience groups at the .05 level. A comparison of the mean scores for the years of experience variable indicated that teachers with 6 to 10 years experience ($M = 10.81$) expressed stronger negative feelings toward their students than teachers with 11 to 15 years experience ($M = 10.75$), 1 to 5 years experience ($M = 10.08$), 21 or more years experience ($M = 9.61$), or 16 to 20 years experience ($M = 9.24$) (see Table XLVII).

Extra Duty: Analysis of variance produced a $PR > F$ value of 0.2272 for coaches, a $PR > F$ value of 0.6859 for club/class sponsors, and a $PR > F$ value of 0.6069 for department chairmen, all of which indicated no significant difference at the .05 level. A comparison of the mean scores for the extra duty variable indicated that coaches ($M = 10.37$) and club/class sponsors ($M = 10.45$) expressed stronger negative feelings toward their students than non-coaches ($M = 9.36$) and non-sponsors

TABLE XLV
 COMPARISON OF THE DEMOGRAPHIC VARIABLE MARITAL STATUS ON THE
 MBI SUBSCALE: INTENSITY OF DEPERSONALIZATION

Analysis of Variance

df = 453 Mean Square = 59.5661 F = PR > F = 0.5720 p > .05

Duncan's Multiple Range Test

<u>Marital Status</u>	<u>Number</u>	<u>Mean</u>	<u>Grouping*</u>
Single	136	10.94	A
Married	280	9.67	A
Divorced	38	10.55	A
Widowed	3	8.00	A
Other	1	8.00	A
<u>Total</u>		453	

*Means with the same letter are not significantly different at the .05 level of significance.

TABLE XLVI

COMPARISON OF THE DEMOGRAPHIC VARIABLE FAMILY STATUS ON THE
 MBI SUBSCALE: INTENSITY OF DEPERSONALIZATION

Analysis of Variance

df = 454 Mean Square = 59.0239 F = PR > F = 0.8048 p > .05

Duncan's Multiple Range Test

<u>Family Status</u>	<u>Number</u>	<u>Mean</u>	<u>Grouping*</u>
0 Children	210	10.24	A
1 Child	54	11.09	A
2 Children	86	9.80	A
3 Children	64	9.76	A
4 or More Children	45	9.37	A
Total	454		

* Means with the same letter are not significantly different at the .05 level of significance.

TABLE XLVII
 COMPARISON OF THE DEMOGRAPHIC VARIABLE YEARS OF
 EXPERIENCE ON THE MBI SUBSCALE: INTENSITY
 OF DEPERSONALIZATION

Analysis of Variance

df = 456 Mean Square = 59.4328 F = PR > F = 0.5625 p > .05

Duncan's Multiple Range Test

<u>Years Experience</u>	<u>Number</u>	<u>Mean</u>	<u>Grouping*</u>
1-5	75	10.08	A
6-10	92	10.81	A
11-15	108	10.75	A
16-20	82	9.24	A
21 and Over	105	9.61	A
<hr/> Total		456	

* Means with the same letter are not significantly different at the .05 level of significance.

($M = 10.06$). A comparison of the mean scores for department chairmen indicated that non-department chairmen ($M = 10.20$) expressed stronger negative feelings toward their students than department chairmen ($M = 9.66$) (see Table XLVIII).

Results indicated that no significant differences were found with five, i.e., sex, marital status, family status, years of experience, and extra duties (coaches, club/class sponsors, department chairmen) of the six demographic variables. Nonacceptance of hypothesis eleven confirmed a significant difference in the intensity of Depersonalization with one, i.e., age, of the six demographic variables.

The twelfth hypothesis stated that: there is no significant difference between selected demographic variables in the intensity dimension of Personal Accomplishment.

Sex: Analysis of variance produced a $PR > F$ value of 0.3055 which indicated no significant difference between male and female physical education teachers at the .05 level. A comparison of the mean scores for the sex variable indicated that there was no significant difference between male teachers ($M = 41.42$) and female teachers ($M = 36.67$) on the intensity of Personal Accomplishment (see Table XLIX).

Age: Analysis of variance produced a $PR > F$ value of 0.0123 which indicated a significant difference between the age groups at the .05 level. A comparison of the mean scores for the age variable indicated that teachers 60 or more years old ($M = 46.20$) expressed stronger feelings of satisfaction about themselves and their work than teachers 21 to 29 years old ($M = 43.16$), 30 to 39 years old ($M = 41.07$), 50 to 59 years old ($M = 40.00$), or 40 to 49 years old ($M = 39.69$) (see Table L).

Marital Status: Analysis of variance produced a $PR > F$ value of

TABLE XLVIII

COMPARISON OF THE DEMOGRAPHIC VARIABLE EXTRA DUTY ON THE
 MBI SUBSCALE: INTENSITY OF DEPERSONALIZATION

<u>Analysis of Variance</u>			
(1) df = 459	Mean Square = 59.2409	F = PR > F = 0.2272	p > .05
<u>Duncan's Multiple Range Test</u>			
<u>Extra Duty 1</u>	<u>Number</u>	<u>Mean</u>	<u>Grouping*</u>
Coaches	350	10.37	A
Non-Coaches	111	9.36	A
Total	461		
<u>Analysis of Variance</u>			
(2) df = 459	Mean Square = 59.4084	F = PR > F = 0.6859	p > .05
<u>Duncan's Multiple Range Test</u>			
<u>Extra Duty 2</u>	<u>Number</u>	<u>Mean</u>	<u>Grouping*</u>
Club/Class Sponsors	77	10.45	A
Non-Sponsors	384	10.06	A
Total	461		
<u>Analysis of Variance</u>			
(3) df = 459	Mean Square = 59.3953	F = PR > F = 0.6069	p > .05
<u>Duncan's Multiple Range Test</u>			
<u>Extra Duty 3</u>	<u>Number</u>	<u>Mean</u>	<u>Grouping*</u>
Department Chairmen	62	9.66	A
Non-Chairmen	399	10.20	A
Total	461		

* Means with the same letter are not significantly different at .05.

TABLE XLIX
 COMPARISON OF THE DEMOGRAPHIC VARIABLE SEX ON THE MBI
 SUBSCALE: INTENSITY OF PERSONAL ACCOMPLISHMENT

Analysis of Variance

df = 461 Mean Square = 67.2659 F = PR > F = 0.3055 p > .05

Duncan's Multiple Range Test

<u>Sex</u>	<u>Number</u>	<u>Mean</u>	<u>Grouping*</u>
Male	232	41.42	A
Female	231	40.64	A
Total	463		

* Means with the same letter are not significantly different at the .05 level of significance.

TABLE L
 COMPARISON OF THE DEMOGRAPHIC VARIABLE AGE ON THE MBI
 SUBSCALE: INTENSITY OF PERSONAL ACCOMPLISHMENT

Analysis of Variance

df = 456 Mean Square = 65.857 F = PR > F = 0.0123 p < .05

Duncan's Multiple Range Test

<u>Age</u>	<u>Number</u>	<u>Mean</u>	<u>Grouping*</u>
21-29	96	43.16	A B
30-39	180	41.07	B
40-49	123	39.69	B
50-59	57	40.00	B
60 and Over	5	46.20	A
Total	456		

* Means with the same letter are not significantly different at the .05 level of significance.

0.4689 which indicated no significant difference between the marital status groups at the .05 level. A comparison of the mean scores for the marital status variable indicated that widowed teachers ($M = 45.00$) expressed stronger feelings of satisfaction about themselves and their work than divorced teachers ($M = 42.88$), single teachers ($M = 41.36$), or married teachers ($M = 40.67$) (see Table LI).

Family Status: Analysis of variance produced a $PR > F$ value of 0.5544 which indicated no significant difference between the family status groups at the .05 level. A comparison of the mean scores for the family status variable indicated that teachers with two children ($M = 41.91$) expressed stronger feelings of satisfaction about themselves and toward their work than teachers with no children ($M = 41.19$), four or more children ($M = 40.84$), one child ($M = 40.63$), or three children ($M = 39.65$) (see Table LII).

Years of Experience: Analysis of variance produced a $PR > F$ value of 0.0173 which indicated a significant difference between the years of experience groups at the .05 level. A comparison of the mean scores for the years of experience variable indicated that teachers with 1 to 5 years experience ($M = 43.70$) expressed stronger feelings of satisfaction about themselves and toward their work than teachers with 6 to 10 years experience ($M = 41.20$), 11 to 15 years experience ($M = 40.77$), 16 to 20 years experience ($M = 40.72$), or 21 or more years experience ($M = 39.49$) (see Table LIII).

Extra Duty: Analysis of variance produced a $PR > F$ value of 0.2026 for coaches, a $PR > F$ value of 0.1521 for club/class sponsors, and a $PR > F$ value of 0.1690 for department chairmen, all of which indicated no significant difference at the .05 level. A comparison of mean scores

TABLE LI
 COMPARISON OF THE DEMOGRAPHIC VARIABLE MARITAL STATUS ON THE
 MBI SUBSCALE: INTENSITY OF PERSONAL ACCOMPLISHMENT

Analysis of Variance

df = 455 Mean Square = 66.7405 F = PR > F = 0.4689 p > .05

Duncan's Multiple Range Test

<u>Marital Status</u>	<u>Number</u>	<u>Mean</u>	<u>Grouping*</u>
Single	136	41.36	A
Married	282	40.67	A
Divorced	38	42.88	A
Widowed	3	45.00	A
Other	1	38.00	A
<hr/>			
Total	455		

* Means with the same letter are not significantly different at the .05 level of significance.

TABLE LII
 COMPARISON OF THE DEMOGRAPHIC VARIABLE FAMILY STATUS ON THE
 MBI SUBSCALE: INTENSITY OF PERSONAL ACCOMPLISHMENT

Analysis of Variance

df = 456 Mean Square = 67.5845 F = PR > F = 0.5544 p > .05

Duncan's Multiple Range Test

<u>Family Status</u>	<u>Number</u>	<u>Mean</u>	<u>Grouping*</u>
0 Children	210	41.19	A
1 Child	55	40.63	A
2 Children	86	41.91	A
3 Children	64	39.65	A
4 or More Children	46	40.84	A
<hr/>			
Total	456		

* Means with the same letter are not significantly different at the .05 level of significance.

TABLE LIII
 COMPARISON OF THE DEMOGRAPHIC VARIABLE YEARS OF
 EXPERIENCE ON THE MBI SUBSCALE: INTENSITY
 OF PERSONAL ACCOMPLISHMENT

Analysis of Variance

df = 458 Mean Square = 66.1095 F = PR > F = 0.0173 p < .05

Duncan's Multiple Range Test

<u>Years Experience</u>	<u>Number</u>	<u>Mean</u>	<u>Grouping*</u>
1-5	75	43.70	A
6-10	92	41.20	A B
11-15	108	40.77	B
16-20	83	40.72	B
21 and Over	105	39.49	B
Total	458		

* Means with the same letter are not significantly different at the .05 level of significance.

for the extra duty variable indicated that coaches ($M = 41.30$), club/class sponsors ($M = 42.25$), and department chairmen ($M = 42.37$) expressed stronger feelings of satisfaction about themselves and toward their work than non-coaches ($M = 40.17$), non-sponsors ($M = 40.79$), or non-department chairmen ($M = 40.83$) (see Table LIV).

Results indicated that no significant differences were found with four, i.e., sex, marital status, family status, and extra duties (coaches, club/class sponsors, department chairmen) of the six demographic variables. Nonacceptance of hypothesis twelve confirmed a significant difference in the intensity dimension of Personal Accomplishment with two, i.e., age and years of experience, of the six demographic variables.

A comparison of the $PR > F$ values of the demographic variables revealed that Emotional Exhaustion was expressed more often and with more intensity than Depersonalization (see Table LV).

A comparison of the mean scores for each of the six demographic variables in the frequency and intensity dimensions of the three MBI subscales--Emotional Exhaustion, Depersonalization, and Personal Accomplishment--revealed the following:

Sex: Female teachers expressed Emotional Exhaustion more often ($M = 17.50$) and with more intensity ($M = 24.50$) than male teachers. Male teachers expressed Depersonalization more often ($M = 7.60$) and with more intensity ($M = 10.52$) and Personal Accomplishment more often ($M = 37.04$) and with more intensity ($M = 41.42$) than female teachers (see Table LVI).

Age: Teachers 21 to 29 years old expressed Emotional Exhaustion more often ($M = 18.05$) and with more intensity ($M = 26.16$) than teachers 30 to 60 or more years old. Teachers 30 to 39 years old expressed Depersonalization more often ($M = 8.15$) and with more intensity ($M = 11.06$) than

TABLE LIV

COMPARISON OF THE DEMOGRAPHIC VARIABLE EXTRA DUTY ON THE
 MBI SUBSCALE: INTENSITY OF PERSONAL ACCOMPLISHMENT

<u>Analysis of Variance</u>			
(1) df = 461	Mean Square = 67.1822	F = PR > F = 0.2026	p > .05
<u>Duncan's Multiple Range Test</u>			
<u>Extra Duty 1</u>	<u>Number</u>	<u>Mean</u>	<u>Grouping*</u>
Coaches	352	41.30	A
Non-Coaches	111	40.17	A
Total	463		
<u>Analysis of Variance</u>			
(2) df = 461	Mean Square = 67.1198	F = PR > F = 0.1521	p > .05
<u>Duncan's Multiple Range Test</u>			
<u>Extra Duty 2</u>	<u>Number</u>	<u>Mean</u>	<u>Grouping*</u>
Club/Class Sponsors	77	42.25	A
Non-Sponsors	386	40.79	A
Total	463		
<u>Analysis of Variance</u>			
(3) df = 461	Mean Square = 67.143	F = PR > F = 0.1690	p > .05
<u>Duncan's Multiple Range Test</u>			
<u>Extra Duty 3</u>	<u>Number</u>	<u>Mean</u>	<u>Grouping*</u>
Department Chairmen	62	42.37	A
Non-Chairmen	401	40.83	A
Total	463		

*Means with the same letter are not significantly different at .05.

TABLE LV
 COMPARISON OF ANALYSIS OF VARIANCE RESULTS OF THE
 DEMOGRAPHIC VARIABLES ON THE MBI SUBSCALES:
 EEF, DPF, PAF, EEI, DPI, PAI

Variable	EEF	DPF	PAF	EEI	DPI	PAI
Sex	0.0574	0.2841	0.6122	0.0812	0.2711	0.3055
Age	0.0487*	0.0090 [†]	0.1938	0.0002 [†]	0.0248*	0.0123*
Marital Status	0.0050 [†]	0.3763	0.2750	0.0034 [†]	0.5720	0.4689
Family Status	0.0011 [†]	0.0514*	0.8837	0.0039 [†]	0.8048	0.5544
Teaching Level	0.3407	0.2798	0.0148*	0.0507*	0.1134	0.0336*
Years Experience	0.3474	0.2480	0.0015 [†]	0.0301*	0.5625	0.0173*
Extra Duties: (1)	0.5073	0.5300	0.2375	0.1158	0.2272	0.2026
(2)	0.7658	0.8030	0.5533	0.1490	0.6859	0.1521
(3)	0.0450*	0.2701	0.0521	0.4950	0.6069	0.1690

* p < .05.

[†] p < .01.

TABLE LVI

COMPARISON OF THE MEAN SCORES OF THE DEMOGRAPHIC VARIABLE
SEX ON THE FREQUENCY AND INTENSITY DIMENSIONS OF THE
MBI SUBSCALES: EMOTIONAL EXHAUSTION, DEPER-
SONALIZATION, PERSONAL ACCOMPLISHMENT

Sex	EEF	DPF	PAF	EEI	DPI	PAI
Male	15.75	7.60	37.04	22.41	10.52	41.42
Female	17.50	7.01	36.67	24.50	9.73	40.64

teachers 21 to 29 or 40 to 60 or more years old. Teachers 60 or more years old expressed Personal Accomplishment more often ($M = 41.00$) than teachers 21 to 59 years old. Teachers 50 to 59 years old expressed Personal Accomplishment with more intensity ($M = 45.00$) than teachers 21 to 49 or 60 or more years old (see Table LVII).

Marital Status: Single teachers expressed Emotional Exhaustion more often ($M = 18.87$) and with more intensity ($M = 26.87$) than married, divorced, or widowed teachers. Single teachers expressed Depersonalization with more intensity ($M = 10.94$) than married, divorced, or widowed teachers. Divorced teachers expressed Depersonalization more often ($M = 8.13$) than single, married, or widowed teachers. Widowed teachers expressed Personal Accomplishment more often ($M = 41.33$) and with more intensity ($M = 45.00$) than single, married, or divorced teachers (see Table LVIII).

Family Status: Teachers with 1 child expressed Emotional Exhaustion more often ($M = 18.63$) than teachers with 0 or 2 to 4 or more children. Teachers with 0 children expressed Emotional Exhaustion with more intensity ($M = 25.78$) than teachers with 1 to 4 or more children. Teachers with 1 child expressed Depersonalization more often ($M = 8.89$) and with more intensity ($M = 11.09$) than teachers with 0 or 2 to 4 or more children. Teachers with 2 children expressed Personal Accomplishment more often ($M = 37.36$) and with more intensity ($M = 41.91$) than teachers with 0 or 1 to 4 or more children (see Table LIX).

Years of Experience: Teachers with 6 to 10 years of experience expressed Emotional Exhaustion more often ($M = 18.14$) and with more intensity ($M = 26.13$) than teachers with 1 to 5 years of experience, 11 to 15 years of experience, 16 to 20 years of experience, or 21 or more years of experience. Teachers with 6 to 10 years of experience expressed

TABLE LVII

COMPARISON OF THE MEAN SCORES OF THE DEMOGRAPHIC VARIABLE
 AGE ON THE FREQUENCY AND INTENSITY DIMENSIONS OF THE
 MBI SUBSCALES: EMOTIONAL EXHAUSTION, DEPER-
 SONALIZATION, PERSONAL ACCOMPLISHMENT

Age	EEF	DPF	PAF	EEI	DPI	PAI
21-29	18.05	7.76	38.22	26.16	10.83	41.36
30-39	17.33	8.15	36.31	25.02	11.06	40.67
40-49	16.22	6.76	36.95	22.17	9.01	42.88
50-59	13.56	5.61	36.03	17.96	9.17	45.00
60 and Over	12.40	2.20	41.00	13.00	3.00	38.00

TABLE LVIII

COMPARISON OF THE MEAN SCORES OF THE DEMOGRAPHIC VARIABLE
MARITAL STATUS ON THE FREQUENCY AND INTENSITY DIMEN-
SIONS OF THE MBI SUBSCALES: EMOTIONAL EXHAUSTION,
DEPERSONALIZATION, PERSONAL ACCOMPLISHMENT

Marital Status	EEF	DPF	PAF	EEI	DPI	PAI
Single	18.87	7.96	36.46	26.87	10.94	41.36
Married	15.32	6.90	36.77	21.84	9.67	40.67
Divorced	18.36	8.13	39.18	23.31	10.55	42.88
Widowed	10.66	4.66	41.33	18.00	8.00	45.00
Other	10.00	7.00	33.00	11.00	8.00	38.00

TABLE LIX

COMPARISON OF THE MEAN SCORES OF THE DEMOGRAPHIC VARIABLE
 FAMILY STATUS ON THE FREQUENCY AND INTENSITY DIMEN-
 SIONS OF THE MBI SUBSCALES: EMOTIONAL EXHAUSTION,
 DEPERSONALIZATION, PERSONAL ACCOMPLISHMENT

Family Status	EEF	DPF	PAF	EEI	DPI	PAI
0 Children	18.15	7.53	36.60	25.78	10.24	41.19
1 Child	18.63	8.89	37.30	23.34	11.09	40.63
2 Children	14.16	6.34	37.36	21.81	9.80	41.91
3 Children	14.37	7.39	36.90	19.93	9.76	39.65
4 or More Children	14.58	5.82	36.15	20.67	9.37	40.84

Depersonalization more often ($M = 8.27$) and with more intensity ($M = 10.81$) than teachers with 1 to 5 years of experience, 11 to 15 years of experience, 16 to 20 years of experience, or 21 or more years of experience. Teachers with 1 to 5 years of experience expressed Personal Accomplishment more often ($M = 39.22$) and with more intensity ($M = 43.70$) than teachers with 6 to 21 or more years of experience (see Table LX).

Extra Duty: Coaches expressed Emotional Exhaustion more often ($M = 17.17$) than club/class sponsors or department chairmen. Club/class sponsors expressed Emotional Exhaustion with more intensity ($M = 25.38$) than coaches or department chairmen. Coaches expressed Depersonalization more often ($M = 7.21$) than club/class sponsors or department chairmen. Club/class sponsors expressed Depersonalization with more intensity ($M = 10.45$) than coaches or department chairmen. Department chairmen expressed Personal Accomplishment more often ($M = 38.62$) and with more intensity ($M = 42.37$) than coaches or club/class sponsors (see Table LXI).

An overall view of the mean scores of the demographic variables produced a very informative composite picture of the representative population. Emotional Exhaustion was expressed more often and with more intensity by physical educators who were single, female, ages 21 to 39, with 0 to 1 children, had 6 to 10 years teaching experience, and served as coaches or club/class sponsors. Depersonalization was expressed more often and with more intensity by physical educators who were single or divorced males, ages 21 to 39, with 1 child, had 6 to 10 years teaching experience, and served as coaches or club/class sponsors. Personal Accomplishment was expressed more often and with more intensity by physical educators who were widowed males, ages 50 to 60 or older, with 2 children, and served as department chairmen. Burnout was expressed more often and

TABLE LX

COMPARISON OF THE MEAN SCORES OF THE DEMOGRAPHIC VARIABLE
 YEARS OF EXPERIENCE ON THE FREQUENCY AND INTENSITY
 DIMENSIONS OF THE MBI SUBSCALES: EMOTIONAL
 EXHAUSTION, DEPERSONALIZATION,
 PERSONAL ACCOMPLISHMENT

Years of Experience	EEF	DPF	PAF	EEI	DPI	PAI
1-5	16.93	7.25	39.22	23.06	10.08	43.70
6-10	18.14	8.27	35.61	26.13	10.81	41.20
11-15	16.79	7.67	36.02	24.76	10.75	40.77
16-20	16.20	6.93	38.61	22.78	9.24	40.72
21 or More	15.24	6.42	35.73	20.58	9.61	39.49

TABLE LXI

COMPARISON OF THE MEAN SCORES OF THE DEMOGRAPHIC VARIABLE
 EXTRA DUTY ON THE FREQUENCY AND INTENSITY DIMENSIONS
 OF THE MBI SUBSCALES: EMOTIONAL EXHAUSTION,
 DEPERSONALIZATION, PERSONAL ACCOMPLISHMENT

Extra Duty	EEF	DPF	PAF	EEI	DPI	PAI
Coaches	17.17	7.21	37.09	23.98	10.37	41.30
Club/Class Sponsors	16.93	7.15	37.33	25.38	10.45	42.25
Department Chairmen	14.29	6.53	38.62	22.41	9.66	42.37

with more intensity by physical educators who were single or divorced, ages 21 to 39, with 0 to 1 child, had been teaching 6 to 10 years, and served as coaches or club/class sponsors.

Discussion

Burnout, recognized as a plague, is "suffered" by educational personnel who work with stress producing individuals in stress producing situations and environments. The signs and symptoms of professional burnout are basic reactions (mental and physical) to job-life stressors and are most common among "people workers." Teachers are people workers.

It had been theorized that the amount of burnout expressed by physical education teachers was contingent upon their level of teaching. According to the results of the present study, physical education teachers, regardless of their teaching level, expressed Emotional Exhaustion more often and with more intensity than Depersonalization. This finding agrees with results reported by Anderson (2). Common knowledge regarding the three teaching levels might cause one to speculate that secondary teachers, because of diverse and multiple job-life environmental stressors and pressures, would experience higher rates of burnout than junior high or elementary teachers. In the present study, data analysis showed that secondary physical education teachers expressed burnout more often and with more intensity than junior high or elementary teachers. This is similar to the findings of studies reported by Moore (26), Goodall and Brown (11), and Schwab (33). It is interesting to compare the results of this study with those of the New York Teachers Union (46) which found that elementary teachers had higher levels of burnout than other teachers. It should be noted that the difference in the results of the

two studies might be attributed to the teachers surveyed, i.e., the New York study questioned urban teachers while this study questioned suburban teachers.

Although significant differences were found between most of the demographic variables, it appeared that two of them, age and years of teaching experience, had the greatest effect on the teachers' perceptions of burnout. While previous research found age and experience to be important factors influencing teacher burnout, little agreement had been reached to indicate specific ages or point of time in the teaching experience at which burnout may appear.

The age factor in the present study suggested that older teachers (50-60 or more years old) perceived themselves as being less burned out. This finding is in agreement with the findings of Anderson (2), Cardinell (5), Maslach and Jackson (20), and Instructor (46).

The years of experience factor, in the present study, suggested that the more experienced teachers (16 - 21 or more years) expressed less burnout. The effect of the length of the teaching experience upon burnout is in accord with studies by Anderson (2), Cardinell (5), Meadows (24), and Streepy (35) which showed that the more experienced teachers had lower burnout rates. Conflicting findings were noted by Wilhelm (43) and Scrivens (34), who found that the more experienced teachers were burned out and leaving the teaching profession earlier; but, Zahn (45) and Maslach and Jackson (21) observed that burnout occurred within the first few years of the work experience. These opposing findings may be due, in part, to differences in the expectations of younger, less experienced teachers versus those of older, more experienced teachers. Older teachers may tend to be more apathetic, depressed, and lack adequate coping

mechanisms. On the other hand, younger teachers may have difficulty coping with job demands, insecurity about their career selection, and lack of peer guidance. The present study, however, implied that older and more experienced teachers were less burned out because they have learned how to live with and adjust to the pressures associated with the teaching profession.

Besides the aforementioned points of interest, a few additional items must be noted. It had been proposed that inter/intrapersonal stressors, i.e., number of children, extracurricular duties, and marital status, would provide a high level of burnout among physical education teachers. It was felt that the additional responsibilities (longer after school/weekend hours, more children meant more work/tension at home, and the emotional trauma of divorce) would lead to earlier and stronger feelings of burnout. Several investigators (36)(37)(24) agreed that these variables could have a definite bearing upon burnout. They could not, however, within their own research, verify a significant relationship between family status or extracurricular duties and burnout. It was found in this study, however, that, contrary to speculation, less burnout was expressed by teachers who were coaches or club/class sponsors and had 2 to 4 or more children. The only comparable data regarding marital status were those reported by Maslach and Jackson (21). As with the present study, single or divorced teachers expressed the greatest emotional exhaustion. While it is possible to assume that additional responsibilities, whether they be at work or home, implies more perceived stress, the concept needs further investigation.

Summary

This chapter has presented statistical analysis and interpretation of the data gathered for this study. Analysis of variance (ANOVA) was used to analyze the data and test the twelve research hypotheses. Nine of the twelve hypotheses were not accepted confirming that there were significant differences between elementary, junior high, and secondary public school physical education teachers, selected demographic variables, and perceived burnout. Three of the twelve hypotheses were accepted confirming that there were no significant differences between elementary, junior high, and secondary physical education teachers and perceived burnout.

CHAPTER V

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

Summary of the Study

The problem of this study was to compare the amount of perceived burnout between elementary, junior high, and secondary public school physical education teachers in suburban Cook County, Illinois. Second, consideration was given to the relationship between teacher burnout and selected demographic variables.

A thorough search of the literature indicated that the present study, although similar to previous research, was not an attempt to replicate earlier studies. The review of recent literature did, however, uphold and stress the need for additional and more effective teacher burnout research.

The instruments used in this study were the Maslach Burnout Inventory, a 22-item questionnaire consisting of three subscales: Emotional Exhaustion, Depersonalization, and Personal Accomplishment (each subscale had two dimensions: frequency and intensity) and a personal information sheet. The instruments were edited, reproduced, and distributed as part of a packet which included a cover letter and a return, stamped self-addressed envelope to 750 suburban Cook County, Illinois, physical education teachers.

The representative population included 750 randomly selected (250 elementary, 250 junior high, and 250 secondary) physical education

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teachers. Completed instruments were returned by 463 (or 62% of the representative population).

All data obtained from the Maslach Burnout Inventory and the personal information sheet were analyzed on the computer program of the Statistical Analysis System. Analysis of variance (ANOVA) was used to identify significant differences in the frequency and intensity dimensions of Emotional Exhaustion, Depersonalization, and Personal Accomplishment between the three teaching levels and the six demographic variables. If F's were determined as significant, the group means were subjected to the Duncan New Multiple Range Test. The .05 level of significance was used for all research questions.

The findings of this study included the following:

1. The first hypothesis stated that: there is no significant difference between elementary, junior high, and secondary public school physical education teachers in the frequency dimension of Emotional Exhaustion. Acceptance of hypothesis one confirmed no significant difference in the frequency of feelings of Emotional Exhaustion among elementary, junior high, and secondary public school physical education teachers.

2. The second hypothesis stated that: there is no significant difference between elementary, junior high, and secondary public school physical education teachers in the frequency dimension of Depersonalization. Acceptance of hypothesis two confirmed no significant difference in the frequency of attitudes of Depersonalization among elementary, junior high, and secondary public school physical education teachers.

3. The third hypothesis stated that: there is no significant difference between elementary, junior high, and secondary public school physical education teachers in the frequency dimension of Personal

Accomplishment. Nonacceptance of hypothesis three confirmed a significant difference in the frequency of achievement of Personal Accomplishment among elementary, junior high, and secondary public school physical education teachers.

4. The fourth hypothesis stated that: there is no significant difference between elementary, junior high, and secondary public school physical education teachers in the intensity dimension of Emotional Exhaustion. Nonacceptance of hypothesis four confirmed a significant difference in the intensity of feelings of Emotional Exhaustion among elementary, junior high, and secondary public school physical education teachers.

5. The fifth hypothesis stated that: there is no significant difference between elementary, junior high, and secondary public school physical education teachers in the intensity dimension of Depersonalization. Acceptance of hypothesis five confirmed no significant difference in the intensity of attitudes of Depersonalization among elementary, junior high, and secondary public school physical education teachers.

6. The sixth hypothesis stated that: there is no significant difference between elementary, junior high, and secondary public school physical education teachers in the intensity dimension of Personal Accomplishment. Nonacceptance of hypothesis six confirmed a significant difference in the intensity of achievement of Personal Accomplishment among elementary, junior high, and secondary public school physical education teachers.

7. The seventh hypothesis stated that: there is no significant difference between selected demographic variables in the frequency dimension of Emotional Exhaustion. Nonacceptance of hypothesis seven

confirmed a significant difference in the frequency of Emotional Exhaustion with four of the six demographic variables.

8. The eighth hypothesis stated that: there is no significant difference between selected demographic variables in the frequency dimension of Depersonalization. Nonacceptance of hypothesis eight confirmed a significant difference in the frequency of Depersonalization with two of the six demographic variables.

9. The ninth hypothesis stated that: there is no significant difference between selected demographic variables in the frequency dimensions of Personal Accomplishment. Nonacceptance of hypothesis nine confirmed a significant difference in the frequency of Personal Accomplishment with one of the six demographic variables.

10. The tenth hypothesis stated that: there is no significant difference between selected demographic variables in the intensity dimension of Emotional Exhaustion. Nonacceptance of hypothesis ten confirmed a significant difference in the intensity of Emotional Exhaustion with four of the six demographic variables.

11. The eleventh hypothesis stated that: there is no significant difference between selected demographic variables in the intensity dimension of Depersonalization. Nonacceptance of hypothesis eleven confirmed a significant difference in the intensity of Depersonalization with one of the six demographic variables.

12. The twelfth hypothesis stated that: there is no significant difference between selected demographic variables in the intensity dimension of Personal Accomplishment. Nonacceptance of hypothesis twelve confirmed a significant difference in the intensity of Personal Accomplishment with two of the six demographic variables.

Conclusions of the Study

The results of the study indicated that a significant difference had been established between elementary, junior high, and secondary public school physical education teachers in suburban Cook County, Illinois, and perceived burnout. Analysis of the data showed that, on all three subscales, secondary school physical education teachers expressed burnout more often and with more intensity than junior high physical education teachers or elementary physical education teachers.

Second, the results of the study indicated that a significant difference had been established between six selected demographic variables and burnout. Analysis of the data showed that significant differences in the frequency and intensity of the three subscales were confirmed with five of the six selected demographic variables.

Recommendations for Further Study

Recommendations for further studies, based upon an analysis of the inventory and personal information data, include the following:

1. A study replicating the present research using a representative population from a different subject area to determine whether or not the findings would be similar in nature.
2. A study replicating the present research using a different geographical locale to determine if a similar representative population would perceive the same degree of burnout.
3. A longitudinal study using the same representative population to determine the relationship, over a long period of time, between teacher burnout and selected demographic variables.

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APPENDIX A
CORRESPONDENCE

Joan E. Martin
2900 E. 6th Street, Box 103
Stillwater, Oklahoma 74074

March 26, 1983

Miss Kathy Markham
Illinois State Board of Education
100 N. First Street
Springfield, Illinois

Dear Miss Markham:

Thank you for your letter of March 27, 1982 regarding my request for mailing labels.

Enclosed you will find the Maslach Burnout Inventory. The top sheet is an explanation of the survey and the bottom sheet is the actual survey. I have done a pilot study with District 203, Naperville, Illinois teachers using the survey. The instrument was developed by Dr. Maslach and Dr. Jackson at the University of California, Berkeley. The instrument has been validated and has been proven to be reliable.

The survey will be used to collect data for my doctoral dissertation. Again, the teachers in suburban Cook County were selected because of their diversity according to various factors that will be part of the demographic data. The university and my committee felt that I should use a familiar population and one that is close to home.

I would appreciate your assistance in processing my request as soon as possible. I am setting a graduation target date of December, 1982, and to accomplish this task, I need to send the survey and cover letter before schools are out for the summer in order to assure an adequate return. Any aid you might provide in meeting this type of deadline would be greatly appreciated.

Thank you for your quick response to my initial letter. Hoping to hear from you soon, I remain,

Sincerely,

Joan E. Martin

(You may bill me for the postage if necessary for the labels)

**Illinois
State Board of
Education**



100 North First Street
Springfield, Illinois 62777
217/782-4321

Edward Cobeland, Chairman
Illinois State Board of Education

Donald G. Gill
State Superintendent of Education

April 6, 1982

Joan Martin
2900 E. 6th Street, Box 103
Stillwater, Oklahoma 74074

Dear Joan:

In response to your letter of March 26, I am forwarding one set of mailing labels for physical education teachers in Cook County.

If you should have any questions, please call me at 217/782-4313.
-- Good Luck With Your Survey --

Sincerely,

Kathy Markham
Data Management Administration

188 West Randolph
Chicago, Illinois 60601
312/793-2220

State Office Building
601 North 18th
Mt. Vernon, Illinois 62564
618/242-1676

2600 North Burton Avenue
Deon, Illinois 61021
815/268-7861

200 South Fredrick Street
Hartford, Illinois 61866
312/333-6770

**Illinois
State Board of
Education**



100 North First Street
Springfield, Illinois 62777
217/782-4321

Edward Copeland, Chairman
Illinois State Board of Education

Donald G. Gill
State Superintendent of Education

June 1, 1982

Joan Martin
2900 E. 6th Street, Box 103
Stillwater, Oklahoma 74074

Dear Joan:

Enclosed is one set of mailing labels for Physical Education teachers
in Cook county, as requested via telephone.

Again, please call me if you have any questions or I can be of further
assistance, my number is 217/782-4313.

Sincerely,

Kathy Markham
Data Management Administration

188 West Randolph
Chicago Illinois 60601
312-793-2220

State Office Building
601 North Fifth
Springfield Illinois 62804
217-782-1676

2100 North Brinton Avenue
Springfield Illinois 61021
615-286-7861

200 South Fredrick Street
Rantoul Illinois 61866
317-333-6770



Oklahoma State University

SCHOOL OF CIVIL ENGINEERING

STILLWATER, OKLAHOMA, 74078
ENGINEERING SOUTH
(405) 624-5187

April 5, 1982

Miss Peggy Ferris
Permission Editor
Consulting Psychologists Press, Inc.
577 College Avenue
Palo Alto, California

Dear Miss Ferris:

I am writing this letter after a phone conversation earlier today with one of your secretaries regarding an order for material from your company. She indicated that I should write you and explain my problem and why I am seeking permission to Xerox the material.

I did a pilot study earlier in the year using the Maslach Burnout Inventory (Human Services Survey). It is printed on two sides (one side is the actual survey (22 questions) and the opposite side has the instructions for using the survey. I am ready to begin mailing the survey to the population for my dissertation on Teacher Burnout. I need 800 copies of the survey sheet. The secretary informed me that even with my discount, my cost would be about \$90.00 for 800 copies. I can reproduce the copies at a local copy shop for .035¢ per copy which is less than half of your price plus the additional expense for shipping and handling. The cost for this dissertation will be even greater when I add postage to mail the survey and the self-addressed return envelopes. In addition, the time factor for getting the survey copies to me is too great. I need to send them out before the public schools are dismissed for the summer.

I would appreciate permission from you and the company to have copies of the survey reproduced. I would appreciate a reply as soon as possible.

Thank you for your cooperation in this matter.

Sincerely,

Joan E. Martin

CONSULTING PSYCHOLOGISTS PRESS INC.
577 COLLEGE AVENUE
PALO ALTO, CALIFORNIA 94306

Joan Martin
2900 E. 6th Street Box 103
Stillwater, Oklahoma 74074

In response to your request of April 5, 1982 permission is hereby
granted you to
reproduce 800 copies of the Human Services Survey to use in
collecting data for your dissertation.

subject to the following restrictions:

- (a) Any and all material used will contain proper acknowledgments; e.g.,
"Reproduced by special permission from

The Human Services Survey
(publication)
by Christina Maslach and Susan Jackson
(author)

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Published by Consulting Psychologists Press Inc., Palo Alto, CA 94306."
Further reproduction is prohibited"

- (b) None of the materials may be sold or used for purposes other than those
mentioned above.
- (c) One copy of any material reproduced will be sent to the Publisher.
- (d) Payment of a royalty/license fee of _____

Eighty dollars (\$80.00)

Please remit without a further bill and mail to my attention

- (e) Your letter just arrived today-- must have come by pony express
because it was postmarked the 5th and that means over two weeks !!

CONSULTING PSYCHOLOGISTS PRESS INC.

By Raymond Pennington E.L.T.

Date 4/21/82



Oklahoma State University

SCHOOL OF CIVIL ENGINEERING

STILLWATER, OKLAHOMA, 74078
ENGINEERING SOUTH
(405) 624-5187

May, 1982

Dear Physical Educator:

Any occupation requiring that a person help others is a job that involves abilities in relating to people as well as a certain amount of stress depending on the requirements of the job. The purpose of this questionnaire is to discover how various physical educators view their job and the students with whom they work. Your responses will enable me to determine, in conjunction with various characteristics, the amount and level of stress experienced by members of the teaching profession.

This study has been undertaken in connection with the doctoral higher education program at Oklahoma State University, Stillwater, Oklahoma, and has been developed with the approval and advice of the School of Health, Physical Education and Leisure Services.

All questionnaires are strictly confidential and will be identified by code number only. Your personal answers will not be revealed under any circumstances. I am only interested in the responses of a total group. The results will be reported in statistical form.

I would appreciate your cooperation in completing this questionnaire and returning it to me within ten (10) days after receiving this letter, using the enclosed addressed envelope.

Thank you for your assistance in this study. I will be pleased to send you a final copy of this report when it is completed.

Yours very sincerely,

Joan E. Martin

JEM/mjr
Enclosures (3)

I realize that another school year is drawing rapidly to a close, and you are busily preparing for that closing. I would appreciate it if you would take a few minutes and respond to the enclosed survey as I need the data as quickly as possible to complete my dissertation. Thank you for your cooperation and immediate response.

On May 7, I sent you a questionnaire, THE HUMAN SERVICES SURVEY. To date, I have not heard from you and wondered if you had received the material. I am sure the press of other matters has prevented you from replying.

So that your data may be included in my dissertation statistics, would you please return the completed questionnaire at your earliest convenience. Inclusion of your responses will contribute considerably to this important area of study. If you need another survey copy and return envelope, please write or call me collect as soon as possible.

If your return has been sent in the last day or two, please disregard this reminder and accept my thanks.

Sincerely,

Joan Martin

(405) 743-1863

JOAN E. MARTIN
2900 E. 6th Street
Box 103
Stillwater, Oklahoma 74074

APPENDIX B

THE RESEARCH INSTRUMENTS

HUMAN SERVICES SURVEY

Christina Maslach and Susan E. Jackson

On the following page there are 22 statements of job-related feelings. Please read each statement carefully and decide if you ever feel this way about your job. If you have never had this feeling, write a "0" (zero) in both the "HOW OFTEN" and "HOW STRONG" columns before the statement. If you have had this feeling, indicate how often you feel it by writing the number (from 1 to 6) that best describes how frequently you feel that way. Then decide how strong the feeling is when you experience it by writing the number (from 1 to 7) that best describes how strongly you feel it. An example is shown below.

EXAMPLE:

HOW OFTEN:	0	1	2	3	4	5	6
	Never	A few times a year or less	Once a month or less	A few times a month	Once a week	A few times a week	Every day

HOW STRONG:	0	1	2	3	4	5	6	7
	Never	Very mild, barely noticeable			Moderate			Major very strong

<u>HOW OFTEN</u> 0-6	<u>HOW STRONG</u> 0-7	Statement:
_____	_____	I feel depressed at work.

If you never feel depressed at work, you would write the number "0" (zero) on both lines. If you rarely feel depressed at work (a few times a year or less), you would write the number "1" on the line under the heading "HOW OFTEN." If your feelings of depression are fairly strong, but not as strong as you can imagine, you would write a "6" under the heading "HOW STRONG." If your feelings of depression are very mild, you would write a "1."

HUMAN SERVICES SURVEY

HOW OFTEN:	0	1	2	3	4	5	6
	Never	A few times a year or less	Once a month or less	A few times a month	Once a week	A few times a week	Every day

HOW STRONG:	0	1	2	3	4	5	6	7
	Never	Very mild, barely noticeable			Moderate			Major, very strong

	<u>HOW OFTEN</u> 0-6	<u>HOW STRONG</u> 0-7	Statements:
1.	_____	_____	I feel emotionally drained from my work.
2.	_____	_____	I feel used up at the end of the workday.
3.	_____	_____	I feel fatigued when I get up in the morning and have to face another day on the job.
	_____	_____	I can easily understand how my students feel about things.
5.	_____	_____	I feel I treat some students as if they were impersonal objects.
6.	_____	_____	Working with people all day is really a strain for me.
7.	_____	_____	I deal very effectively with the problems of my students.
8.	_____	_____	I feel burned out from my work.
9.	_____	_____	I feel I'm positively influencing other people's lives through my work.
10.	_____	_____	I've become more callous toward people since I took this job.
11.	_____	_____	I worry that this job is hardening me emotionally.
12.	_____	_____	I feel very energetic.
13.	_____	_____	I feel frustrated by my job.
14.	_____	_____	I feel I'm working too hard on my job.
15.	_____	_____	I don't really care what happens to some students.
16.	_____	_____	Working with people directly puts too much stress on me.

17. _____ I can easily create a relaxed atmosphere with my students.
18. _____ I feel exhilarated after working closely with my students.
19. _____ I have accomplished many worthwhile things in this job.
20. _____ I feel like I'm at the end of my rope.
21. _____ In my work, I deal with emotional problems very calmly.
22. _____ I feel students blame me for some of their problems.

PERSONAL INFORMATION

DIRECTIONS: Please CIRCLE the appropriate responses:

1. Sex Male Female
2. Age 21-29 30-39 40-49 50-59 60 and over
3. Marital Status Single Married Divorced Widowed
4. Family Status
 (# of children) 0 1 2 3 4 or more
5. Level of Teaching Elementary Junior High High School
6. Years of Experience 1-5 6-10 11-15 16-20 21 and over
7. Extra duties Coach Club/Class Sponsor Department Chairman Other (list):

Check here if you would like a copy of this report: Yes _____ No _____

If Yes, please fill in the following:

Name _____

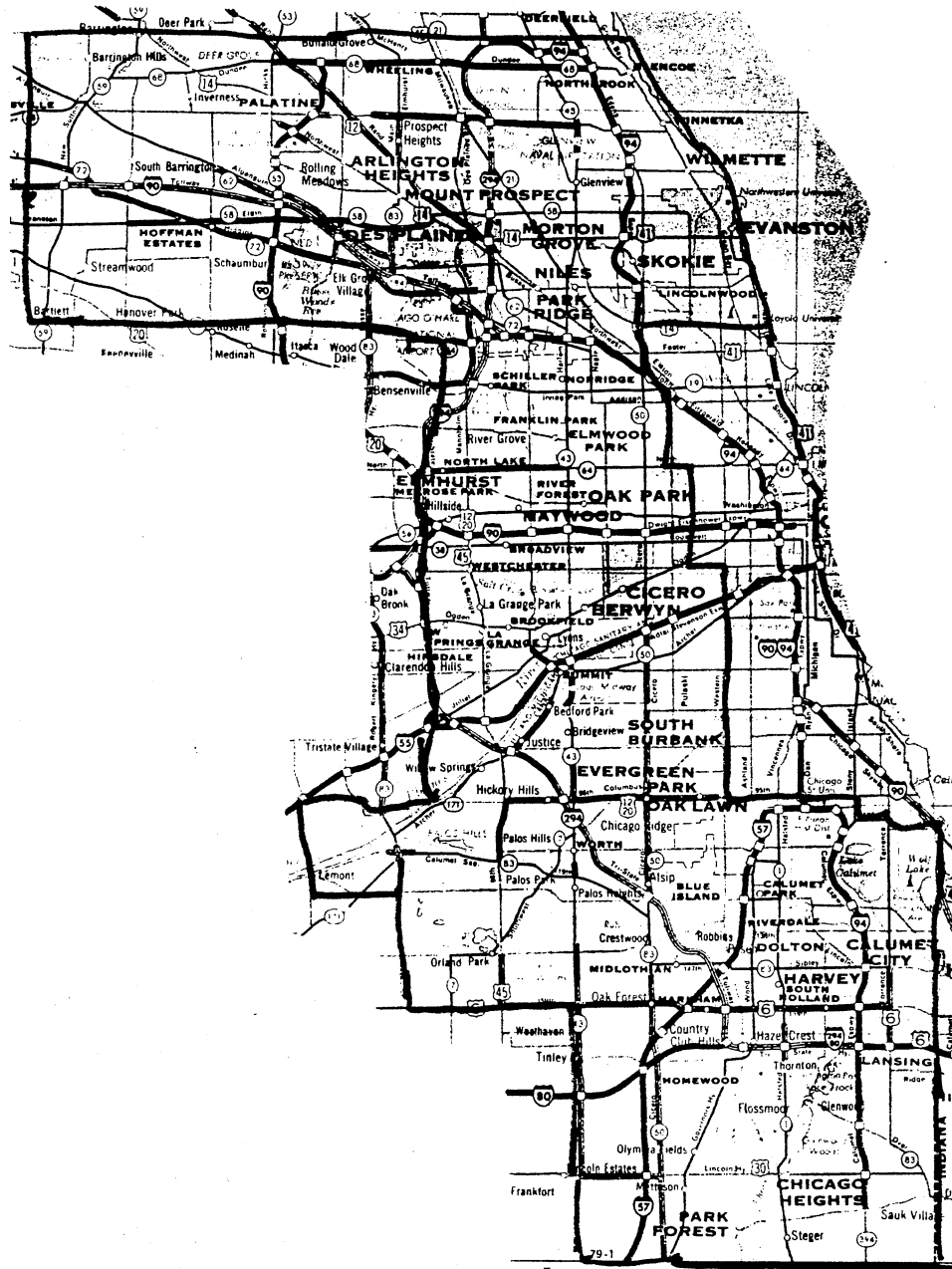
Address _____

City _____

State _____ Zip _____

APPENDIX C

SUBURBAN COOK COUNTY, ILLINOIS MAP



VITA

JOAN ELLEN MARTIN

Candidate for the Degree of

Doctor of Education

Title: TEACHER BURNOUT: A COMPARISON OF K-12 PUBLIC SCHOOL PHYSICAL EDUCATORS IN SUBURBAN COOK COUNTY, ILLINOIS

Major Field: Higher Education

Minor Field: Health, Physical Education, and Recreation

Biographical:

Personal Data: Born in Oak Park, Illinois, September 1, 1937, the daughter of Mrs. Jessie Kotva Martin and Mr. Emil Martin.

Education: Graduated from J. Sterling Morton High School, Cicero, Illinois, in 1955; received the Bachelor of Science degree in Physical Education and Biology from North Central College, Naperville, Illinois, June, 1959; received the Master of Arts degree from Northwestern University, Evanston, Illinois, with a major in Physical Education and Health in June, 1962; completed requirements for the Doctor of Education degree at Oklahoma State University in July, 1983.

Professional Experience: Appointed a high school physical education teacher in the Naperville High School District, Naperville, Illinois, in August, 1959; appointed Physical Education Department Chairman, Naperville Central High School in 1966 and served in that capacity until 1977, and am currently a physical education and driver education teacher at Naperville Central High School.

Professional Organizations: Illinois Association for Health, Physical Education and Recreation (President in 1977); Midwest Association for Health, Physical Education, Recreation, and Dance (Vice President for Physical Education in 1980); American Alliance for Health, Physical Education, Recreation, and Dance; Phi Epsilon Kappa; National Association for Sport and Physical Education; National Education Association; Illinois Education Association; Naperville Teachers Association; United States

Orienteering Federation; Chicago Area Orienteering Association;
and the Midwest Chapter of the American Red Cross.

Honors: Illinois AHPER Honor Fellow Award (1981); Illinois AHPER
PEPI Award (1977); Illinois AHPER Past Presidents Award (1977);
Northeastern District of IAHPER Presidents Award (1974); Illi-
nois AHPER Service Award (1972); Northeastern District of IAHPER
Service Award (1971); and Humble Oil Scholarship Award (1965).